



# SOUTHERN MAINE COMMUNITY COLLEGE

## COURSE CATALOG 2023 | 2024



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# ABOUT THE COLLEGE

## Accreditation

Southern Maine Community College is accredited by the New England Commission of Higher Education (NECHE), formerly the Commission on Institutions of Higher Education of the New England Association of Schools and Colleges, Inc. (NEASC-CIHE), having completed reaccreditation in 2018. SMCC was accredited by NEASC-CIHE from 2003-2018. From 1974-2003 SMCC was accredited by the NEASC Commission on Technical and Career Institutions (NEASC-CTCI).

Accreditation of an institution of higher education by the Commission indicates that it meets or exceeds criteria for the assessment of institutional quality periodically applied through a peer review process. An accredited college or university is one which has available the necessary resources to achieve its stated purposes through appropriate educational programs, is substantially doing so, and gives reasonable evidence that it will continue to do so in the foreseeable future. Institutional integrity is also addressed through accreditation.

Accreditation by the Commission is not partial but applied to the institution as a whole. As such, it is not a guarantee of every course or program offered, or the competence of individual graduates. Rather, it provides reasonable assurance about the quality of opportunities available to students who attend the institution.

The New England Commission of Higher Education (NECHE) is the regional accreditation agency for colleges and universities in the six New England states: Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island and Vermont. Three institutions in Greece, three in Switzerland, two in Lebanon, and one in Bulgaria, Bermuda, and Morocco, respectively, are also affiliated with NECHE.

The Commission is recognized by the U.S. Secretary of Education as a reliable authority on the quality of education for the institutions it accredits. The Commission is also recognized by the Council for Higher Education Accreditation (CHEA), affirming that its Standards and processes are consistent with the quality, improvement, and accountability expectations that CHEA has established.

Inquiries regarding the accreditation status by the Commission should be directed to the administrative staff of the institution. Individuals may also contact: New England Commission of Higher Education, 3 Burlington Woods Drive, Suite 100, Burlington, MA 01803-4514, (781) 425-7785, or [info@neche.org](mailto:info@neche.org)

## Message from the President

Welcome! Southern Maine Community College helps people and communities achieve their dreams. I invite you to spend time with our caring and distinguished faculty, staff, students and partners. At SMCC you can start smart with among the lowest tuition and fees in New England and the support you need to succeed, and finish strong by transferring to a four-year college or entering a high wage-high growth career upon graduation.

With more than 40 degree and certificate programs serving nearly 6,000 individuals, SMCC is a comprehensive community college of the highest quality. Additionally, we provide workforce training and non-credit workshops for thousands of people every year. No college enjoys a setting more picturesque than our 80-acre South Portland Campus. At SMCC's Midcoast Campus in Brunswick we have state-of-the-art classrooms and laboratories, personalized services, and a varied selection of academic programs.

You can also be part of SMCC at one of our several community satellite locations or through our online offerings so you can obtain an education at a time and location that is convenient for you. Whether you're a current or prospective student, a graduate, entrepreneur, partner, or friend of the College, we are invested in your success.

SMCC transforms lives and communities through education and training. We welcome, prepare, and inspire all to learn, succeed, and lead.

Sincerely,

Joe Cassidy  
President

# Campus Locations

## South Portland Campus

The main campus of Southern Maine Community College is located at 2 Fort Road, South Portland, Maine, 04106 close to Portland, the largest city in Maine, on a beautiful site overlooking Casco Bay. The College is one of the most picturesque points on the Maine coast, located on the site of the former Fort Preble. Many of the College buildings are historic structures that have been renovated to fulfill the educational mission of the College. The campus covers 80 acres and includes 45 buildings, including residence halls and dining accommodations, as well as an athletic field, a beach, a wharf, interesting military fortifications, and a lighthouse.

## Midcoast Campus

The Southern Maine Community College Midcoast Campus is located at Brunswick Landing (formerly, Brunswick Naval Air Station) in Brunswick, Maine, 04011. This Midcoast Campus offers programming in areas such as, nursing, business administration, and liberal studies as well as courses in other degree programs from Southern Maine Community College. The Midcoast Campus features a compliment of buildings including the Maine Technology and Advanced Engineering Center (MATEC), the Academic Building, Orion Hall, and the L. L. Bean Learning Commons and Health Science Center.

This campus offers complete student support services such as admissions, placement testing, tutoring, transfer counseling, student advising, open computer labs and active student clubs.

## Satellite Locations

### Bonny Eagle Site

The Bonny Eagle site, serving the towns of Buxton, Hollis, Standish, and Limington, was established in the Fall of 2005 to bring higher education opportunities to the area. The development of this site saves local residents travel time and provides a range of general education classes close to home. Bonny Eagle Adult Education in Buxton serves as a local contact. Most classes are held at Bonny Eagle High School, 92 Sokokis Trail in Buxton (04093).

### Casco/Naples Site

The Southern Maine Community College site in Casco/Naples has administrative offices at 1437 Poland Spring Road, Casco, 04015 at Lake Region and Fryeburg Area Adult Education. Regular college courses as well as community education classes are offered, providing educational opportunities to the western part of the region. Most classes are held at Lake Region High School, 1877 Roosevelt Trail in Naples (04055).

## Portland Sites

The Southern Maine Community College sites in Portland are located at Deering High School, 370 Stevens Avenue (04103), and Casco Bay High School at 196 Allen Ave (04103). The sites provide conveniently located higher education opportunities to local residents.

## Windham Site

The Windham site is located at the Adult Education Office at Windham High School, 406 Gray Road, Windham, 04062.

## Other Area Sites

Courses have been offered at various other schools or locations when there is a need. In the past, a selection of courses have been offered on an intermittent basis at Gorham High School (41 Morrill Ave, Gorham, ME, 04038), Sacopec Valley High School (115 South Hiram Rd, Hiram, ME, 04041), Massabesic Center for Adult Learning (84 West Rd, Massabesic, ME, 04087), Biddeford Regional Center of Technology (10 Maplewood Ave, Biddeford, ME, 04005), and Gray/New Gloucester High School (10 Libby Hill Rd, Gray, ME, 04039).

# Mission Statement and Values

## SMCC Mission Statement

Southern Maine Community College transforms lives and communities through education and training. We welcome, prepare and inspire all to learn, succeed and lead.

## Values

### *Opportunity:*

We empower all people to explore, experience and become lifelong learners.

### *Integrity:*

We respect others, honor diverse viewpoints, and challenge each other to do the right thing.

### *Engagement:*

We are inclusive and come together to openly communicate, participate and collaborate.

### *Leadership:*

We can all be leaders, innovators and stewards of the future.

### *Success:*

We pursue excellence as we seek to achieve our goals.

## College History

Since its beginning in 1946 as the Maine Vocational Technical Institute in Augusta, Southern Maine Community College has had one basic guiding principle that to this day serves as the foundation of the College — to provide quality education and, consequently, to strengthen Maine's economy by providing a highly trained and educated work force.

Originally, the College served veterans returning from World War II through such programs as: automotive, construction, machine tool and marine science, serving the economy of the time that was based on agriculture, fishing, and heavy industry. As time passed and the needs of the population and the state economy changed, the College changed. The student body became more traditional with an increase in high school graduates enrolled; the College moved to Fort Preble in South Portland in 1952 and changed its name to Southern Maine Vocational Technical Institute. New programs were added such as nursing, expanding educational programs into the health field.

In 1964, evening classes for adults were added for the first time, expanding education to working adults. The first associate of applied science degrees were awarded to graduates of the Electronics Technology and Electrical Technology Programs in 1968.

Over the years, health programs were expanded and new programs were added in public service and computer technologies: criminal justice, fire science, culinary arts, hospitality, computer technology and media. In 1989, the College became Southern Maine Technical College, continuing with its original mission of providing quality education that met the needs of students and the State of Maine.

In 1998, the College added the associate in arts degree, formalizing the trend for students to transfer to four-year colleges and universities to pursue a baccalaureate degree. The College now has five major academic divisions: Applied Technology; Arts and Sciences; Health Sciences; Information Technology and Business; and Public Safety, which continue to provide quality education and training. In 2003, the College received accreditation from the Commission on Institutions of Higher Education of the New England Association of Schools and Colleges, Inc. (which changed its name to New England Commission of Higher Education in 2018) solidifying the strong foundation of the College as an institution of higher learning.

On March 30, 2003, the College name was changed to Southern Maine Community College, acknowledging the transformation to a comprehensive community college that meets the complex needs of the state and its population.



# Student Profile

5,438 credit students attended Southern Maine Community College in the Fall 2021 semester. Over six percent of the student body is from out-of-state, and less than one percent is from foreign countries. In addition, during the period from July 1, 2020 through June 30, 2021, there were approximately 1,164 registrations in 94 non-credit courses, seminars, workshops and various types of short-term training.

The ratio of full-time/part-time students is 33% full-time / 67% part time

The ratio of male/female students is 56% female / 44% male and

The average student age is 25

# Academic Calendar

FALL SEMESTER 2023	DATE
Cancellation of Under-Enrolled Courses	Friday, August 18
Faculty Professional Day	Friday, August 25
Classes Begin	Monday, August 28
Drop/Add Period** (16 week classes)	Monday – Tuesday, August 28 – September 5 at 5 p.m.
Labor Day - College Closed	Monday, September 4
Scholarship Application Deadline	Wednesday, September 6 at 5 p.m.
Start of Twelve Week Subterm	Monday, September 25
Indigenous Peoples' Day - College Closed	Monday, October 9
End of First Eight Week Subterm	Saturday, October 21
SMCC Open House – South Portland Campus*	Saturday, October 21 from 9a.m.-12p.m.
Start of Second Eight Week Subterm	Monday, October 23
Final Day to Submit Grades for Spring/Sum '23 Incompletes	Monday, October 23
Advising Month	October 30 – November 30
Registration Begins – Spring 2024 (>30 credits and Veterans)	Monday, October 30 at 6 a.m.
Registration Begins – Spring 2024 (<30 credits)	Wednesday, November 1, at 6 a.m.
Midterm Grade Reporting Due	Thursday, November 2 at 10 p.m.
New Student/Dual Enrollment Registration– Spring 2024	Monday, November 6 at 6 a.m.
Veterans' Day – College Closed	Friday, November 10
Last Day to Withdraw from Classes** (16 week classes)	Monday, November 20 at 5 p.m.
Thanksgiving Recess – No Classes	Thursday – Saturday, November 22 – 25
Open Registration – Spring 2024	Monday, November 27 at 6 a.m.
College Forum*	Thursday, November 30
Fall Classes End	Saturday, December 16
Fall 2023 Grades Due	Monday, December 18 at 10 p.m.
SPRING SEMESTER 2024	DATE
Cancellation of Under-Enrolled Courses	Friday, January 5
Faculty Professional Day	Friday, January 12
Martin Luther King Day – College Closed	Monday, January 15
Spring Classes Begin	Tuesday, January 16
Drop/Add Period** (16 week classes)	Monday – Tuesday, January 16-23 at 5 p.m.
Start of Twelve Week Subterm	Monday, February 12
President's Day – College Closed	Monday, February 19
Advising Month	February 26 – March 31
Registration Begins – Summer 2024 (Current Students and Veterans)	Monday, February 26 at 6 a.m.
New Student/Dual Enrollment Registration – Summer 2024	Monday, March 4 at 6 a.m.
Registration Begins – Fall 2024 (>30 credits and Veterans)	Monday, March 4 at 6 a.m.

Registration Begins – Fall 2024 (<30 credits)  
End of First Eight Week Subterm  
Spring Break - No Classes  
Start of Second Eight Week Subterm  
New Student/Dual Enrollment Registration – Fall 2024  
Open Registration – Summer 2024  
Final Day to Submit Grades for Fall '23 Incompletes  
Midterm Grade Reporting Due  
Open Registration - Fall 2024  
Patriot's Day– No Classes  
Last Day to Withdraw from Classes\*\* (16 week classes)  
College Forum\*  
Spring Classes End  
Faculty Professional Day  
Spring 2024 Grades Due  
Commencement

Wednesday, March 6 at 6 a.m.  
Saturday, March 9  
Monday.-Saturday, March 11-16  
Monday, March 18  
Monday, March 18 at 6 a.m.  
Monday, March 18 at 6 a.m.  
Monday, March 18  
Friday, March 29 at 10 p.m.  
Monday, April 8  
Monday, April 15  
Tuesday, April 16 at 5 p.m.  
Thursday, May 9  
Saturday, May 11  
Monday, May 13  
Tuesday, May 14 at 10 p.m.  
Sunday, May 19 at 2 p.m.

SUMMER SEMESTER 2024

DATE

Cancellation of Under-Enrolled Courses  
Memorial Day - College Closed  
Summer Classes Begin  
Drop/Add Period\*\* (12 week classes)  
Juneteenth - College Closed  
Start of Eight Week Subterm  
Independence Day - College Closed  
End of First Six Week Subterm  
Start of Second Six Week Subterm  
Midterm Grade Reporting Due  
Last Day to Withdraw from Classes\*\* (12 week classes)  
Summer Classes End  
Summer 2024 Grades Due

Friday, May 17  
Monday, May 27  
Tuesday, May 28  
Tuesday – Monday, May 28 – June 3 at 5 p.m.  
Wednesday, June 19  
Monday, June 24  
Thursday, July 4  
Saturday, July 6  
Monday, July 8  
Tuesday, July 16 at 10 p.m.  
Monday, July 29 at 5 p.m.  
Saturday, August 17  
Monday, August 19 at 10 p.m.

\*College Forum and Open House dates tentative and subject to change  
\*\*Drop/Add and Withdrawal Periods for shorter term classes are pro-rated based on course length

# COLLEGE POLICIES

## Institutional Policies

### Family Education Rights and Privacy Act (FERPA)

The Family Educational Rights and Privacy Act, FERPA, (Section 438 of the General Education Provisions Act 20 USC § 1232g) affords students certain rights with respect to educational records. Students are informed of this right through this catalog and their Student Handbook. These are:

#### ***Inspection and Review of Records***

Students have the right to inspect and review their education records within 45 days of the day a college receives such request. A student should submit to the Registrar, Dean, head of the academic department, or other appropriate official a written request that identifies the record(s) the student wishes to inspect. The appropriate official will arrange for access and notify the student of the time and place where the records may be inspected. If the records are not maintained by the college official to whom the request was submitted, the official shall advise the student of the correct official to whom the request should be addressed. The College reserves the right to deny access to confidential letters and recommendations associated with admission, employment/job placement, or honors, to other records to which the student has waived the rights of inspection, and to records containing information about more than one student.

#### ***Amendment of Records***

Students have the right to request the amendment of records they believe to be inaccurate, misleading, or otherwise in violation of the student's privacy rights under FERPA. A student who wishes to ask the college to amend a record should write the college official responsible for the record, identify the specific part of the record that the student wants changed, and specify the reason why it should be so changed. If the college decides not to amend the record as requested, the college will notify the student in writing of the decision and the student's right to a hearing regarding that decision. If the outcome of the hearing is unsatisfactory, the student may submit an explanatory statement for inclusion in the educational record. Such a statement shall become part of the information contained in the educational record and disclosed with it.

#### ***Students Right to Prevent Disclosure***

A student has the right to provide written consent before a college discloses personally identifiable information from the student's education records, except to the extent that FERPA or other laws authorize disclosure without such consent.

#### ***College's Rights to Disclose***

The College may disclose education records without a student's prior written consent under a number of circumstances including but not limited to:

#### ***Health or Safety Emergency***

The College, may disclose education records without a student's prior written consent under the FERPA exception for an emergency that poses an imminent threat to health or safety.

#### ***Directory Information***

Unless a student withholds consent through the submission of a Request to Prevent Disclosure of Directory Information opt-out form, the college may disclose certain education records without a student's prior written consent under the FERPA exception for directory information. FERPA permits the college to determine whether to recognize the concept of directory information and, if so, how to define such information and the circumstances of its disclosure. The college recognizes directory information only for use in its own purposes, publications (i.e. Dean's List and commencement programs), recognition of students, and efforts to help students to access specific academic and employment opportunities. In those instances, directory information includes a student's full name; hometown; permanent address; assigned college email address; date of birth; the fact that a student is or was enrolled; enrollment status (e.g. full-time, half-time, or less than half-time); class

level and majors/minors; dates of attendance; degrees, honors, or awards received; cumulative credit hours; participation in officially recognized activities and sports; certain biographical information of athletes; and photograph.

For clarity, directory information does not include a student's identification number; telephone number(s); parents' names and addresses; GPA or grades; current schedule; information on academic standing (probation, disqualification, etc.) or whether a student is eligible to return to school; accounts receivable balance; disciplinary records; financial records of parents; student employment records; psychiatric or psychological records; and copies of transcripts from other schools or colleges.

In all other instances, the College regards such information to be part of a student's education record protected from other disclosure under both FERPA and pertinent state law exceptions to the Freedom of Access Act.

### ***School Officials with Legitimate Educational Interests***

A college may disclose education records without a student's prior written consent to school officials under the FERPA exception for legitimate educational interests. For purposes of this provision, a "school official" is a person employed by the college and/or the MCCC in an administrative, supervisory, academic or research, or support staff position (including security and health personnel); a person or company with whom a college has contracted as its agent to provide a service instead of using college employees or officials (such as an attorney, auditor, or collection agent); or a student serving on an official committee such as a disciplinary or grievance committee, or assisting another school official in performing his or her tasks. A school official has a "legitimate educational interest" if the official needs to review an education record in order to fulfill his or her professional responsibilities for the college.

### ***Officials of Other Schools***

Upon request, the college may disclose education records without consent under the FERPA exception for disclosures to official of another school in which a student seeks or intends to enroll.

### ***Lawfully Issued Orders and Subpoenas***

The college may disclose education records without a student's prior written consent under the FERPA exception for complying with a judicial order or lawfully issued subpoena or to federal and state government agencies and officials as provided by law.

### ***Financial Aid for which a Student has Applied***

The college may disclose education records without a student's prior written consent under the FERPA exception for financial aid for which a student has applied such as organizations contributing to a student's financial aid or determining financial aid decisions concerning eligibility, amount, condition, and enforcement of the terms of such aid.

### ***Organizations Whose Work Will Improve College Instruction***

A college may make certain disclosures under FERPA without individual consent under the FERPA exception for disclosure to organizations conducting studies for, or on behalf of, the College for the purpose of improving instruction, if such studies are conducted in such a manner that will not permit the personal identification of students and their parents by persons other than representatives of such organizations, and such information will be destroyed when no longer needed for the purpose for which it is conducted. Examples would include organizations conducting studies to develop, validate, and administer predictive tests or accrediting organizations carrying out their function.

### ***Disclosure to Military Recruiters***

A college must, as required by law, disclose education records without a student's prior written consent to requesting military recruiters. The Solomon Amendment (10 U.S.C. § 983) requires institutions receiving federal funding to provide lists of student recruiting information which includes information which would have been normally denied under FERPA. Military recruiting information as defined by the Solomon Amendment includes: name, address, electronic mail address, telephone listings, date and place of birth, levels of education, academic majors, degrees received, and the most recent educational institution enrolled in by the student.

### ***Records of Requests and Disclosures***

The College will maintain a record of requests and disclosures of non-directory information. Records of requests shall include the names and addresses of the persons who requested the information and their legitimate interests in the information. Records of requests will not be maintained for those requests made by students for their own use; those disclosures made in response to written requests from the student; those made by school officials; and those specified in Directory Information.

### ***Right of Complaint***

A student with questions or concerns about the student's rights and a college's responsibilities should promptly inform the appropriate college official. Students who believe that the College is not complying with the requirements of the Family Educational Rights and Privacy Act or regulations issued by the Department of Education to implement the Act may file complaints in writing to: The Family Policy Compliance Office, U.S. Department of Education, 400 Maryland Avenue, SW, Washington, DC 20202-5901.

## **Student Right to Know**

As mandated by the Public Law 101-542, the Student Right-to-Know and Campus Security Act, as amended by Public Law 102-26, the Higher Education Technical Amendments of 1991, SMCC student completion information is available upon request from the College's Office of Institutional Research. Information concerning crimes on campus is available on the College website.

## **Student Handbook**

The Compass, SMCC's student handbook, is designed to introduce students to the many aspects of life at SMCC, including policies related to enrollment and student life, rules and regulations, and safety tips. The student handbook serves as a companion piece to the SMCC Catalog, which outlines the College's academic information, requirements, academic programs, course descriptions, and more. Students are expected to become familiar with both publications for a thorough understanding of College regulations.

## **Harassment and Sexual Harassment**

### ***Harassment Prohibited***

The College recognizes the dignity and right of individuals to work, learn, play and live in an environment which is free of substantial unlawful interference. Consequently, the College is committed to preventing and responding promptly and effectively to harassment of College students, employees, volunteers or visitors.

### ***Sexual Harassment Prohibited***

Sexual harassment, a form of sex discrimination, is a violation of state and federal law and a violation of this policy when engaged in by employees or students. For purposes of this policy, "sex" includes gender as well as sexual orientation, gender identity and gender expression. Any College employee or student who violates this policy or the applicable laws will be subject to disciplinary action.

#### **A. Maine Human Rights Act and Title VII of the Civil Rights Act of 1964**

Under the Maine Human Rights Act and Title VII of the Civil Rights Act of 1964, sexual advances, requests for sexual favors, and other unwelcome verbal or physical conduct of a sexual nature, including conduct based on sex, constitute sexual harassment when:

1. Submission to such conduct is made either explicitly or implicitly a term or condition of an individual's employment or educational benefits; or
2. Submission to or rejection of such conduct is used as the basis for an employment or education decision affecting an individual; or
3. Such conduct is so severe or pervasive as to have the purpose or effect of substantially interfering with an individual's academic or work performance or creating an intimidating, hostile or offensive employment, educational or living environment; and
4. A person of reasonable sensibilities would clearly understand that the conduct was unwelcome, harmful or offensive.

B. Title IX of the Education Amendments Act of 1972

Title IX of the Education Amendments of 1972 has similar proscriptions against the same types of unwelcome sexual and sex-based conduct prohibited by Title VII and the Maine Human Rights Act, although with different definitions of the prohibited conduct. Title IX also includes sexual assault, stalking, dating violence and domestic violence within the definition of sexual harassment. Jurisdictional requirements must be met for the conduct to be governed by Title IX.

Under Title IX, sexual harassment is unwelcome conduct based on sex that satisfies one of more of the following:

1. A College employee conditions the provision of a College aid, benefit, or service on an individual's participation in unwelcome sexual conduct.
2. Unwelcome sexual conduct determined by a reasonable person to be so severe, pervasive, and objectively offensive that it effectively denies a person equal access to the College's education programs or activities.
3. Sexual assault, domestic violence, dating violence and stalking as defined by federal law and set forth in MCCS Procedure 202.2.

The alleged conduct also must have occurred against a person in the United States participating or attempting to participate in a SMCC education program or activity at a location owned or controlled by the Maine Community College System, and the College had substantial control over the alleged perpetrator and the context in which the alleged sexual harassment occurred.

C. Complaints and Investigations

Individuals who believe that they are victims of sexual harassment must contact the Title IX Coordinator to file a complaint. It is the policy of the College to provide fair and impartial investigations, consistent with related College procedures and guidance that will protect the rights of persons filing sexual harassment complaints, the persons complained against, and the College. All conduct within the scope of Title IX is governed by MCCS Procedure 202.2. All other allegations of sexual harassment are governed by MCCS Procedure 202.1. The Title IX Coordinator will determine the applicable procedure after review of the allegations.

Additionally, individuals may also file a sexual harassment complaint with the Maine Human Rights Commission within 300 days of the alleged incident. Further information is available from the Maine Human Rights Commission at State House Station 51, Augusta, Maine 04333, (207) 287-2326, and/or from the United States Department of Education, Office for Civil Rights, 33 Arch Street, Suite 900, Boston, Massachusetts 02110, tel. 617-289-0111, TTY/TTD 617-289-0063, and fax 617-289-0150. The College President is directed to take appropriate steps to distribute this policy statement and to inform students and employees of procedures for making complaints.

D. Retaliation

Title IX of the Education Amendments of 1972 has similar proscriptions against the same types of unwelcome sexual and sex-based conduct prohibited by Title VII and the Maine Human Rights Act, although with different definitions of the prohibited conduct. Title IX also includes sexual assault, stalking, dating violence and domestic violence within the definition of sexual harassment. Jurisdictional requirements must be met for the conduct to be governed by Title IX.

E. False Reports

It is a violation of this policy to intentionally file a report of any kind with a College official when the person knows that such report, by fabrication or material embellishment, is false.

# Student Sexual Misconduct and Assault, Stalking, and Relationship Violence

## A. Introduction

This procedure governs acts by students of nonconsensual sexual conduct, dating and domestic violence and stalking that do not fall within the scope of Title IX of the Education Amendments of 1972. Such acts within the scope of Title IX are governed by MCCS Procedure 202.2. This procedure supplements the MCCS Student Code of Conduct ("Code") by defining the prohibited acts of non-consensual sexual conduct, dating and domestic violence, and stalking governed by this procedure; explaining the procedures that will apply to the handling of such alleged violations; and providing important additional information to all students. The definitions of prohibited conduct governed by this procedure reflect Maine law where applicable and may differ from the federal definitions required in Procedure 202.2.

## B. Definitions

For purposes of this procedure, the following terms have the following meanings.

1. "Reliable Consent" is a knowing, voluntary, and mutual decision among all participants to engage in sexual activity. Consent can be given by words and/or actions, as long as those words and/or actions create clear permission regarding willingness to engage in the sexual activity at the time of the activity. Mere acquiescence to the sexual activity shall not be regarded as reliable consent.

Reliable consent has been obtained when a reasonable person in the Respondent's position would understand through words and/or actions that the person has voluntarily agreed to the sexual activity, at the time of the activity. Agreement to engage in one sexual activity (such as a touching) is not agreement to engage in a different sexual activity (such as an act). Agreement can be withdrawn at any time and, if so withdrawn, the sexual activity shall stop. Agreement from a person who is visibly under the influence of alcohol or drugs or otherwise impaired shall not be regarded as reliable consent.

2. "Acquiescence" means a person's submission to engaging in one or more sexual activities without communicating either reliable consent or an express physical or verbal objection.
3. "Sexual misconduct" means the following where there is no reliable consent:

A. "Sexual touching" which means any intentional touching of the breasts, buttocks, groin or inner thigh, directly or through clothing, and for the purpose of arousing or gratifying sexual desire; or

B. "Sexual contact" which means any intentional touching of the genitals or anus, directly or through clothing, other than as would constitute a sexual act, or

C. "Sexual act", which means any intentional act when that act involves direct physical contact between the:

- 1) Genitals of one and the mouth or anus of another; or
- 2) Genitals of one and the genitals of another; or
- 3) Genitals or anus of one and an instrument or device manipulated by another person.

4. "Sexual assault" means any sexual misconduct as defined above where, at the time of the sexual activity, the Complainant:

- a. Expressly communicated by words or physical act(s) a timely objection; or
- b. Was visibly intoxicated or otherwise visibly impaired; or
- c. Was unconscious, incapacitated, or otherwise unaware that sexual activity was occurring or about to occur; or
- d. Was placed in reasonable fear of physical injury or other harm because of the Respondent's use or threatened use of physical force or other harm.

5. "Dating Violence" means violence committed by a person who is or has been in a social relationship of a romantic or intimate nature with the victim. The existence of such a relationship shall be determined based on a consideration of the following factors:
  - a. the length of the relationship;
  - b. the type of relationship; and,
  - c. the frequency of interaction between the persons involved in the relationship.
6. "Domestic Violence" means one of the following criminal acts against a family or household member:
  - a. Assault - intentionally, knowingly or recklessly causing bodily injury or offensive physical contact;
  - b. Criminal threatening - intentionally or knowingly placing a person in fear of imminent bodily injury;
  - c. Criminal terrorizing - communicating a threat of violence that places a person in fear for their safety or the safety of another;
  - d. Reckless conduct - recklessly creating a substantial risk of bodily injury to another person;
  - e. Stalking - intentionally or knowingly engaging in a course of conduct directed at or concerning a family or household member that would cause a reasonable person to; i) suffer serious inconvenience or emotional distress, ii) fear death or fear the death of a close relation, iii) fear damage or destruction to or tampering with property, or v) fear injury to or the death of an animal owned by or in the possession and control of that person; or
7. "Stalking" means the conduct described in subsection 6.e, but the conduct may be directed at or concerning any person.
8. "Complainant" means a person who believes he or she experienced sexual misconduct or assault by student.
9. "Respondent" means a student accused of sexual misconduct or assault.
10. "Retaliation" means pressuring a person to drop or support a complaint or to provide false or misleading information; pressuring a person to participate or refrain from participating as a witness in a proceeding; or engaging in conduct that may reasonably be perceived to affect adversely that person's educational, living, or work environment for making a good-faith report or participating in good faith in an investigation.

#### C. Prohibited Conduct

It is a violation of the Student Code of Conduct for a student to intentionally engage in sexual misconduct or sexual assault, or to retaliate against a person who in good faith reports or participates in an investigation under this procedure. A student may be found responsible for retaliation even if not found responsible for the underlying alleged sexual misconduct or assault.

#### D. Reports to the College

1. When to Report. Students are advised to report allegations of sexual misconduct or sexual assault, stalking, dating violence or domestic violence immediately or as soon as possible.
2. Where to Report. Reports should be given to the Title IX Coordinator. Any other employee who receives such a report shall immediately share the report with the Title IX Coordinator. The Title IX Coordinator will determine whether the conduct is governed by this procedure or by MCCS Procedure 202.2 (Title IX Sexual Harassment Procedure).
3. What to Report. A complaint may be made orally or in writing, and should be as specific as possible. A report should disclose the identity of the person(s) alleged to have engaged in the complained of conduct, and the location(s), date(s) and description of the alleged acts. The College cannot take complaints "off the record." Once the College receives such information, it has a duty to investigate and possibly take action even if, at the time of the complaint, the Complainant does not want the College to do either. Unless the Complainant signs a written



statement specifying withdrawal of the complaint, the Complainant may not be deemed to have withdrawn her or his complaint.

4. False Reports. It is a violation of the Code for any student to intentionally file a report of any kind with the College official when the student knows that such report, by fabrication or material embellishment, is false.

E. Information Provided to a Complainant at the Time of a Report

At the time of a report to the Title IX Coordinator, the College shall provide to the Complainant a copy, or hypertext links to copies, of the Code, this Procedure and the Appendices to this Procedure. The Respondent shall receive copies or hypertext links upon notification of the allegation(s). Students are hereby advised of the following:

1. Preserving Evidence. It is important to preserve all evidence, including but not limited to physical evidence, text messages, social media, photographs, and security video in any way related to an allegation of sexual assault or misconduct, stalking, domestic violence, dating violence, retaliation, or request for a protective order.
2. Confidentiality. The College uses best efforts to protect the confidentiality of the identity and allegations involved in a report, including keeping all records confidential to the extent permissible by law. Information regarding reports of alleged violations, and any investigation or review of those reports, including sanctioning determinations, will be shared among College officials with a legitimate educational interest or with external individuals or entities only on a need-to-know basis and only as permitted by College policy and applicable law. The College will be required to disclose the Complainant's name, statements and allegations to the Respondent. The College may choose to comment publicly, in writing or otherwise, to the extent permitted by law, regarding the decision reached if, in the judgment of the College, the best interests of the community would be served by such a disclosure. If possible and appropriate, the anonymity of the student(s) involved will be protected.
3. Counseling, Health and Mental Health Services. Counseling, health and mental health support services are available on campus and/or in the area and both the Respondent and the Complainant shall be provided with information to access available services. A list of such services is below in the Appendix to this procedure.
4. Law Enforcement. The complainant has the right to contact, and file a criminal complaint with, the police. A list of such authorities is below in the Appendix. The police can advise and assist with the Complainant's option to request from a court that a temporary or permanent restraining order, or other protection or no-contact order be issued against an alleged offender.
5. Victim Advocacy and Legal Assistance Services. Victim advocacy and legal assistance services are also available. A list of such services is below in the Appendix.
6. Financial Aid and Visa and Immigration Assistance. Information regarding student financial aid issues may be obtained from the College's Financial Aid Office. International students may obtain information regarding visa and immigration issues from the College's Designated School Official. A listing of contacts at each college are included in the Appendix below.

F. Investigations

The College shall use the Code of Conduct in conducting an investigation of reports or allegations of conduct within the scope of this procedure.

G. Interim Steps While an Investigation is Conducted

The College shall consider what interim steps, if any, should be taken until the investigation and findings are complete. Such steps include, for example, changing the affected student(s) academic, living, transportation, and working situations if requested and reasonably available.

H. Participation during Proceedings

Consistent with the Code, both the Complainant and the Respondent shall have the same opportunity to have others present during internal disciplinary proceedings, including the opportunity to be accompanied to related meetings by an advisor of their choice.

I. Outcomes

At the time that the College makes its final findings, the College shall in writing notify simultaneously the Complainant and Respondent of:

1. Whether the Respondent was found to violate the Code and, if so, the provisions violated and discipline imposed; and
2. The Respondent's and Complainant's rights under the Code to appeal the findings and any discipline.

J. Discipline

A violation of this procedure shall result in discipline under the Code. With regard to cases involving sexual conduct, because of the wide range of conduct that exists between cases of violent assault and cases of sexual contact resulting from poor communication, the following guidelines shall assist the College in determining the appropriate discipline for each case.

1. Sexual Assault vs. Sexual Misconduct. Findings of sexual assault shall be regarded as more severe than findings of sexual misconduct.
2. Types of Sexual Misconduct. Findings of a sexual act shall be regarded as a more severe form of sexual misconduct than findings of sexual contact, and findings of sexual contact shall be regarded as a more severe form of sexual misconduct than findings of sexual touching.
3. Cases of Acquiescence. Findings that a student did not obtain reliable consent and instead relied upon mere acquiescence shall be regarded as important but less severe than cases involving sexual assault.
4. Repeat Violators. Findings that a student was previously found responsible for sexual misconduct or sexual assault shall be regarded as more severe than a first-offender.

K. Retaliation

The College will take appropriate steps to ensure that a person who in good faith reports or participates in an investigation under this procedure will not be subjected to retaliation by the Respondent or others. Anyone who has experienced retaliation is strongly encouraged to report that concern using the procedures in Section D above.

L. Protective Orders

Complainants have the right to request from a court that a temporary or permanent restraining order, or other protection or no-contact order be issued against an alleged offender. Only the police, and not College security, have the authority to enforce such an order by arresting a person who violates the order. The Complainant should, therefore, promptly inform the College if such an order is obtained so that the College may be better prepared to more promptly contact the police if necessary.

M. Primary Authority and Annual Training

The Dean of Students and/or Enrollment Services at the College shall have primary responsibility for overseeing the application of this procedure. The Deans shall ensure that Disciplinary Officers, Resident Directors, Resident Assistants, Disciplinary Committee Members and other pertinent employees are annually informed about this procedure. The Deans shall further consult with the MCCS General or Assistant Counsel on questions arising under, or recommendations to improve, this procedure.

N. Other

Nothing in this procedure shall be construed to confer a private right of action upon any person to enforce the provisions of this procedure.

#### O. Appendices

The Appendix of services and authorities referenced in Section F above is below. For a complete listing of state-wide services and authorities, please consult the SMCC Student Handbook.

#### APPENDIX

##### Counseling and Mental Health Services

- Southern Maine Community College  
<https://www.smcme.edu/student-life/counseling/>  
1-800-434-3000

##### Sexual Assault Support Services

Maine Coalition Against Sexual Assault (MeCASA)  
24 hour statewide sexual assault crisis and support line  
1-800-871-7741 (voice) 711 (Maine Relay)

##### The regional sexual assault crisis and support centers that comprise the Maine Coalition Against Sexual Assault are:

- Sexual Assault Response Services of Southern Maine  
York and Cumberland Counties  
24 hour support line: 1-800-313-9900  
[www.sarsonline.org](http://www.sarsonline.org)
- Sexual Assault Support Services of Midcoast Maine  
Eastern Cumberland, Lincoln, Sagadahoc, Knox and Waldo Counties  
24 hour support line: 1-800-822-5999  
Anywhere in Maine: 1-800-871-7742  
TTY: 1-888-458-5599  
[www.sassmm.org](http://www.sassmm.org)

##### Other Maine-based Sexual and Relationship Violence Services:

- Maine Coalition to End Domestic Violence  
<https://www.mcedv.org/get-help/> Statewide Domestic Abuse Helpline 1-800-437-1220
- Wabanaki Women's Coalition  
<https://www.wabanakiwomenscoalition.org/connections/> (207) 763-3478

##### National Resources:

- National Sexual Assault Hotline: 1-800-656-HOPE
- National Sexual Assault Online Hotline: <https://ohl.rainn.org/online/>

For a list of resources with particular focus on the needs of LGBTQ persons, see: <http://barcc.org/information/resources-online/glbtc>

##### Police Departments:

- Southern Maine Community College  
South Portland Police Department

30 Anthoine Street  
South Portland, Maine 04106  
(207) 799-5511

#### Medical Hospitals:

- Maine Medical Center  
22 Bramhall Street, Portland, Maine 04102  
(207) 662-0111  
<http://www.mmc.org/>
- Mercy Hospital  
144 State Street, Portland, Maine 04101  
(207) 879-3000  
<http://www.mercyhospitalstories.org/>
- Mid Coast Hospital  
123 Medical Center Drive, Brunswick, Maine 04011  
(207) 729- 0181  
<http://www.midcoasthealth.com/>
- Parkview Adventist Medical Center  
329 Maine Street, Brunswick, Maine 04011  
(207) 373-2000  
<http://www.parkviewamc.org>

#### Legal Services:

Pine Tree Legal Services Free legal services for low –income Maine residents for non-criminal matters:

- Portland Office  
Cumberland, York, Sagadahoc, Androscoggin, Oxford, Franklin, Lincoln and Knox  
88 Federal Street  
P.O. Box 547  
Portland, Maine 04112  
(207) 774-8211
- All Offices  
TTY: 711  
<http://www.ptla.org>
- Cumberland Legal Aid Clinic A legal aid clinic operated by the University of Maine School of Law. Services provided to low income individuals with legal cases in Southern Maine courts (Cumberland, parts of York, Sagadahoc and Androscoggin counties) for most types of civil, criminal, juvenile and family matters.  
Greater Portland area – (207) 780-4370  
Toll free: (877)-780-2522  
<http://mainelaw.maine.edu/programs-centers/clac.html>
- Maine Lawyer Referral Service  
A referral service operated by the Maine State Bar Association.  
1-800-860-1460  
<http://www.lrs@mainebar.org>
- Maine Volunteer Lawyers Project  
Free legal information and pro bono legal representation for qualifying low-income individuals state-wide.  
Portland: (207) 774-4348  
Toll free: (800)-442-4293  
<http://www.vlp.org>

# Title IX Sexual Harassment Procedure

## A. Introduction

This Procedure applies solely to allegations of sexual harassment that fall within the scope of Title IX of the Education Amendments of 1972. Under Title IX, discrimination in the form of sexual harassment is conduct, on the basis of sex, that effectively denies a person equal access to a College educational program or activity. That conduct might be (a) quid pro quo; (b) unwelcome conduct that a reasonable person would deem severe, pervasive, and objectively offensive; or (c) sexual assault, dating violence, domestic violence, or stalking. The purpose of this Procedure is to define the reporting, investigation and adjudication procedures that govern the College's handling of sexual harassment allegations within the scope of Title IX and to provide guidance on the application of those procedures.

Allegations of sexual harassment outside the scope of Title IX are governed by MCCS Procedure 201.1/202.1

## B. Definitions

For purposes of this Procedure, the following terms have the following meanings:

1. "Complainant" means a person who is alleged to be the victim of conduct that could constitute sexual harassment.
2. "Consent" means a knowing, voluntary, and mutual decision among all parties to engage in sexual activity. Consent can be given by words and/or actions, so long as those words and/or actions create clear permission regarding willingness to engage in the sexual activity at the time of the activity. Mere acquiescence to the sexual activity shall not be regarded as consent. Consent has been obtained when a reasonable person the Respondent's position would understand through words and/or actions that the person has voluntarily agreed to the sexual activity, at the time of the activity. Agreement to engage in one sexual activity is not agreement to engage in a different sexual activity. Consent can be withdrawn at any time and, if so withdrawn, the sexual activity shall stop. Permission from a person who is visibly under the influence of alcohol or drugs or otherwise impaired shall not be regarded as consent.
3. "Dating Violence" means violence committed by a person who is or has been in a social relationship of a romantic or intimate nature with the victim. The existence of such a relationship shall be determined based on a consideration of the following factors:
  - a. the length of the relationship;
  - b. the type of relationship; and,
  - c. the frequency of interaction between the persons involved in the relationship.
4. "Domestic Violence" means felony or misdemeanor crimes of violence committed by a current or former spouse or intimate partner of the victim, by a person with whom the victim shares a child in common, by a person who is cohabitating with or has cohabitated with the victim as a spouse or intimate partner, by a person similarly situated to a spouse of the victim under the domestic or family violence laws of the jurisdiction receiving grant monies, or by any other person against an adult or youth victim who is protected from that person's acts under the domestic or family violence laws of the jurisdiction.
5. "Quid Pro Quo" means an employee of the College conditioning the provision of a College aid, benefit, or service upon a person's participation in unwelcome sexual conduct.
6. "Respondent" means a person who has been reported to be the perpetrator of conduct that could constitute sexual harassment.
7. "Retaliation" means pressuring a person to drop or support a complaint or to provide false or misleading information; pressuring a person to participate or refrain from participating as a witness in a proceeding; or engaging in conduct that may reasonably be perceived to affect adversely that person's educational, living, or work environment for making a good-faith report or participating in good faith in an investigation.
8. "Sexual Assault" means an offense that meets the following definition of rape, fondling, incest, or statutory rape as used in the FBI's Uniform Crime Reporting System:
  - a. "Rape" means the penetration, no matter how slight, of the vagina or anus with any body part or object, or oral penetration by a sex organ of another person, without the consent of the victim.

- b. “Fondling” means the touching of the private body parts of another person for the purpose of sexual gratification, without the consent of the victim, including instances where the victim is incapable of giving consent because of their age and/or because of their temporary or permanent mental incapacity.
  - c. “Incest” means sexual intercourse between persons who are related to each other within the degrees wherein marriage is prohibited by law.
  - d. “Statutory Rape” means sexual intercourse with a person who is under the statutory age of consent. In Maine, the age of consent is 16.
9. “Stalking” means engaging in a course of conduct directed at a specific person that would cause a reasonable person to:
- a. Fear for his or her safety or the safety of others; or
  - b. Suffer substantial emotional distress.
10. “Unwelcome Conduct” means conduct determined by a reasonable person to be so severe, pervasive and objectively offensive that it effectively denies a person equal access to an SMCC education program or activity.

### C. Prohibited Conduct

It is a violation of the College policy to engage in sexual harassment, or to retaliate against a person who in good faith reports or participates in an investigation under this Procedure. A person may be found responsible for retaliation even if not found responsible for the underlying alleged sexual harassment.

### D. Reports and Formal Complaints

A report can be made informally, anonymously, orally or in writing. Supportive measures are available for students, faculty, or staff making a report. A person making a report alleging sexual harassment is not required to file a Formal

Complaint. Only a Formal Complaint initiates the resolution process set forth in this Procedure. A Formal Complaint must be written and signed by the complainant. Supportive measures are available for complainant and respondents named in the Formal Complaint.

#### 1. Reports

- a) Students, faculty, and staff are advised to report allegations of sexual harassment immediately, or as soon as possible. Reports can be made via mail, email, phone, web form, or in person.
- b) Reports should be made to the Title IX Coordinator. Presidents, Deans, and Human Resources Managers who receive a sexual harassment report shall immediately share the report with the Title IX Coordinator.
- c) Reports should include enough information to enable the Title IX Coordinator to follow up with the person alleged to be sexually harassed.
- d) The Title IX Coordinator must reach out to, and meet with, the person alleged to be sexually harassed and provide:
  - 1. The option for supportive measures;
  - 2. Information on Violence Against Women Act (VAWA) resources if appropriate; and
  - 3. 3) Information on the Formal Complaint and the Grievance Procedure, including that the person is not required to make a Formal Complaint.
- e) The Title IX Coordinator must document that this information was provided.
- f) If the person does not wish to make a Formal Complaint, the Title IX Coordinator has the discretion to make a Formal Complaint based on the allegation, and would be the signatory, but not a party to the complaint.

#### 2. Formal Complaints

- a) Students, faculty, and staff are advised to file a written, signed Formal Complaint with allegations of sexual harassment or sexual assault immediately, or as soon as possible. Formal Complaints must be made while the complainant is participating in or attempting to participate in the education program or activity of the College.
- b) Formal Complaints shall be made to the Title IX Coordinator. Presidents, Deans, and HR managers who receive a Formal Complaint shall immediately share the Complaint with the Title IX Coordinator.

- c) Formal Complaints must be in writing and signed by the complainant or the Title IX Coordinator. The writing could be an email, a web form, or other document. A Formal Complaint must contain as much detail as possible. It must disclose the identity of the person(s) alleged to have engaged in the sexual harassment, and the location(s), date(s) and description of the alleged conduct.
- d) Upon receipt of a Formal Complaint, the institution has sixty business days to conclude the Informal Resolution or conduct the Investigation and issue the draft report. Extensions shall be made only for good cause.
- e) It is a violation of MCCC Policy 202 for any person to intentionally file a report of sexual harassment with a College official when the person knows that such report, by fabrication or material embellishment, is false.

### 3. Mandatory Dismissal of a Formal Complaint

Federal regulations require a Formal Complaint of sexual harassment that does not meet the Title IX criteria to be dismissed from this Procedure. However, complaints against students will be referred to the Dean of Students to assess whether the alleged conduct violates the Student Code of Conduct and should proceed under the Code's Procedures. Complaints against employees will be referred to Human Resources for review.

Formal Complaints must be dismissed out of the Title IX Sexual Harassment Procedures if:

- a) The alleged conduct would not constitute sexual harassment under the Title IX sexual harassment definitions, even if proved;
- b) The alleged conduct was against a person not in the United States;
- c) The alleged conduct was against a person not participating, or attempting to participate, in a SMCC educational program or activity; or,
- d) The alleged conduct was not at a College location, not during a College activity or program, or the College did not have substantial control over both the respondent and the context.

### 4. Discretionary Dismissal of a Formal Complaint

The College has the discretion to dismiss a Formal Complaint if:

- a) The complainant notifies the Title IX Coordinator, in writing, that the complainant would like to withdraw the Formal Complaint or any allegations therein;
- b) The respondent is no longer enrolled at or employed by the College; or
- c) Specific circumstances prevent the College from gathering evidence sufficient to reach a determination as to the Formal Complaint or allegations therein.

### 5. Appeal of Dismissal of Formal Complaint

A written notice shall be provided to both parties if the Formal Complaint is dismissed from the Title IX Sexual Harassment Procedure. The notice shall include the right to appeal the decision in writing to the president within two business days of receipt. The request to appeal the decision shall include the grounds for appeal.

### E. Supportive Measures Offered to a Person at the Time of a Report; Supportive Measures Provide Offered to Complainant and Respondent at the Time of a Formal Complaint

Supportive measures are individualized, non-disciplinary services offered as appropriate and as reasonably available, without fee or charge. The measures are designed to restore or preserve equal access to an educational program or activity without unreasonably burdening the other party. Supportive measures may include counseling, extensions of deadlines or other course-related adjustments, modifications of work or class schedules, campus escort services, mutual restrictions on contact between parties, changes in work or housing locations, leaves of absence, increased security and monitoring of certain areas of the campus.

The College shall maintain confidentiality for the complainant and respondent of any supportive measures that they receive, to the extent possible. The Title IX Coordinator shall implement and monitor the supportive measures.

### F. Grievance Procedures

## 1. Notice of Formal Complaint

Both the complainant and the respondent shall be notified, simultaneously, that a Formal Complaint has been made. The notice must include:

- a) Details of the allegation (parties, conduct, date, location);
- b) The grievance resolution Procedure, including that the process shall be equitable, prompt, and impartial;
- c) Both parties may receive supportive measures, and the Title IX Coordinator will work with each party to implement individualized measures;
- d) Both parties may have an advisor of their choice;
- e) Both parties may inspect and review evidence;
- f) The respondent is presumed not responsible and a determination regarding responsibility shall be made at the conclusion of the grievance process;
- g) The College bears the burden of proof;
- h) An Informal Resolution process may be available if it is appropriate and the respondent is not an employee; both parties agree in writing to participate; the parties can return to the Formal Grievance process any time until a resolution has been agreed upon; and documents on the agreement to participate, final resolution, or return to formal grievance process will be kept on record; and
- i) It is a violation of MCCS Policy 202 to make false statements in the course of the investigation.

Additionally, under the provisions of the Violence Against Women Act (VAWA), if the Formal Complaint alleges sexual assault, domestic or dating violence or stalking, the notice must include statements regarding:

- a) Preserving Evidence;
- b) Confidentiality;
- c) Law Enforcement;
- d) Counseling, Health and Mental Health resources;
- e) Victim Advocacy and Legal Assistance resources;
- f) Visa and Immigration resources; and
- g) Student Financial Aid resources.

## 2. Emergency Removal of Respondent

A respondent may not receive any disciplinary sanctions, such as suspension or expulsion, prior to the conclusion of the grievance process. The College may remove a respondent on an emergency basis from the time of a report through to the end of the investigation, provided that the College:

- a) Undertakes an individualized safety and risk analysis; and
- b) Determines that there is an immediate risk of physical health or safety to any person arising out of the allegations of sexual harassment.

The College shall provide the respondent with written notice of emergency removal. It shall also provide the opportunity to be heard immediately following the removal. To file an appeal, students shall contact the Dean of Students and employees shall contact the Director of Human Resources or the president's designee. The Dean of Student/Director of Human Resources decision shall be final.

## 3. Informal Resolution Procedures

- a) The Informal Resolution process shall be guided by a trained facilitator.
- b) The Informal Resolution process may be available if both parties agree in writing. Informal Resolution process is not available if the respondent is an employee.
- c) Informal Resolution process is available at any time prior to reaching a determination regarding responsibility.
- d) Information disclosed by the parties during the Informal Resolution process is confidential and may not be used as evidence during Formal Grievance process.
- e) The parties may, until the Informal Resolution has been agreed upon, leave the process and return to the Formal Grievance process. Likewise, if the process fails and the parties cannot agree on a resolution, the complaint shall be referred to the Formal Grievance process.
- f) A successful Informal Resolution process will yield an agreement between the parties. Once the agreement is reached the parties cannot pursue the Formal Grievance process for the same conduct.



- g) Agreements to participate in the Informal Resolution process, Informal Resolutions, and the referral to the Formal Grievance process shall be kept as records.

#### 4. Formal Resolution Procedures

- a) Investigation:

The College shall investigate Formal Complaints of sexual harassment. Both the complainant and the respondent shall have the same opportunity to provide evidence and witnesses to the investigator. If the parties do not agree to attempt an Informal Resolution, the investigation will initiate after the notice.

All parties shall receive written notice of the date(s), times(s), location(s), participant(s), and purpose of all hearings, investigative interviews or other meetings, with sufficient time for the party to prepare to participate. If the investigator decides to investigate allegations about the complainant or respondent that are not included in the initial notice, the Investigator shall provide notice of the additional allegations. Further, the College may consolidate Formal Complaints where the allegations of sexual harassment arise out of the same facts or circumstances.

In gathering evidence, the College may not use records that are privileged without obtaining that party's voluntary written consent. Both parties will have equal opportunity to present witness and evidence to the Investigator. Parties shall forward all evidence to the Investigator as soon as the evidence becomes available.

Prior to the completion of the investigative report, the investigator will provide to the parties, and their respective advisors (if the party has one), all gathered evidence directly related to the allegations, and a copy of the draft report. The evidence will either be electronic or hard copy. The parties and their respective advisors (if the party has one) shall not copy, share, post, or otherwise disseminate the evidence. This prohibition does not apply to the use of evidence in a judicial proceeding. The parties have ten business days to submit a written response to the investigator. The investigator will review, and incorporate as appropriate, the responses prior to completing the report. The complete report will be provided to the parties, and their respective advisors, and the parties will have ten business days to submit a written response. Following the completion of the investigative report, the live hearing will be scheduled.

- b) Live Hearing

The hearings shall be live and may be aided by technology so that the parties may see and hear the proceedings from separate rooms. A recording of the hearing shall be provided to both parties no later than ten business days after the hearing and shall not be copied, shared, posted, or otherwise disseminated. The hearings shall be conducted by a Decision Maker in accordance with this Procedure and the MCCS Rules for Title IX Live Hearings and shall use the preponderance of the evidence standard. The Decision Maker shall make determinations of credibility and a determination of responsibility.

Three business days prior to the hearing, parties shall be required to confirm attendance; provide the names of their advisor if they have one; and provide their witness list, in the order the witnesses shall be called. The parties shall also be invited to submit their list of cross-examination questions to the Decision Maker for relevancy predetermination.

The Decision Maker shall open the proceeding, recognize the parties and their respective advisors. If a party does not have an advisor at the hearing the College shall provide one, at no cost. The Decision Maker shall question the parties and witnesses. Advisors shall only participate during oral cross-examination of the other party and witnesses. The Decision Maker shall make relevancy determinations on every cross-examination question and follow up question before the question is answered by the party or witness. Advisors may not appeal the relevancy determination of the Decision Maker.

If a party or witness does not submit to cross-examination at the live hearing, the Decision Maker shall not rely on any statement of that party or witness in reaching a determination regarding responsibility. The Decision Maker shall also not take into consideration a party's decision not to submit to cross-examination in reaching a determination regarding responsibility.

All evidence collected during the investigation shall be available at the hearing. The parties and their respective advisors (if the party has one) shall not copy, share, post, or otherwise disseminate the evidence. This prohibition does not apply to the use of evidence in a judicial proceeding.

The Decision Maker shall issue in writing a responsibility finding which shall include a statement of and rationale for the finding as to each allegation including a determination regarding responsibility, any disciplinary sanctions the College will impose on the respondent, and whether remedies will be provided to the complainant.

c) Findings

The Decision Maker shall issue written findings which shall include:

1. Identification of the allegations potentially constituting sexual harassment;
2. A description of the procedural steps taken from the receipt of the Formal Complaint through the determination, including all notifications to parties, interviews with parties and witnesses, site visits, methods used to gather evidence and hearings held;
3. Findings of fact supporting the determination;
4. Conclusions regarding the application of Policy 202 and, if applicable, the College Student Code of Conduct;
5. A statement of, and rationale for, the result as to each allegation, including a determination regarding responsibility, any disciplinary sanction the College imposes on the respondent, and whether remedies are provided to the complainant; and
6. The grounds and procedures for the parties to appeal.

Both parties shall be notified simultaneously in writing and provided with the written findings.

d) Appeals

Both parties have the right to appeal the findings and any discipline imposed. Grounds for appeal are:

1. Procedural irregularities affecting the outcome;
2. New evidence that was not previously available that would affect the outcome; and
3. Bias on the part of the Title IX Coordinator, the Investigator, or the Decision Maker.

The appeal request, with grounds for appeal, must be made in writing to the president within two business days of the written notice of findings. The College shall notify the other party when an appeal has been filed and both parties shall have five business days to submit a written statement in support of or challenging the grounds for appeal. The president or his/her designee shall simultaneously issue a written decision to both parties with the result of the appeal and the rationale for the decision.

G: Discipline

Respondents found responsible shall be subject to discipline up to and including dismissal from the College. Student discipline shall be consistent with the guidelines set forth in MCCS Procedure 501.1. Employee discipline shall range from counseling to termination.

H. Retaliation

The College will take appropriate steps to ensure that an individual who in good faith makes a report, files a Formal Complaint, or participates in an investigation under this Procedure will not be subjected to retaliation by

the Respondent or others. Any person who experiences retaliation is strongly encouraged to report that concern using the procedures in Section D above.

#### I. Protective Orders

Complainants have the right to request from a court that a temporary or permanent restraining order, or other protection or no-contact order be issued against an alleged offender. Only the police, and not the College security, have the authority to enforce such an order by arresting or charging a person who violates the order. The complainant should, therefore, promptly inform the Dean of Students or Director of Human Resources if such an order is obtained so that the College may be better prepared to more promptly contact the police if necessary.

#### J. Record Retention

The College shall maintain records of each sexual harassment investigation including any determination regarding responsibility and any audio or audiovisual recording of the hearing, any disciplinary sanctions imposed on the respondent, any remedies provided to the complainant, any information resolution and the result therefrom, and all training materials for a period of seven years.

#### K. Primary Authority and Annual Training

The Title IX Coordinator(s) at the College and MCCS System Office shall have primary responsibility for overseeing the application of this Procedure. The Coordinator(s) shall ensure that Senior Officials, Informal Resolution facilitators, Investigators, Decision Makers, Appeals Decision Makers, Resident Directors, Resident Assistants, and other pertinent employees are annually informed about this Procedure, and that all training materials are publicly posted to the College's website. The Title IX Coordinator(s) shall further consult with the MCCS General or Assistant Counsel on questions arising under, or recommendations to improve, this Procedure.

#### L. Other

Nothing in this Procedure shall be construed to confer a private right of action upon any person to enforce the provisions of this Procedure.

## **Consensual Romantic and Sexual Relationships**

Romantic or sexual relationships between employees and students or between certain employees at the College that begin consensually can end acrimoniously. Such endings can and do subsequently lead to claims of unprofessional conduct, sexual harassment in violation of MCCS Policy 202, and/or a conflict of interest in violation of the College's policy. Such claims, even if ultimately determined to be without merit, are often expensive and time-consuming for the College, and difficult for the individuals involved. Accordingly, the College prohibits consensual romantic or sexual relationships between employees when one employee supervises or otherwise has authority over the other employee, and between an employee and a student when the employee instructs, advises or otherwise has authority over the student. Employees who violate these prohibitions are subject to counseling and/or disciplinary action.

In addition, consensual romantic or sexual relationships between an employee and a student located on the same campus, even when the employee does not instruct, advise or otherwise have authority over the student, can give rise to the same claims described above. Consequently, the College strongly discourages such relationships between an employee and a student located on the same campus.

## **Non-Discrimination, Equal Opportunity and Affirmative Action**

#### A. Statement of Intent

The College recognizes that unlawful discrimination in educational programs and employment based upon race, color, religion, sex, sexual orientation, including gender identity or expression, national origin, disability, age, genetic information or status as a Vietnam era veteran can foreclose economic opportunity to a significant number of persons. In order to avoid this inequity and to afford all persons the opportunity to achieve their

rightful place in society, the College pledges to eliminate unlawful discrimination upon any group protected by state or federal laws and, in addition, to take affirmative action to recruit, employ and educate qualified members of under-represented groups.

## B. Policy Statement

The College provides equal opportunity regardless of race, creed, color, national origin, religion, sex, sexual orientation, including gender identity or expression, age, genetic information or Vietnam era veteran status pursuant to Titles VI and VII of the Civil Rights Act of 1964; Title IX of the Educational Amendments of 1972; Executive Order 11246 as amended by Executive Order 11375; the Age Discrimination in Employment Act of 1975; the Vietnam Era Veterans Readjustment Assistance Act of 1974; the Immigration Reform and Control Act of 1986; the Genetic Information Nondiscrimination Act of 2008; and the Maine Human Rights Act (5 M.R.S.A., §4551, et. seq.). In addition, pursuant to the Rehabilitation Act of 1973, the Americans with Disabilities Act of 1990 and the Maine Human Rights Act, the College does not discriminate on the basis of disability in its programs and activities. This policy affects employment policies and actions, as well as the delivery of educational services, at all levels and facilities of the College.

Further, the College's objective of equal opportunity will be met by taking affirmative action, i.e., making goal-oriented efforts to increase the numbers of women and minority groups in positions where their representation has been less than proportionate to their availability.

## C. Implementation

Authority and responsibility for implementing, maintaining and monitoring non-discrimination, affirmative action and equal opportunity at the College lies primarily with the presidents of the College and the System. All directors, department heads and equivalent officers are similarly responsible within their areas of jurisdiction. The System president through the System Office shall also help ensure that all units of the System are in compliance with the stated policy of the Board of Trustees, and with all pertinent state and federal laws and regulations.

## D. Notice of Non-Discrimination

Commonly accessible bulletin boards maintained by the College and System Office shall contain a notice of non-discrimination, and all College publications including, but not limited to, student and employee handbooks, catalogs, websites and other relatively lengthy sources shall contain the notice at the top or bottom of the inside front cover. For websites, the bottom of the homepage should contain a link to the notice. Advertisements for employment in newspapers, journals and other sources shall also contain position title, closing date and contact information.

In summary, Southern Maine Community College does not discriminate as proscribed by federal and/or state law on the basis of race, color, religion, national origin, sex, sexual orientation, including gender identity of expression, age, genetic information, disability, marital, parental, or Vietnam era veteran status in specified programs and activities. Inquiries about the College's compliance with, and policies that prohibit discrimination on, these bases may be directed to:

Affirmative Action Officer/Title IX Coordinator  
124 Spring Point Hall  
2 Fort Road  
South Portland, ME 04106  
(207) 741-5798  
Maine Relay Service: 800-457-1220  
Fax: 207-741-5751  
Email: [deanofstudents@smccme.edu](mailto:deanofstudents@smccme.edu)  
Internet: [www.smccme.edu/non-discrimination-policy](http://www.smccme.edu/non-discrimination-policy)

and/or

United States Department of Education  
Office for Civil Rights  
33 Arch Street, Suite 900  
Boston, MA 02110  
Telephone: 617-289-0111  
TTY/TDD: 617-289-0063  
Fax: 617-289-0150  
E-mail: [OCR.Boston@ed.gov](mailto:OCR.Boston@ed.gov)  
Internet: <http://www.ed.gov/about/offices/list/ocr/index.html?src=oc>

and/or

Maine Human Rights Commission (MHRC)  
51 State House Station  
Augusta, ME 04333-0051  
Telephone: 207-624-6050  
TTY/TDD: 207-624-6064  
Fax: 207-624-6063  
Internet: <http://www.state.me.us/mhrc/index.shtml>

and/or

Equal Employment Opportunity Commission  
475 Government Center  
Boston, MA 02203  
Telephone: 617-565-3200 1-800-669-4000  
TTY: 617-565-3204 1-800-669-6820  
Fax: 617-565-3196  
Internet: <http://www.eeoc.gov/>

## **Institutional Review Board Policy**

An Institutional Review Board (IRB) administers the institutional program to protect individuals who participate in human subjects research. An IRB is charged with maintaining ethical standards of the research process and minimizing risk to research participants. The regional IRB at the University of Southern Maine (USM) ensures the protection of the rights and welfare of persons participating in human subject research for research conducted at or affiliated with USM, Southern Maine Community College (SMCC), and the other institutional members of the regional IRB. The regional IRB assists faculty and staff in protecting the participants of research and may approve, require modification to, or disapprove research activities.

Researchers affiliated with SMCC may submit human subjects research protocols to the regional IRB for review. SMCC community members who wish to obtain IRB approval for human subjects research must first submit their research proposal to SMCC's IRB representative, who will consult with the Academic Dean to determine whether or not SMCC will cover the IRB protocol fee to the regional IRB on behalf of the SMCC researcher. To be considered for funding, the proposal must meet both ethical and general standards of human subjects research. The researcher affiliated with SMCC may then submit the research protocol to the regional IRB for review.

Researchers affiliated with institutions outside of SMCC who intend to engage in human subjects research with the greater SMCC community must obtain permission from the Academic Dean, in consultation with SMCC's IRB representative, before beginning research activities. Researchers must present the original application for research and documentation of the approval from a qualified IRB.

## **Academic Safety Policy**

Southern Maine Community College (SMCC) faculty, staff, and students deserve a safe educational environment. By integrating safety into the learning environment, we prepare students to identify and follow safety procedures in their future careers.

A campus with a strong safety culture promotes confidence within the learning environment. It is the policy of SMCC to help students acquire the skills necessary to incorporate good safety practices into their topic(s) of study.

With the department chair overseeing implementation, instructors will identify potential safety hazards and establish appropriate procedures for each hazard, including use of appropriate personal protective equipment (PPE). Instructors will demonstrate and model safe behavior and integrate safety training into lesson plans and syllabi so students understand and observe safety practices.

When learning occurs in a clinical or career-centered environment, instructors and students will adhere to the safety policies and procedures required by the host site.

*Note: Examples of safety hazards include (but are not limited to) use of hand or power tools, machinery, objects which could cut or crush, paint/solvent/refrigerant or chemical use, materials which could splash, puncture, or splinter, trip hazards, infectious agents, unguarded electricity, working at heights, climbing ladders, and tasks or tools which produce heat or flame or any other condition(s) that may cause injury.*

## **Scent Policy**

Because the scents found in consumer products could trigger allergic reactions and/or complicate health issues in employees, students, and visitors, Southern Maine Community College asks each employee and student to refrain from bringing air freshening products into shared spaces such as open offices, classrooms, restrooms, or common areas. Individuals with chemical sensitivities may speak with Human Resources or the Office of Disability Services regarding potential accommodation under the Americans with Disabilities Act (ADA).

## **Academic Policies**

### **Units of Credit: Semester Hour**

A unit of credit shall be defined in the following manner consistent with Federal Regulations and New England Commission of Higher Education (NECHE) policy:

1. One semester credit hour for each fifteen hours of classroom contact plus thirty hours of outside preparation or the equivalent; or
2. One semester credit hour for each thirty hours of laboratory work plus necessary outside preparation or its equivalent, normally expected to be fifteen hours; or
3. One semester credit hour for not fewer than forty-five hours of shop instruction (contact hours) or the equivalent.

For calculating “quarter” hours into “semester” hours, the general practice is to equate two semester credit hours with three quarter credit hours.

## **Enrollment Status**

### **Full-time/Part-time Status**

Full-time status for financial aid, insurance discounts, etc., is defined as 12 or more credit hours. Fewer than 12 is considered part-time. Credits awarded for transfer coursework, work experience, certification, high school articulation, exemptions, audited courses, and challenge exams, including CLEP and AP, are not considered when determining full-time status.

### **Maximum Credit Load**

Southern Maine Community College restricts student enrollment to no more than 18 credits in a single semester and 12 credits during the summer term.

## **Add/Drop**

Students may alter their schedules by adding or dropping courses during the Drop/Add period at the beginning of the fall and spring semesters and the summer term (please refer to the Academic Calendar for dates).

Students who officially drop during this timeframe receive a refund of the tuition and technology fees for that course (please see our website for refund policy details). Please note that any course that meets for less than the traditional semester length, i.e. 16 weeks, has a pro-rated drop/add period. There is no refund for non-attendance.

## Attendance

Students are expected to attend all regularly scheduled classes and laboratory sessions. Students who are having difficulties with absenteeism must contact their instructor as soon as possible to discuss the steps they must take to succeed in the remaining weeks of the term.

### *Classroom Attendance*

Faculty members have authority to establish attendance standards appropriate to their course. These standards will be clearly stated in the course syllabus.

### *Student-Faculty Communication*

Absences from regular class meetings in excess of one week with no communication between student and instructor will be reported to the Registration Office, and the student will be assigned a grade of "AF" (Administrative Failure). A student may be administratively failed after missing one more consecutive class meeting than the number of class meeting per week (4 for a class that meets three times a week, three for a class that meets twice a week, two for a class that meets once a week). A student in an online course may be administratively failed after not submitting an assignment, responding to a discussion question, completing a graded assignment, or otherwise performing some type of activity that shows active involvement in the course for a period of two weeks.

A family emergency or personal illness may cause a student's extended absence. The student or a family member may call the Office of Student Life to request that all instructors be notified of the emergency or to request other assistance as needed. Upon return, the student is responsible for making arrangements with each instructor to complete all course requirements; however, in some cases it may not be possible to successfully complete the course.

SMCC recognizes that students from a variety of established religious traditions have special days of observance during the academic year. Faculty members, when notified by students at least two weeks prior to an intended absence for religious observance, are encouraged to consider such notice as it fits within the confines of their attendance policy stated on the course syllabus. Students who have notified their faculty members of intended absence for religious observation are expected to learn what assignments and/or tests are due or will be assigned during an absence and to arrange, whenever possible, alternate times for fulfilling these requirements.

### *Class Attendance – Extracurricular and College-Sanctioned Activities*

The primary responsibility of students attending Southern Maine Community College is to meet their individual academic goals successfully. However, the administration, staff and faculty fully support and encourage student participation in those college-sanctioned activities that enhance the college experience. Students must consider their sports and events schedule when choosing classes.

College sanctioned activities are defined as athletic competitions and events specifically identified by the President or Dean of Academic Affairs (such as a student serving on the Maine Community College System Board of Trustees). College sanctioned events do not include athletic practices, club meetings, and regular on-campus activities. Clinical experiences and off-campus, employer-based activities are exempt from this policy. Requests to add an event to the list of college-sanctioned activities must be submitted at least 2 weeks in advance of the trip to be approved by the President or Academic Dean.

Students who engage in any college-sanctioned activity must adhere to the following procedures:

1. Notify each faculty member affected at the beginning of the semester of the potential conflicts and the students plan to make up the work.
2. Notify each faculty member again the week before the event that will result in an absence.

3. For scheduling changes beyond their control (weather, tournament schedules, etc.), notify faculty as soon as possible. Arrange to hand work in or take exams before the absence occurs, if possible.
4. Attend a different section of the same course, if one exists, to take notes, or arrange with another student to share notes.

If the students properly communicate the upcoming absences to the faculty, faculty will:

1. Not penalize students in their classes for absences due to college-sanctioned activities.
2. Allow students to make up work in a reasonable manner.

## **Student Evaluations of Courses**

To assist the College in maintaining a high level of instructional quality, students are asked and strongly encouraged to submit course evaluations for each class that they are attending at SMCC. Approximately two weeks before the end of a course, students will receive directions to their SMCC email on how to access course evaluations on the SMCC portal. Course evaluations are anonymous and faculty do not have access to results until after grades are closed.

## **Graduation Requirements**

Southern Maine Community College students must meet the following criteria in order to be eligible to graduate from a degree or certificate program:

Students must successfully complete all courses in their associate degree or certificate program.

All candidates for graduation must attain a 2.0 minimum cumulative grade point average (GPA).

All associate degree students must complete at least 15 of their credit hours directly through the College.

Certificate students must complete at least 9 of their credit hours directly through the College.

The College will not award degrees and certificates until all financial obligations are met.

## **Catalog Year**

Students are held to the curricular requirements outlined in the catalog matching the year they first enroll in a program of study (their catalog year). As requirements change over time, students are not expected to continue to change their initial program path. However, a student may choose to pursue the requirements of a more current curriculum via change of major. Should a student cease enrollment at SMCC for a period of one or more years and return to complete their degree or certificate, the catalog year will be updated to reflect the year of their return, and the student will be held to that catalog's listed requirements.

## **Graduation with Honors**

Southern Maine Community College recognizes students who meet certain qualifications during the annual commencement ceremony. The following list of honor levels describes minimum criteria:

### *High Honors*

Students who have completed degree requirements with a cumulative grade point average of 3.75 or higher.

### *Honors*

Students who have completed degree requirements with a cumulative grade point average of 3.50- 3.7499.

### *Highest GPA in Program*

Students who have completed degree requirements with the highest cumulative grade point average of any student in their degree or certificate program, provided the GPA is 3.5 or higher.



## Second and Subsequent Degrees

A student may apply to earn additional associate degrees. To qualify, a student must complete the required courses for each degree, resulting in a minimum of fifteen credits beyond the first degree. A student may not earn more than one associate in arts in Liberal Studies degree, regardless of the multiple available focuses.

## Withdrawal from the College

A student withdrawing from the College prior to the twelfth week of classes (pro-rated for shorter courses) will be assigned grades of W in all courses. If a student withdraws from school after the twelfth week, the student's instructors will assign letter grades.

A student who has discontinued his/her enrollment at the college for a total of one full calendar year will be officially withdrawn from the college. If the student wishes to return to the college after being withdrawn, the student will be expected to follow the program curriculum for the academic year in which the readmission becomes effective.

## Academic Fresh Start

Academic Fresh Start is a one-time opportunity for qualifying students to have prior grades excluded from their grade point average (GPA) when they resume work toward a degree at SMCC after an extended absence. All prior grades will appear on official transcripts. Only grades earned after the Fresh Start is granted will be used in calculating a new GPA. Only fresh start grades of C or better will count toward degree requirements.

### Conditions:

- A student can only be granted Fresh Start once.
- Fresh Start cannot be granted if a student has earned a degree, diploma, or certificate from SMCC.
- The student must not have been enrolled in credit-based course work at SMCC or any other college or university for a minimum of three consecutive years prior to readmission to SMCC.
- The student must have attempted fewer than 30 credits at SMCC prior to readmission to SMCC.
- After readmission, the student must complete 12 semester credits at SMCC with a minimum cumulative GPA of 2.0 and credit completion ration of at least 67%.
- Students who meet all conditions must contact their academic advisor and complete the Fresh Start application.
- Students must submit the application to Enrollment Services before earning 24 new credits.
- At least 50% of the degree or certificate requirements must be completed after readmission.

## Grades and Grading

Grades at Southern Maine Community College are assigned by letters representing levels of achievement. The basis for determining a grade is the relative extent to which the student has met objectives of the course. Letter grades signify the following:

Grades	Quality Points/Credit	Interpretation
A	4.00	93-100
A-	3.67	90-92
B+	3.33	87-89
B	3.00	83-86
B-	2.67	80-82
C+	2.33	77-79
C	2.00	73-76

C-	1.67	70-72
D+	1.33	67-69
D	1.00	63-66
F	0.00	Failure
P	None	Equivalent to a C (2.0) or better
AF	0.00	Administrative failure assigned at the discretion of the instructor designating unofficial withdrawal (failure to continue attending class)
I	None	Incomplete
W	None	Official withdrawal from a course prior to the 13 <sup>th</sup> week of classes; no credit earned
NS	None	Failure to appear for any session of a class for which you have registered.

## Computing of Grade Point Average

To compute the grade point average for a semester, first multiply the grade points earned in each course by the number of credit hours assigned to that course. The resulting product is the number of quality points for that course. Then divide the total number of quality points earned during the semester by the total number of credits attempted in that semester.

EXAMPLE FOR DETERMINING GRADE POINT AVERAGE:

Course	Credits Attempted	Grade	Grade Points	Quality Points Earned
MATH140	3	B+	3.33	9.99
BIOL-100	4	C	2.00	8.00
ENGL-100	3	B-	2.67	8.01
SOCI-100	3	F	0.00	0.00
TOTAL	13			26.00
				GPA = 2.000

To compute the cumulative grade point average, divide the total quality points earned by the total credits attempted in all semesters. Note: Pass/Fail and Repeated courses and credits granted through CLEP or AP examinations, work experience, or transfer are not to be considered when computing grade point averages.

## No Show Grade

A student who enrolls in a class, and pays any part of the tuition (even if through pending financial aid or another agency), but doesn't appear in class will receive a grade of NS (no show) on the faculty class list and their transcript. They will receive no reimbursement for the course or fees, the grade will be treated in the same manner as a withdrawal for the purpose of determining the number of credits attempted, and the grade will contribute to any determination of probation or suspension status.

## Pass/Fail

A Pass (P) grade earned in a course that is graded pass/fail is equivalent to a C (2.0) or better.

## Course Withdrawal

A student may withdraw from a course only during the semester in which s/he is registered for that course. Early withdrawal for full semester length courses is from day 7 – 10 of the semester. Official withdrawal from a

course during this early withdrawal period in the Fall and Spring semester (not available for Summer) results in a 50% refund of course tuition and fees. Official withdrawal after the early withdrawal period is available through week twelve of semester-length courses and week nine of summer courses. This period is pro-rated for shorter length courses (75% of the course length). There is no refund associated with a withdrawal following the early withdrawal period. The designation "W" will appear on the transcript after a student has officially withdrawn. A course withdrawal is an uncompleted course and may adversely affect financial aid eligibility. Failure to attend or ceasing to attend class does not constitute withdrawal from the course.

## **Medical Withdrawal**

Students who withdraw for medical reasons from a course or courses may appeal withdrawal status based on medical incapacitation through the Advising Office. A student who represents a direct threat of harm to self or others and/or who significantly disrupts or threatens to disrupt the ability of others to participate in the educational process of the college may be considered for involuntary medical withdrawal from the college. In instances where a student's documented medical incapacitation represents an ongoing challenge to academic progress and/or a student's ability to adequately function in an academic setting, the College may elect to put a hold on a student's ability to register for future classes.

## **Auditing Courses**

Students planning to audit a course are required to pay full tuition and fees. The request to audit may be made no later than add/drop week. Students auditing a course will not receive a letter grade or credit for the course and may not count course credits toward full-time status or graduation requirements.

## **Administrative Failure**

An Administrative Failure (a final grade of AF) identifies students who have stopped attending class and who have had no contact with the faculty member for a period in excess of one week. A student may be administratively failed after missing one more consecutive class meeting than the number of class meeting per week (4 for a class that meets three times a week, three for a class that meets twice a week, two for a class that meets once a week). A student in an online course may be administratively failed after not submitting an assignment, responding to a discussion question, completing a graded assignment, or otherwise performing some type of activity that shows active involvement in the course for a period of two weeks. At their discretion, faculty may reinstate students who resume attending after the grade has been assigned. There is no reimbursement of tuition and fees for administrative failure grades.

## **Incomplete Grades**

A faculty member has the option of granting a grade of "incomplete" when an extraordinary event occurring late in the semester prevents a student from completing all required assignments. The purpose of an incomplete grade is to give students an opportunity to earn the grade they would otherwise have received had the event not occurred. The purpose is NOT to give students more time to improve their grade.

### *Guidelines:*

Each instructor has full discretion in granting an incomplete grade, and the student cannot appeal the decision.

A student can request an incomplete grade after the end of the 12-week withdrawal period.

The student must be able to demonstrate substantial progress toward completing all required work at the time an incomplete grade is requested.

The student must be earning at least a C average in the course at the end of the withdrawal period.

The student must have met the attendance requirements for the course prior to the event that the request is based on.

Work submitted to satisfy an incomplete grade must meet the same standards as other course work.

## **Repeating a Course**

A course may be attempted a maximum of three times (initial enrollment and two repeat attempts). Original work is expected, at the discretion of the faculty member. For credit courses, the last grade (regardless of whether that grade is better or worse) on any course repeated will be the grade used in computing the

cumulative Grade Point Average (GPA) and for determining completion of degree requirements. All grades will remain on the student's record. The repeated course will count only once toward graduation requirements, provided the grade meets requirements.

## Course Substitution Due to Disability

Courses required for degrees granted by Southern Maine Community College are designed to provide a comprehensive education in both general education and in the student's major field of study. In awarding a degree, SMCC is recognizing the satisfactory completion of a set of courses it deems representative of the academic standard it upholds. However, in some limited circumstances, substitution of a required course may be appropriate.

When evidence of a disability precludes successful completion of a course required for the purpose of graduation or certificate completion, despite the provision of academic accommodations and/or auxiliary aids, the student may request a course substitution of the course requirement as an alternative method of meeting the graduation requirement.

Any student who is granted a course substitution must fulfill degree requirements by successfully completing an alternative course or courses as determined by the committee who reviewed the request. A course substitution means that the credit hours for the course are met through an alternative course delivered at SMCC or another accredited higher education institution. A course substitution may not reduce the number of credits needed for degree completion.

The student must:

1. Be registered with the Disability Services Office.
2. Submit a petition (obtained from the Disability Services Office) requesting a course substitution of the requirement as an alternative to meeting the graduation requirement.
3. Office of Disability Services Coordinator will provide a summary of the pertinent disability that affects the students' ability to successfully complete the required course.

Each request will be evaluated and decided on a case-by-case basis. The student's request for a course substitution or waiver will be evaluated by a panel consisting of:

- a. Associate Dean of Academic Affairs
- b. Disability Services representative
- c. Department Chair from the department of the course for which a substitution is being requested
- d. An instructor/course coordinator intimately knowledgeable of the course for which a substitution is being requested
- e. Department Chair of the student's program of study

The Committee will engage in a deliberative process to review the program requirement(s) and consider courses in other disciplines in which the course requirements and objectives may approximate those of the course in question. The Committee must find evidence that the course in question is not an essential component of the student's major/field of study.

If the Committee determines that there is no reasonable substitute for the required course and that waiver of the required course would result in fundamental alteration of the program of study, the request for substitution will not be granted. If the Committee determines that a reasonable substitute does exist, the student will be granted the opportunity to enroll in the approved substituted course. A student must have met all prerequisites for a substituted class in order to enroll.

A record of the process will be created so that others who were not involved in the decision-making process may understand the deliberation, the alternatives considered and the rationale for the final decision. The student will be notified of the committee's decision in writing. The student may appeal a committee decision to the Academic Dean and ADA Compliance Officer in writing within 7 business days.

## Midterm Grades

To help students monitor their academic performance, faculty will submit midterm grades at the 60% point in the semester (Week 10). Midterm grades provide an evaluation of academic performance while there is still

time for the student to improve their grade or withdraw from the course. Midterm grades provide no guarantee of either passing or failing grades at the end of the semester. The grades do not factor into grade point average or credits earned or appear on academic transcripts.

## Dean's List

Students completing a minimum of 9 credit hours in courses graded A, B, or C, or P with a term grade point average (GPA) of at least 3.00 are named to the semester's Dean's List, provided that no grade lower than C was earned ***in any course that semester*** and the student is not on probation. Grades lower than C include C-, D+, D, F, W, NS, AF, and I. Only courses numbered 100 or higher are considered for Dean's List. Students who have asked to be excluded from the College's directory information, by law, cannot be included on the Dean's List published online or in local newspapers.

## Academic Standing

The purpose of this policy is to identify students at academic risk and take measures to help return them to successful academic standing and mitigate the financial and academic repercussions of ongoing poor academic performance.

To remain in good academic standing, degree-seeking students must successfully complete 66 percent (66%) or more of the total number of credits attempted with a grade point average (GPA) of 2.0 or higher (see grading system). A course is not successfully completed if the student is assigned a grade of F, AF, I, NS or W. Students who are not in good academic standing will be placed in an academic warning status, placed on probation, or suspended. Academic standing is calculated following each fall and spring semester.

### *Warning*

Degree-seeking students who have attempted less than 9 credits and whose cumulative grade point average falls below 2.00 will be placed in an academic warning status. Students on academic warning may not enroll in more than 15 credits and are encouraged to address study issues and to seek tutoring from the Learning Commons.

### *Probation*

Degree-seeking students are placed on probation if they meet one of the following three criteria:

1. Fail to complete 66% of total credits attempted at SMCC
2. Fail to earn the required semester GPA
  - a. If they've attempted 9-29 credits they must earn at least a 1.79.
  - b. If they've attempted 30 or more credits they must earn at least a 2.00.
3. Fail to earn the required cumulative GPA
  - a. If they've attempted 9-29 credits they must earn at least a 1.79.
  - b. If they've attempted 30 or more credits they must earn at least a 2.00.

Students placed on academic probation may enroll in no more than 13 credits each semester that they are on probation. Academic support, as defined by the College, is mandatory for students on academic probation. Students who remain on academic probation for three consecutive semesters will be suspended.

### *Suspension*

Degree-seeking students are suspended from the college if they meet one or more of the following five criteria:

1. Fail to complete 66% of credits attempted at SMCC and fail to earn the required cumulative or semester GPA
  - a. If they've attempted 9-29 credits they must earn at least a 1.79.
  - b. If they've attempted 30 or more credits they must earn at least a 2.00.
2. Fail to complete 66% of semester credits attempted while on probation\*
3. Fail to earn the required semester GPA while on probation

- a. If they've attempted 9-29 credits they must earn at least a 1.79.
- b. If they've attempted 30 or more credits they must earn at least a 2.00.

4. Fail to earn a cumulative GPA of more than 0.0 after attempting 9 or more credits

5. Remain on academic probation for three consecutive semesters

\*Probationary students who complete 66% or more of the credits attempted in a semester, and attain a semester GPA of greater than 2.0, will not be suspended.

Students who have been suspended from the College may be considered for reinstatement following a minimum of one semester of leave and after providing the College with evidence of increased potential for academic success. An application for reinstatement must be made through the Advising Office and the student must meet with a college representative to develop an academic plan. Reinstated students will be placed on academic probation during the semester they return. While on probation after suspension if either semester GPA or completion rate fall below standards, students are academically suspended from the college. If upon returning to the college the student is taking 6-8 credits, the student must attain a minimum 50% completion rate for that semester and a 66% completion rate in subsequent semesters.

### *Academic Standing Factors and Results\**

Total number of credits attempted	GPA (Semester and Cumulative GPA unless otherwise noted)	Completion Rate (cumulative)	Result
0-8	0.00 – 1.99	No minimum	Academic Warning
9 +	0.00 (cumulative)	0	Suspension
9-29	<1.79	>66%	Probation
9-29	>1.79	<66%	Probation
9-29	<1.79	<66	Suspension
30+	<2.00	>66%	Probation
30+	>2.00	<66%	Probation
30+	<2.00	<66%	Suspension

*\*The scenarios above assume prior good academic standing. While on probation, if either semester GPA or completion rate fall below standards, students are suspended.*

## Alternative Credit

### Transfer Credit

Courses in which a student has received a grade of C or better are accepted in transfer from regionally accredited institutions ("C-" grades are not acceptable). There is no limit on the age of courses accepted for transfer credit. Courses must be comparable to those offered at SMCC in order to meet the requirements of the student's program. Transfer is determined by the appropriate academic department and administered by either Admissions (new students) or the Advising Office (current students).

Students seeking an associate degree must complete at least 15 of their credit hours directly through the College. Students seeking a certificate must complete at least 9 of their credit hours directly through the College. A request for transfer credit requires submission of an official transcript from the other college. Transcripts should be on file 30 days prior to the semester for which consideration for transfer credit is to be given. Transcripts from other institutions submitted to SMCC will become the property of the College and will not be reproduced and/or mailed to other institutions. A student's grade point average at SMCC will not reflect grades in courses transferred from other institutions.

Students who wish to transfer credits from SMCC to other colleges should note that the decision to accept credits is determined entirely by the institution to which the student is transferring, although most area colleges readily accept most applicable SMCC credits.

## **Credit by Examination**

### ***College Level Examination Program (CLEP)***

Credit for College Level Examination Program (CLEP) General Exams and selected Subject Exams will be granted in applicable subject area. A minimum acceptable score of “50” is recognized, as recommended by the American Council on Education (ACE), on all exams.

### ***Dantes Subject Standardized Test (DSST)***

Dantes Subject Standardized Tests (DSSTs) are credit-by-examination tests originated by the United States Department of Defense, but open to all learners. For transfer of an applicable course, a minimum acceptable score of “400” is recognized based on the new DSST score scale developed in 2008. For cut score determinations for DSST examinations taken prior to 2008 please see the Registrar’s Office as cut scores vary by subject area.

### ***Advanced Placement (AP)***

For Advanced Placement (AP) Credit, a student will have taken recognized AP examinations during their high school career. Credit is granted for AP exams completed with scores of “3” or higher for which there are comparable courses at SMCC.

### ***International Baccalaureate (IB) Higher Level***

At high schools offering an International Baccalaureate (IB) Program, IB courses culminate in a corresponding IB exam. SMCC recognizes IB achievement by awarding credit in applicable courses to students who score a “5” or above on Higher Level IB exams.

### ***Maine Seal of Biliteracy***

The Seal of Biliteracy is awarded by the Maine Department of Education to graduating seniors to recognize student achievement in language learning. Students who are proficient in English and an additional language are able to earn the Seal of Biliteracy by demonstrating their individual language domain (listening, speaking, reading, and writing) scores on an approved assessment at the intermediate mid proficiency or above.

Southern Maine Community College awards up to eight credits (levels one and two of languages offered at the college or up to eight credits of language electives) for students earning the Maine Seal of Biliteracy. Students must submit their official letter from the Maine Department of Education and their Seal of Biliteracy certificate to be evaluated for credit.

### ***Foreign Language Achievement Testing***

Foreign language achievement testing can assist students in receiving credit for a broad array of languages. Both Brigham Young University (BYU) and New York University (NYU) offer exams in over 60 languages. For BYU language tests, language elective credit (counting toward humanities requirements) will be awarded for scores of “8” or higher. Students taking NYU language tests are awarded 3-6 credits of language electives based on their exam scores. Students Scoring a “12” on an NYU exam will be awarded three credits, while students scoring a “14” on an NYU exam will be awarded six credits.

### ***Challenge Examination***

Students with documented skills, significant prior learning, and the permission of the Department Chair may qualify to sit for challenge exams in selected courses in their programs, if available, as long as none of the other national examinations listed above can demonstrate learning for college credit.

Challenge exams are designed by faculty appropriate to the subject matter, are based on the current set of learning outcomes, are equivalent to comprehensive final examinations, and are unbiased toward students who have not directly participated in the course.

Students must register and pay a challenge exam fee for the course. Exams are limited to one attempt per course, and may not be attempted if a student previously earned credit at the College in that course. Challenge exam credits do not count toward full-time status for financial aid and the Veterans Administration. Where there is a result of “C” or better, the student will be awarded course credit, transcribed as a “P” grade. The exam does not calculate into grade point average.

# Credit through Experience

## *Credential Review*

Students may receive academic credit for some non-credit courses, certifications, licenses, Registered Apprenticeships, etc. gained outside of a higher education setting when it is applicable to a student's program of study. Any type of credential review assessment will require valid proof of learning such as a license, certification, course materials, certifications, or other information. The appropriate subject matter expert will review this documentation of learning as well as utilize the recommendations from the American Council on Education's (ACE) National Guide to College Credit for Workforce Training to determine if credit can be awarded

## *Military Review*

Students may receive credit demonstrated by formal service school training programs and off-duty educational activities in the Armed Forces if it applies to their program of study. Such trainings may include basic training, military service school recommendations by the American Council on Education (ACE), and the U.S. Armed Forces Institute correspondence courses.

Students should request military transcripts either through the Joint Services Transcript or the Community College of the Air Force so these can be reviewed for applicable credit. Students requesting Veteran's Educational Assistance are required to have all previous post-secondary educational experience evaluated in order to be eligible for benefits.

## *Portfolio Review*

When a student has significant prior learning that is applicable to a course required for their degree and no other prior learning assessment method can help demonstrate the learning for college credit, a student will be encouraged to develop a prior learning assessment portfolio. A prior learning portfolio is a written presentation, plus pieces of evidence, assembled and submitted for faculty review of college-level learning equivalent to specific course learning outcomes.

Portfolio review requires that a student show proof of college-level writing credit or be concurrently enrolled in college composition prior to preparing any portfolio for credit. Students file a prior learning application form with the Associate Dean of Academics and pay an assessment fee for the portfolio.

The portfolio is reviewed by faculty with appropriate subject matter expertise to determine if the narrative and evidence of learning outcomes constitutes a grade level of "C" or better for the course. Students are graded on a pass/fail basis, but this does not calculate into grade point average. Submitting a prior learning portfolio does not guarantee credit award.

# Course Delivery

## Honors Program

The Honors Program serves students from every discipline by providing the opportunity to engage in an enriched learning experience at Southern Maine Community College. Honors courses are rigorous academic classes that emphasize critical thinking, writing, research, and self-reflection. The Honors Program also allows students to develop individualized honors options within courses that are not specifically designated as honors courses.

The SMCC Honors Program is open to all students. Students may choose to complete all or only part of the program requirements. Students who complete the Honors Program are recognized at graduation as SMCC Honors Program Scholars. Students who wish to participate in the Honors program should contact the Honors Program Coordinator, Eben Miller (EMiller@smccme.edu).

### *Program Requirements:*

Maintain a 3.30 cumulative GPA

Maintain a minimum "B" in all designated Honors courses.

Complete a combination of four honors courses or honor options.



## Writing Intensive Courses

A number of courses at Southern Maine Community College are designated as writing-intensive, indicated with a “WI” credit type on the official transcript. Courses with this designation require ENGL-100, English Composition, as a prerequisite and include student writing and its improvement as primary course objectives.

## Online Learning

The Distance Learning Program at Southern Maine Community College is an effort to broaden the scope of course content offered via the Internet and to create an environment of creativity and support for faculty members wishing to teach or enhance their courses by offering material online. The ultimate goal of this program is to offer a wide array of individual courses and programs to students enrolled at SMCC who are interested in interactive learning. Currently, there are two degree programs that are available completely online, Business Administration and Liberal Studies. Many courses use the Internet to enhance the traditional classroom education experience. A wide range of disciplines offer courses on-line, which allows both traditional and non-traditional students the opportunity to pursue a postsecondary education that may not have been available because of scheduling or distance-related difficulties.

## Internships/Externships

An Internship places students with a mentor in an on-the-job learning experience. It is practice oriented and requires that students apply prior mastery of theoretical work and basic skills. An Internship should provide mentored apprenticeship experience in a broad range of functions of the career area and is not simply an entry-level job. An internship is usually the culminating experience in the students’ program of study.

Academic credit is based on the number of hours of job experience. Regular work hours are to be maintained. A minimum of 45 clock hours of directed on-the-job time is required for each semester hour of credit; often more time is devoted to the internship than that required for minimum credit. Regular tuition rates are charged based on the amount of credit.

## Practicums

A Practicum places students in a practice learning situation. It provides students with supervised observation of a relevant career or profession through exposure to the functioning of an organization as a participant in its operations. Students are encouraged to relate and interpret their experiences through frequent conferences with a faculty supervisor, projects, and assignments. A practicum is exploratory rather than culminating.

Academic credit is based on the number of hours of experience. A minimum of 45 clock hours of directed work is required for each semester hour credit.

## Field Experience

Some courses provide students with the opportunity to participate in field experiences. Field experiences place students in a learning environment in the field observing and assisting professionals at work with selected tasks as an introduction to the profession.

The instructor in a course that requires such an experience places students in field experiences. Assignments related to the field experience are part of the overall course evaluation.

## Independent Study

A student may request an opportunity for independent study in an area not covered in normal course offerings. All requests must be in writing and have prior approval of the Instructor, Department Chair, and Academic Dean.

## Admissions Policies

Southern Maine Community College uses a multiple measures approach, including transcripts, college-level experience, and available test scores (Accuplacer, SAT, ACT, GED, HISET, CASAS, etc.) for admissions. The purpose of the multiple measures approach is to determine ability to perform college-level work and assess the levels at which students will begin their study. Based upon this review, the College may prescribe developmental courses or limit a student’s enrollment in an effort to enhance that student’s ability to succeed. Students must

show English proficiency through this multiple measures approach, file an application for admission, and submit their proof of high school graduation or equivalent (HiSET, GED, etc.) for acceptance. Applicants to health and technical programs must comply with program-specific entrance requirements and application deadlines.

While the College uses a variety of measures in order to place students in developmentally appropriate courses, use of a single measure is not always accurate or entirely sufficient to measure a student's current academic level. The college reserves the right to require additional testing of a student when it determines, in its sole discretion, that further assessment is required to avoid placing a student at a level that might be detrimental to the student's success.

SMCC maintains a rolling admissions policy for most programs allowing candidates to apply and be considered for acceptance throughout the year. Due to competition for acceptance to some programs, particularly health programs, early application (at least 6 months prior to the fall) is encouraged.

## **Non-Degree Seeking Students**

To enroll in classes as a non-degree student, students should refer to the Academic Calendar for open registration dates. In order to take an English or math course, or a course with an English or math prerequisite, students must take the ACCUPLACER® placement test unless otherwise exempt based on prior college experience or alternate test scores (SAT, ACT, GED, HiSET, CASAS, etc.).

## **Home-Schooled Students**

Home-schooled students must submit all requested documents, and are encouraged to submit official results from the High School Equivalency Test (HiSET) to certify the completion of high school or its equivalent. In lieu of this credential, the College requests a high school transcript with a listing and description of coursework completed and competency level achieved. Home-schooled students applying for financial aid must self-identify as having completed a home school program on the FAFSA.

## **Underage Student Enrollment**

### **I. Introduction**

This policy governs the application, admission and enrollment of persons who are 17 years of age or younger and have not yet graduated from a home, junior or high school ("minor students"). The purpose of this policy is to inform such minor students and their parents or guardians (collectively "parents") of the standards that the College uses in determining the likelihood that the minor students will have a positive and successful experience at the College without undue assistance and attention from the College.

### **II. Purpose**

The purpose of this policy is to provide opportunities for minors, whose intellectual ability and emotional maturity is advanced, demonstrated and documented, to benefit from attending the College without, at the same time, placing an undue burden on the College's normal operations and standard support services.

### **III. Standards**

The following standards and processes apply.

- A. Minor students under age 12 are not, consistent with national standards, permitted to attend.
- B. Minor students age 15 and under require the approval of the Associate Dean of Students, or designee, who will determine level of emotional and intellectual maturity, educational preparation, and motivation to succeed. Such minor students must submit one reference from teachers attesting to emotional and intellectual maturity and ability of the minor student to work independently and successfully in a collegiate environment.
- C. All minor students must meet course prerequisites and corequisites. This may involve taking the College's placement test (ACCUPLACER®: Reading and Sentence Skills for English placement and/or Numerical Math and Elementary Algebra for math placement) or submitting qualifying scores on the

PSAT, SAT, or ACT. Students must place appropriately to satisfy course prerequisites in order to be eligible to take classes.

- D. No minor student is permitted to take developmental courses at the College.
- G. No minor student will be a “matriculated” student and instead will be considered a “dual enrollment” or a “home schooled” student, whichever is applicable. Should a minor student wish to matriculate, the student must complete the application process and petition the Associate Dean. Such petitions will be considered on a case-by-case basis and approved only in extraordinary circumstances.
- H. Federal education law, the Family Educational Rights and Privacy Act (FERPA), governs access to the records of minor students enrolled at the College. Under FERPA, parents DO NOT have the right to access students’ educational records without written consent from the student.

#### **IV. Student Responsibilities**

In addition to the requirements set forth above, all prospective minor students must:

- A. Complete the Southern Maine Community College Assumption of Risk, Release and Liability Waiver Form for Enrollment of Minor Students;
- B. Conduct him/herself as an adult college student in and out of the classroom;
- C. Understand that College courses are conducted with adult content, and that it is the responsibility of the minor student and parent to determine appropriateness of the course;
- D. Follow rules and regulations of the college as noted in the College catalog; and
- E. If approved, register early if they want to get into their desired course(s).

#### **IV. Notice to Faculty**

Pertinent faculty and/or the department chair will be notified via e-mail of each minor student’s enrollment.

#### **V. Questions?**

Questions about the application of this policy may be addressed to the Associate Dean of Academic Affairs at (207)741-5503, the Associate Dean of Curriculum Design and Development at (207)741-5833 and/or the Registration Office at (207)741-5800.

## **International Student Admissions**

SMCC is authorized to provide international students admitted to the College with the I-20 form needed to apply to the U.S. Customs and Immigration for an F-1 student visa. Before the College can create an I-20, the student must satisfy the following admission requirements:

Complete an application.

Submit official high school transcripts for all years attended, and proof of completion of secondary school

Provide a Declaration of Finance form with supporting materials, which includes an affidavit of support or notarized letter from a sponsor documenting that he/she will be responsible for the student’s educational and living expenses for one year and/or an official bank statement showing sufficient funds in a bank account to cover total education and living expenses for one year. This amount must be a minimum of \$21,988.00 in U.S. dollars

Submit TOEFL with a score of 500 or better in paper version or 61 or better in the internet-based version, or take the ACCUPLACER® placement exam to demonstrate English language proficiency. Students whose first language is not English must take the Test of English as a Foreign Language (TOEFL) at least six months prior to the intended term of enrollment. Test scores more than two years old will not be accepted. Information and application forms may be obtained by writing to TOEFL, P.O. Box 899, Princeton, New Jersey 08541 or by visiting the TOEFL website at <http://www.toefl.org>.

All documents submitted must be original. If documents are not in English, an official translation must be attached. Please have all documents, such as high school transcripts, TOEFL scores, Declaration of Finance forms, and other related documents sent to the Enrollment Services Center at Southern Maine Community College.

Students attending on an F-1 visa must enroll in a degree program and attend full-time fall and spring semesters. International applicants must submit all required application materials by July 1 for the next September semester, November 20 for the next January semester.

If applying from within the U.S., the applicant who is unable to provide TOEFL scores must have language ability assessed through the ACCUPLACER® placement test administered at SMCC.

## Readmission

Students in good standing who have withdrawn from Southern Maine Community College voluntarily and who wish to return must submit a written request. If the period of absence is less than three academic years, withdrawn students in good standing may complete a request for readmission form available in the Registration Office. Students in competitive health science programs must follow the program-specific readmission policies outlined in their program handbooks as necessary. If a student wishes to return after an absence of more than 3 years, he/she must reapply to the college.

Students are expected to complete program requirements listed in the catalog in effect for the year they are officially admitted to the college. If readmitted after more than one year, students must meet the academic degree requirements listed in the catalog under which they are readmitted. In the case of readmission, there is no guarantee that the student's desired program will be available.

Students who have been dismissed from the college for academic or disciplinary reasons and who wish to return should refer to the section in the catalog titled "Reinstatement from Suspension".

### *Readmission of Service Members*

Students leaving the college for voluntary or involuntary service in the armed forces, including service by a member of the National Guard or Reserve on active duty, active duty for training, or full-time National Guard duty under federal authority, for a period of more than 30 consecutive days under a call or order to active duty of more than 30 consecutive days will be readmitted with the same academic status as they had when last attending the school or accepted for admission to the school.

The service member must give oral or written notice of such service to the Registrar or Director of Military and Veteran Student Services as far in advance as is reasonable under the circumstances. The service member must also give oral or written notice of their intent to return to the school within three years after the completion of the period of service. A student who is hospitalized or convalescing due to an illness or injury incurred or aggravated during the performance of service must notify the school within two years after the end of the period needed for recovery from the illness or injury. A student who fails to apply for readmission within these periods does not automatically forfeit eligibility for readmission but is subject to the school's established readmission policy as listed above.

The cumulative length of the absence and of all previous absences from the school for military service may not exceed five years. Only the time the student spends actually performing service is counted

Service members returning under these aforementioned criteria will be readmitted with the same academic status as follows:

1. To the same program to which the student was last admitted or, if that exact program is no longer offered, the program that is most similar to that program, unless they choose a different program.
2. At the same enrollment status, unless the student wants to enroll at a different enrollment status.
3. With the same number of credit hours previously completed, unless the student is readmitted to a different program to which the completed credit hours are not transferable.
4. With the same academic standing (e.g., with the same satisfactory academic progress status) the student previously had.

In cases where the College may determine that the student is not prepared to resume the program with the same academic status at the point where she left off or will not be able to complete the program, the school will

make reasonable efforts (those that do not place an undue hardship on the institution) to help them become prepared or to enable them to complete the program.

If there are no reasonable efforts possible to prepare them to resume the program at the point where they left off or to enable them to complete the program, or if after reasonable efforts are taken the student is not prepared to resume or complete the program, then readmission to that program will not be possible. Students would still have the ability to seek readmission to other degree programs per the college's established readmission policy above.

## Immunization Requirements

All matriculated students at SMCC must comply with all applicable immunization requirements as determined by Maine State Law.

### *Immunization Requirements (Non Health Science majors)*

Maine state law requires that all Southern Maine Community College students who attend full-time, or who attend less than full-time and is a candidate for a degree or certificate, must furnish proof of immunization against measles, mumps, rubella and diphtheria/tetanus. The law does not apply to students enrolled in distance education programs and who do not physically attend any classes or programs at a college campus, center, or site. This law also does not require students born before January 1, 1957 to provide proof of measles, mumps and rubella. Students who are covered by the law **MUST** have a physician, nurse, or other health care provider complete and sign SMCC's immunization verification form and return it or present a copy of an Immunization Certificate in its place to the Advising Office **before classes begin**.

**WARNING:** Students who choose to waive the immunization verification requirement by completing one of the exemption sections on the Immunization Verification Form and who do not provide proof of immunity will be excluded from taking classes or participating in activities during the danger period (15-23 days) if an outbreak of measles, mumps, rubella or diphtheria occurs.

### *Immunization Requirements (Health Science majors)*

In addition to the immunization requirement listed above, students accepted to a Health Science program (Cardiovascular, etc Technology, Medical Assisting, Nursing, Paramedicine, Radiography, and Respiratory) have **additional requirements** such as immunizations, background checks, and drug screening. All requirements must be submitted for review to American DataBank. Please visit [www.smcme.edu/ADB](http://www.smcme.edu/ADB) for details. Students who do not meet the requirements may not attend classes.

Health Science immunizations include:

- Proof of immunity to Hepatitis B by blood titer.

- Two doses of MMR vaccine OR proof of immunity by blood titer.

- Proof of immunity by blood titer to Varicella (Chicken Pox) OR two doses of the Varicella Vaccine if non-immune.

- Tetanus/Diphtheria immunization current within the past ten years.

- Negative PPD result (Tuberculosis). Annually updated results are required.

Please note, upon entry of immunization information into your student record, the documentation you or your health care provider submits will be confidentially destroyed. Please keep a copy for your personal records.

## Special Conditions of Admission, Enrollment, and Participation

### *A. Introduction*

The colleges of the MCCS offer education and services to students under a process of modified open admissions. Typically, this process enables those students who meet the stated academic criteria for program or college admissions to attend and access the full offerings of the college. In some circumstances, however, a student's personal experiences may affect a student's admission, enrollment or participation in a college's various offerings. The purpose of this policy is to express the authority of the colleges to handle such circumstances.

### *B. Definitions*

For purposes of this policy, the following terms have the following meanings.

“Admission” means entry into a college, off-campus site, program or course;

“Circumstances warranting special conditions” or “special circumstances” mean those acts that raise reasonable concerns for community safety and community order. They typically involve prior personal misconduct that demonstrates a diminished reliability to comply with the reasonable rules and regulations of the college, and/or a greater likelihood of risk of harm to persons or property. Such circumstances often include, but are not limited to, a:

Criminal conviction;

Condition of bail, probation, restraining order or other judicial or administrative order;

Pending arrest, indictment or other criminal charge;

Report or recommendation of a law enforcement, probation or parole officer that relates to the risks of harm or disruption that a student may present;

Report or recommendation of a mental health professional that relates to the risks of harm or disruption that a student may present; or

Civil litigation whose allegations raise like concerns for a college.

A “condition” can include either exclusion, restriction or both.

“Enrollment” includes enrollment in on-campus and online courses;

“Participation” means involvement in any college service or activity including, for example, access to housing, financial aid, athletics or extra-curricular activities, as well as a general freedom of movement around campus.

“Student” includes an applicant for admission, an admitted student, and an enrolled student.

### *C. Completed vs. Evolving Matters*

This policy applies both to those special circumstances that have been completed and those that are still evolving. For example, this policy applies to instances when a student has been criminally convicted and to instances when a student is facing criminal charges not yet proven. While this policy recognizes the presumption of innocence that attaches to the latter, this policy also recognizes, and adopts here the equivalent of, the prudent interim approach of courts in imposing reasonable restrictions on the individual until the process for finding guilt, innocence or other disposition is complete.

### *D. Coordination of this Policy with the Student Code of Conduct*

When the student’s underlying personal conduct at issue is subject to the jurisdiction of the MCCS Student Code of Conduct (for example, the underlying misconduct at issue occurs on college property or is related to a college event, and is also subject to criminal prosecution), the procedures of that Code and the substantive guidance of this policy shall be used. When the underlying conduct is not subject to that Code (for example, the underlying misconduct at issue does not occur on college property or in relation to a college event but is still subject to criminal prosecution), the procedures and substantive guidance of this policy shall be used.

### *E. Authority to Exclude or Limit*

A college may exclude a student or limit a student’s admission, enrollment or participation to the extent that a student’s special circumstance diminishes the student’s:

Likelihood of success in a program for which admission is competitive;

Ability to be placed in a required internship or clinical experience;

Ability to qualify for a professional license after graduation;

Ability to qualify for financial aid, especially federal financial aid if there is a drug-related conviction;

Compatibility for placement in a college residence hall;

Trustworthiness for on-campus employment;

Reliability to comply with the reasonable rules and regulations of the college; and  
Reliability not to present a greater likelihood of risk of harm to persons or property.

### *F. Determining Whether to Exclude or Limit a Student*

In determining whether to apply any conditions to a student with a special circumstance, a college should:

Identify the specific nature of the student's special circumstance. For example, a college should consider the following:

- Whether the conduct underlying the special circumstance was admitted or proven, or is not yet admitted or proven;
- When and how recently the conduct was committed or alleged to be committed, and whether the student was a juvenile or adult at the time;
- Whether the conduct was against a person or property; violent or passive; and intentional, reckless, negligent or grossly negligent;
- Whether the harm actually or allegedly caused was minor and temporary or serious and permanent;
- Whether the student acknowledged the student's responsibility by plea, or contested by trial and/or appeal;
- What punishment, if any, was imposed on the student; whether that punishment was satisfactorily completed; whether the student is on bail, probation or parole, and, if so, the terms and conditions thereof; and the perceived degree to which the student has been rehabilitated; and
- Any other factor that is relevant and material.

Provide the student with an opportunity to be heard before making a decision;

Consult, as appropriate, with the MCCS General Counsel;

Weigh the student's circumstances against the college's interests in, for example, those issues addressed in *Section E* above and determine the rational relationship between the facts of a particular student's case and the college's interests in excluding or limiting the student; and

Impose those conditions that by amount, scope and duration are reasonable under the particular circumstances.

## TUITION AND FEES

### Cost of Attendance

#### Tuition and Fees

The Board of Trustees sets tuition annually for all Maine community colleges. The financial requirements of the College, changing costs, state and legislative action, and other matters may require an adjustment of these charges and expenses. The College reserves the right to make such adjustments to the estimated charges and expenses as may, from time to time, be necessary. All students (or potential students) acknowledge this reservation by the submission of an application for admission or by registration.

#### *Tuition*

Maine Residents: \$96.00 per credit hour

Non-Residents: \$192.00 per credit hour

New England Regional: \$144.00 per credit hour, qualified students from other New England States\*\*

Senior Citizens: pay fees only, age 65+, Maine Residents\*

\*must provide proof of age and residence to Bursar

\*\*refer to the catalog entry New England Regional Student Program

#### *Fees*

**Technology/Lab Program Fee:** (20% of the Resident Tuition rate, as approved by Board of Trustees of the MCCS), \$19.20 per credit hour. This fee covers costs of educational supplies and other consumable materials that are unique for occupationally oriented courses frequently involving technical equipment or labs.

**Course Fee:** (10% of the Resident Tuition rate, as approved by the Board of Trustees of the MCCS), \$9.60 per credit hour. This fee covers the cost of educational supplies and other consumable materials for all other non-technical courses in programs of study for which the student has registered.

**Comprehensive Fee:** (10% of the Resident Tuition rate, as approved by the Board of Trustees of the MCCS), \$9.60 per credit hour. This fee supports student services including personal counseling, intercollegiate sports, registration, and career and transfer services. The fee does not cover technology, orientation, graduation, lab, or liability insurance fees.

**Document Processing Fee:** \$3.00 per credit hour. This fee offsets costs associated with lifetime print transcript services and maintenance of student records.

**Accident Insurance:** \$16.00 per year. This is a fee charged to all students. It is an accident only plan. It can be used as a primary insurance for uninsured students or as a secondary insurance for insured students who have a deductible or co-pay.

**Information Access Fee:** \$2.50 per credit hour. This fee supports computer services for students, provides all students with access to on-campus Wi-Fi and e-mail, and helps to fund online library resources.

**Academic Services Fee:** \$1.00 per credit hour. This fee defrays costs associated with providing tutoring and academic advising, new student orientation, graduation and other support services.

**Room:** This fee is assessed only to students residing in an on-campus dormitory room and covers costs associated with residential life. **South Portland Campus: Fall or Spring Semester** Single room \$3,700.00 per student per semester. Double room - \$3,500.00 per student per semester. Triple/Quad Room - \$3,300 per student per semester.

**Midcoast Campus – Orion Hall: Fall or Spring Semester:** Single room \$3,700.00 per student per semester. Double room - \$3,500.00 per student per semester.

**Board:** This fee is assessed only to students residing in an on-campus dormitory room and covers costs associated with meals provided in the dining hall.

**South Portland Campus:** \$1,825.00 per student per semester, not offered during the summer semester.

**Midcoast Campus – Orion Hall:** Board is not available for students who are housed at our Midcoast campus. Residents and students have access to food and beverages that can be purchased by cash, credit card, or Beacon Bucks at the Landing Café.

**Cable/Internet Fee:** \$144.00 per semester per student for the Fall or Spring semester, \$108.00 for the Summer semester. This fee is assessed only to students residing in an on-campus dormitory room and covers costs associated with providing cable television service and internet computer service to the residents of a room.

**Room Deposit:** \$100.00 per applicant per year. This fee is used as a depository for assessments against damages to any area of the building through the remainder of an academic year that a student lives in a campus residence hall. This fee is refunded to the student after the end of the academic year less any assessed damage fees.

**Student Activity Fee:** \$25.00 per semester, excluding Summer Semesters. The Student Activity Fee, under the direction of the Dean of Student Life, supports a variety of activities, programs, events and student organizations at SMCC. These include the SMCC Student Senate and sanctioned student organizations on the South Portland and Midcoast campuses, as well as BBQs, films, speakers, trips, dances, concerts and other activities. The Student Activity Fee also supports fitness and recreational programming, health and wellness programs, club sports, free newspapers, student leadership development and other topics of interest throughout the academic year.



**Liability Insurance Fees:** \$15.00 per year for Level 1 course with client risk interaction, or \$61.00 per year for Level 2 course with client risk interaction. These premium fees provide mandatory malpractice liability insurance to students with courses in higher risk specialties involving patient or child contact.

**Parking and Transportation Fee:** \$40.00 per Fall or Spring Semester and \$15.00 per Summer semester to students who are taking classes at the South Portland or Midcoast campuses. Online courses and other offsite locations are exempt from this fee. This fee helps cover the costs for issuing parking permits and enforcing the parking policy on both the South Portland and Midcoast campuses, as well as covering the costs associated with maintaining campus roads, parking lots and sidewalks, and city bus services to the campuses. Student vehicles on campus must display a current college parking permit. Parking permit applications are available at the SMCC Security Office. Additional parking permits are available for \$5.00 each.

### **Testing Fees**

**AHA ACLS Fee:** \$170.00 – This fee is a test fee for Advanced Cardiovascular Life Support certification from the American Heart Association, assessed to students enrolled in the EMSP 175, EMSP 220, RESP 210, and CARD 175 courses.

**AHA CPR BLS Fee:** \$25.00 – This fee is a test fee for CPR certification from the American Heart Association, assessed to students enrolled in the EMST 110, EMST 125, EMST 200, EMSP 150, CARD 125, FIRE 105, MDAS 160 and RESP 125 courses.

**AHA PALS Fee:** \$75.00 – This fee is a test fee for Pediatric Advanced Life Support certification from the American Heart Association, assessed to students enrolled in the EMSP 235 and RESP 275 courses.

**AMLS Fee:** \$15.00 – This fee is for certification for the medical emergencies EMSP 201 course.

**Credentialing Exam Fee:** \$125.00 – Covers registration fee for the credentialing exam assessed to students in the MDAS 275 course.

**Difficult Airway Program Fee:** \$75.00 – This fee goes towards the certification that is issued, as well as the related course materials for the EMSP 115 and EMST 200 courses.

**EMS Fee:** \$125.00 – Emergency Medical Technician - Basic Test Fee for Practical State Exam, this fee is assessed per attempt.

**FIDSAP:** \$226.00 – This fee is for special software required for students in the EMSP 115 course.

**FIDSAP – AEMT Fee:** \$115.00 – This fee is for the AEMT certification, assessed to students in the EMST 200 course taking the final certification exam.

**Nursing Test Fee:** \$260-275 – This fee is a semester based fee, assessed to Nursing students enrolled in the NURS 111, NURS 125, NURS 175, NURS 225 and NURS 275 courses.

**PAR Fee:** \$250.00 – Paramedic Test Fee for Practical State Exam, this fee is assessed per attempt.

**PHTLS Fee:** \$15.00 – This fee is a test fee for Pre-Hospital Trauma Life Support certification from the National Association of EMT's (NAEMT), assessed to students enrolled in the EMSP 205 and EMST 200 courses.

**Sports Coaching Fee:** \$35.00 – This fee is a test fee for the American Coaches Effectiveness Program (ACEP) certification, this fee is assessed to students enrolled in the PSYC 230 course.

**Material Fee:** \$250.00- This fee is charged to all students enrolled in FIRE 106

All on-campus residence hall students are required to purchase a meal plan. The Dining Hall serves three meals per day Monday through Friday and two meals per day on the weekend. Sandwiches, soups, salads, bottled drinks and tea/coffee are also available in the Café located in the Campus Center, which is open most of the day

Monday through Friday. Unused meals or flex dollars purchased as part of a meal plan are forfeited if not used in the semester in which they were purchased.

*Beacon Bucks (for food purchases in the Dining Hall and Café)*

All students may purchase declining balance/debit cards in any denomination, with a minimum initial payment of \$50. Beacon Bucks remain active as long as the student remains continuously enrolled (including summer) and then are forfeited **if not enrolled in the summer semester**

**Statement of Financial Responsibility**

By enrolling in classes at Southern Maine Community College, students agree to pay all charges incurred as a result of that enrollment, including any late penalties assessed due to failure to pay. Students should also understand that they will be responsible for any collection costs assessed should the services of a collection agency be required.

Students are responsible for the status of their accounts. Please contact the Student Billing Office immediately if you have any questions or concerns about your account or if there have been any changes in any of your payment arrangements. Call 207-741-5530 or email [mbursar@smccte.edu](mailto:mbursar@smccte.edu).

Failure to meet financial obligations by the due date each semester may result in having your class registrations cancelled. In addition, all grades, transcripts, certificates, diplomas, and the ability to register for upcoming semester classes will not be released for individual accounts with a balance of over \$500. Students with balances over \$500 have the opportunity to negotiate a payment plan with the Student Accounts office for the release of their transcripts and academic credentials.

Southern Maine Community College is one of the seven colleges of the Maine Community College System (MCCS). As such, SMCC adheres to all policies set forth by the MCCS, including the following Student Debts policy:

“It is the policy of the Maine Community College System to release all official credentials, including grade reports, transcripts, diplomas and recommendations when all student accounts, charges, fees and fines, including any late charges, are paid in full or otherwise satisfied; or, an approved forgiveness or repayment arrangement is implemented; or, the student account balance is \$500 or less. It is also the System policy to withhold official credentials from students who have defaulted on a governmental loan. Students who have delinquent accounts can be assessed late fees and not be allowed to register for classes until all financial obligations are met. The System further reserves the right to cancel a student’s registration and disenroll a student for non-payment of current semester charges or other financial obligations past due. Students can have their delinquent accounts referred to Maine Revenue Services for taxation refund withholding, and/or to an agency for collection. All college costs associated with such actions and fees, including attorneys’ fees, may also be assessed to the student.

A debt to one community college is construed as a debt to the System. Accordingly, a person who owes a debt to one community college may be prevented from enrolling at another community college until that debt is addressed to the satisfaction of the college to whom the debt is owed.”

**Refund of Charges**

For purposes of this section:

“Official withdrawal” means the student’s timely and complete execution of documents required by the college to accomplish formal removal from, as appropriate to the context, the college or its course(s), residence and /or meal plan.

“Unofficial withdrawal” means any absence without the notice required for an official withdrawal.

*Refund Policy - Tuition and Course Fees*

ACTION	REFUND
Official drop prior to the end of the first 6 business days of the start of the semester (Note: for the summer semester this is the first 5 days)	100% of each dropped class

Official withdrawal during business day 7 through 10 of the semester (note: not available during the summer semester)	50% of each dropped class
Official withdrawal after the first 10 business days of the semester	0% of each dropped class
Non-attendance without official withdrawal or drop of a class at any time	0% of each dropped class
Course canceled by college	100% of canceled course

### *Refund Policy - Room/M meal Plan/Cable and Internet Fee*

TIMEFRAME for PERIOD OF ATTENDANCE OR USE	REFUND
College residence canceled by college	100% of room and board charges
Official withdrawal from a college residence prior to the:	
Semester's first day of classes	100% of room and board charges
End of the semester's second week of classes	80% of room and board charges
End of the semester's third week of classes	60% of room and board charges
End of the semester's fourth week of classes	40% of room and board charges
End of the semester's fifth week of classes	20% of room and board charges
Official withdrawal from a college residence after the end of the semester's fifth week of classes	0% of room and board charges
Unofficial withdrawal from a college residence at any time	0% of room and board charges

## Native American Tuition Waiver Policy

Southern Maine Community College waives all or a portion of tuition charges for matriculated students who are Maine residents and document their membership or ancestry in a Maine-based Native American tribe.

**Eligibility Criteria:** To qualify for an SMCC Native American tuition waiver, the student must meet the following eligibility criteria:

- 1. Maine Residency:** The student must meet SMCC's criteria to qualify for in-state tuition charges.
- 2. Enrollment:** The student must be accepted into a degree or certificate program and enrolled in credit-bearing courses at SMCC.
- 3. Financial Aid Application:** Applicants for the Native American Waiver must complete the Free Application for Federal Student Aid (fafa.gov) annually as soon as possible after October 1, and provide the documents required for determining aid eligibility. Applicants must meet the basic eligibility criteria for receiving Federal student aid.
- 4. Tribal Membership or Ancestry:** The student must provide documentation that s/he is included on the current tribal census. If the student is not included on the current tribal census, the student must provide documentation that at least one parent or grandparent is included on the current tribal census of the Passamaquoddy Tribe; the Penobscot Nation; the Houlton Band of Maliseet; the Aroostook Band of Micmac; or a state, federal, or provincial North American Indian Tribe, or held a band number of the Maliseet or Micmac Tribes. This documentation shall include a completed "SMCC Native American Tuition Waiver" application sent directly from the pertinent tribal enrollment office to the College.
- 5. SMCC Native American Waiver Application:** The student must complete and submit a "SMCC Native American Tuition Waiver Application" to the SMCC Financial Aid Office. Once eligibility is established, reapplication is not necessary.

**Waiver Amount:** The waiver is equal to in-state tuition charged to the student in a semester less any other grant aid awarded to the student. The waiver may not, either alone or in combination with other aid received, exceed the total cost of attendance as determined by federal standards and the College's Financial Aid Office. The tuition waiver does not apply to room or board charges, book or tool costs, academic or program fees, or other student fees.

**Duration of Eligibility:** The waiver is also limited to the number of credit hours required for graduation from the degree program in which the student first matriculates. Eligibility for the waiver ends after the student has earned one degree. The waiver can only be applied to a maximum of 90 credits at SMCC, regardless of whether

or not the student has earned a credential. The student must maintain satisfactory academic progress as defined by federal and college guidelines, and otherwise remain in good academic and disciplinary standing.

**Transferring:** Students transferring between Maine’s Community Colleges must apply for a new waiver from the new college.

## **Residency Policy**

A student is classified as a Maine resident or non-resident for tuition purposes at the time of admission to the college. No student, once having been identified as a non-resident student, is eligible for resident classification unless he/she has established a primary residence in Maine for at least the 12 consecutive months immediately prior to admission for the term for which resident status is claimed. For purposes of this policy, “primary residence” means the student’s primary physical presence, degree of settled connections, and sincere regard for that domicile as home.

All factors and circumstances relating to the determination of residency are considered on a case-by-case basis. The burden will be on the student to prove primary residency in Maine. Evidence of such residence is documented through two forms of proof including but not limited to a driver’s license, voter registration, marriage license or domestic registration, signed residential lease, mortgage, property taxes, utility bills, state or federal income tax filing, or letter on letterhead from a nonprofit entity or government agency attesting that the student resides in Maine. Please note that all forms of proof must be dated 12 months prior to the add/drop period for the term for which resident status is claimed.

The domicile of a student who is claimed as a dependent for tax purposes follows that of the parents or legally appointed guardian of the student. If a student classified as a non-resident marries a person who is domiciled in Maine and asserts the establishment of a domicile in Maine, the student shall be presumed to be eligible for resident status at such student’s next registration. If a current member of the United States Armed Forces, a veteran of the United States Armed Forces who has been honorably discharged, or a dependent thereof is enrolled in a program of education and uses Chapter 30, Chapter 33, or Fry benefits, that member, veteran, or dependent is eligible for in-state tuition rates, regardless of their state of residence.

In-state tuition is not available to anyone who holds a non-immigrant U.S. visa. If an individual is not a domiciliary of the United States, they cannot be a domiciliary of the State of Maine.

## **New England Regional Student Program**

Southern Maine Community College participates in the New England Regional Student Program (NERSP). This program allows a limited number of out-of-state students to attend SMCC at a rate of 150% of in-state tuition if they enter an approved course of study that is not available in their state of residence. Various restrictions and exceptions apply.

## **Financial Aid**

Southern Maine Community College offers federal, state, and institutional aid to eligible students and encourages all students to complete the Free Application for Federal Student Aid ([studentaid.gov](http://studentaid.gov)) to be considered for grants, scholarships, loans, and on-campus student employment. Additional details can be found on the SMCC website at: [www.smccme.edu/financialaid](http://www.smccme.edu/financialaid)

The FAFSA can be filed at any time during the academic year; however, SMCC recommends that students file the FAFSA by May 1, which is the filing deadline for the Maine State Grant.

Students with questions concerning any aspect of student financial assistance are strongly encouraged to contact the SMCC Student Financial Aid Office at 207-741-5518.

## **COLLEGE PARTNERSHIPS and ARTICULATION**

### **Partnerships with Baccalaureate Institutions**

Many SMCC graduates wish to continue their education and have successfully transferred to a wide range of baccalaureate degree granting colleges. SMCC students frequently can transfer all or most of their credits from their associate degree programs, but ultimately the decision to accept or deny transfer credit lies solely with the transfer destination.

For a current list of articulation agreements with Baccalaureate institutions, please visit the SMCC webpage at [www.smccme.edu](http://www.smccme.edu) and click on the "Transfer From SMCC" link under "Admissions and Financial Aid."

## AdvantageU

Participation in the AdvantageU program streamlines admission to University of Maine System (UMS) institutions for Maine Community College students graduating with an associate in arts degree in liberal studies. Benefits of the agreement for Southern Maine Community College (SMCC) students include:

- Guaranteed admission to a UMS University, when G.P.A. admission requirements are met;
- Dual advising to ensure maximum transferability of community college courses;
- Seamless and simplified transition from SMCC to an UMS University;
- Waiver of UMS application fees

Upon a student's admission into the Liberal Studies Major at SMCC and prior to completion of 30 credits, she/he may request to join the AdvantageU program. AdvantageU participants are assured a place at a UMS University once they have graduated from SMCC with an Associate of Arts degree in Liberal Studies and have met the grade point average admission requirements for the University/major of their choice.

## ConnectEd Pathways

Participation in the ConnectEd Pathways program streamlines the admission and transfer of SMCC students into the University of Southern Maine (USM). SMCC students are eligible for ConnectEd participation if they complete the ConnectEd Pathways application form for a qualified program prior to the end of their first semester of enrollment and have earned less than 24 credits of college work if a transfer student. Eligible students must then complete a degree covered by a jointly approved two-plus-two articulation agreement with USM, earn a grade of C or higher in each course applied to the major, attain an overall grade point average of 2.0, and meet USM's standards of conduct. Benefits of the agreement for Southern Maine Community College (SMCC) students include:

- Access to designated USM advisors to assist with the transition to USM including on-boarding services and activities like orientation sessions and advising services;
- Seamless and simplified transition from SMCC to the University of Southern Maine;
- Waiver of University of Southern Maine application fees

## Greater Portland Alliance of Colleges and Universities

Southern Maine Community College belongs to the Greater Portland Alliance of Colleges and Universities (GPACU), a higher education consortium that broadens learning opportunities. Through valuable services such as cross-registration and shared library borrowing, GPACU benefits students, staff, and teachers; expands intercollegiate cooperation; and enhances the cultural, educational, and economic quality of life in Greater Portland.

Cross registration allows you to take courses toward your degree from one of the other GPACU member colleges listed below.

### *GPACU Member Schools*

- Maine College of Art
- Saint Joseph's College
- Southern Maine Community College
- University of New England
- University of Southern Maine

## GPACU Guidelines:

Students who have not completed 12 credits at their home institution are not eligible to take courses through GPACU. Students must meet all course prerequisites for the host institution. Only Fall and Spring semester courses are eligible for cross-registration. No cross-registration is allowed during Summer or Winter terms. The intent of the Alliance is to expose you to learning opportunities that are not available at your home institution. Courses equivalent to those offered by Southern Maine Community College are not eligible to be taken at other GPACU schools regardless of transferability, availability, or schedule conflicts. Selected courses must meet an outstanding requirement in the student's current program requirements at Southern Maine Community College. Courses toward a future major or interest only courses are not covered under GPACU. Students are limited to (3) external courses in a single academic year and five (5) total cross-registrations throughout the duration of their time at SMCC. Any graded course including No Show (NS), Withdrawal (W), or Failure (AF or F), will count as one cross-registration. A course with separate credit for a corresponding lab will count as one cross-registration. Students must take the majority of credits at their home institution during any semester they are cross-registered. No GPACU requests will be accepted after SMCC's add/drop period, regardless of the add/drop deadline for the host institution, which must also be met.

## Partnerships with Secondary Schools

Southern Maine Community College works with high schools and regional centers of technology to provide college exploration experiences for students, improve career guidance, link secondary and post-secondary curricula, and help prepare students for college. These goals are addressed as follows:

**College Exploration:** Secondary educators and their students visit the SMCC campus to expose students to college life. The experience is tailored to the grade level, needs of the visitors, and availability of SMCC personnel. They may include observing college students in action, brief meetings with faculty, touring the campus, and eating in the Dining Hall.

**Articulation Agreements:** Secondary teachers in high schools and regional centers of technology discuss what they teach with Community College faculty. When the high school course mirrors the college course, the educators form an arrangement called an articulation agreement. This allows students to earn free college credit while in high school that can be applied toward a program of study at SMCC. Credit is awarded to students who earn a B (85) or better, and meet admission standards for the college. These students can apply articulated credits from high school as if they were college credits. The credits appear on the SMCC transcript. Articulation agreements save students both money and time when attending college. Instead of repeating an entry-level course that the student mastered in high school, the student can waive that course and study at a more advanced level.

**College Readiness:** Students may take advantage of one of our Dual Enrollment options:

- SMCC partners with area high schools and CTE centers to offer Concurrent Dual Enrollment courses. These courses are taught by approved high school teachers according to SMCC course syllabi in the high school classroom to qualified students. Students gain SMCC college credit upon successful completion of the course. Tuition and fees are waived. High school students should inquiry of their Guidance Counselor for availability of these courses.
- Students may seek Dual Enrollment via SMCC's OnCourse for College program. Qualified high school juniors and seniors take courses on SMCC's campus and satellite sites with tuition/fees waived. SMCC college credit is awarded and may apply towards high school graduation as determined by high school guidance departments. Detailed information is provided on our website.

## Secondary School Articulation

SMCC currently has numerous articulation agreements with area high schools and regional centers of technology. To take advantage of these:

Schools must have a written, signed agreement with the College.

Students must earn an 85 (B) in the articulated class.

Students must enter SMCC within 15 months of high school graduation.

Students must submit Articulation Credit Request forms (obtained from high school/CTE guidance/student services office) to request credits by July 1 prior to Fall admission.

Students must submit the Competency Checklist completed by their CTE or high school instructor.

Students must, in some cases, pass SMCC's challenge examination usually administered at the high school or submit a portfolio of "best works".

## *Secondary School Articulation Agreements*

### **Capital Area Technical Center\***

AUTO-101 Intro to Automotive Technology  
AUTO-102 Automotive Maintenance and Light Repair  
AUTO-111 Steering and Suspension I  
AUTO-116 Brakes I  
AUTO-155 Electricity and Electronics  
HLTH-105 Medical Terminology

### **Hancock County Technical Center\***

CULA-103 ServSafe®

### **Huot Technical Center, NH\***

ACCT-105 Financial Accounting  
AEDD-100 Print Reading  
AEDD-105 CAD Graphics  
AUTO-101 Intro to Automotive Technology  
AUTO-102 Automotive Maintenance and Light Repair  
CIUS-105 Introduction to Criminal Justice  
CNMS-111 Digital Foundations  
CNMS-120 Digital Art I  
CULA-103 ServSafe®  
HLTH-105 Medical Terminology  
MACH-102 Intro to Precision Machining: Lathes  
OSHA-120 Construction Safety

### **Lake Region Vocational Center\***

AUTO-101 Intro to Automotive Technology  
AUTO-102 Automotive Maintenance and Light Repair  
AUTO-111 Steering and Suspension I  
AUTO-116 Brakes I  
AUTO-155 Electricity and Electronics

### **Portland Arts and Technology High School\***

CONS-105 Tool Safety  
OSHA-120 Construction Safety

### **Portsmouth Career and Technical Center, NH\***

AEDD-100 Print Reading  
AEDD-105 CAD Graphics  
AUTO-101 Intro to Automotive Technology  
AUTO-102 Automotive Maintenance and Light Repair  
AUTO-111 Steering and Suspension I  
AUTO-116 Brakes I  
AUTO-155 Electricity and Electronics  
FIGS-102 Intro to Health Care Professions

HLTH-100 Introduction to Health Sciences  
HLTH-105 Medical Terminology  
WELD-100 Intro to Welding

### **Sanford Regional Technical Center**

AEDD-100 Print Reading  
AEDD-105 CAD Graphics  
AUTO-101 Intro to Automotive Technology  
AUTO-102 Automotive Maintenance and Light Repair  
MACH-105 Basic Machine Theory  
MACH-106 Basic Machine Lab

### **Shawsheen Valley Technical High School, MA**

MACH-102 Intro to Precision Machining: Lathe  
MACH-103 Intro to Precision Machining: Mills/Grinding

### **Somersworth Career and Technical Center, NH**

CNMS-111 Digital Media  
CNMS-135 Graphic Design I

### **St. John Valley Technology Center**

AUTO-101 Intro to Automotive Technology  
AUTO-102 Automotive Maintenance and Light Repair  
HLTH-105 Medical Terminology

### **Whittier Regional Vocational Technical Center, MA\***

AEDD-100 Print Reading  
AEDD-105 CAD Graphics  
AUTO-101 Intro to Automotive Technology  
AUTO-102 Automotive Maintenance and Light Repair  
AUTO-111 Steering and Suspension I  
AUTO-116 Brakes I  
AUTO-155 Electricity and Electronics  
CNMS-120 Digital Art I  
CNMS-135 Graphic Design I  
CULA-103 ServSafe®  
HLTH-105 Medical Terminology  
MACH-105 Basic Machine Practice Theory  
WELD-100 Introduction to Welding

\*Awarding of automotive articulation credits is dependent on a secondary school's continued accreditation by the National Automotive Technicians Education Foundation (NATEF)/Automotive Service Excellence (ASE) Education Foundation

# STUDENT RESOURCES and SUPPORT

## Learning Commons

The Learning Commons is an integrated, active space that includes the Library, Tutoring, and Writing Center. The Learning Commons is an integrated, active learning space that offers you the resources and expertise you need to enhance your learning outside of the classroom, and the support to reach your academic goals. In South Portland, the Learning Commons is on the second floor of the Campus Center. On the Midcoast Campus the Learning Commons is centrally located in the L.L. Bean Learning Commons and Health Sciences Building.

The Commons on both campuses have ample seating and include both collaborative/group and quiet individual study spaces. Quiet study rooms can be reserved for individual use. In addition to the services described below, the Learning Commons sites offer computers, including laptops for checkout (South Portland only), quick print stations, color printing, scanning, and photocopying. Visit My Learning on the student portal, MyMaineGuide, to get started.

## Library

As part of the Learning Commons, the Library on the South Portland and Midcoast campuses are SMCC's student-friendly centers for research, study, and casual reading resources. The Library provides students and faculty with a strong collection of current materials selected by our professional librarians to support the academic programs at SMCC. In addition to print books, periodicals, and access to library collections throughout Maine, the Library has access to thousands of electronic books, journals, and newspapers that are available 24/7.

The Library is staffed by an expert team of professionals dedicated to empowering students to become independent learners who are proficient and comfortable with the use of library tools and resources. Students can get help by visiting the library, attending a workshop, or contacting us via phone or email.

## Tutoring Services

Highly skilled, certified faculty, staff, and peer student tutors in many subjects and study skills areas are available in the Learning Commons and at various locations on the South Portland and Midcoast Campuses with a base of services on the second floor of the Campus Center on the South Portland Campus and in the L.L. Bean Learning Commons at the Midcoast Campus.. Tutoring services are available for drop-in assistance for students with homework assignments or for study groups created by students in a course. Tutoring services are also available by scheduling in advance. An online tutoring services, SmarThinking is also available and is free to all currently enrolled students; it is especially convenient for late evening and weekend hours. If there is not a tutor available for your subject, we will attempt to recruit and hire a tutor for you.

## Writing Center

The Writing Center offers professional and peer tutoring assistance with writing assignments for any SMCC class on a drop-in or appointment basis. Students can also use SmarThinking, the online tutoring service, for writing assistance outside of the Learning Commons open hours (must initiate online tutoring request 24-48 hours prior to the submission deadline).

## Advising

Every incoming student is assigned a faculty advisor from the student's program of study or a staff advisor from the Advising Office. A student may also request a specific advisor from his/her program by completing the change of advisor form available online in My Degree within My Maine Guide.

The advisor helps each student select and register for courses and make recommendations for add/drop changes and withdrawals. Additionally, an advisor helps students locate academic and personal resources on campus and helps the student determine program options, such as attending college part-time while working, career goals, or pursuing further education. The more clearly a student can articulate respective needs and goals, the more productive the advisor relationship will be.



## ***New Student Advising and Registration Sessions***

New Student Advising and Orientation sessions are designed to be interactive and fun as well as informative. They offer newly accepted students the opportunity to visit key offices on campus, learn the secrets of success in college, meet faculty, staff and current SMCC students, and get to know other new students. Students also learn how to create a course schedule that meets their needs, how to use MySMCC, our college portal, (to not only register for classes, but also to drop courses, access grades, and more), about their responsibilities as a student, and SMCC's important registration policies. New Student Advising and Orientation sessions are recommended for all new students who have not previously earned more than 18 college credits. Online orientation options are available for online students or for those living at a distance from the college.

## **Career and Transfer Services**

### ***Career Services***

Career and Transfer Services assists students enrolled at SMCC with career research, career assessments, career planning, job search strategies, resumes, cover letters, and preparing for interviews. Career and Transfer Services maintains the MyCareer and Transfer portal which is packed with helpful documents, online resources and interactive tools. Career and Transfer Services also manages the annual job fair, networking events, and the CareerBeam online job board, which informs students about job opportunities and internships posted by employers who are interested in hiring current students and alumni. Career Services helps students to explore possible career goals and the educational pathways they need to reach them.

### ***Transfer Services***

Career and Transfer Services staff are available to assist students with their plans to transfer to baccalaureate programs at institutions all across the U.S. Staff help students research, select, and apply to colleges. Through outreach from the Associate Dean of Curriculum Design and Articulation, many colleges visit the SMCC campus to recruit students throughout the academic year as well as for the fall and spring SMCC Transfer Fairs, which bring over 30 four-year colleges to the SMCC campus all on one day. SMCC students have transferred to a variety of baccalaureate institutions including Bates College, Holyoke College, Smith College, Northeastern University, University of Tampa, and Lesley University College of Art and Design.

## **Counseling**

SMCC provides in-person counseling, at no cost, to students at both the South Portland and Midcoast Campuses. Brief, supportive counseling can help you manage a wide variety of challenges. Through counseling you can manage personal stress, discuss symptoms that concern you, and more fully engage with your education, work and social life. To request a confidential meeting you should call Sweetser at 1-800-434-3000 and identify yourself as an SMCC student.

### **Emergency Resources**

- Emergency: 911
- Campus Security: 207-741-5553
- Maine Suicide Prevention: 1-888-568-1112
- Sexual Assault Response Services of Southern Maine: 1-800-313-9900
- Sexual Assault Response Services of Midcoast Maine: 1-800-822-5999
- (Domestic Violence) Through These Doors: 1-866-834-4357
- Community Resources and Support: 211 or 1-877-463-6207

## **Services for Students with Disabilities**

In accordance with Section 504 of the Rehabilitation Act of 1973 and Title II of the Americans with Disabilities Act of 1990, Southern Maine Community College is committed to helping qualified students with disabilities achieve their individual educational goals. Upon request and verification of the disability, SMCC will provide service coordination and reasonable accommodations to remediate the competitive disadvantage that a disability can create in the educational setting. Disability services are available through the Office of Disability Services; Campus Center, (207) 741-5923, or [disabilityservices@smccME.edu](mailto:disabilityservices@smccME.edu).

## Veterans Affairs

SMCC welcomes Veterans and their dependents to the College and honors the service they have given to the nation. The Veterans Affairs office is located in the Advising Office in the Campus Center. The office is staffed by a full-time administrator who is available to assist veterans and their family members in negotiating the often complex processes involved in gaining certification for educational benefits. For more information, please visit the College's website, contact the Veterans Affairs office at 207-741-5926, email [alainoff@smccme.edu](mailto:alainoff@smccme.edu), or stop in the office.

## STUDENT LIFE

### Student Handbook

*The Compass*, SMCC's student handbook, is designed to introduce students to the many aspects of life at SMCC, including policies related to enrollment and student life, rules and regulations, and safety tips. The student handbook serves as a companion piece to the SMCC Catalog, which outlines the College's academic information, requirements, academic programs, course descriptions, and more. Students are expected to become familiar with both publications, and the electronic locations they reference, like the MySMCC student portal, for a thorough understanding of College regulations.

### Residence Life

There are two residence halls on SMCC's campus housing approximately 450 students.

Spring Point Residence Hall, the larger of the two halls, houses about 320 students, including seven Resident Assistants and a professional Resident Director. Spring Point Hall opened in January 2008 and is located on the corner of Benjamin Pickett St. and Fort Rd., across the street from the Campus Center. There is a large laundry room and vending area, study areas on three floors and a beautiful common lobby that houses a big screen TV, a pool table and a ping pong table. The new hall has sweeping views of the Portland skyline and Casco Bay from its many windows.

Surfsite Hall, the smaller of the two halls, houses 130 students including three Resident Assistants and a professional Resident Director. Surfsite Hall is located diagonally up the hill from the H.U.B. Gymnasium on Surfsite Road. Surfsite Hall has a laundry room, large recreation room with a big screen TV, a pool table and a ping-pong table and a large study lounge. All rooms in Surfsite Hall are tripled to provide the opportunity of housing to as many students as possible.

Orion Hall, on the Midcoast Campus in Brunswick houses about 100 students in apartment-style living, including three Resident Assistants and a professional Resident Director. Orion Hall has single or double bedrooms, each with a private bath, private living area, and small kitchenette.

The Housing and Residence Life staff includes the professional Residence Directors and the student staff listed above. The residence life staff team plans various educational and recreational activities for the residence hall students to enjoy. We expect residents to be serious about their academic work and to get involved in the residence life community. To reach staff, students should call (207) 741-5967 during business hours or (207)741-5990 after business hours, on weekends, and snow days and holidays when the halls are open.

There is a strict policy concerning illegal drugs and alcohol on campus. SMCC prohibits use, sale, possession and/or distribution of alcoholic beverages or illegal drugs anywhere on campus. It is a violation of the Student Code of Conduct for any student or guest to be under the influence of or knowingly in the presence of illegal drugs or alcohol while on campus or at school-sponsored events, regardless of age. Alcohol and drug paraphernalia are not permitted in any residence hall room or common areas and will be viewed as evidence of consumption. Disciplinary action, including possible residence hall agreement termination and eviction without refund, will take place for any student found in violation, regardless of whether or not the student is of legal drinking age.

For many students, residence life represents the first extended stay away from home. As such, it is a time of major adjustment, a time when self-reliance and self-discipline become more important than one's dependence upon one's family. All students who become residence hall students at SMCC are expected to conduct

themselves with regard for the welfare and the reputation of the College, the property of College community members, and most importantly the welfare of all College community members. They must refrain from any action that might injure the College or any of its members. The College reserves the right to require withdrawal, at any time, of a student whose conduct or academic standing is judged unsatisfactory.

Residence hall space is limited at SMCC; there are just 450 beds available for over 5,000 students. In addition, the College recognizes that a community living environment can sometimes provide a variety of temptations and distractions that can make it challenging for some students to focus on their primary goal—completing an academic program. Consequently, the College has created a housing application process that requires students to demonstrate their commitment to their educational goals in order to be assigned to housing or to the housing waiting lists. Students who submit a complete application packet are assigned to a space or to the waiting list on a first come, first served basis.

Not every student is eligible to live on campus. Please check the Housing and Residence Life area of the website for eligibility criteria. Students may occupy their rooms on the dates specified in the College's calendar; however, they are expected to vacate the halls during the Thanksgiving Break, Semester Break, and Spring Break. The College is unable to accept responsibility for personal belongings, and suggests that students consider insuring property against loss, damage, theft and fire.

## Dining Services

At the South Portland campus, contract food service vendor operates the SMCC Dining Hall and Campus Center Seawolves Café. The Dining Hall serves three all-you-care-to-eat meals per day Monday through Friday and two per day on the weekend for a reasonable, fixed price. Sandwiches, soups, salads, bottled drinks and coffee are available on an a la carte basis in the Café most of the day and evening. At the Midcoast Campus, the contract food service vendor operates the Landing Café serving sandwiches, soups, salads, and drinks.

### *Resident Students*

All South Portland resident students are required to purchase a meal plan. Meal plan offerings vary from year to year in response to student needs and requests. Typically, each meal plan offers a set number of all-you-care-to-eat meals in the dining hall and some "flex dollars" for use in the Seawolves Café. Students use their student ID card for payment at the register. The required meal plan cost per semester varies from year to year. Please check with the Housing and Resident Life Office for the most up-to-date rates. Whatever the cost, the price includes costs for overhead and is the same for the fall as it is for the spring, regardless of student usage. Unused meals purchased as part of a meal plan are forfeited if not used in the semester in which they were purchased.

### *Commuter Students*

Commuter students are encouraged to eat in the dining hall and the Seawolves Café. Commuter meal plan offerings vary from year to year and are purchased directly from the food service vendor. To purchase a commuter meal plan, students may inquire within the Dining Hall.

### *Beacon Bucks*

Students who would prefer not to carry cash on campus may deposit funds into a Beacon Bucks account for use in the Dining Hall and the Seawolves Café. There is a minimum initial deposit, usually \$50 and subsequent minimum deposit amounts, usually \$10. These funds are debited from the student's Beacon Bucks account on a dollar for dollar basis. For example, if a student purchases a \$7 all-you-care-to-eat lunch meal, \$7 is debited from the account. Beacon Bucks balances remain active until a student ceases to be enrolled and then is forfeited, so it is in the student's best interest to deposit only funds that he or she intends to use.

## Campus Safety and Security

### *Security*

The Campus Safety and Security Department is open 24 hours a day. Business hours are from 7:00am-7:00pm. The South Portland office is located in the Fort Building (92 Campus Center Drive) across from Preble Hall. The Midcoast Campus office in Brunswick is located in Orion Hall (29 Sewall Street). The department provides assistance to the campus community through regular patrols and other services; such as issuing parking permits

and student ID cards, security escorts, lost and found repository, and emergency response services. Emergency messages for students are routed and delivered through this department. If you have any questions, or are in need of assistance, please call us at 741-5553.

## ***Parking***

Southern Maine Community College campuses are very busy. In order to assure the safety and welfare of all who bring their vehicles on campus, a parking policy has been designed to keep parking orderly, provide as many spaces as possible for everyone in the community, and assure emergency vehicle access. Handicapped parking is available throughout the campus; everyone is reminded to respect these spaces and campus property by parking in approved spots only.

### ***Regulations***

All students, staff and faculty must display a valid parking permit. All Students attending classes at SMCC (on or off campus) must purchase a permit in order to park their vehicles on campus. Permits are assigned to a particular vehicle, and must be affixed to the lower passenger side corner of the front windshield. Any vehicle information changes during the course of the year should be reported to the Safety and Security Department, ensuring any problems will be communicated to the registrant of the vehicle.

Vehicles without a valid SMCC parking permit must have a temporary permit in order to park on campus. These permits are issued for a maximum of 2 weeks and are only valid for student lots. If an individual needs to use a vehicle for longer than 2 weeks they must purchase a permit.

The SMCC Security Office will issue temporary medical parking permits for valid medical reasons with appropriate documentation. These permits will allow students to park in faculty and staff spaces, as well as student spaces. These permits **DO NOT** allow you to park in handicapped parking.

### ***Parking Violations***

Vehicles not parked in accordance with campus regulations will be issued a SMCC ticket, which carries a fine of \$25.00 per violation. Fire lane violations carry a \$50 fine and unauthorized parking in a handicapped parking space carries a fine of \$100. Fire Lane and Handicap tickets are City of South Portland violations that **must be paid within 15 days** to the City of South Portland or fines will double. The Campus Safety and Security Department does not accept payment for permits or fines. All SMCC ticket payments must be made to the Student Billing Office. Handicap and fire lane violations are paid at South Portland City Hall, located at 25 Cottage Road in South Portland. Instructions are printed on the ticket. A list of all violation types is available online in the Safety and Security section of MySMCC.

Noncompliance with SMCC parking policy regulations may result in action beyond ticketing. Violations may result in ticketing, booting, towing and storage, suspension and/or revocation of parking privileges, or other appropriate action at owner expense. Unpaid parking tickets may result in a hold being placed on student records. Safety and Security makes every effort to affix tickets to the front windshield, and are not responsible for lost or missing citations.

Vehicle registrants who have fines in excess of \$75.00, park in reserved spots, or for other infractions as determined by the Public Safety Director will be subject to having their vehicle immobilized by the use of a boot or towed at owner expense. Once the vehicle is booted, the registrant will be charged a \$40.00 administrative fee in addition to any fines. All fines must be paid before the boot is removed unless payment arrangements are made. The registrant of a booted vehicle who does not take appropriate action may be subject to having the vehicle towed from campus at their expense.

All overnight and school trip parking must be approved by the Safety and Security Department, who will inform vehicle operators of the areas where they may park. Security reserves the right to tow vehicles from campus parking lots not designated for overnight or long-term parking.

SMCC makes every effort to provide parking to all members of the campus community, please understand that possessing a permit does not guarantee you a parking space on campus.

## **Student Activities and Athletics**

SMCC strives to engage students both inside and outside of the classroom by complementing the enriching classroom experience with a variety of activities for students. Students who are active participants in the life of the college are more likely to persist and be successful in college. Getting involved provides an opportunity to build connections with fellow students and with faculty and staff and to develop lifelong friends and mentors. No matter what a student's interest, the college provides an opportunity to get involved; from student government, honors and community service societies, technical and trade organizations, the student newspaper and literary magazine, to intercollegiate athletics. For more information on student organizations, or on how to start a new student organization, stop by the Center for Student Involvement and Leadership (CeSIL) on the first floor of the Spring Point Residence Hall.

### **Athletics**

The College offers eight intercollegiate sports. They include men's and women's basketball, baseball, softball, men's and women's soccer, men's and women's golf, and women's volleyball. SMCC Athletics is a member of the Yankee Small College Conference (YSCC), which is the regional league for the parent national organization the United States Collegiate Athletic Association (USCAA). The USCAA is a national organization of small colleges across the country and offers national championship opportunities as well as national recognition for student athletes.

SMCC Athletics competes for regional championships and has participated in multiple USCAA National Tournaments. SMCC Athletics is recognized for being a premier small college athletics offering in the region through recruitment of students and engagement of the programs which leads to outstanding retention.

In addition to the intercollegiate athletics program, a variety of intramural sports, fitness programs and recreational activities are offered through a comprehensive fitness center, aerobics room, and updated locker rooms. All of this allows the Athletic Department to offer something for every student who attends the college.

Located at the front of our 80-acre oceanside campus, the Hutchinson Union Building (HUB) Athletic Center serves as the center of all athletic programs at the College. The HUB is complemented by the Graves Athletic Fields which hosts the college's baseball and softball diamonds and soccer fields

### **Center for Student Involvement and Leadership**

The Center for Student Involvement and Leadership (CeSIL), located on the first floor of the Spring Point Residence Hall, is a one-stop resource to learn about ways to become involved on campus. The center has information on the student clubs and organizations on campus, how to start a new student organization, community service opportunities and activities and events on campus. The center is a great place to learn about student leadership opportunities such as serving on the Student Senate, working as an Orientation and Welcome Leader and participating in various leadership education programs. The Center is also home to the offices of the Student Senate, The Alpha Chi Nu Chapter of Phi Theta Kappa and The Beacon student newspaper.

### **The Student Senate**

The Student Senate represents all students in organizing campus events and sponsoring student organizations and clubs. The Student Senate plans large campus wide events such as the Welcome Back BBQ, Winter Carnival and Spring Fest. Student Senate has also presented comedians, singers, hypnotists and a variety of other entertainment on campus as well as trips to off-campus events such as hockey games and amusement parks. Senate sponsored programs have also included poetry readings, open microphone nights, and trips to theatrical productions. In addition to activities planning, the Student Senate represents the voice of the students to the administration of the college and advocates for the interests, ideas and welfare of the student body.

### **The Phi Theta Kappa International Honor Society**

Phi Theta Kappa is the honor society of the two-year college. All eligible students receive a letter of invitation from the College president to join Phi Theta Kappa. The purpose of Phi Theta Kappa is to recognize and encourage academic excellence and scholarship among students. The chapter also provides students with the opportunity to serve in the community and to develop leadership skills. Many students join not only to participate in service work and leadership opportunity, but also for the lively fellowship and stimulation of

interest in continuing academic excellence. Chapter members are also eligible for transfer scholarships to four-year colleges and universities.

## **Membership Qualifications**

### **Candidates**

- Must be matriculated in an associate degree program.
- Must have earned a minimum of 12 college-level credits at SMCC.
- Must have a minimum cumulative GPA of 3.50.

### **To Maintain Membership:**

Member must maintain a minimum cumulative GPA of 3.50.

## **Student Newspaper and Publications**

The Beacon is the official student newspaper of Southern Maine Community College and features college news as well as features and columns on topics of interest for the student body.

The Writ literary magazine is a publication written and edited by SMCC students featuring works of fiction, non-fiction and poetry.

## **Student Code of Conduct**

The College requires students to conduct their affairs with proper regard and mutual respect for the College and the members of its community. In seeking to encourage responsible conduct, the College will rely upon counseling and admonition. When necessary, the College will use this Code in a prompt, fair and impartial manner to: 1) ensure the orderly administration of the College's academic, athletic and social offerings; 2) secure the opportunity of all students to pursue peacefully their educational objectives; 3) protect the health, safety and welfare of the College and the members of its community; and 4) maintain and protect the real and personal property of the College and the members of its community. This Code applies in addition to other College and System policies and regulations, local ordinances, and state and federal laws. Students whose conduct violates those authorities may also be subject to their sanctions and penalties. Finally, the Residence Hall Agreement between a student and the College imposes similar but additional responsibilities and obligations, and students whose conduct violates both that Agreement and this Code may be disciplined by the College under either or both.

### **II. Persons Governed by Code**

As used in this Code, "student" means any person who a) has been notified of admission to a College; b) is taking courses or otherwise pursuing studies at or through a College; c) has a continuing relationship with a College even if not officially enrolled for a particular term; or d) has withdrawn from a College while a disciplinary matter is pending. This Code applies to students and to organizations that are student organizations at the time of the alleged conduct. Students and student organizations are also responsible for the conduct of their guests, and this Code may be invoked against students and student organizations whose guests violate the Code. When a student is alleged to have violated the Code at a College other than the College in which the student is enrolled, the violation will be referred for disposition to the student's campus of enrollment.

### **III. Conduct Governed by Code**

This Code applies to conduct, wherever it occurs, that: 1) involves the real property owned, occupied or otherwise used by the College; 2) involves the personal property owned, occupied or used by the College community; 3) involves a College or College-related activity, event or function; 4) poses an imminent or substantial threat to persons or property in the College community; and/or 5) otherwise interferes with the objectives or adversely affects the interests of the College or members of its community. Examples of violations of this Code include, but are not limited to:

- A. Fraudulent conduct, which includes, but is not limited to: 1) supplying or assisting to supply false information to College personnel; 2) violating a professional code of conduct or ethics; 3) unauthorized representation of the College or its personnel; 4) failing to identify oneself to College personnel; and/or 5) tampering with or falsifying official documents or records. Allegations of

plagiarism, cheating and other forms of academic misconduct shall first be handled pursuant the College's policies on academic misconduct and/or student issues arising at clinical affiliates which provide(s) for specific procedures and sanctions. Once the procedures and sanctions of those policies have been applied, the provisions of this Code shall apply.

- B. Conduct that disregards the welfare, health or safety of the College community, which includes, but is not limited to: 1) assault, harassment or intimidation; 2) false reports of fire or other dangerous conditions; 3) unauthorized use or possession of weapons, explosive components or chemicals, including fireworks, firearms, explosives, gas or compressed air; 4) disturbing authorized activities or the peaceful operation of the College; 5) use, possession, sale or distribution of alcoholic beverages or drugs as prohibited by law or College policy; 6) being under the influence or knowingly in the presence of drugs or alcohol while on College property or at College related events; 7) action prohibited by health or safety regulations; 8) creation of a fire hazard or other dangerous condition; 9) restriction of vehicular or pedestrian traffic flow into or out of College property or facilities; 10) action that produces mental or physical discomfort, embarrassment, harassment or ridicule to any member of the College community; 11) intentionally placing a person or persons in reasonable fear of physical harm; 12) lewd or indecent behavior; 13) tampering with fire or safety equipment; 14) parking violations; 15) disobeying the lawful order of College personnel; and/or 16) any other conduct that threatens or endangers the health or safety of one's self or others.
- C. Improper use of property, which includes but is not limited to 1) misuse, destruction, defacement or unauthorized requisition, removal or use of College or College community property; 2) unauthorized presence on College property; and/or 3) violation of College or System computer use policies.
- D. Other conduct that interferes with the orderly business of the College, which includes, but is not limited to 1) interference with or interruptions of classes and other college activities; 2) failure to comply with a sanction or special terms and conditions of admission, enrollment and/or participation imposed by the College; 3) interference or refusal to cooperate with an inquiry under the Code; 4) continuous violations of the Code; 5) aiding, abetting or inciting others to commit or cover-up a violation of the Code; 6) retaliation against a person for reporting an alleged violation of the Code; 7) acts of discrimination in violation of College or System policy; 8) conduct prohibited by civil or criminal law; 9) conduct that constitutes "special circumstances" as set forth in MCCS Policy 504, Section B.3.a-g; and/or 10) conduct prohibited by College or System policy.
- E. Sexual misconduct and sexual assault, as defined in and governed by MCCS Procedure 202.2 and MCCS Procedure 501.1.
- F. Sexual harassment, as defined in MCCS Policy 202 and governed by MCCS Procedure 201.1/202.1 and MCCS Procedure 202.2.
- G. Dating violence, domestic violence and stalking, as defined in and governed by MCCS Procedure 202.2 and MCCS Procedure 501.1.

Acts of sexual harassment, sexual assault, dating violence, domestic violence and stalking within the scope of Title IX's prohibitions are governed by MCCS Procedure 202.2. All other such conduct, excluding sexual harassment, is governed by MCCS Procedure 501.1. Sexual harassment outside the scope of Title IX is governed by MCCS Procedure 201.1/202.1. The College will determine the applicable procedure after review of the alleged conduct.

#### IV. Sanctions for Code Violations

Students who violate this Code may be subject to one or more sanctions which include, but are not limited to: 1) an apology; 2) reprimand; 3) probation; 4) work or service requirement; 5) restitution; 6) fine; 7) prohibition from College classes, functions or facilities; 8) special terms and conditions of enrollment and/or participation; 9) forfeiture of room fee, room deposit and security deposit; 10) suspension or dismissal from a portion of the College; 11) suspension or dismissal from the whole of the College; 12) revocation of admission or a degree; 13) withholding a degree; and/or 14) any other action as the College deems appropriate. The Dean of Students may suspend immediately a student if the Dean determines that the student's presence at the College poses an imminent threat of harm to self or others, or to property in the College community. Such suspension shall take

effect when so designated and may not be stayed pending appeal unless otherwise determined by the College President.

## V. Procedure

### A. General

In applying the provisions of this Code, the College accords students alleged to have violated this Code the following opportunities. First, students have the opportunities to be advised of the charges and the nature of the evidence against them, and be heard before an impartial decision-maker. Second, students have the opportunities to have sanctions based on substantial evidence (a standard of “more probable than not”); the decision explained in writing; and, in a Stage Two proceeding, have questions asked of opposing witnesses. Finally, students have the opportunities to be assisted by a person who may observe the proceeding and advise the student, but who may not speak on behalf of the student or otherwise participate in the proceeding. In cases where suspension or dismissal is likely or where criminal charges are pending, such an assistant may be an attorney, but such an attorney shall not be at the College’s expense.

### B. Stage One

The College Dean of Students (“Dean”) and/or Disciplinary Officer (“Officer”) (collectively “Investigator”) shall investigate alleged violations of this Code. Such inquiries shall include notice to the student of the: 1) complaint; 2) Code sections that may have been violated; and 3) possible sanctions that may be imposed. The student shall be given an opportunity to be interviewed. The Investigator may consider any information that the Investigator believes may be relevant and reliable information in determining whether it is more probable than not that the alleged conduct occurred, and that such conduct violated the Code. Upon concluding the inquiry, the Investigator shall notify the student in writing of the Investigator’s findings of fact, Code provision(s) violated, if any, and a sanction(s), if any. The Investigator’s decision shall take effect when so noted. Sanctions, other than interim suspension, may, in the discretion of the Dean, be stayed during any appeal. The Dean, but not an Officer, may at this stage impose a sanction of dismissal or suspension.

### C. Stage Two

A student who does not accept discipline imposed at Stage One may request a Stage Two proceeding. A person materially affected by the alleged Code violation (such as the victim of the alleged conduct) may request a Stage Two proceeding in order to review a Disciplinary Officer’s decision either to dismiss or impose a relatively low sanction in the case.

#### 1. Request

A request for a Stage Two proceeding must be submitted in writing to the Dean within two (2) school days following the day the student receives the Investigator’s written decision, and must state specifically the grounds for the request. A student who fails to file a proper and timely request may be deemed to have waived the right.

#### 2. Committee

A Stage Two proceeding shall be heard by a Disciplinary Committee (“Committee”) which shall consist of at least three and not more than five members, each appointed by the College President. At least one member should be a faculty member and one member may be a student. The President shall appoint a Chair.

#### 3. Hearing

After receiving the student’s request, the Committee Chair shall notify the student, Dean and/or Officer of the time and location for the hearing. A hearing shall be held as soon as practical and shall proceed as follows: The Committee Chair shall preside; the Dean and/or Officer will present the charges, information and findings against the student; the student will respond to the case presented by the Dean and/or Officer; and the Dean and/or Officer and student may then each summarize orally their position.



All or a portion of the hearing may, at the discretion of the Committee, be closed to persons other than those recognized by the Chair. If a student does not attend the hearing, the Committee may commence the hearing or continue the hearing to a later time or date. Only the members of the Committee may pose questions to the witnesses or parties. The Committee is not bound by court rules of evidence or procedure.

#### 4. Decision

The Committee will convene in closed session to find facts and determine any Code violation(s). The Committee may consider any relevant and reliable information in determining whether it is more probable than not that the alleged conduct occurred, and that such conduct violated the Code. The Committee is not bound by the Investigator's findings and sanctions. The Committee may impose any appropriate sanction up to and including dismissal. Disciplinary sanctions imposed by the Committee take effect immediately unless otherwise specified. A majority of Committee members present and voting will prevail.

#### D. Stage Three

A student may appeal to the College President only a Committee sanction of suspension or dismissal from the College. Such appeal must be submitted in writing to the President within two (2) school days following the day when the student receives the Committee's written decision, and must state specifically the grounds for appeal. Such appeals shall be limited to the Committee's procedures and the appropriateness of the sanction. A student who fails to file a proper and timely appeal may be deemed to have waived the right to appeal. The President may also grant a request by a person materially affected by the alleged Code violation to review a decision of the Disciplinary Committee to dismiss a case or to impose a relatively low sanction. In all cases, the President shall issue a written decision as soon as practical after the hearing. The President is not bound by the decisions of either the Investigator or Committee.

#### VI. Notice and Receipt of Notice

The College may provide a notice under this Code to a student either in person or to the student's most recent electronic, campus or U.S. mail address on file at the College. A student will be deemed to have received such notice immediately when informed in person; within 24 hours when notified by electronic or campus mail; and within 72 hours of the date of mailing when notified by U.S. mail. In all instances, a student has an affirmative duty to remain in contact with the College while a matter is pending under this Code.

#### VII. Coordination of this Code with the MCCS Policy on Special Conditions

When the student conduct at issue involves "special circumstances" as described in MCCS Policy 504, the College may seek guidance from the provisions of that policy.

#### VIII. Certain Athletic Determinations

The provisions of this Code apply to misconduct related to participation in athletics. The procedures of this Code do not, however, apply determinations of whether a student may be a member of, or receive playing time for, a college athletic team because the student has engaged in conduct detrimental to the team. Those determinations shall be made by the coach, provided that the affected student may appeal the coach's decision to the College Dean of Students.

For purposes of this provision, "conduct detrimental to the team" includes, but is not limited to, conduct that is unsportsmanlike to fans, officials or opposing coaches or players; disruptive to practices and other team events; brings disruption or disrepute to the team through misconduct or violations of law, College or System policy; or is otherwise contrary to the principles taught through athletic competition, such as reliability, diligence, commitment, teamwork and the willingness to take seriously the duty to represent the College honorably during competition. The College may adopt a more specific definition of "conduct detrimental to the team" that furthers the educational purposes of athletic competition.

#### IX. Traffic Violations

A student violation of a rule governing a moving, parked or standing vehicle on property owned, operated or under the control of the College shall be processed under this Code only if the sanction sought by the College is suspension or expulsion from college for that violation. In all other cases, the College shall provide a process that permits a student an informal opportunity to contest the alleged violation before a person designated by the College to hear such contests.

## X. Definitions

The following terms have the following meanings when used in this Student Code of Conduct, unless the context indicates otherwise:

“Code” means this Student Code of Conduct; “College” means Southern Maine Community College; “College Activity” means an activity under the auspices of the College, including activities of students and student organizations; “College Community” means any person or organization that attends, performs services for, is employed by, visits or otherwise uses the College; “College Personnel” means any instructor, administrator, employee, committee or contractor of the College or System; “Course” means any class of instruction, regardless of credit, offered by the College; “President” means the College President; “Property” means the real and personal property controlled through ownership, rental, charter or other means by the System, College, State of Maine or a member of the College Community. “Property” includes written documents and computer programs, files and resources; “School Day” means a day that the College is open for instruction; “Student Organization” means an organization that acts or purports to act for a student in matters regarding the College; and “System” means the Maine Community College System.

## ACADEMIC PROGRAMS

The college offers programs awarding associate in applied science, associate in science, and associate in arts degrees; and certificate programs. Associate degrees require at least two academic years of study. The certificate option is offered in selected areas and normally requires one year or less of study. All options may be taken over extended times beyond one or two years and often through both day and evening courses.

Each program of study is made up of three groups of courses: general education courses that meet specific core curriculum requirements for that credential and develop communication, analytical and problem solving skills, increased awareness of the physical and social world and of other cultures; program requirements; and discipline related courses that support and reinforce the program requirements. Successful completion of all courses or equivalencies in a curriculum is required for the awarding of an associate degree or certificate from the College.

Curricula may be modified without notice as adjustments are made in response to occupational needs, industrial change, and Advisory Committee recommendations that provide the College with contacts in the various fields of technology to ensure up-to-date programs. Program availability is based upon adequate enrollment and resources.

## General Education Learning Outcomes

The general education requirements for Southern Maine Community College programs represent the College’s definition of an educated student.

### *Arts and Humanities:*

SMCC students differentiate and evaluate various perspectives of the human intellect and imagination.

- Study, create, or participate in a work that demonstrates artistic and/or aesthetic value.
- Critique a work’s artistic and/or aesthetic value.
- Demonstrate an appreciation of the creative arts in personal, cultural and historical perspectives.
- Analyze and interpret literature.
- Articulate an understanding of major philosophical questions.

- Demonstrate an understanding of the inter-relationship of arts and humanities to one's self, other disciplines, and the life of the community.

### *Communications:*

SMCC students effectively communicate through writing, speaking and listening.

- Show ability to communicate ideas clearly, with a specific purpose and to a specific audience, utilizing appropriate strategies for varying contexts and logical organization methods.
- Demonstrate knowledge of literary analysis and comparison/contrast rhetorical modes and identify appropriate uses for each.
- Apply revision methods to achieve polished final draft/presentation, using standard academic format and conventions of grammar.
- When necessary, utilize information literacy skills, including evaluation of information from a variety of media and proper MLA and/or APA documentation.
- Use critical thinking and listening skills in written and oral communication as a tool for learning.

### *Critical Thinking:*

SMCC students learn to critically evaluate information using reason, experience, education, and training.

- Read and demonstrate an understanding of complex ideas by identifying key concepts in the field.
- Apply theory to practice using problem solving techniques and data analysis.
- Analyze and evaluate research data to produce a well-reasoned argument or position on an issue.
- Synthesize data from multiple sources to create and support a position.

### *Social and Cultural Knowledge:*

SMCC students utilize social and cultural knowledge to demonstrate knowledge of cultural differences.

- Explain how social interactions and behavior are shaped and constrained by social structures, institutions, and/or the interplay of local, regional, national and/or global cultures.
- Articulate cultural and individual differences that underlie the complexities of human behavior and social interactions.
- Explain historical and/or political developments affecting societies and nations.

### *Quantitative Methods:*

SMCC students logically analyze and solve quantitative problems.

- Solve problems using algebraic techniques.
- Interpret information presented in charts and graphs or illustrate a scenario using graphic technique.
- Create an algebraic and/or graphical model to represent a given situation.
- Utilize quantitative methods to solve and/or assess complex problems to support decision making, forecasting, and recommendations.

### *Science:*

SMCC students recognize the methodology and content of science and its relevance.

- Apply scientific methodology to the study of the natural world.
- Participate in hands on and interactive lab activities.
- Demonstrate the ability to make scientifically informed decisions.

### *Ethical Reasoning:*

SMCC students will demonstrate the ability to do one or more of the following.

- Understand and evaluate ethical perspectives on environmental issues.
- Understand and critically evaluate ethical theories or concepts.
- Work effectively with ethical issues and theories through analysis and evaluation of the theoretical, literary, historical, or artistic texts through which fundamental ethical ideas and problems are presented.
- Critically evaluate disciplinary claims in the context of ethical, social, and environmental issues.

## Degree Programs

### *Associate of Arts (AA)*

The Associate of Arts Degree is intended to provide a basic foundation for a Bachelor of Arts Degree program.

### *Associate of Applied Science (A.A.S.)*

The Associate of Applied Science Degree is intended to provide the preparation necessary for potential employment in an occupational specialty.

### *Associate of Science (A.S.)*

The Associate of Science Degree is intended to provide the preparation necessary for potential employment in an occupational specialty and/or a basic foundation for a Bachelor of Science Degree program.

### *Certificate*

A certificate is awarded for specific studies that one can complete in a one year program or less. Certificates can be a permanent solution or a first step in developing, changing, or upgrading your career.

The following table details the number of credits required in each category of the College's core curriculum:

Deg	English Comp	Lit	Math and Science	Fine Arts	Humanities	Social Science	Diversity	Ethical Reasoning	Gen Ed	Total
A.A.	3	3	7	3	6	6	3	3		34
A.A.S.	3	3	7-10	3		3-6				22
A.S.	3	3	10*-15	3	3	3	3		3*	31-33

\*Associate of Science programs that require 10 credits math/science must also require an additional three credits in any general education

# Degrees Offered

## Architectural and Engineering Design

A.A.S. in Architectural and Engineering Design  
Certificate in Marine Design

## Art

A.A. in Liberal Studies with a focus in Art

## Automotive Technology

A.A.S. in Automotive Technology  
Certificate in Chassis Systems  
Certificate in Powertrain Systems

## Behavioral Health

Certificate in Behavioral Health Science

## Biotechnology

A.A.S. in Biotechnology

## Business Administration

A.S. in Business Administration

## Cardiovascular Technology

A.S. in Cardiovascular Technology  
Invasive Option  
Non-Invasive Option  
Advanced Certificate in Invasive Cardiovascular Technology  
Advanced Certificate in Non-Invasive (Echo) Cardiovascular Technology

## Career Studies

A.A.S. in Career Studies

## Communications and New Media

A.A.S. in Communications and New Media

## Cyber Security

A.A.S. in Cyber Security

## Computer Science

A.S. in Computer Science

## Construction Technology

A.A.S. in Construction Technology  
Certificate in Construction Technology

## Criminal Justice

A.A.S. in Criminal Justice

## Culinary Arts

A.A.S. in Culinary Arts

## Nutrition and Dietetics

A.S. in Nutrition and Dietetics

## Early Childhood Education

A.A.S. in Early Childhood Education

## Education

A.S. in Education  
Advanced Certificate in Education

## Emergency Medical Services

A.A.S. in Paramedicine

## Engineering and Electrical Technology

A.A.S. in Pre-Engineering  
A.A.S. in Electrical Engineering Technologies  
Certificate in Electrician Technology

## English

A.A. in Liberal Studies with a focus in English

## Fire Science

A.A.S. in Fire Science  
Certificate in Fire Science

## Health Science

A.S. in Health Science

## Heating, Air Conditioning, Refrigeration and Plumbing

A.A.S. in Heating, Air Conditioning and Refrigeration  
A.A.S. in Heating and Plumbing  
Certificate in Heating  
Certificate in Plumbing  
Certificate in Refrigeration and Air Conditioning

## Heavy Equipment

Certificate in Heavy Equipment Operations

## History

A.A. in Liberal Studies with a focus in History

## Horticulture

A.A.S. in Horticulture

## Hospitality Management

A.A.S. in Hospitality Management

## Human Services

A.A.S. in Human Services

## Information Technology

A.A.S. in Information Technology

## Liberal Studies

A.A. in Liberal Studies

## Mathematics

A.A. in Liberal Studies with a focus in Mathematics

## Music

A.A. in Liberal Studies with a focus in Music

## Marine Science

A.A.S. in Marine Science

## Medical Assisting

A.A.S. in Medical Assisting

Certificate in Medical Assisting

**Nursing**

A.S. in Nursing

A.S. in Nursing LPN Upgrade Option

Certificate in Licensed Practical Nursing

**Political Science**

A.A. in Liberal Studies with a focus in Political Science

**Psychology**

A.A. in Liberal Studies with a focus in Psychology

**Precision Machining and Manufacturing**

A.A.S. in Precision Machining and Manufacturing

Certificate in CNC Machine Operator

**Radiography**

A.S. in Radiography

**Respiratory Therapy**

A.S. in Respiratory Therapy

**Science**

A.A. in Liberal Studies with a focus in Science

**Social Work**

A.A. in Liberal Studies with a focus in Social Work

**Sport Management**

A.S. in Business Administration Sport Management Option

**Surgical Technology**

A.A.S. in Surgical Technology

**Trade and Technical Occupations**

A.A.S. in Trade and Technical Occupations

# Program Information

## Architectural and Engineering Design

The Architectural and Engineering Design program prepares students for technician level work assisting architects, engineers, and contractors who work in the diverse manufacturing industry. Offering a variety of design disciplines, the program provides students with individual choices of specialization including architectural, mechanical and marine interests.

The Architectural and Engineering Design program provides a wide selection of courses, both specific and broad in scope, reinforced by established degree-level courses in general education and related technologies.

*Upon completion of the program, graduates will be able to:*

- Understand and apply proper technical graphic standards
- Acquire and demonstrate knowledge within several design disciplines
- Identify and solve design problems by working with recognized methods and material limits
- Understand and use Computer Aided Design software to generate accurate designs in two and three-dimensional formats.
- Demonstrate an ability to meet deadlines, manage time for multiple tasks and make revisions
- Acquire the skills to organize and present designs, drawings and concepts clearly to groups.

### Architectural and Engineering Design Admission Requirements

For information about Southern Maine Community College admission requirements, visit the Admissions area of the website at <http://www.smcme.edu/apply>. High School or post-secondary coursework in algebra, physics, and geometry is recommended.

People currently working in the field are encouraged to take courses for professional development. Formal admission is not required for enrollment in Architectural and Engineering Design courses. Prerequisites may be waived based on work experience or demonstrated ability by the Chair of the department.

## Associate in Applied Science Architectural and Engineering Design

General Education Requirements				
ENGL	100	English Composition .....	3 credits	
ENGL	115	Introduction to Literature .....	3 credits	
FIGS	100	Student Success .....	1 credit	
		Mathematics Elective (100-level or higher) .....	3 credits	
		Physics Elective .....	4 credits	
		Fine Arts or Humanities Elective .....	3 credits	
		Social Science Electives .....	6 credits	
Major Required Courses				
AEDD	100	Print Reading.....	3 credits	
AEDD	105	CAD Graphics .....	3 credits	
AEDD	160	CAD Applications.....	3 credits	
AEDD	205	Technical Illustration.....	3 credits	
AEDD	210	AutoCAD-3D.....	3 credits	
AEDD	255	Applied Engineering-Buildings .....	3 credits	
AEDD	260	CAD Management.....	3 credits	
		Architectural and Engineering Design Electives .....	9 credits	
		Parametric Modeling Elective (AEDD-170 or AEDD-220) .....	3 credits	
		Approved Technical Electives .....	6 credits	
Total Credits Required for Degree:			62 credits	

# Marine Design

The Certificate in Marine Design is designed to prepare entry level marine designers. Students will work with a parametric software for ship modeling, which is the core tool of systems engineering in ship design, to model the complex systems involved in a ship. Students will be introduced to the design of various systems inside the hull: electrical; piping/machinery; HVAC; structural; hull outfit; and human factors and systems engineering. Students are introduced to maritime history and vocabulary, hull shape, forces on a ship, and the basic physics, geometry, and algebra concepts upon which ship design is based.

Opportunities for graduates include positions as entry-level designers in the ship building industry. Graduates may continue to complete an associate degree in Architectural and Engineering Design.

*Upon completion of the Certificate in Marine Design program, graduates will be able to:*

- Understand and apply proper technical graphic standards.
- Acquire and demonstrate knowledge parametric software for ship modeling.
- Acquire the skills to organize and present designs, drawings and concepts clearly to groups.
- Use appropriate marine-related language to discuss the hull and systems involved with a ship.
- Do calculations using various marine-related coefficients and ratios to determine displacement, changes in buoyancy, and the fundamental parameters of a ship's hull.

## Certificate Marine Design

General Education Requirements				
ENGL	100	English Composition.....	3 credits	
ENGL	110	Oral Communications.....	3 credits	
		Mathematics Elective (100-level or higher) .....	3 credits	
PHYS	ELE	Physics Elective with Lab.....	4 credits	
Major Required Courses				
AEDD	100	Print Reading.....	3 credits	
AEDD	105	CAD Graphics .....	3 credits	
AEDD	109	Introduction to Marine Design.....	3 credits	
AEDD	160	CAD Applications.....	3 credits	
AEDD	209	Marine Design II .....	3 credits	
		Parametric Modeling Elective (AEDD-170 or AEDD-220) .....	3 credits	
AEDD	260	CAD Management.....	3 credits	
Total Credits Required for Certificate:			34 credits	

# Automotive Technology

The Automotive Technology program is designed to prepare skilled technicians to work in the automotive industry. The program involves general education as well as automotive lecture and laboratory instruction focusing on state-of-the-art products. Students may also work at a dealership as part of the cooperative education phase of training.

The program is certified by National Automotive Technicians Education Foundation, Inc. (NATEF, a division of Automotive Service Excellence), in all eight performance areas. Opportunities for graduates include positions in dealerships, independent shops, automotive parts stores, and companies with vehicle fleets as general technicians. Positions may allow technicians to specialize in areas such as front-end alignment, brakes, automatic transmissions, engine performance, heating, ventilation and air conditioning systems, and others.

*Upon completion of the Automotive Technology program, graduates will be able to:*

- Diagnose and repair components of automotive electrical/electronic systems.
- Diagnose and repair components of automotive suspension and steering systems.
- Diagnose and repair components of automotive brake systems.
- Diagnose and repair components of automotive engines.
- Diagnose and repair components of automotive engine performance systems.
- Diagnose and repair components of automotive manual transmissions and drivetrains.



- Diagnose and repair components of automotive automatic transmissions.
- Diagnose and repair components of automotive heating, ventilation, and air conditioning systems.

### Automotive Technology Admission Requirements

For information about Southern Maine Community College admission requirements, visit the Admissions area of the website at <http://www.smccme.edu/apply>. A current, clean, and valid driver’s license is required for admission to the Automotive Technology program. High school or post-secondary coursework in algebra is recommended.

## Associate in Applied Science Automotive Technology

General Education Requirements				
ENGL	100	English Composition.....	3 credits	
ENGL	115	Introduction to Literature .....	3 credits	
COMM	105	Professional Communication for the Job Market .....	3 credits	
FIGS	100	Student Success.....	1 credit	
MATH	130	Technical Mathematics .....	3 credits	
PHYS	110	Technical Physics with Lab .....	4 credits	
		Fine Arts or Humanities Elective .....	3 credits	
		Social Science Elective.....	3 credits	
Major Required Courses				
AUTO	105	Introduction to Automotive Technology.....	3 credits	
AUTO	111	Steering and Suspension I .....	1 credits	
AUTO	112	Steering and Suspension II .....	3 credits	
AUTO	116	Brakes I .....	2 credits	
AUTO	117	Brakes II .....	2 credits	
AUTO	155	Electricity and Electronics .....	4 credits	
AUTO	160	Automotive Business Operations .....	2 credits	
AUTO	170	Automotive HVAC .....	3 credits	
AUTO	174	Advanced Level Lab <b>OR</b>		
AUTO	175	Internship/Cooperative Education <b>OR</b>		
AUTO	176	Externship/Cooperative Education I.....	3 credits	
AUTO	205	Electricity and Electronics II .....	4 credits	
AUTO	210	Engine Repair .....	4 credits	
AUTO	215	Manual Transmissions and Drivelines .....	4 credits	
AUTO	260	Engine Performance I .....	4 credits	
AUTO	265	Automatic Transmissions and Transaxles.....	4 credits	
AUTO	270	Engine Performance II .....	4 credits	
Total Credits Required for Degree:			70 credits	

### Automotive Chassis Systems Certificate

The Automotive Certificate in Chassis Systems is designed to prepare skilled technicians to work in the automotive industry in the areas of routine maintenance, steering and suspension, brakes, and chasses electrical/electronics. It is also a stepping-stone to continue education at SMCC in the Automotive Certificate in Powertrain Systems. The Automotive Certificate in Chassis Systems involves math and English as well as automotive lecture and laboratory instruction. Students may work at a repair shop as part of the cooperative education phase of training. Opportunities for graduates include positions in dealerships, independent shops, automotive parts stores and companies with vehicle fleets.

*Upon completion of the Automotive Certificate in Chassis Systems, graduates will be able to:*

- Perform routine maintenance service on automobiles.
- Perform tasks to diagnose and repair components of automotive electrical/electronic systems.
- Perform tasks to diagnose and repair components of automotive suspension and steering systems.
- Perform tasks to diagnose and repair components of automotive brake systems.

Automotive Chassis Systems Certificate Admission Requirements

For information about Southern Maine Community College admission requirements, visit the Admissions area of the website at <http://www.smccme.edu/apply>. A current, clean, and valid driver’s license is required for admission to the Automotive Chassis Systems certificate program. High school or post-secondary coursework in algebra is recommended.

Certificate  
Automotive Chassis Systems

Required Courses			
COMM	105	Professional Communication for the Job Market .....	3 credits
FIGS	100	Student Success .....	1 credit
MATH	130	Technical Mathematics .....	3 credits
AUTO	105	Introduction to Automotive Technology .....	3 credits
AUTO	111	Steering and Suspension I .....	1 credits
AUTO	112	Steering and Suspension II .....	3 credits
AUTO	116	Brakes I .....	2 credits
AUTO	117	Brakes II .....	2 credits
AUTO	155	Electricity and Electronics I .....	4 credits
AUTO	160	Automotive Business Operations .....	2 credits
AUTO	174	Advanced Level Lab <b>OR</b>	
AUTO	175	Internship/Cooperative Education <b>OR</b>	
AUTO	176	Externship/Cooperative Education I .....	3 credits
AUTO	205	Electricity and Electronics II .....	4 credits
Total Credits Required for Certificate:			31 credits

Automotive Powertrain Systems Certificate

The Automotive Certificate in Powertrain Systems is the second of two Automotive Certificates at SMCC. The Automotive Certificate in Chassis Systems is a requirement for admission to the Automotive Certificate in Powertrain Systems. The Powertrain Systems Certificate involves classes in Engine Repair; Engine Performance; Manual Transmissions and Drivetrains; Automatic Transmissions; and Automotive Heating, Ventilation, and Air Conditioning.

Paired with the Automotive Certificate in Chassis Systems, the two programs are designed to prepare skilled technicians to work in the automotive industry in the areas of routine maintenance, steering and suspension, brakes, heating and air conditioning, engine repair and performance, manual and automatic transmissions, and drivelines. Opportunities for graduates include positions in dealerships, independent shops, automotive parts stores and companies with vehicle fleets. Graduates of the Automotive Certificate in Powertrain Systems may continue their education at SMCC in the Automotive Associate degree program.

Upon completion of the Automotive Certificate in Powertrain Systems, graduates will be able to:

- Perform routine maintenance services on automobiles.
- Perform tasks to diagnose and repair components of automotive electrical/electronic systems.
- Perform tasks to diagnose and repair components of automotive suspension and steering systems.
- Perform tasks to diagnose and repair components of automotive brake systems.
- Perform tasks to diagnose and repair components of automotive engines.
- Perform tasks to diagnose and repair components of automotive engine performance systems.
- Perform tasks to diagnose and repair components of automotive manual transmissions and drivetrains.
- Perform tasks to diagnose and repair components of automotive automatic transmissions.
- Perform tasks to diagnose and repair components of automotive heating, ventilations and air conditioning systems.

Automotive Powertrain Systems Certificate Admission Requirements

Successful completion of Automotive Chassis Systems Certificate. For information about Southern Maine Community College admission requirements, visit the Admissions area of the website at

<http://www.smccme.edu/apply>. A current, clean, and valid driver’s license is required for admission to the Automotive Technology program. High school or post-secondary coursework in algebra is recommended.

**Certificate**  
**Automotive Powertrain Systems**

Required Courses				
AUTO	170	Heating, Ventilation, and Air Conditioning.....	3 credits	
AUTO	210	Engine Repair .....	4 credits	
AUTO	215	Manual Transmissions and Drivelines .....	4 credits	
AUTO	260	Engine Performance I.....	4 credits	
AUTO	265	Automatic Transmissions and Transaxles.....	4 credits	
AUTO	270	Engine Performance II.....	4 credits	
		Automotive Elective.....	2 credits	
Total Credits Required for Certificate:				25 credits

**Biotechnology**

Biotechnology is the use of technology and applied biology to improve human life. Students learn the fundamentals of biology and chemistry on their way to more advanced understanding of cellular biology, genetics, and microbiology. Students have opportunities to learn hands-on skills in the laboratory, working with DNA, enzymes, cells, and small organisms such as bacteria, fruit flies, and plants. To complete their degree, students engage in an internship in an academic or industry laboratory off campus. Biotechnology career opportunities exist in animal sciences, biomedical technologies, immunology, pharmaceuticals, forensics, and marine or environmental science. Graduates find employment in entry-level positions as technicians in biotechnology manufacturing, quality control, and research. Credits earned in the program can transfer to a baccalaureate degree program.

*Upon completion of the Biotechnology program, graduates will be able to:*

- Communicate effectively, using the language, concepts and models of biotechnology.
- Use the scientific method to define and solve problems independently and collaboratively.
- Demonstrate accuracy, precision, and safety in a wide variety of laboratory techniques.
- Accurately interpret scientific information.
- Demonstrate proficient data gathering and analysis through library research and mathematical/computer skills.
- Discuss scientific and ethical concepts that pertain to societal issues.
- Apply their learning in an off-campus professional setting.

**Biotechnology Admission Requirements**

For information about Southern Maine Community College admission requirements, visit the Admissions area of the website at <http://www.smccme.edu/apply>. High school or post-secondary coursework in algebra is recommended.

**Associate in Applied Science**  
**Biotechnology**

General Education Requirements				
ENGL	100	English Composition.....	3 credits	
ENGL	115	Introduction to Literature .....	3 credits	
FIGS	100	Student Success .....	1 credit	
MATH	140	College Algebra .....	3 credits	
MATH	146	Introduction to Trigonometry .....	1 credits	
BIOL	124	Biology I with Lab .....	4 credits	
BIOL	128	Biology II with Lab .....	4 credits	
ENGL	110	Oral Communications.....	3 credits	
		Social Science Elective.....	3 credits	

Major Required Courses			
BIOL	110	Biotechnology with Lab .....	4 credits
BIOL	212	Genetics with Lab .....	4 credits
BIOL	250	Microbiology with Lab .....	5 credits
BIOL	255	Cell Biology.....	3 credits
BIOL	275	Biotechnology Internship .....	2 credits
CHEM	120	General Chemistry I with Lab .....	4 credits
CHEM	125	General Chemistry II with Lab .....	4 credits
MATH	155	Statistics .....	3 credits
PHIL	105	Ethical Dilemmas.....	3 credits
PHYS	110	Technical Physics with Lab .....	4 credits
BUSN	151	Spreadsheet Applications.....	3 credits
Total Credits Required for Degree:			64 credits

## Business Administration

The Business Administration program provides students with a foundation in general business practices, leadership concepts, and microcomputer applications. In addition to acquiring skills in accounting, finance, sales, and operations, students enhance their ability to write, think, work in groups, solve problems and build confidence and the ability to succeed in the world of business.

The Associate in Science degree emphasizes math, science, and core business requirements. The sequence of courses comprises the typical transfer option that many baccalaureate programs prefer, deferring many upper-level business courses until the third or fourth year.

*Upon completion of the Business Administration program, graduates will be able to:*

- Make decisions and take actions that enable businesses/organizations to earn profits and grow.
- Describe and utilize the role of science, technology, and market commercialization in the creation of viable products and services.
- Demonstrate an ability to understand organizational structures.

### Business Admission Requirements

For information about Southern Maine Community College admission requirements, visit the Admissions area of the website at <http://www.smccme.edu/apply>.

## Associate in Science

### Business Administration

General Education Requirements			
ENGL	100	English Composition.....	3 credits
ENGL	115	Introduction to Literature .....	3 credits
FIGS	100	Student Success .....	1 credit
MATH	112	Quantitative Reasoning.....	3 credits
MATH	155	Statistics .....	3 credits
		Science Elective with Lab .....	4 credits
		Fine Arts Elective.....	3 credits
		Social Science Elective.....	3 credits
		Humanities Elective.....	3 credits
		Diversity/Ethical Reasoning Elective .....	3 credits
		English Communication Elective .....	3 credits
Major Required Courses			
ACCT	105	Financial Accounting .....	3 credits
ACCT	155	Managerial Accounting .....	3 credits
BUSN	100	Introduction to Business .....	3 credits
BUSN	260	Business Law .....	3 credits
BUSN	151	Spreadsheet Applications <b>OR</b>	
BUSN	195	Business Modeling with Excel .....	3 credits

ECON	120	Microeconomics.....	3 credits
ECON	125	Macroeconomics.....	3 credits
		Business Capstone: ACCT 205; BUSN 255; or BUSN 265 .....	3 credits
		Business Electives.....	6 credits
Total Credits Required for Degree:			62 credits

## Associate in Science Business Administration

Sport Management Option

General Education Requirements			
ENGL	100	English Composition.....	3 credits
ENGL	115	Introduction to Literature .....	3 credits
FIGS	100	Student Success .....	1 credit
MATH	112	Quantitative Reasoning.....	3 credits
MATH	155	Statistics.....	3 credits
PSYC	100	Introduction to Psychology .....	3 credits
		Science Elective with Lab .....	4 credits
		Fine Arts Elective.....	3 credits
		Humanities Elective.....	3 credits
		Free Elective.....	3 credits
Major Required Courses			
ACCT	105	Financial Accounting .....	3 credits
ACCT	155	Managerial Accounting .....	3 credits
BUSN	100	Introduction to Business .....	3 credits
BUSN	200	Marketing.....	3 credits
BUSN	255	Human Resource Management.....	3 credits
		Economics Elective.....	3 credits
PSYC	230	Sport Psychology.....	3 credits
SPTM	105	Foundation of Sport .....	3 credits
SPTM	155	Introduction to Sport Management .....	3 credits
SPTM	200	Sport Management Internship I .....	3 credits
SPTM	205	Sport and Facilities Management.....	3 credits
Total Credits Required for Degree:			62 credits

## Cardiovascular Technology

The Cardiovascular Technology program provides graduates with the skills necessary to work with medical professionals in cardiac catheterization laboratories, cardiac surgery, electrocardiography/stress laboratories, and echocardiography departments. Students complete a combination of general education and required core courses in cardiovascular physiology and pathophysiology, medical electronics and instrumentation, and applied cardiovascular techniques in either invasive cardiology or echocardiography.

Clinical opportunities in patient care areas at various health care sites will be completed throughout their educational experience. The clinical component of the program includes more than 1,200 hours of patient care experience over four of the five semesters and is closely aligned with the cardiovascular curriculum.

Graduates of the Cardiovascular Technology program are eligible to take either the Registered Cardiac Sonographer (RCS) or the Registered Cardiovascular Invasive Specialist (RCIS) examination from Cardiovascular Credentialing International. The growth in cardiovascular surgeries, diagnostic procedures and interventional techniques, and the continued advances in echocardiography and non-invasive cardiology, has increased the demand for qualified cardiovascular technologists throughout the nation.

*Upon completion of the Cardiovascular Technology program, graduates will be able to:*

- Demonstrate attitudes and behaviors in the clinical setting consistent with a technologist level Cardiovascular Care Provider.
- Demonstrate and perform in the clinical setting, diagnostic and/or interventional procedures.
- Calculate invasive or non-invasive hemodynamic measurements in the clinical setting.
- Set up and effectively operate diagnostic equipment for cardiovascular procedures.
- Assist the cardiologist with non-invasive, invasive and therapeutic procedures utilizing aseptic technique.

### *Cardiovascular Technology Admission Requirements*

For information about Southern Maine Community College health science admission requirements, visit the Admissions area of the website at [www.smccme.edu/admissions-aid/health-science-applicants](http://www.smccme.edu/admissions-aid/health-science-applicants). High School or post-secondary coursework in algebra and biology is recommended.

## **Associate in Science**

### **Cardiovascular Technology**

General Education Requirements				
ENGL	100	English Composition .....	3 credits	
ENGL	115	Introduction to Literature .....	3 credits	
FIGS	102	Student Success – Health Sciences .....	1 credit	
MATH	130	Technical Mathematics .....	3 credits	
BIOL	132	Anatomy and Physiology I with Lab .....	4 credits	
BIOL	138	Anatomy and Physiology II with Lab .....	4 credits	
		Fine Arts or Humanities Elective .....	3 credits	
PSYC	100	Introduction to Psychology .....	3 credits	
HLTH	155	Pharmacology .....	3 credits	
PHYS	110	Technical Physics .....	4 credits	
Major Required Courses				
CARD	100	Intro to Cardiovascular Technology .....	3 credits	
CARD	105	Medical Instrumentation .....	3 credits	
CARD	115	Electrocardiogram Interpretation .....	3 credits	
CARD	120	Vascular Imaging and Pathology .....	3 credits	
CARD	125	Clinical Practicum I .....	1 credit	
CARD	160	Cardiovascular Physiology/Patho I .....	3 credits	
CARD	175	Clinical Practicum II .....	4 credits	
CARD	210	Cardiovascular Physiology/Patho II .....	3 credits	
CARD	225	Clinical Practicum III .....	6 credits	
CARD	275	Clinical Practicum IV .....	12 credits	
<b>OPTION I : INVASIVE CARDIOVASCULAR TECHNOLOGY</b>			<b>10 credits</b>	
CARD	140	Radiation Safety in Invasive Cardiology .....	1 credit	
CARD	150	Invasive Cardiovascular Tech I .....	3 credits	
CARD	155	Invasive Cardiovascular Tech Lab I .....	1 credit	
CARD	190	Clinical Hemodynamics .....	2 credits	
CARD	200	Invasive Cardiovascular Tech II .....	3 credits	
<b>OPTION II: ECHOCARDIOGRAPHY CARDIOVASCULAR TECHNOLOGY</b>			<b>10 credits</b>	
CARD	165	Ultrasound Physics and Instrumentation .....	3 credits	
CARD	170	Echocardiography I .....	3 credits	
CARD	171	Echocardiography I Lab .....	1 credits	
CARD	220	Echocardiography II .....	3 credits	
Total Credits Required for Degree:			82 credits	

### *Advanced Certificates in Cardiovascular Technology*

The Advanced Certificates in Cardiovascular Technology give prior graduates of the SMCC Cardiovascular Program a pathway to return to complete the opposite arm of the program. The courses include all the didactic and clinical courses for the specific arm the Cardiovascular graduate is choosing to study. Other medical

professionals may be considered for this program at the discretion of the Department Chair and Medical Directors.

**Advanced Certificate in Invasive Cardiovascular Technology**

Required Courses				
CARD	150	Invasive Cardiovascular Tech I.....	3 credits	
CARD	155	Invasive Cardiovascular Tech Lab I.....	1 credit	
CARD	190	Clinical Hemodynamics .....	2 credits	
CARD	200	Invasive Cardiovascular Tech II.....	3 credits	
NURS	100	Dosage Calculations .....	1 credit	
CARD	276	Practicum IV - Invasive Cardiology .....	12 creditS	
Total Credits Required for Degree:			22 credits	

**Advanced Certificate in Non-Invasive (Echo) Cardiovascular Technology**

Required Courses				
CARD	165	Ultrasound Physics and Instrumentation .....	3 credits	
CARD	170	Echocardiography I.....	3 credits	
CARD	171	Echocardiography I Lab .....	1 credits	
CARD	220	Echocardiography II.....	3 credits	
CARD	277	Practicum IV - Echocardiography .....	12 credits	
Total Credits Required for Degree:			22 credits	

**Career Studies**

Career Studies recognizes that students can learn in many ways by offering the opportunity to earn credit for skills acquired through employment. Applicants for this program must have a minimum of four years of continuous work experience in an area of technical specialty related to one or more technology programs offered at the college. Students begin their application process by developing a portfolio which clearly outlines their work-related competencies. The department chair associated with the technical program of study will conduct a credit assessment of the portfolio and serve as an advisor to plan the remainder of the coursework required. Graduates in this program are usually employed in a variety of settings at the time of entry into the program.

**Associate in Applied Science  
Career Studies**

General Education Requirements				
ENGL	100	English Composition.....	3 credits	
ENGL	115	Introduction to Literature .....	3 credits	
		Mathematics Elective (100-level or higher) .....	3 credits	
		Science Elective with Lab .....	4 credits	
		Fine Arts or Humanities Elective .....	3 credits	
		Social Science Elective.....	6 credits	
Major Required Courses				
		Prior Learning Experience (Related to a specific trade).....	24 credits	
		Trade Related Electives .....	15 credits	
Total Credits Required for Degree:			61 credits	

**Communications and New Media**

Communications and New Media (CNM) is a multi-media program that prepares students for careers as media producers. Media producers use technology to create and enhance communication through the integration of visual, audio, and web to present design solutions. They create web sites, interactive and 3-D animation, and graphic design for print media; they edit video for TV and web; they produce and edit scripts for TV and radio.

This is a hands-on program providing students with access to industry-standard software and gear through work in state-of-the-art labs.

The CNM program provides students with a strong foundation in web, video/ audio, and print media. Once the fundamental courses have been completed, students can choose to specialize by selecting from a flexible menu of advanced curriculum options including Animation and Gaming, Digital Imaging and Design, Video and Audio Production, or Website Production. Students in the CNM program can transfer to a baccalaureate program in visual communication or art. The program is designed to prepare students for entry level employment in graphics and production.

*Upon completion of the Communications and New Media program, graduates will be able to:*

- Demonstrate the ability to incorporate language, visual images, and sounds using a variety of digital media formats to influence thought, emotions, and behaviors.
- Analyze and assess the influence of mass media on individual perceptions, social behaviors, and cultural change.
- Analyze, assess, and critique media productions for accuracy of information, audience relevance, aesthetic style, balance of perspectives, and overall effectiveness.
- Demonstrate a respect for a diversity of ideas and concepts within a group environment and the ability to effectively communicate personal viewpoints and criticism.

**Communications and New Media Admission Requirements**

For information about Southern Maine Community College admission requirements, visit the Admissions area of the website at <http://www.smcme.edu/apply>. High school or post-secondary coursework in algebra is recommended.

**Associate in Applied Science  
Communications and New Media**

General Education Requirements			
ENGL	100	English Composition .....	3 credits
ENGL	115	Introduction to Literature .....	3 credits
FIGS	100	Student Success .....	1 credit
		Mathematics Elective (100-level or higher) .....	3 credits
		Science Elective with Lab .....	4 credits
		Social Science Elective.....	6 credits
Major Required Courses			
CNMS	105	Introduction to Mass Communication .....	3 credits
CNMS	111	Digital Media.....	3 credits
CNMS	115	2D Design <b>OR</b>	
ARTS	130	2D Design .....	3 credits
CNMS Writing Elective (choose ONE):			
CNMS	125	Writing for Visual Media	
CNMS	140	Scriptwriting	
CNMS	145	Introduction to Journalism .....	3 credits
Intermediate CNMS Electives (choose TWO):			
CNMS	120	Digital Art I	
CNMS	160	Video and Audio Production Basics	
CNMS	165	Website Production	
CNMS	170	Street Photography .....	6 credits
CNMS Senior Elective (choose ONE)			
CNMS	211	Advanced Video Production	
CNMS	296	Senior Portfolio .....	3 credits
Communications and New Media (CNMS) Electives .....			21 credits
<i>may include up to 6 credits ARTS electives</i>			
Total Credits Required for Degree:			62 credits



# Computer Science

The study of computer science involves both the theory and the practice of solving problems by computer. It describes the analysis, design, implementation, and application of algorithms in order to solve complex problems. While computer science requires the study and use of several programming languages, the discipline as a whole encompasses much more; theoretical and practical mathematics, design and analysis of algorithms, and modeling of large systems are all part of computer science.

The Associate in Science in Computer Science is designed to prepare students for immediate entry into the workforce or for transfer into a Bachelor's degree program. From robotics to programmatic alteration of media to mobile applications, students receive instruction in both practical and theoretical aspects of computer science. The program offers a range of courses that will enhance students' competencies in programming languages and their applications to solve problems.

One major advantage of attending a community college is the possibility of close association with faculty and fellow students. Students who choose to study computer science at SMCC receive the benefit of small classes and the supportive environment that a community college provides.

*Upon successful completion of the program, graduates will be able to:*

- Work with various number systems and with Boolean logic
- Describe algorithms and program behavior using UML
- Select appropriate algorithms and data structures for a variety of problems
- Diagram computer hardware and its architecture, and use low-level programming languages such as assembly language
- Create computer programs in several languages, incorporating concepts such as variables, loops, arrays, objects, and other common programming constructs
- Solve software and hardware problems using logical reasoning

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## Associate in Science Computer Science

General Education Requirements				
ENGL	100	English Composition.....		3 credits
ENGL	115	Introduction to Literature .....		3 credits
FIGS	100	Student Success .....		1 credit
MATH	225	Discrete Mathematics .....		3 credits
		Science Elective with Lab .....		4 credits
ENGL	110	Oral Communications.....		3 credits
		Social Science Elective.....		9 credits
Major Required Courses				
COMM	201	Technical Writing .....		3 credits
CSCI	110	Principles of Computer Science.....		4 credits
CSCI	160	Object Oriented Design and Programming .....		4 credits
CSCI	290	Data Structures .....		4 credits
Transfer Track Option (22 credits):				
MATH	140	College Algebra <b>AND</b>		
MATH	146	College Trigonometry <b>OR</b>		
		Science Elective with Lab .....		4 credits
MATH	190	Precalculus .....		3 credits

MATH	260	Calculus I .....	4 credits
MATH	270	Calculus II .....	4 credits
CSCI	250	Computer Organization .....	4 credits
CSCI	296	Systems Programming in C .....	3 credits
<b>Career Track Option (22 credits):</b>			
MATH	140	College Algebra .....	3 credits
MATH	146	College Trigonometry .....	1 credit
MATH	155	Statistics .....	3 credits
		Computer Science Electives .....	15 credits
<b>Total Credits Required for Degree:</b>			<b>63 credits</b>

## Construction Technology

The Construction Technology program provides technical and extensive hands-on experience in residential construction preparing its graduates for a rewarding career in the construction industry.

The construction field involves constantly changing technology in today's continuing search for more energy-efficient structures. Technically trained professionals with innovative ideas and the skills to apply these ideas and knowledge are needed to meet the challenges of today's building industry. The program curriculum is constantly under revision to keep up with industry demands. Related subjects such as print reading, drafting, building science, English composition and math provide students with a well rounded education, allowing them to obtain employment in a variety of positions within the construction business or its related fields.

All students participate in framing and finish projects, which provide them with the knowledge and skills to build structures according to standard trade practices. All classes are conducted in an environment that prepares students for the expectations of future employers.

*Upon completion of the Construction Technology program, graduates will be able to:*

- Design and build a single-family structure.
- Interpret and use the current International Residential Code (IRC).
- Install all exterior finishes and different types of siding and roofing.
- Frame and finish a set of stairs.
- Conduct a single family dwelling energy audit using modern testing equipment such as a blower door, moisture meter, and IR camera.
- Install all interior finishes in a residential structure.
- Estimate all materials needed for a residential building.
- Work safely with hand and power tools and have completed the requirements and possess a 10 hour construction OSHA card.
- Identify and deal with a variety of environmental issues pertaining to the industry.

### Construction Technology Admission Requirements

For information about Southern Maine Community College admission requirements, visit the Admissions area of the website at <http://www.smccme.edu/apply>. High School or post-secondary coursework in algebra, physics, and geometry is recommended.

## Associate in Applied Science Construction Technology

General Education Requirements			
ENGL	100	English Composition .....	3 credits
ENGL	115	Introduction to Literature .....	3 credits
FIGS	100	Student Success .....	1 credit
		Mathematics Elective (MATH 112 or higher) .....	3 credits
PHYS	110	Technical Physics with Lab .....	4 credits
		Fine Arts or Humanities Elective .....	3 credits

Social Science Elective.....			6 credits
<b>Major Required Courses</b>			
AEDD	100	Print Reading.....	3 credits
CONS	105	Tool Safety .....	1 credit
CONS	115	Practical Building Concepts and Leveling .....	3 credits
CONS	125	Framing Methods.....	3 credits
CONS	135	Roof Framing and Interior Coverings .....	3 credits
CONS	147	Building Science and Energy Auditing .....	3 credits
CONS	150	Exterior Finishes and Sustainable Construction .....	3 credits
CONS	200	Kitchen Design and Millwork.....	3 credits
CONS	210	Interior Finishes and Stair Construction .....	3 credits
OSHA	120	Construction Safety.....	1 credit
Technical Electives .....			12 credits
<b>Total Credits Required for Degree:</b>			<b>61 credits</b>

## ***Certificate Construction Technology***

<b>Required Courses</b>			
ENGL	100	English Composition.....	3 credits
FIGS	100	Student Success .....	1 credit
Mathematics Elective (MATH 112 or higher) .....			3 credits
AEDD	100	Print Reading.....	3 credits
CONS	105	Tool Safety .....	1 credit
CONS	115	Practical Building Concepts and Leveling .....	3 credits
CONS	125	Framing Methods.....	3 credits
CONS	135	Roof Framing and Interior Coverings .....	3 credits
CONS	147	Building Science and Energy Auditing .....	3 credits
CONS	150	Exterior Finishes and Sustainable Construction .....	3 credits
OSHA	120	Construction Safety.....	1 credit
<b>Total Credits Required for Degree:</b>			<b>27 credits</b>

## **Criminal Justice**

The Criminal Justice program provides students with the skills and abilities they need to succeed in dynamic and rewarding criminal justice careers. Students will find career opportunities in law enforcement, forensics, corrections, probation/parole, private security and investigations, and juvenile and adult protective services.

The professional expertise of the faculty provides an important blending of academic accomplishment and practical experience. Students benefit from their professors' real world expertise in police patrol, investigations, evidence technology/forensics, crime scene reconstruction, drug and selective enforcement, supervision, management/leadership, corrections, and criminal prosecution. Career guidance and networking opportunities with criminal justice agencies and practitioners further enhance students' academic preparation and career success.

An internship program is offered to second year students who have maintained a 3.2 GPA. This one semester course offers students the experience of being an active part of a criminal justice, public safety, or social service agency. The Comparative Criminal Justice course features a one-week trip during the spring semester break to Ireland to compare their law enforcement systems with those of the United States. Two Crime Scene Reconstruction courses build on the Criminalistics course giving students substantial classroom, lab, and hands on experience in this rapidly evolving discipline. Service learning experiences are offered in selected criminal justice courses.

*Upon completion of the Criminal Justice program, graduates will be able to:*

- Demonstrate general knowledge of the structure, process, and relationships between law enforcement, the courts and correctional system.
- Compare and contrast the organization and practices of foreign law enforcement agencies to their American counterparts within the criminal justice system.
- Compare and contrast the juvenile justice and criminal justice systems in American society.
- Explain the Scientific Method as it applies to crime and incident scene reconstruction and analysis.
- Describe the essential laws and legal procedures that define and guide criminal justice practices in a democratic society, e.g. rules of evidence/laws of arrest, search and seizure.
- Identify, analyze and apply current best practices of law enforcement techniques.
- Understand, compare and contrast the prevailing theories of adult and juvenile criminal behavior in American society.
- Explain the historical and current perspective of the laws pertaining to arrest, search and seizure.
- Prepare a case for court presentation through use of appropriate information gathering techniques, report writing, pre-court preparation and proper courtroom procedure.
- Explain essential aspects of the community policing philosophy.

**Criminal Justice Admission Requirements**

For information about Southern Maine Community College admission requirements, visit the Admissions area of the website at <http://www.smccme.edu/apply>. High School or post-secondary coursework in algebra is recommended.

**Associate in Applied Science  
Criminal Justice**

General Education Requirements				
ENGL	100	English Composition .....	3 credits	
ENGL	115	Introduction to Literature .....	3 credits	
FIGS	100	Student Success .....	1 credit	
		Mathematics Elective (100-level or higher) .....	3 credits	
		Science Elective with Lab .....	4 credits	
		Fine Arts or Humanities Elective .....	3 credits	
		Social Science Elective.....	6 credits	
Major Required Courses				
CJUS	105	Introduction to Criminal Justice .....	3 credits	
CJUS	115	Introduction to Criminology.....	3 credits	
CJUS	130	Laws of Arrest, Search, and Seizure .....	3 credits	
CJUS	215	Substantive Criminal Law .....	3 credits	
CJUS	245	Case Preparation.....	3 credits	
CJUS	255	Criminal Investigation .....	3 credits	
		Criminal Justice Electives .....	21 credits	
Total Credits Required for Degree:			62 credits	

**Culinary Arts**

As the third largest national industry and the largest in the state of Maine, the food industry estimates more than 60,000 additional chefs will be needed each year in the United States. SMCC’s Culinary Arts program, Maine’s only American Culinary Federation Accredited post-secondary program, offers instruction in food preparation and service to supply these demands. The program curriculum covers all aspects of fundamental food preparation including meats, poultry, fish, vegetables, sauces, soups, bread and pastry baking, desserts, specialty cooking, dining room service, and more. Related instruction gives emphasis to management techniques, including inventory control, culinary mathematics, personnel and business management, bookkeeping, and menu planning. General education with coursework in English, math, and social science, and a 400-hour externship rounds out the program. Opportunities for graduates are wide ranging in all areas of both direct food preparation and related management in the food service field.

*Upon completion of the Culinary Arts program, graduates will be able to:*

- Demonstrate the proper application of dry, moist, and combination cooking methods to a variety of food products and test those products for doneness.
- Demonstrate knife cuts and portion control.
- Demonstrate current Food Service sanitation procedures.
- Serve food according to professional industry standards.
- Calculate costs and apply procedures in order to run a cost effective foodservice establishment.
- Create menus that incorporate menu-planning principles that maximize sales and profits.
- Produce a variety of bakery products using standard baking procedures and evaluate the products based on method, timing, appearance, texture, cell structure and overall eating quality.

### *Culinary Arts Admission Requirements*

For information about Southern Maine Community College admission requirements, visit the Admissions area of the website at <http://www.smccme.edu/apply>. High School or post-secondary coursework in algebra is recommended.

## **Associate in Applied Science**

### **Culinary Arts**

General Education Requirements			
ENGL	100	English Composition.....	3 credits
ENGL	115	Introduction to Literature .....	3 credits
		Mathematics Elective (100-level or higher) .....	3 credits
NUTR	110	Normal Nutrition with Lab .....	4 credits
		Fine Arts or Humanities Elective* .....	3 credits
PSYC	100	Introduction to Psychology .....	3 credits
		Social Science Elective.....	3 credits
Major Required Courses			
BUSN	255	Human Resource Management.....	3 credits
CULA	102	Introduction to Culinary, Hospitality and Tourism .....	3 credits
CULA	103	ServSafe® .....	1 credits
CULA	110	Culinary Skills .....	4 credits
CULA	120	Basic Food Preparation .....	4 credits
CULA	130	Basic Baking .....	4 credits
CULA	140	Food and Beverage Purchasing .....	4 credits
CULA	200	Culinary Arts Externship.....	3 credits
CULA	233	Advanced Baking.....	2 credits
CULA	234	Advanced Pastry Techniques .....	2 credits
CULA	241	Planning/Dining Room Service .....	2 credits
CULA	250	Menu Planning and Development.....	3 credits
CULA	260	Modern Culinary Trends .....	2 credits
CULA	261	Catering.....	2 credits
CULA	262	Chef in Residence <b>OR</b> .....	
CULA	264	Classical French Cuisine.....	2 credits
CULA	263	International Cuisine.....	2 credits
CULA	270	Beverage .....	2 credits
Total Credits Required for Degree:			67 credits

*\*It is recommended that students fulfill the Fine Arts or Humanities elective by taking Spanish I.*

## **Cyber Security**

The Cyber Security program gives students an opportunity to train in the fastest growing areas in IT (Information Technology) referred to as Information Security and Security Assurance. The program will cover a wide range of topics including computer forensics, ethical hacking, laws, policies, network security and physically securing systems in a data center. The curriculum is designed to aid students in preparing for many of the certification exams in the field. The curriculum will include large amounts of hands on experience along with simulation training and group/team based learning to simulate a professional work environment.

The program provides students experience in network infrastructures, Cisco Routers, Cisco Switches, wireless routers, and security procedures, tools and software.

*Upon completion of the Cyber Security program, graduates will be able to:*

- Install, configure and maintain network infrastructures
- Create and maintain security policies and procedures
- Identify security threats in large area network LAN (Local Area Network), WAN (Wide Area Network), and virtual environments
- Write security procedures and policies

**Cyber Security Admission Requirements**

For information about Southern Maine Community College admission requirements, visit the Admissions area of the website at <http://www.smccme.edu/admissions>. High School or post-secondary coursework in algebra and physics is recommended.

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**Associate in Applied Science  
Cyber Security**

General Education Requirements			
ENGL	100	English Composition.....	3 credits
ENGL	115	Introduction to Literature .....	3 credits
FIGS	100	Student Success .....	1 credit
MATH	125	Introduction to Discrete Mathematics .....	3 credits
		Science Elective with Lab .....	4 credits
ENGL	110	Oral Communications.....	3 credits
		Social Science Elective.....	6 credits
Major Required Courses			
CMIT	100	Introduction to Information Technology.....	3 credits
CMIT	105	Network Fundamentals.....	3 credits
CMIT	225	Routing and Switching Fundamentals .....	3 credits
INSC	160	Fundamentals of Network Security .....	4 credits
INSC	170	Computer Forensics .....	4 credits
INSC	270	Information Security and Ethics .....	4 credits
INSC	280	Ethical Hacking.....	4 credits
		Mathematics Elective (MATH 140 or higher) .....	6 credits
		Computer or Technical Elective (Choose two: CMIT 110, CMIT 120, CMIT 135, CMIT 140, CMIT 215, CMIT 220, CMIT 240, CMIT 270, CNMS 165, CNMS 275, COMM 201, CSCI 110, INSC 260 or INSC 275).....	6 credits
Total Credits Required for Degree:			60 credits

**Early Childhood Education**

The Early Childhood Education program is designed to prepare individuals as skilled Early Childhood Education professionals. Graduates will meet state licensing standards for immediate entry into the field or to transfer to a four year institution. The coursework combines theory and practical experiences based on standards set by the National Association for the Education of Young Children (NAEYC). In conjunction with the Early Childhood

Education program, Spring Point Children’s Center provides quality educational experiences for preschool children, ages 3 to 5. This on-campus, NAEYC accredited center is a valuable resource providing a laboratory setting for students in the program.

*Upon completion of the Early Childhood Education program, graduates will be able to:*

- Promote child development and learning
- Build family and community relationships
- Observe, document, and assess to support young children and families
- Demonstrate developmentally effective approaches
- Apply content knowledge to build meaningful curriculum
- Demonstrate professional characteristics

SMCC Learning Outcomes are drawn from: *NAEYC Standards for Early Childhood Professional Preparation*

*Early Childhood Education Admission Requirements*

For information about Southern Maine Community College admission requirements, visit the Admissions area of the website at <http://www.smccme.edu/apply>. High School or post-secondary coursework in algebra, chemistry, and biology is recommended.

**Associate in Applied Science  
Early Childhood Education**

General Education Requirements				
ENGL	100	English Composition.....	3 credits	
ENGL	115	Introduction to Literature .....	3 credits	
FIGS	100	Student Success .....	1 credit	
MATH	112	Quantitative Reasoning <b>OR</b>		
MATH	115	Foundations of Math for Teachers I .....	3 credits	
		Science Elective with Lab .....	4 credits	
ENGL	110	Oral Communications.....	3 credits	
PSYC	100	Introduction to Psychology .....	3 credits	
		Social Science Elective.....	3 credits	
Major Required Courses				
ECED	100	Introduction to Early Childhood Education* .....	3 credits	
ECED	110	Child Development* .....	3 credits	
ECED	150	Infant and Toddler Caregiving* .....	3 credits	
ECED	160	Positive Guidance* .....	3 credits	
ECED	200	Children’s Literature and Language Arts* .....	3 credits	
ECED	210	Teaching Young Children with Exceptionalities* .....	3 credits	
ECED	220	Observation and Record Keeping* .....	3 credits	
ECED	225	Student Teaching Practicum I* .....	4 credits	
ECED	250	Curriculum Development for Young Children* .....	3 credits	
ECED	270	Diverse and Responsive Education* .....	3 credits	
ECED	275	Student Teaching Practicum II* .....	6 credits	
		Early Childhood Program Elective* .....	3 credits	
Total Credits Required for Degree:			63 credits	

\*To receive departmental credit students must receive a grade of C or better in all Early Childhood Education courses. Students must successfully complete each of the practicums within two attempts per course in order to fulfill program requirements.

**Education**

The Associate of Science in Education degree program is designed to prepare pre-service teachers with the necessary knowledge and skills for employment and/or future study in the field of K-12 education. Successful graduates experience field work in public school classrooms in each education course taken as a way to connect theory into actual practice. Topics that are covered, beyond core requirements, seek to address the theories of how human beings learn, the compelling issues related to American education, the developmental stages of

literacy acquisition from birth to grade 12, and an in depth overview on issues related to Special Education law and students with special needs.

Graduates of the program are eligible for certification as Education Technician II with the designation as “highly qualified”.

*Upon completion of the Education program, graduates will be able to:*

- Demonstrate an understanding of human development, group dynamics, organizational structure, how public schools are organized, and how national policy is set.
- Demonstrate an understanding of “best practice” in teaching that promotes optimal learning for all students.
- Demonstrate an understanding of the major issues in public education today that inform the organization of schools in the twenty-first century.
- Understand the federal and state laws that define resources and supports for special education students as defined by IDEA and understand the myriad of disabilities that are identified in students in public schools.
- Identify and select interventions which promote growth towards goals set out in an individual’s IEP.
- Understand the need for collaboration with peers and colleagues as a tool to continually learn and perfect the craft of teaching.
- Use verbal and oral communication, interpersonal relationships, and other related personal skills (such as self-discipline and time management) effectively.

SMCC Learning Outcomes are adapted from the Maine Department of Education.

*Education Admission Requirements*

For information about Southern Maine Community College admission requirements, visit the Admissions area of the website at <http://www.smccme.edu/apply>.

**Associate in Science  
Education**

General Education Requirements			
ENGL	100	English Composition .....	3 credits
ENGL	115	Introduction to Literature .....	3 credits
FIGS	100	Student Success .....	1 credit
MATH	115	Foundations of Mathematics for Teachers I.....	3 credits
MATH	116	Foundations of Mathematics for Teachers II.....	3 credits
		Science Elective with Lab .....	8 credits
		Fine Arts Elective.....	3 credits
ENGL	110	Oral Communication .....	3 credits
PSYC	100	Introduction to Psychology .....	3 credits
Major Required Courses			
EDUC	100	Introduction to Teaching.....	3 credits
EDUC	105	Introduction to American Education .....	3 credits
EDUC	115	Culturally Responsive Teaching.....	3 credits
EDUC	220	Foundations of Literacy.....	3 credits
EDUC	230	Teaching Exceptional Learners .....	3 credits
PSYC	220	Lifespan Development .....	3 credits
		History Elective .....	3 credits
		Philosophy Elective .....	3 credits
		Liberal Studies or Education Electives.....	6 credits
		Free Elective.....	3 credits
Total Credits Required for Degree:			63 credits



Advanced Certificate in Education

The Advanced Certificate in Education is designed to prepare students who have already earned 60 college-level credits to earn the 90 credits need to be certified as an Educational Technician III. This program encompasses a blend of coursework and internship as a way to fully develop and prepare candidates to be confident and competent in their future roles as an Educational Technician III. The coursework is designed to cover important educational theory such as literacy, math, English language learners (ELL), and exceptionalities. An integral part of this program will be a full semester of internship experience in a public school setting. Please note a successful background, criminal records, fingerprinting and reference check may be required for licensure. To see full licensure requirements please visit the Maine Department of Education website (<http://www.maine.gov/doe/cert/initial/edtech/>).

Upon completion of the Advanced Certificate in Education, graduates will be able to:

- Demonstrate a knowledge of best practices in teaching as a way to set goals and objectives for learning based on state and national standards and local curriculum.
- Demonstrate an understanding of intellectual/cognitive, social, and emotional development, and other characteristics of the diversity of all learners.
- Demonstrate an understanding of ways to create an environment of respect and rapport and a culture for learning for all students in the implementation of classroom procedures, behavior management to assure a focus on learning.
- Understand and utilize many facets of assessment that are a means to document progress over time.
- Demonstrate professional characteristics.

Advanced Certificate in Education Admission Requirements

Associate’s Degree or 60 college-level credits earned. For information about Southern Maine Community College admission requirements, visit the Admissions area of the website at <http://www.smccme.edu/apply>.

Advanced Certificate  
Education

Required Courses			
Education Electives .....			24 credits
EDUC	250	Theory into Practice .....	6 credits
Total Credits Required for Degree:			30 credits

Electrical Engineering Technologies

The Electrical Engineering Technology programs provide the education and training needed to install, maintain and troubleshoot electrical devices and equipment. Students explore topics such as basic circuits, wiring practices, electronics, programmable logic controllers, sensors, hydraulics, motors – devices and principles used in all manufacturing processes. In addition, students are exposed to the practice and regulations of residential and commercial wiring and renewable energy. An emphasis is placed on developing strong and logical troubleshooting skills.

Graduates are eligible to take the State of Maine Journeyman Electrician Exam. Two of the four years on-the-job training that is required for a Journeyman Electrician's license are awarded to graduates upon completing this program. No previous experience in electricity is required, but applicants should have a strong math and science background. Graduates find employment as an industrial electrician/technician for manufacturing companies, engineering assistant, technician with power or communication companies, residential and commercial electrical construction, electrical equipment sales, and many other related areas. Graduates of the associate degree program who wish to pursue a baccalaureate degree may transfer with junior year status to the University of

Upon completion of an Electrical Engineering Technology program, graduates will be able to:

- Apply circuit analysis, design, and electrical principles to install, test, troubleshoot and maintain electrical and electronic systems.
- Work in the electrical field as an electrical technician or engineering assistant.
- Meet the educational requirements for various limited electrician licenses.
- Apply for the State of Maine Journeyman's Electrician Examination.
- Articulate into a four-year engineering degree program.

Electrical Engineering Admission Requirements

For information about Southern Maine Community College admission requirements, visit the Admissions area of the website at <http://www.smccme.edu/apply>. High School or post-secondary coursework in algebra and physics is recommended.

Associate in Applied Science  
Electrical Engineering Technologies

General Education Requirements				
ENGL	100	English Composition .....	3 credits	
ENGL	115	Introduction to Literature .....	3 credits	
FIGS	100	Student Success .....	1 credit	
MATH	140	College Algebra .....	3 credits	
MATH	146	Introduction to Trigonometry .....	1 credits	
PHYS	150	College Physics I with Lab.....	4 credits	
		Fine Arts or Humanities Elective .....	3 credits	
		Social Science Elective.....	3 credits	
Major Required Courses				
AEDD	105	CAD Graphics .....	3 credits	
ELEC	101	Introduction to Electrical Engineering Technologies .....	3 credits	
ELEC	110	DC Circuits .....	3 credits	
ELEC	120	Digital Electronics.....	3 credits	
ELEC	130	Programmable Logic Controllers .....	3 credits	
ELEC	140	AC Circuits .....	3 credits	
ELEC	170	Three-Phase Circuits .....	3 credits	
ELEC	175	Wiring Practices .....	3 credits	
ELEC	215	Electrical Machinery.....	3 credits	
ELEC	230	Electronics I.....	3 credits	
ELEC	235	Electronics II.....	3 credits	
ELEC	240	Fluid Power Systems .....	3 credits	
ELEC	250	National Electrical Code .....	3 credits	
ELEC	260	Motor Controls and Automation.....	3 credits	
ELEC	265	Renewable Energy Resources .....	3 credits	
Total Credits Required for Degree:			66 credits	

Electrician Technology Certificate

The Electrician Technology program provides the educational courses the State of Maine requires for electrical licensing and will prepare you for exciting and well-paying work in the electrical trade. Circuits, devices and wiring practices will be examined in both the classroom as well as the lab. Students explore topics such as basic circuits, residential and commercial wiring practices, electronics, transformers and motors. It should be noted that this is a part-time evening program and it will take at least two years to complete. Graduation from this program will fulfill the education requirements of the State of Maine Journeyman Electrician's license. Two of

the four years on-the-job training that is required for a Journeyman Electrician's license are awarded to graduates upon completing this program.

Graduates find employment as industrial electrician/technician for manufacturing companies, residential and commercial electrician, electrical equipment sales, self-employed contractor and many other related areas.

*Upon completion of the Electrician Technology Certificate, graduates will be able to:*

- Install, test, maintain and troubleshoot electrical devices, circuits and systems.
- Sit for the State of Maine Journeyman Electrician Exam.
- Prepare and sit for other limited electrical license exams.

**Certificate**  
**Electrician Technology**

Required Courses				
AEDD	100	Print Reading.....	3 credits	
ELEC	105	Basic Electricity I .....	2 credits	
ELEC	115	Basic Electricity II .....	2 credits	
ELEC	150	Transformers.....	2 credits	
ELEC	160	Controls I.....	3 credits	
ELEC	205	Basic Electronics I .....	3 credits	
ELEC	210	Electrical Topics.....	3 credits	
ELEC	220	Electric Motors.....	2 credits	
ELEC	250	National Electrical Code .....	3 credits	
ELEC	280	Controls II.....	2 credits	
ENGL	100	English Composition.....	3 credits	
FIGS	100	Student Success .....	1 credit	
MATH	140	College Algebra .....	3 credits	
MATH	146	Introduction to Trigonometry .....	1 credits	
Total Credits Required for Degree:				33 credits

**Emergency Medical Services/Paramedicine**

Paramedicine offers an exciting and challenging career within the field of Emergency Medical Services (EMS). Paramedics are members of the health care team that provides advanced level care in the pre-hospital environment under the direction of a physician. Employment opportunities are available with municipal and private ambulances, fire departments, hospitals, clinics, and in industrial settings.

Admission into the Paramedicine program requires that a student be a licensed Emergency Medical Technician (EMT) for six months with 50 documented EMS calls. Existing paramedics may apply to have certain courses waived if working toward a degree.

Students gain entry-level competency in many new skills, including comprehensive patient assessment, endotracheal intubation, intravenous therapy, medication administration, cardiac rhythm interpretation, and defibrillation. Included in the curriculum (for additional fees) are certifications in ACLS (Advanced Cardiac Life Support), PALS (Pediatric Advanced Life Support), and PHTLS (Pre-hospital Trauma Life Support). The program utilizes the National Standards for Paramedicine.

The clinical component of the program consists of approximately 700 hours of clinical time in a variety of settings including hospitals, medical facilities, and paramedic services. Students complete a portion of their field internship with a high volume EMS service in a major city.

The Paramedic program at Southern Maine Community College is accredited by the Commission on Accreditation of Allied Health Education Programs ([www.caahep.org](http://www.caahep.org)) upon the recommendation of Committee on Accreditation of Educational Programs for the Emergency Medical Services Professions (CoAEMSP).

To contact CAAHEP:

Commission on Accreditation of Allied Health Education Programs  
1361 Park Street

Clearwater, FL 33756  
 (727) 210-2350  
[www.caahep.org](http://www.caahep.org)

To contact CoAEMSP:

8301 Lakeview Parkway, Suite 111-312  
 Rowlett, TX 75088  
 (214) 703-8445  
[www.coaemsp.org](http://www.coaemsp.org)

*Upon completion of the program, graduates will be able to:*

- Perform a comprehensive assessment on a patient and communicate the findings to a physician.
- Demonstrate the ability to comprehend, apply and evaluate clinical information to implement the treatment plan for patients in the pre-hospital settings.
- Demonstrate technical proficiency in all pre-hospital skills including cardiac rhythm recognition, airway management and medication administration.
- Recognize that paramedics are an essential component of the continuum of care and service among health resources.

### *Emergency Medical Services Admission Requirements*

For information about Southern Maine Community College health science admission requirements, visit the Admissions area of the website at [www.smcme.edu/admissions-aid/health-science-applicants](http://www.smcme.edu/admissions-aid/health-science-applicants). High School or post-secondary coursework in algebra, chemistry, and biology is recommended.

## **Associate in Applied Science Paramedicine**

General Education Requirements			
ENGL	100	English Composition .....	3 credits
ENGL	115	Introduction to Literature .....	3 credits
FIGS	102	Student Success – Health Sciences .....	1 credit
MATH	112	Quantitative Reasoning (or higher) .....	3 credits
BIOL	132	Anatomy and Physiology I with Lab .....	4 credits
BIOL	138	Anatomy and Physiology II with Lab .....	4 credits
		Fine Arts or Humanities Elective .....	3 credits
PSYC	100	Introduction to Psychology .....	3 credits
Major Required Courses			
EMSP	115	Paramedic Procedures .....	3 credits
EMSP	120	Paramedic Pharmacology and Medication Administration .....	3 credits
EMSP	150	Introductory Cardiology .....	3 credits
EMSP	165	EMS Operations .....	3 credits
EMSP	170	Patient Assessment .....	4 credits
EMSP	175	Advanced Cardiology .....	4 credits
EMSP	200	Paramedic Clinical Practicum I .....	3 credits
EMSP	201	Medical Emergencies .....	5 credits
EMSP	205	Trauma Management .....	4 credits
EMSP	235	Special Populations .....	4 credits
EMSP	250	Clinical Practicum II .....	4 credits
EMSP	280	Paramedic Boards Review .....	3 credits
EMSP	285	Paramedic Field Internship .....	6 credits
Total Credits Required for Degree:			73 credits

*A minimum grade of B- (80) must be achieved in each program (EMSP) course.*

# Fire Science

The Fire Science program is designed to provide both pre-service and in-service students with sound technical and academic experiences, enabling them to assume positions of responsibility as members of fire departments or as technical and supervisory employees of industrial firms and insurance companies. The program focuses on developing skills in comprehensive approaches to fire protection that utilize cost-effective proactive, reactive and management methods. The ultimate goal is to assist the student to develop the appropriate skills and knowledge for professional fire protection. Fire Science courses are available at off campus locations around the state. In addition to the associate in applied science degree, a one-year, 25-credit certificate option is available.

Practical technical instruction is designed to meet fire and life safety needs; responsibilities and obligation of fire protection in engineering, building design, plant protection; fire investigation; and all other fields where a hazard may be involved. Graduates of the program have been employed as municipal and industrial firefighters, EMTs, safety technicians, fire insurance inspectors, wildland fire fighters, inspection bureau representatives, and state fire inspectors, many of whom have earned their degree while employed in their area of specialty.

SMCC Fire Science curriculum follows the National Fire Academy's Fire and Emergency Higher Education (FESHE) collaborative recommendations as far as practicable. Course objectives are based on National Fire Protection Association (NFPA) Professional Qualification Standards and other occupational standards and recommended practices. Course credit is granted for prior learning, work experience and earned state and national certifications.

*Upon completion of the Fire Science program, graduates will be able to:*

- Analyze and apply proactive fire prevention and control methods for safe and cost effective fire protection.
- Analyze and apply reactive fire and emergency scene operations for safe and cost effective fire protection.
- Examine and appraise principles of supervision and management necessary for effective leadership and administration in fire/rescue service.

## Fire Science Admission Requirements

For information about Southern Maine Community College admission requirements, visit the Admissions area of the website at <http://www.smccme.edu/apply>. High School or post-secondary coursework in algebra, chemistry, and physics is recommended.

## Associate in Applied Science Fire Science

General Education Requirements				
ENGL	100	English Composition.....	3 credits	
ENGL	115	Introduction to Literature .....	3 credits	
MATH	130	Technical Mathematics <b>OR</b>		
MATH	140	College Algebra .....	3 credits	
CHEM	103	Chemistry for Emergency Responders with Lab <b>OR</b>		
BIOL	132	Anatomy and Physiology I with Lab.....	4 credits	
PSYC	100	Introduction to Psychology .....	3 credits	
		Fine Arts or Humanities Elective .....	3 credits	
		Social Science Elective.....	3 credits	
Major Required Courses				
CHEM	102	Chemistry for Emergency Responders <b>OR</b>		
FIRE	120	Fire Behavior and Combustion .....	3 credits	
FIRE	105	Fire Studies and Stayin' Alive FIG .....	3 credits	
FIRE	110	Fire Protection Systems .....	3 credits	
FIRE	115	Fire Service Building Construction.....	3 credits	
FIRE	145	Public Safety, Survival and Wellness <b>OR</b>		
FIRE	205	Fire and Life Safety Educator .....	3 credits	
FIRE	150	Fire Inspector .....	3 credits	
FIRE	155	Fire Service Hydraulics .....	3 credits	
FIRE	200	Hazardous Materials .....	3 credits	
FIRE	215	Fire Service Leadership .....	3 credits	

FIRE	250	Fire Ground Operations .....	3 credits
FIRE	265	Community Risk Reduction .....	3 credits
FIRE	106	Firefighter I and II <b>OR</b>	
EMST	125	Emergency Medical Technician .....	6-7 credits
		Fire Science Electives .....	3 credits
Total Credits Required for Degree:			64-65 credit

## Certificate

### Fire Science/Emergency Medical Technician

The Fire Science/Emergency Medical Technician certificate program prepares the student to enter the fire/emergency medical services (EMS). Students will earn entry-level or job-ready basic training in firefighting and EMS as well as college-level academic habits of success. They will also gain a fundamental understanding of the fire and EMS mission and career expectations. Coursework will also ensure appropriate writing and math skills.

General Education Requirements			
ENGL	100	English Composition .....	3 credits
MATH	130	Technical Math .....	3 credits
Major Required Courses			
EMST	125	Emergency Medical Technician .....	7 credits
FIRE	105	Fire Studies and Stayin' Alive FIG .....	3 credits
FIRE	106	Firefighter I and II <b>OR</b>	
Student Live-In Option:			
FIRE	102	Fire Academy Part I <b>AND</b>	
FIRE	103	Fire Academy Part II .....	6-7 credits
		Fire Science Electives .....	3 credits
Total Credits Required for Certificate:			25 credits

## Health Sciences

The Associate of Science in Health Sciences degree at Southern Maine Community College (SMCC) provides students with introductory courses necessary for careers in healthcare administration, healthcare education or as a starting point for students interested in attaining a future professional degree in healthcare. The health sciences degree consists of foundational courses in science, English, math, social sciences, humanities and healthcare.

To complete the Associate of Science in Health Sciences degree each student selects an area of concentration (Healthcare Administration, Healthcare Education, or Healthcare Pre-Professional). The degree allows students to customize their educational pathway to meet their preliminary professional educational goals. This degree is especially appropriate for individuals interested in entering the field of healthcare with the goal of pursuing a future medical professional degree (physician, physician assistant, physical therapist); healthcare administration; or health education.

In addition to traditional students, the Health Science Degree is appropriate as an educational pathway for medical professionals who desire to advance their careers in healthcare management or education. The degree offers a combination of on-campus and online courses.

Students pursuing a Health Sciences Degree may opt to complete a second major in Cardiovascular Technology, Nutrition and Dietetics, Medical Assisting, Nursing, Paramedicine, Radiography, or Respiratory Therapy. Acceptance into these programs is based upon application to the program and meeting minimum entrance criteria.

*Upon completion of the Health Science program, graduates will be able to:*

- Demonstrate effective communication skills and work collaboratively with individuals and populations
- Identify and analyze ethical issues in research, health, and public health

- Describe the components of health policy and health care systems both domestically and globally
- Develop and apply critical analysis skills to contemporary health issues
- Exhibit college-level knowledge of English, math and sciences

## ***Associate in Science Health Sciences***

General Education Requirements				
ENGL	100	English Composition .....	3 credits	
ENGL	115	Introduction to Literature .....	3 credits	
FIGS	100	Student Success .....	1 credit	
		Mathematics Elective (100-level or higher) .....	3 credits	
		Science Elective with Lab .....	8 credits	
		Mathematics or Science Elective.....	3 credits	
		Fine Arts or Humanities Elective .....	3 credits	
PSYC	100	Introduction to Psychology .....	3 credits	
		English Communications Elective.....	3 credits	
		Social Science Elective.....	3 credits	
Major Required Courses				
HLTH	100	Introduction to Healthcare.....	3 credits	
HLTH	105	Medical Terminology .....	3 credits	
HLTH	120	Medical Ethics and Law .....	3 credits	
		Healthcare Track Electives .....	19 credits	
Total Credits Required for Degree:			61 credits	

## **Heating, Air Conditioning, Refrigeration and Plumbing**

The Heating, Air Conditioning, Refrigeration and Plumbing programs prepare students to install, repair and maintain refrigeration, heating and air conditioning equipment. Students learn about the components and construction of HVACR systems, temperature control, electronics, and how to read blueprints. This program incorporates a hands-on practical approach through work in the lab on HVAC equipment.

Graduates enter their field with skills and knowledge in basic electricity, heating and refrigeration systems and air conditioning systems, as well as the skills and competencies for journeyman plumbing. Special attention will be given to the integration of green technologies. Advanced courses develop more sophisticated design and application skills such as estimating thermal loads, hydronic piping design and controls for more complex circuits including digital. Heating, ventilation, air conditioning and refrigeration (HVAC/HVACR) technicians can work in private homes, commercial offices, industrial complexes, or any other type of building.

The Heating, Air Conditioning, Refrigeration and Plumbing department offers an associate in applied science degree with two options: Heating, Air Conditioning and Refrigeration, and Heating and Plumbing. The program also offers individual certificates in Plumbing, Heating, and Refrigeration and Air Conditioning. The program is designed to prepare students for entry level employment in the HVAC/Plumbing fields.

### ***Heating, Air Conditioning and Refrigeration Option***

Students with previous practical experience may be eligible for more advanced licenses. Students also take the EPA Technician Certification Exam and are eligible to take the ARI GAMA competency exams. Graduates are also eligible to take the State of Maine Natural Gas and Propane License Exam and the Journeyman's Exam for Oil Burners.

*Upon completion of the Heating, Air Conditioning and Refrigeration program, graduates will be able to:*

- Assemble warm air, steam and hot water system.
- Combustion test for maximum operating efficiency.
- Troubleshoot and repair electrical and fuel systems.

- Exhibit knowledge of installation code and safe work practices.
- Assemble, charge, and operate refrigeration and air conditioning systems.
- Troubleshoot and repair refrigeration and AC control systems.
- Recover, recycle and work safely with refrigerants.

*Heating, Air Conditioning, and Refrigeration Admission Requirements*

For information about Southern Maine Community College admission requirements, visit the Admissions area of the website at <http://www.smccme.edu/apply>.

**Associate in Applied Science**  
**Heating, Air Conditioning and Refrigeration**

General Education Requirements			
ENGL	100	English Composition.....	3 credits
ENGL	115	Introduction to Literature .....	3 credits
FIGS	100	Student Success .....	1 credit
MATH	140	College Algebra .....	3 credits
MATH	146	Introduction to Trigonometry .....	1 credits
PHYS	150	College Physics I with Lab.....	4 credits
PHYS	155	College Physics II with Lab.....	4 credits
		Fine Arts or Humanities Elective .....	3 credits
		Social Science Elective.....	3 credits
Major Required Courses			
AEDD	100	Print Reading.....	3 credits
ELEC	100	Basic Electrical Principles - HVAC .....	3 credits
HVAC	115	Residential Heating Systems .....	7 credits
HVAC	120	Basic Refrigeration .....	7 credits
HVAC	215	System Design and Industrial Heating.....	7 credits
HVAC	220	Basic Air Conditioning .....	7 credits
WELD	100	Introduction to Welding.....	3 credits
Total Credits Required for Degree:			62 credits

**Heating and Plumbing Option**

Graduates of the Heating and Plumbing option are eligible to take the State of Maine Journeyman’s Plumbing exam.

*Upon completion of the Heating and Plumbing option, graduates will be able to:*

- Assemble warm air, steam and hot water system.
- Combustion test for maximum operating efficiency.
- Troubleshoot and repair electrical and fuel systems.
- Exhibit knowledge of installation code and safe work practices.
- Design and layout a typical bathroom.
- Estimate time and materials for jobs.

*Heating and Plumbing Admission Requirements*

For information about Southern Maine Community College admission requirements, visit the Admissions area of the website at <http://www.smccme.edu/apply>.

**Associate in Applied Science**  
**Heating and Plumbing**

General Education Requirements			
ENGL	100	English Composition.....	3 credits
ENGL	115	Introduction to Literature .....	3 credits



FIGS	100	Student Success .....	1 credit
MATH	140	College Algebra .....	3 credits
MATH	146	Introduction to Trigonometry .....	1 credits
PHYS	150	College Physics I with Lab.....	4 credits
PHYS	155	College Physics II with Lab.....	4 credits
		Fine Arts or Humanities Elective .....	3 credits
		Social Science Elective.....	3 credits
<b>Major Required Courses</b>			
AEDD	100	Print Reading.....	3 credits
ELEC	100	Basic Electrical Principles - HVAC .....	3 credits
HVAC	115	Residential Heating Systems .....	7 credits
HVAC	215	System Design and Industrial Heating.....	7 credits
HVPL	105	Plumbing Application and Methods.....	7 credits
HVPL	205	Plumbing Application and Code .....	7 credits
OSHA	120	Construction Safety.....	1 credits
WELD	100	Introduction to Welding.....	3 credits
<b>Total Credits Required for Degree:</b>			<b>63 credits</b>

## ***Heating Certificate***

The Heating, Air Conditioning, and Refrigeration Department offers a Certificate in Heating which also forms half of the Heating, Air Conditioning and Refrigeration option or the Heating and Plumbing option. The program provides technical and hands-on training emphasizing the practical knowledge and skills required to install and service commercial and residential heating systems. Graduates are also eligible to take the state of Maine Natural Gas and Propane License Exam and the Journeyman's Exam for Oil Burners.

*Upon completion of the Heating Certificate program, graduates will be able to:*

- Assemble warm air, steam and hot water systems.
- Combustion test for maximum efficiency.
- Troubleshoot and repair electrical and fuel systems.
- Exhibit knowledge of installation code and safe work practices.

## ***Certificate Heating***

<b>Required Courses</b>			
ENGL	100	English Composition.....	3 credits
FIGS	100	Student Success .....	1 credit
MATH	140	College Algebra .....	3 credits
MATH	146	Introduction to Trigonometry .....	1 credits
PHYS	150	College Physics I with Lab.....	4 credits
ELEC	100	Basic Electrical Principles - HVAC .....	3 credits
HVAC	115	Residential Heating Systems .....	7 credits
HVAC	215	System Design and Industrial Heating.....	7 credits
AEDD	100	Print Reading.....	3 credits
WELD	100	Introduction to Welding.....	3 credits
<b>Total Credits Required for Degree:</b>			<b>35 credits</b>

## ***Plumbing Certificate***

The one-year Plumbing Certificate program, which also forms half of the Associate in Applied Science degree option, is a study of the plumbing trade, residential and commercial, as practiced in the state of Maine. Blueprint reading and sketching for plumbers is covered, combined with working drawings, to learn the technique of sketching pipe layouts isometrically, and blueprint interpretation.

The proper use and safety methods of hand and power tools are covered as the course progresses. Mock-ups are used for actual piping and fixture layout, allowing students the opportunity to design, build and test plumbing installations. Graduates are eligible to take the State of Maine Journeyman's Plumbing exam.

*Upon completion of the Plumbing Certificate program, graduates will be able to:*

- Design and layout a typical bathroom.
- Line size and list pipe and fittings for the job.
- Estimate time and materials for jobs.

**Certificate  
Plumbing**

Required Courses			
ENGL	100	English Composition.....	3 credits
FIGS	100	Student Success .....	1 credit
MATH	140	College Algebra .....	3 credits
MATH	146	Introduction to Trigonometry .....	1 credits
AEDD	100	Print Reading.....	3 credits
ELEC	100	Basic Electrical Principles - HVAC .....	3 credits
HVPL	105	Plumbing Application and Methods.....	7 credits
HVPL	205	Plumbing Application and Code .....	7 credits
OSHA	120	Construction Safety.....	1 credits
WELD	100	Introduction to Welding.....	3 credits
Total Credits Required for Degree:			32 credits

**Refrigeration and Air Conditioning Certificate**

The Heating, Air Conditioning and Refrigeration Department offers a Certificate in Refrigeration and Air Conditioning which also forms half of the Heating, Air Conditioning and Refrigeration option or the Plumbing and Heating option. The program provides offers technical and hands-on training emphasizing practical knowledge and skills required to install and service all types of commercial and domestic air conditioning and refrigeration systems.

Students may take ARI GAMA competency exams and EPA technician certification. Approved by the Massachusetts Department of Public Safety, Engineering Division, Bureau of Pipefitters, Sprinkler Fitters and Refrigeration Technicians to fulfill the requirements to sit for the Refrigeration Technician exam. Must produce documentation of 4,000 hours of work as an apprentice or trainee.

*Upon completion of the Refrigeration and Air Conditioning Certificate program, graduates will be able to:*

- Assemble, charge, and operate refrigeration and air conditioning systems.
- Troubleshoot and repair refrigeration and air conditioning systems.
- Recover, recycle and work safely with refrigerants.

**Certificate  
Refrigeration and Air Conditioning**

Required Courses			
ENGL	100	English Composition.....	3 credits
FIGS	100	Student Success .....	1 credit
MATH	140	College Algebra .....	3 credits
MACH	146	Introduction to Trigonometry .....	1 credits
PHYS	150	College Physics I with Lab.....	4 credits
AEDD	100	Print Reading.....	3 credits
ELEC	100	Basic Electrical Principles - HVAC .....	3 credits
HVAC	120	Basic Refrigeration .....	7 credits
HVAC	220	Basic Air Conditioning .....	7 credits

WELD 100	Introduction to Welding.....	3 credits
Total Credits Required for Degree:		35 credits

## Heavy Equipment Operations Certificate

The Heavy Equipment Operations certificate program is designed to produce operators trained on earth-moving equipment such as bulldozers, backhoes, excavators, and graders. Training takes place both on lab simulators as well as on an actual lab operation site.

The program prepares graduates to work in county, state, or interstate highway construction, agricultural construction, airport development, and commercial and residential construction. The program utilizes a curriculum recognized by the National Center for Construction Education and Research (NCCER).

Graduates of this certificate program will be qualified to attain employment in the construction, gravel processing, farm operations, equipment dealers and heavy equipment service industries.

*Upon completion of the Heavy Equipment Operations certificate, participants will be able to:*

- Identify and practice safe work habits as required by OSHA and MSHA as a heavy equipment operator.
- Properly operate various pieces of heavy equipment.
- Properly perform light maintenance and service on various pieces of heavy equipment.
- Demonstrate knowledge of construction site operations.

### Heavy Equipment Operations Admission Requirements

For information about Southern Maine Community College admission requirements, visit the Admissions area of the website at <http://www.smccme.edu/admissions>. A current, clean, and valid driver's license is required for admission to the Heavy Equipment Operations Certificate program. High school or post-secondary coursework in algebra is recommended.

## Certificate

### Heavy Equipment Operations

Required Courses		
ENGL 100	English Composition.....	3 credits
FIGS 100	Student Success .....	1 credit
HEOP 100	Construction Safety for HEOP .....	1 credit
HEOP 115	Maintenance and Service .....	3 credits
HEOP 130	Backhoe, Excavator and Bulldozer (Sim Lab).....	3 credits
HEOP 145	Principles of Site Finishing and Grades.....	3 credits
HEOP 160	Backhoe, Excavator and Bulldozer (Site Lab).....	3 credits
HEOP 175	Heavy Equipment Operations Internship .....	4 credits
	Mathematics Elective (100-level or higher) .....	3 credits
WELD 100	Introduction to Welding.....	3 credits
Total Credits Required for Degree:		27 credits

## Horticulture

The Horticulture program prepares graduates to work in a wide variety of horticultural occupations, such as tree, shrub and perennial plant nurseries, arboreta, greenhouses, garden centers, landscape contracting and design, municipal parks, arboriculture, turf production, golf course management, lawn and grounds maintenance, florist shops, interior landscaping, estate gardening, cut flower production, herb and specialty plant production, market gardening, organic food production, horticultural equipment supplies and sales, and horticulture education. Many graduates own businesses and contribute significantly to their communities.

The Horticulture program is a hands-on, broad based curriculum, which provides or sponsors additional opportunities, including: tuition scholarships for students who qualify, educational field experiences, visiting lecturers with expertise in horticulture and related fields. Graduates from the horticulture program have successfully transferred credits toward baccalaureate degrees in related areas of study at a variety of colleges and universities.

Upon completion of Horticulture program, graduates will be able to:

- Understand and apply the basic principles of plant function and development, emphasizing horticultural applications.
- Identify and analyze soil properties as they relate to plant growth.
- Identify, use, and care for a wide variety of woody and herbaceous plants in the landscape and greenhouse.
- Demonstrate a basic understanding of landscape site analysis and landscape design using appropriate tools, techniques, skills, and knowledge.
- Identify common biotic and abiotic plant pests and disorders, and develop strategies to manage them in an environmentally safe and sustainable manner.
- Apply horticultural skills and knowledge to operate various business entities, including landscape, arborist, greenhouse, nursery, and turf management areas.

Horticulture Admission Requirements

For information about Southern Maine Community College admission requirements, visit the Admissions area of the website at <http://www.smccme.edu/apply>. High school or post-secondary coursework in algebra, biology, and chemistry is recommended.

Associate in Applied Science  
Horticulture

General Education Requirements				
ENGL	100	English Composition .....	3 credits	
ENGL	115	Introduction to Literature .....	3 credits	
FIGS	100	Student Success .....	1 credit	
MATH	130	Technical Math <b>OR</b>		
MATH	140	College Algebra .....	3 credits	
BIOL	115	Botany with Lab .....	4 credits	
		Fine Arts or Humanities Elective .....	3 credits	
		Social Science Elective.....	6 credits	
Major Required Courses				
HORT	100	Introduction to Horticulture with Lab .....	3 credits	
HORT	110	Woody Plant Materials.....	2 credits	
HORT	120	Pruning.....	1 credit	
HORT	130	Soils and Soil Fertility .....	3 credits	
HORT	140	Integrated Pest Management with Lab .....	3 credits	
HORT	150	Arboriculture with Lab .....	3 credits	
HORT	175	Placement Training .....	3 credits	
HORT	180	Freshman Seminar .....	1 credit	
HORT	200	Herbaceous Plant Materials .....	2 credits	
HORT	210	Landscape Surveying and Mapping .....	2 credits	
HORT	220	Landscape Management .....	3 credits	
HORT	230	Nursery and Garden Center Operations.....	3 credits	
HORT	240	Turfgrass Management .....	2 credits	
HORT	250	Greenhouse Management with Lab .....	3 credits	
HORT	280	Senior Seminar .....	1 credit	
HORT	290	Landscape Design .....	3 credits	
ACCT	105	Financial Accounting <b>OR</b>		
BUSN	130	Entrepreneurship .....	3 credits	
Total Credits Required for Degree:			64 credits	

Hospitality Management

The AAS degree program in Hospitality Management provides students with a solid foundation in theory and current practices of the hospitality industry as well as a core of liberal arts and science courses that will prepare students for flexible career development. This degree focuses on one of the fastest growing industries in the world: hospitality, to include focus areas in food and restaurant operations, lodging industry operations, events

management, and tourism.

This hospitality management degree program prepares students for first employment at a supervisory level, or continuation onto a bachelor of hospitality management degree. The program includes a 160 hour externship.

*Upon completion of the Hospitality Management program, graduates will be able to:*

- Demonstrate broad knowledge of and proficiency in the core functional and support areas of hospitality businesses.
- Know effective cost control methods and cost-saving techniques for hospitality services.
- Plan menus and purchase, cost, and price product for profit.
- Demonstrate a working knowledge of hotel front office management and hospitality industry marketing.
- Operate as an entry level supervisor in operational departments within the hospitality industry.
- Exhibit solid work ethics, good inter-personal communications, cultural awareness, and teamwork skills.

*Hospitality Management Admission Requirements*

For information about Southern Maine Community College admission requirements, visit the Admissions area of the website at <http://www.smcme.edu/apply>. High school or post-secondary coursework in algebra is strongly recommended.

**Associate in Applied Science  
Hospitality Management**

General Education Requirements				
ENGL	100	English Composition .....	3 credits	
ENGL	115	Introduction to Literature .....	3 credits	
MATH	112	Quantitative Reasoning <b>OR</b>		
MATH	130	Technical Math.....	3 credits	
		Science Elective with Lab .....	4 credits	
ENGL	110	Oral Communications.....	3 credits	
		Social Science Elective.....	6 credits	
Major Required Courses				
ACCT	105	Financial Accounting .....	3 credits	
HSPM	255	Hospitality Finance.....	3 credits	
BUSN	255	Human Resource Management.....	3 credits	
CULA	103	ServSafe® .....	1 credit	
ECON	120	Microeconomics.....	3 credits	
ECON	125	Macroeconomics.....	3 credits	
HSPM	102	Introduction to Culinary, Hospitality and Tourism .....	3 credits	
HSPM	175	LRM Internship.....	3 credits	
HSPM	230	Hotel and Lodging Management.....	3 credits	
HSPM	240	Hospitality Marketing.....	3 credits	
HSPM	245	Events Management .....	3 credits	
BUSN	130	Entrepreneurship <b>OR</b>		
CULA	250	Menu Planning and Development.....	3 credits	
HSPM	270	Beverage .....	2 credits	
HSPM	275	Dark Tourism.....	1 credits	
HSPM	ELE	Hospitality Management Elective (BUSN, CULA, or HSPM) .....	3 credits	
Total Credits Required for Degree:			62 credits	

**Human Services**

The Human Services program is designed to prepare individuals with the necessary knowledge and skills for employment and/or future study in the human service field. Successful graduates work with individuals of all ages confronting disabling mental health issues, developmental disabilities, substance abuse, and other behavioral health conditions.

The Associate in Applied science degree in Human Services is designed primarily for students seeking to enter the work force after graduation or to advance their career at their place of employment. Graduates of the associate degree program are eligible for certification as a Mental Health Rehabilitation Technician/Community (MHRT/C) and an Education Technician II.

*Upon completion of the Human Services program, graduates will be able to:*

- Demonstrate an understanding of the nature of human systems: individual, group, organization, community and society, and their major interactions.
- Demonstrate an understanding of human development, group dynamics, organizational structure, how communities are organized, how national policy is set, and how social systems interact in producing human problems.
- Demonstrate an understanding of the conditions that promote optimal functioning or the classes of deviation that limit desired functioning in the major human systems.
- Demonstrate an understanding of the major models of causation that are concerned with the promotion of healthy functioning and treatment rehabilitation.
- Identify and select interventions, which promote growth and goal attainment. Graduates will be able to conduct a competent problem analysis and select strategies, services, or interventions that are appropriate to helping their clients attain a desired outcome.
- Plan, implement, and evaluate interventions. The student will be able to design a plan of action for an identified problem and implement the plan in a systematic way.
- Select interventions, which are congruent with the values of one's self, clients, the employing organization and the human service profession.
- Use verbal and oral communication, interpersonal relationships, and other related personal skills (such as self-discipline and time management) effectively to plan and implement services.

*Human Services Admission Requirements*

For information about Southern Maine Community College admission requirements, visit the Admissions area of the website at <http://www.smccme.edu/apply>.

**Associate in Applied Science  
Human Services**

General Education Requirements			
ENGL	100	English Composition .....	3 credits
ENGL	115	Introduction to Literature .....	3 credits
FIGS	100	Student Success .....	1 credit
		Mathematics Elective (100-level or higher) .....	3 credits
		Science Elective with Lab .....	4 credits
		Fine Arts or Humanities Elective .....	3 credits
PSYC	100	Introduction to Psychology .....	3 credits
SOCI	100	Introduction to Sociology .....	3 credits
Major Required Courses			
BHHS	100	Introduction to Human Services.....	3 credits
BHHS	104	High Risk Populations.....	3 credits
BHHS	105	Crisis Intervention .....	3 credits
BHHS	110	Psychosocial and Vocational Rehabilitation .....	3 credits
BHHS	145	Human Diversity.....	3 credits
BHHS	220	Interviewing and Counseling .....	3 credits
BHHS	225	Practicum I .....	3 credits
BHHS	230	Substance Abuse.....	3 credits
BHHS	260	Group Process .....	3 credits
BHHS	265	Trauma and Recovery .....	3 credits
BHHS	270	Case Management .....	3 credits
BHHS	275	Practicum II .....	3 credits
PSYC	220	Lifespan Development .....	3 credits
Total Credits Required for Degree:			62 credits

Behavioral Health Certificate

The one-year Behavioral Health certificate program is designed to meet the requirements for certification as a Mental Health Rehabilitation Technician/Community (MHRT/C), but includes course work in addition to MHRT/C requirements (please see <http://muskie.usm.maine.edu/cfl/MHRTCOverview.html> for details). MHRT/C certification is required by the state of Maine for work as an entry-level mental health practitioner. Associate Degree candidates need not apply separately to the SMCC Certificate program in order to qualify for MHRT/C certification.

Certificate  
Behavioral Health

Required Courses				
FIGS	100	Student Success .....	1 credit	
BHHS	100	Introduction to Human Services.....	3 credits	
BHHS	104	High Risk Populations.....	3 credits	
BHHS	105	Crisis Intervention .....	3 credits	
BHHS	110	Psychosocial and Vocational Rehabilitation .....	3 credits	
BHHS	145	Human Diversity.....	3 credits	
BHHS	220	Interviewing and Counseling .....	3 credits	
BHHS	230	Substance Abuse.....	3 credits	
BHHS	260	Group Process .....	3 credits	
BHHS	265	Trauma and Recovery .....	3 credits	
BHHS	270	Case Management .....	3 credits	
Total Credits Required for Certificate:			31 credits	

Information Technology

The future of Information Technology (IT) is full of possibility. The Information Technology program offers tracks for transfer students looking to continue on to a four-year institution to complete a Bachelor of Science in Information Technology, or a customizable career focused track designed to prepare the student for a number of IT fields.

The curriculum, which includes a significant amount of hands-on experience in addition to up-to-date and industry-relevant theory, is designed to encourage students to develop critical thinking skills and a well-rounded knowledge of IT topics. The courses are generally aligned with major industry certifications and students are strongly encouraged to earn the certifications that will help them advance their careers in the IT industry.

The program provides students with experience in basic and advanced networking, security, basic and advanced virtualization, database design and management, and both Linux and Windows-based server and client operating systems. Students will also be exposed to project management topics and will gain an understanding of how IT fits into business organizations.

Career opportunities for our graduates include systems administrator, network engineer, and IT consultant.

Upon completion of the Information Technology program, graduates will be able to:

- Manage, maintain, and assess enterprise-class IT infrastructures
- Leverage technology solutions to solve real-world business problems
- Design, build, and diagnose robust and secure data networks
- Understand the business processes that drive technology decisions

Information Technology Admission Requirements

For information about Southern Maine Community College admission requirements, visit the Admissions area of the website at <http://www.smccme.edu/admissions>. High School or post-secondary coursework in algebra and introductory computer applications is recommended.

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position of the U.S. Department of Labor. The Department of Labor makes no guarantees, warranties, or assurances of any kind, express or implied, with respect to such information, including any information on linked sites and including, but not limited to, accuracy of the information or its completeness, timeliness, usefulness, adequacy, continued availability, or ownership. This solution is copyrighted by the institution that created it. Internal use, by an organization and/or personal use by an individual for non-commercial purposes, is permissible. All other uses require the prior authorization of the copyright owner.

**Associate in Applied Science**  
**Information Technology**

General Education Requirements				
ENGL	100	English Composition .....	3 credits	
ENGL	115	Introduction to Literature .....	3 credits	
FIGS	100	Student Success .....	1 credit	
MATH	125	Introduction to Discrete Mathematics .....	3 credits	
		Science Elective with Lab .....	4 credits	
ENGL	110	Oral Communication .....	3 credits	
		Social Science Electives .....	6 credits	
Major Required Courses				
CMIT	100	Introduction to Information Technology .....	3 credits	
CMIT	105	Network Fundamentals .....	3 credits	
CMIT	120	Linux System Administration .....	3 credits	
CMIT	140	Virtualization Fundamentals .....	3 credits	
CMIT	215	Microsoft Client Operating Systems .....	3 credits	
CMIT	225	Routing and Switching Fundamentals .....	3 credits	
CMIT	295	Senior Capstone Project .....	3 credits	
Transfer Track Option:				
CMIT	220	Windows Server and Active Directory Fundamentals .....	3 credits	
CNMS	165	Website Production .....	3 credits	
CNMS	275	Web Application Programming .....	3 credits	
CSCI	110	Principles of Computer Science .....	4 credits	
MATH	140	College Algebra .....	3 credits	
MATH	155	Statistics .....	3 credits	
Career Track Option:				
INSC	160	Fundamentals of Network Security .....	4 credits	
		Information Technology Electives .....	15 credits	
Total Credits Required for Degree:			63 credits	

**Liberal Studies**

The Liberal Studies program is designed for students who plan to transfer to four-year colleges and universities or who have not yet identified a primary field of study. The curriculum is built on a foundation of general education classes, supplemented with elective courses that develop depth in the prerequisite knowledge required for further study at the baccalaureate level. Students are encouraged to choose elective courses in a discipline in which they may major at the baccalaureate level.

**Please note: A student is only eligible to receive one Associate in Arts in Liberal Studies degree. S/he may not receive a second or subsequent degree in Liberal Studies with a different focus. Focuses present recommended courses for areas of interest based on the liberal studies degree requirements. Students earn an Associate in Arts in Liberal Studies once all liberal studies requirements are completed, whether or not all course recommendations are followed.**

*Areas of Focus (please refer to Focus descriptions below for recommended courses)*

- Art
  - Education (K-8)
  - English
  - History
- Liberal Studies
  - Mathematics
  - Music
  - Political Science
- Psychology
  - Science
  - Social Work
  - Sociology



Upon completion of the Liberal Studies program, graduates will be able to:

- Demonstrate skills as critical thinkers, readers and writers.
- Describe the interaction of history, culture, literature, economics and science as studied within a broad liberal arts curriculum.
- Analyze and solve quantitative problems.

**Liberal Studies Admission Requirements**

For information about Southern Maine Community College admission requirements, visit the Admissions area of the website at <http://www.smccme.edu/apply>.

**Liberal Studies Subject Listing**

The courses listed below are approved for use as Liberal Studies electives.

ACSS	Academic Success	IDST	Interdisciplinary Studies
ANTH	Anthropology	MATH	Mathematics
ARTH	Art Appreciation and History	MUSI	Music
ARTS	Studio Art	NUTR	Nutrition (NUTR-110 & NUTR-140 only)
BIOL	Biology	OCEA	Oceanography (105 and 205)
BIOM	Marine Biology	PHIL	Philosophy
CHEM	Chemistry	PHYS	Physics
ECON	Economics	POLS	Political Science
ENGL	English	PSYC	Psychology
ENVR	Environmental Science	SOCI	Sociology
FREN	French	SPAN	Spanish
GRMN	German	THEA	Theater
HIST	History		

**Associate in Arts**

**Liberal Studies**

General Education Requirements			
ENGL	100	English Composition.....	3 credits
ENGL	115	Introduction to Literature .....	3 credits
FIGS	100	Student Success .....	1 credit
		Mathematics Elective (100-level or higher) .....	3 credits
		Science Elective with Lab .....	4 credits
		Art or Music Elective .....	3 credits
		Psychology or Sociology Elective .....	3 credits
		Economics or Political Science Elective .....	3 credits
		Humanities Elective .....	3 credits
		English Communications Elective .....	3 credits
		Diversity Elective .....	3 credits
		Ethical Reasoning Elective .....	3 credits
Major Required Courses			
		Fine Arts or Humanities Elective .....	3 credits
		History Elective.....	3 credits
		Liberal Studies Electives .....	12 credits
		Free Electives .....	9 credits
Total Credits Required for Degree:			62 credits

Please note: A student is only eligible to receive one Associate in Arts in Liberal Studies degree. S/he may not receive a second or subsequent degree in Liberal Studies with a different focus.

**Associate in Arts in Liberal Studies with a Focus in Art**

The Liberal Studies program with a focus in Art is designed to prepare students for a career in the arts. Working in state-of-the-art studio facilities and guided by practicing professional art faculty, graduates from the program can go on to careers in studio art, illustration, graphic design, fashion, art education, arts advocacy and curatorial work in galleries and museums. The program prepares students to transfer to a baccalaureate program upon graduation.

The foundation year is a hands-on studio program with a basis in traditional foundation courses of still-life and figure drawing, two-dimensional design, three-dimensional design and art history, in addition to Liberal Arts core courses. The program helps students to develop skills in a variety of art media, while gaining a balanced education through liberal studies and art history courses.

The second year focuses on studio practice in a specific media. Students enroll in a capstone course with their colleagues for group critiques. Students also participate in visits to museums, galleries and artist studios. They attend presentations by guest art professionals, and focus on the development of vital professional skills, such as portfolio presentation and small business management. In the studio, art students develop a finished body of work for a group exhibition which serves as the culmination of the program.

## Associate in Arts Liberal Studies

Recommended Courses for Focus in Art

General Education Requirements			
ENGL	100	English Composition .....	3 credits
ENGL	115	Introduction to Literature .....	3 credits
FIGS	100	Student Success .....	1 credit
		Mathematics Elective (100-level or higher) .....	3 credits
		Science Elective with Lab .....	4 credits
ARTS	110	Drawing I (Art or Music Elective) .....	3 credits
		Psychology or Sociology Elective .....	3 credits
		Economics or Political Science Elective .....	3 credits
ARTH	155	Survey of Western Art History II (Humanities Elective) .....	3 credits
ENGL	110	Oral Communications (English Communications Elective) .....	3 credits
ARTH	145	Survey of Western Art History I (Diversity Elective) .....	3 credits
		Ethical Reasoning Elective .....	3 credits
Major Required Courses			
		History Elective .....	3 credits
ARTS	130	2D Design (Fine Arts or Humanities Elective) .....	3 credits
ARTS	140	3D Design I: Sculpture Studio (Liberal Studies Elective) .....	3 credits
ARTS	210	Drawing II (Liberal Studies Elective) .....	3 credits
ARTH	295	Portfolio Seminar (Liberal Studies Elective) .....	3 credits
		Art History or Studio Arts Elective (Liberal Studies Elective) .....	3 credits
		Art History or Studio Arts Elective (Free Elective) .....	3 credits
		Art History or Studio Arts Elective (Free Elective) .....	3 credits
		Studio Arts Elective (Free Elective) .....	3 credits
Total Credits Required for Degree:			62 credits

Please note: Focuses present recommended courses for areas of interest based on the liberal studies degree requirements. All students earn an Associate of Arts (A.A.) in Liberal Studies degree once program requirements are met regardless of their focus area or if all specific recommendations were followed. A student is only eligible to receive one Associate in Arts in Liberal Studies degree. S/he may not receive a second or subsequent degree in Liberal Studies with a different focus.

## Associate in Arts in Liberal Studies with a Focus in English

The associate in arts degree in Liberal Studies with a focus in English starts students on a path to a four-year degree at a baccalaureate program in English or liberal arts. Potential careers encompass a range of professions, including journalism, law, copy editing, teaching, creative writing, public relations, marketing, and much more.

The program covers important career and job proficiencies, such as research, brainstorming, concept organization, and critical thinking. Coursework is built on a foundation of general education classes, supplemented with elective courses that focus heavily on relevant coursework with some specialization in the area of English such as women’s literature, poetry, theater, the short story, world literature, film, and communication skills. In classes, students will participate in critical analysis as well as a variety of types of expository writing. The English department also produces and encourages majors to participate in the annual

Creative Writing journal *The Writ*, holds campus wide poetry readings, and supports the school newspaper The Beacon.

Please note that the courses listed represent course recommendations for the focus area based on the general liberal studies program requirements. All students earn an Associate in Arts in Liberal Studies upon successful completion of all liberal studies program requirements whether or not all recommendations are followed.

**Associate in Arts  
Liberal Studies**

Recommended Courses for Focus in English

General Education Requirements				
ENGL	100	English Composition .....	3 credits	
ENGL	115	Introduction to Literature .....	3 credits	
FIGS	100	Student Success .....	1 credit	
		Mathematics Elective (100-level or higher) .....	3 credits	
		Science Elective with Lab .....	4 credits	
		Art or Music Elective .....	3 credits	
PSYC	100	Introduction to Psychology (Psychology or Sociology Elective).....	3 credits	
		Economics or Political Science Elective .....	3 credits	
ENGL	200	Creative Writing (Humanities Elective) .....	3 credits	
ENGL	110	Oral Communications (English Communications Elective) .....	3 credits	
ENGL	255	World Literature <b>OR</b> .....		
ENGL	256	Russian Literature (Diversity Elective) .....	3 credits	
PHIL	105	Ethical Dilemmas (Ethical Reasoning Elective) .....	3 credits	
Major Required Courses				
PHIL	100	Introduction to Philosophy (Fine Arts or Humanities Elective) .....	3 credits	
		History Elective .....	3 credits	
SOCI	100	Introduction to Sociology (Liberal Studies Elective) .....	3 credits	
		Literature Electives (Liberal Studies Electives) .....	9 credits	
		Literature Electives (Free Electives) .....	6 credits	
		Foreign Language Elective (Free Elective) .....	4 credits	
Total Credits Required for Degree:			62-63 credits	

Please note: Focuses present recommended courses for areas of interest based on the liberal studies degree requirements. All students earn an Associate of Arts (A.A.) in Liberal Studies degree once program requirements are met regardless of their focus area or if all specific recommendations were followed. A student is only eligible to receive one Associate in Arts in Liberal Studies degree. S/he may not receive a second or subsequent degree in Liberal Studies with a different focus.

**Associate in Arts in Liberal Studies with a Focus in History**

The associate in arts degree in Liberal Studies with a focus in History is designed to provide a foundation of study that prepares students to transfer to four-year colleges and universities. The curriculum is built on general education classes, supplemented with courses on history and other social sciences. This focus is excellent preparation for a major in history at the baccalaureate level which could lead to careers in law, teaching, government, public relations, museum work and many other areas.

**Associate in Arts  
Liberal Studies**

Recommended Courses for Focus in History

General Education Requirements				
ENGL	100	English Composition .....	3 credits	
ENGL	115	Introduction to Literature .....	3 credits	
FIGS	100	Student Success .....	1 credit	
MATH	155	Statistics (Mathematics Elective) .....	3 credits	
BIOL	100	Biology with Lab for Non-Majors (Science Elective with Lab).....	4 credits	
		Art or Music Elective .....	3 credits	
SOCI	100	Introduction to Sociology (Psychology or Sociology Elective) .....	3 credits	

POLS	105	Introduction to American Government (Economics/Political Science Elective) .....	3 credits
PHIL	100	Introduction to Philosophy (Humanities Elective).....	3 credits
ENGL	110	Oral Communications <b>OR</b> .....	
ENGL	200	Creative Writing (English Communications Elective).....	3 credits
HIST	125	World History Since 1500 (Diversity Elective) .....	3 credits
HIST	139	American Environmental History (Ethical Reasoning Elective) .....	3 credits

#### Major Required Courses

		Fine Arts or Humanities Elective .....	3 credits
HIST	120	World History to 1500 (History Elective).....	3 credits
HIST	130	United States History to 1877 (Liberal Studies Elective) .....	3 credits
HIST	135	United States History Since 1877 (Liberal Studies Elective) .....	3 credits
HIST	165	Social History of the Civil War and Reconstruction (Liberal Studies Elective) .....	3 credits
POLS	100	Contemporary World Problems (Liberal Studies Elective) .....	3 credits
PSYC	100	Introduction to Psychology (Free Elective).....	3 credits
HIST	225	African American Freedom Struggle (Free Elective).....	3 credits
POLS	110	Introduction to International Relations (Free Elective) .....	3 credits

**Total Credits Required for Degree:**

**62 credits**

Please note: Focuses present recommended courses for areas of interest based on the liberal studies degree requirements. All students earn an Associate of Arts (A.A.) in Liberal Studies degree once program requirements are met regardless of their focus area or if all specific recommendations were followed. A student is only eligible to receive one Associate in Arts in Liberal Studies degree. S/he may not receive a second or subsequent degree in Liberal Studies with a different focus.

### ***Associate in Arts in Liberal Studies with a Focus in Mathematics***

The associate in arts in Liberal Studies with a focus in mathematics is intended for students with a strong foundation in mathematics who wish to continue their mathematics education at the baccalaureate level. This concentration is also appropriate for those students who wish to teach mathematics and plan to go on to a four-year education degree.

### ***Associate in Arts Liberal Studies***

Recommended Courses for Focus in Mathematics

General Education Requirements			
ENGL	100	English Composition.....	3 credits
ENGL	115	Introduction to Literature .....	3 credits
FIGS	100	Student Success .....	1 credit
MATH	140	College Algebra (Mathematics Elective).....	3 credits
		Science Elective with Lab .....	4 credits
		Art or Music Elective .....	3 credits
		Psychology or Sociology Elective .....	3 credits
		Economics or Political Science Elective .....	3 credits
		Humanities Elective.....	3 credits
ENGL	110	Oral Communications (English Communications Elective) .....	3 credits
		Diversity Elective.....	3 credits
		Ethical Reasoning Elective.....	3 credits

#### Major Required Courses

		Fine Arts or Humanities Elective .....	3 credits
		History Elective .....	3 credits
MATH	146	Introduction to Trigonometry .....	1 credits
MATH	190	Precalculus (Liberal Studies Elective) .....	3 credits
MATH	230	Statistics (Liberal Studies Elective) .....	3 credits
MATH	260	Calculus I (Liberal Studies Elective) .....	4 credits
MATH	270	Calculus II (Liberal Studies Elective) .....	4 credits
		Free Electives .....	6 credits
		Free Elective (met if completed recommended 4cr math courses above) .....	3 credits

**Total Credits Required for Degree:**

**62 credits**

Please note: Focuses present recommended courses for areas of interest based on the liberal studies degree requirements. All students earn an Associate of Arts (A.A.) in Liberal Studies degree once program requirements are met regardless of their focus area or if all specific recommendations were followed. A student is only eligible to receive one Associate in Arts in Liberal Studies degree. S/he may not receive a second or subsequent degree in Liberal Studies with a different focus.

***Associate in Arts in Liberal Studies with a Focus in Music***

The associate in arts degree in Liberal Studies with a focus in Music is designed to prepare students to transfer to four-year colleges and universities. Students wishing to pursue a concentration in music should take care to choose the required courses indicated in the sample pathway below. Ensemble courses include: MUSI 101 West African Drumming and MUSI 151 West African Drumming II, MUSI 102 Guitar Theory and Practice and MUSI 152 Advanced Guitar Theory and Practice, MUSI 103 Introduction to Violin/Fiddle and MUSI 153 Violin/Fiddle Level II, MUSI 104 Piano Lab and MUSI 154 Piano Lab II, and MUSI 106 SMCC Singers and MUSI 107 SMCC Singers II.

***Associate in Arts  
Liberal Studies***

Recommended Courses for Focus in Music

General Education Requirements			
ENGL	100	English Composition.....	3 credits
ENGL	115	Introduction to Literature .....	3 credits
FIGS	100	Student Success .....	1 credit
MATH	112	Quantitative Reasoning (Mathematics Elective) .....	3 credits
		Science Elective with Lab .....	4 credits
MUSI	111	Music and Movement .....	3 credits
		Psychology or Sociology Elective.....	3 credits
		Economics or Political Science Elective .....	3 credits
		Humanities Elective.....	3 credits
ENGL	110	Oral Communications (English Communications Elective) .....	3 credits
MUSI	125	World Music (Diversity Elective) .....	3 credits
		Ethical Reasoning Elective.....	3 credits
Major Required Courses			
MUSI	115	Music History I (Fine Arts or Humanities Elective) .....	3 credits
		History Elective .....	3 credits
MUSI	104	Piano Lab (Liberal Studies Elective).....	3 credits
MUSI	112	Music Theory II (Liberal Studies Elective).....	3 credits
MUSI	116	Music History II (Liberal Studies Elective).....	3 credits
		Ensemble I (Liberal Studies Elective) .....	3 credits
		Ensemble II (Free Elective) .....	3 credits
		Ensemble III (Free Elective) .....	3 credits
		Ensemble IV (Free Elective) .....	3 credits
Total Credits Required for Degree:			62 credits

Please note: Focuses present recommended courses for areas of interest based on the liberal studies degree requirements. All students earn an Associate of Arts (A.A.) in Liberal Studies degree once program requirements are met regardless of their focus area or if all specific recommendations were followed. A student is only eligible to receive one Associate in Arts in Liberal Studies degree. S/he may not receive a second or subsequent degree in Liberal Studies with a different focus.

***Associate in Arts in Liberal Studies with a Focus in Political Science***

The associate in arts degree in Liberal Studies with a focus in Political Science is designed to prepare students to transfer to four-year colleges and universities. The curriculum is built on a foundation of general education classes, supplemented with history and government courses, other social sciences, and introductory foreign language study. This concentration is excellent preparation for a major in political science at the baccalaureate level which could lead to careers in law, teaching, government, public relations, and many other areas.

Associate in Arts  
Liberal Studies

Recommended Courses for Focus in Political Science

General Education Requirements					
ENGL	100	English Composition	.....	3 credits	
ENGL	115	Introduction to Literature	.....	3 credits	
FIGS	100	Student Success	.....	1 credit	
		Mathematics Elective (100-level or higher)	.....	3 credits	
		Science Elective with Lab	.....	4 credits	
		Art or Music Elective	.....	3 credits	
SOCI	100	Introduction to Sociology (Psychology/Sociology Elective)	.....	3 credits	
POLS	110	Introduction to International Relations (Economics/Political Science Elective)	.....	3 credits	
		Humanities Elective	.....	3 credits	
ENGL	110	Oral Communications (English Communications Elective)	.....	3 credits	
SOCI	100	Introduction to Sociology (Diversity Elective)	.....	3 credits	
POLS	250	Introduction to Political Theory (Ethical Reasoning Elective)	.....	3 credits	
Major Required Courses					
		Fine Arts or Humanities Elective*	.....	3 credits	
HIST	125	World History Since 1500 (History Elective)	.....	3 credits	
POLS	100	Intro to Political Science: Contemporary World Problems (Liberal Studies Elective)	.....	3 credits	
POLS	105	Introduction to American Government (Liberal Studies Elective)	.....	3 credits	
POLS	115	State and Local Government (Liberal Studies Elective)	.....	3 credits	
POLS	120	Public Policy (Liberal Studies Elective)	.....	3 credits	
POLS	175	Internship (Free Elective)	.....	3 credits	
POLS	205	Comparative Politics <b>OR</b>	.....		
POLS	212	Peace, War, and Security (Free Elective)	.....	3 credits	
		History or Economics Elective (Free Elective)	.....	3 credits	
Total Credits Required for Degree:				62 credits	

Please note: Focuses present recommended courses for areas of interest based on the liberal studies degree requirements. All students earn an Associate of Arts (A.A.) in Liberal Studies degree once program requirements are met regardless of their focus area or if all specific recommendations were followed. A student is only eligible to receive one Associate in Arts in Liberal Studies degree. S/he may not receive a second or subsequent degree in Liberal Studies with a different focus.

Associate in Arts in Liberal Studies with a Focus in Psychology

The associate in arts degree in Liberal Studies with a focus in Psychology is designed to prepare students to transfer to four-year colleges and universities. The curriculum is built on a foundation of general education classes, supplemented with courses in psychological theory and practice, to develop depth in the prerequisite knowledge required for further study at the baccalaureate level.

Associate in Arts  
Liberal Studies

Recommended Courses for Focus in Psychology

General Education Requirements					
ENGL	100	English Composition	.....	3 credits	
ENGL	115	Introduction to Literature	.....	3 credits	
FIGS	100	Student Success	.....	1 credit	
MATH	155	Statistics (Math Elective)	.....	3 credits	
BIOL	132	Anatomy and Physiology I with Lab (Science Elective with Lab)	.....	4 credits	
		Art or Music Elective	.....	3 credits	
PSYC	100	Introduction to Psychology (Psychology/Sociology Elective)	.....	3 credits	
POLS	100	Introduction to Political Science: Contemporary World Problems <b>OR</b>	.....		
POLS	105	American Government (Economics/Political Science Elective)	.....	3 credits	
		Humanities Elective	.....	3 credits	
ENGL	110	Oral Communications (English Communications Elective)	.....	3 credits	
SOCI	100	Introduction to Sociology (Diversity Elective)	.....	3 credits	
		Ethical Reasoning Elective	.....	3 credits	

Major Required Courses				
		Fine Arts or Humanities Elective .....	3 credits	
		History Elective .....	3 credits	
PSYC	200	Abnormal Psychology (Liberal Studies Elective) .....	3 credits	
PSYC	220	Lifespan Development (Liberal Studies Elective) .....	3 credits	
PSYC	215	Social Psychology (Liberal Studies Elective) .....	3 credits	
PSYC	225	Educational Psychology (Liberal Studies Elective) .....	3 credits	
PSYC	230	Sport Psychology (Free Elective) .....	3 credits	
PSYC	235	Psychology of Gender (Free Elective) .....	3 credits	
PSYC	240	Theories of Personality (Free Elective) .....	3 credits	
Total Credits Required for Degree:				62 credits

Please note: Focuses present recommended courses for areas of interest based on the liberal studies degree requirements. All students earn an Associate of Arts (A.A.) in Liberal Studies degree once program requirements are met regardless of their focus area or if all specific recommendations were followed. A student is only eligible to receive one Associate in Arts in Liberal Studies degree. S/he may not receive a second or subsequent degree in Liberal Studies with a different focus.

## ***Associate in Arts in Liberal Studies with a Focus in Science***

The associate in arts degree in Liberal Studies with a focus in Science is designed to prepare students to transfer to four-year colleges and universities. The curriculum is built on a foundation of general education classes, supplemented with laboratory science courses, to develop depth in the prerequisite knowledge required for further scientific study at the baccalaureate level.

### ***Associate in Arts Liberal Studies***

Recommended Courses for Focus in Science

General Education Requirements				
ENGL	100	English Composition .....	3 credits	
ENGL	115	Introduction to Literature .....	3 credits	
FIGS	100	Student Success .....	1 credit	
MATH	140	College Algebra (Math Elective) .....	3 credits	
PHYS	150	College Physics I with Lab (Science Elective with Lab) .....	4 credits	
		Art or Music Elective .....	3 credits	
		Psychology or Sociology Elective .....	3 credits	
		Economics or Political Science Elective .....	3 credits	
		Humanities Elective .....	3 credits	
ENGL	110	Oral Communications (English Communications Elective) .....	3 credits	
		Diversity Elective .....	3 credits	
		Ethical Reasoning Elective .....	3 credits	
Major Required Courses				
		Fine Arts or Humanities Elective .....	3 credits	
		History Elective .....	3 credits	
BIOL	124	Biology I with Lab (Liberal Studies Elective) .....	4 credits	
BIOL	128	Biology II with Lab (Liberal Studies Elective) .....	4 credits	
CHEM	120	General Chemistry I with Lab (Liberal Studies Elective) .....	4 credits	
CHEM	125	General Chemistry II with Lab (Liberal Studies Elective) .....	4 credits	
PHYS	155	College Physics II with Lab (Free Elective) .....	4 credits	
		Free Elective (met if completed recommended 4cr math/science courses above) .....	3 credits	
		Free Elective (met if completed recommended 4cr math/science courses above) .....	3 credits	
Total Credits Required for Degree:				62 credits

Please note: Focuses present recommended courses for areas of interest based on the liberal studies degree requirements. All students earn an Associate of Arts (A.A.) in Liberal Studies degree once program requirements are met regardless of their focus area or if all specific recommendations were followed. A student is only eligible to receive one Associate in Arts in Liberal Studies degree. S/he may not receive a second or subsequent degree in Liberal Studies with a different focus.

Associate in Arts in Liberal Studies with a Focus in Social Work

The associate in arts degree in Liberal Studies: Social Work concentration prepares students to transfer to a baccalaureate program in social work or human services. The curriculum is built on a foundation of general education classes, supplemented with elective courses that focus heavily on relevant general education coursework with some specialization. Students are encouraged to choose elective courses in a discipline in which they may major at the baccalaureate level.

Associate in Arts  
Liberal Studies

Recommended Courses for Focus in Social Work

General Education Requirements				
ENGL	100	English Composition.....	3 credits	
ENGL	115	Introduction to Literature .....	3 credits	
FIGS	100	Student Success .....	1 credit	
MATH	155	Statistics (Mathematics Elective) .....	3 credits	
BIOL	100	Biology with Lab for Non-Majors (Science Elective with Lab).....	4 credits	
		Art or Music Elective .....	3 credits	
PSYC	100	Introduction to Psychology (Psychology/Sociology Elective) .....	3 credits	
POLS	105	Introduction to American Government (Economics/Political Science Elective) .....	3 credits	
		Philosophy Elective (Humanities Elective).....	3 credits	
		English Communications Elective.....	3 credits	
BHHS	145	Human Diversity (Diversity Elective) .....	3 credits	
		Ethical Reasoning Elective.....	3 credits	
Major Required Courses				
		Fine Arts or Humanities Elective .....	3 credits	
		History Elective .....	3 credits	
ECON	125	Macroeconomics (Liberal Studies Elective) .....	3 credits	
MATH	155	Statistics (Liberal Studies Elective) .....	3 credits	
PSYC	220	Lifespan Development (Liberal Studies Elective).....	3 credits	
SOCI	100	Introduction to Sociology (Liberal Studies Elective) .....	3 credits	
SWRK	201	Introduction to Social Work (Free Elective).....	3 credits	
SWRK	250	Introduction to Social Welfare (Free Elective).....	3 credits	
		Behavioral Health Elective (Free Elective).....	3 credits	
Total Credits Required for Degree:				62 credits

Please note: Focuses present recommended courses for areas of interest based on the liberal studies degree requirements. All students earn an Associate of Arts (A.A.) in Liberal Studies degree once program requirements are met regardless of their focus area or if all specific recommendations were followed. A student is only eligible to receive one Associate in Arts in Liberal Studies degree. S/he may not receive a second or subsequent degree in Liberal Studies with a different focus.

Marine Science

The Marine Science program provides students with the academic background and applied skills necessary for employment as research assistants and technicians in a variety of aquatic and environmental fields. Graduates are also able to transfer their credits to other colleges and universities. The curriculum emphasizes hands-on laboratory and field procedures. Skills learned are commonly used by professionals working for companies and organizations involved in aquatic research and ecosystem management, such as marine biology laboratories, state and federal marine resource agencies, state and federal environmental protection agencies, and water districts and pollution control facilities. Special attention is given to collecting and identifying a diversity of marine organisms, performing oceanographic sampling procedures aboard our own research vessel, and laboratory techniques using molecular biology, microbiology, and chemistry. Student research projects often address current topics such as harmful algal bloom or lobster shell disease.

Upon completion of the Marine Science program, graduates will be able to:

- Communicate effectively, using the language, concepts, and models of marine biology and oceanography.



- Define and solve problems independently and collaboratively using the methodology of marine biology and oceanography.
- Apply laboratory and field techniques with accuracy, precision, and safety
- Interpret biological and oceanographic information accurately.
- Demonstrate proficient library, mathematical, and computer skills in data gathering and analysis.
- Apply scientific concepts to environmental and societal issues.

### Marine Science Admission Requirements

For information about Southern Maine Community College admission requirements, visit the Admissions area of the website at <http://www.smccme.edu/apply>.

## Associate in Applied Science Marine Science

General Education Requirements				
ENGL	100	English Composition.....	3 credits	
ENGL	115	Introduction to Literature .....	3 credits	
FIGS	100	Student Success .....	1 credit	
MATH	140	College Algebra .....	3 credits	
MATH	146	Introduction to Trigonometry .....	1 credits	
BIOL	124	Biology I with Lab .....	4 credits	
CHEM	120	General Chemistry I with Lab .....	4 credits	
		Fine Arts or Humanities Elective .....	3 credits	
		Social Science Elective.....	3 credits	
Major Required Courses				
BIOL	250	Microbiology with Lab.....	5 credits	
BIOM	170	Invertebrate Zoology.....	4 credits	
BIOM	180	Marine Botany with Lab .....	4 credits	
BIOM	255	Ecology with Lab .....	4 credits	
BIOM	265	Fishery Science with Lab .....	4 credits	
CHEM	125	General Chemistry II with Lab .....	4 credits	
OCEA	105	Elements of Oceanography with Lab.....	4 credits	
OCEA	125	Seatime I: Marine Field Methods .....	2 credits	
OCEA	225	Advanced Seatime <b>OR</b>		
GISS	150	Introduction to Geographic Info Systems.....	2-3 credits	
OCEA	290	Capstone Research.....	2 credits	
BIOL	128	Biology II and Lab <b>OR</b>		
MATH	155	Statistics .....	3-4 credits	
Required for Degree:			63-65 credits	

## Medical Assisting

The Medical Assisting program prepares students to perform duties and responsibilities in a variety of medical settings. The duties of medical assistants are flexible and will vary depending on the type of office or work setting, but can include: drawing blood, administering injections, assisting with exams and surgical procedures, taking vital signs, direct patient care, performing electrocardiograms, patient education, telephone triage, receptionist skills, filing, insurance reimbursement and billing procedures, medical coding, correspondence and scheduling appointments. The Medical Assisting program accreditation is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP) – [www.caahep.org](http://www.caahep.org).

The program culminates with a 160-hour Practicum during which theory learned in the classroom is applied in an actual medical practice environment.

*Upon completion of the Medical Assisting program, graduates will be able to:*

- Demonstrate competency performing entry-level administrative and clinical skills.
- Project a professional manner and maintain confidentiality.
- Demonstrate responsibility and flexibility.
- Communicate to all levels of patient education.
- Practice within the scope of education and abilities.
- Follow state and federal legal guidelines for practice.

### Medical Assisting Admission Requirements

For information about Southern Maine Community College health science admission requirements, visit the Admissions area of the website at <http://www.smcme.edu/apply>. High school or post-secondary coursework in algebra and biology is recommended.

## Associate in Applied Science

### Medical Assisting

General Education Requirements				
ENGL	100	English Composition .....	3 credits	
ENGL	115	Introduction to Literature .....	3 credits	
FIGS	100	Student Success .....	1 credit	
MATH	130	Technical Math .....	3 credits	
BIOL	132	Anatomy and Physiology I with Lab .....	4 credits	
		Fine Arts or Humanities Elective .....	3 credits	
PSYC	100	Introduction to Psychology .....	3 credits	
PSYC	220	Lifespan Development .....	3 credits	
Major Required Courses				
BIOL	138	Anatomy and Physiology II with Lab .....	4 credits	
HLTH	155	Pharmacology .....	3 credits	
MDAS	100	Medical Terminology* .....	3 credits	
MDAS	105	Medical Office Procedures* .....	3 credits	
MDAS	110	Introduction to Medical Assisting* .....	1 credit	
MDAS	120	Medical Ethics and Law* .....	3 credits	
MDAS	125	Electronic Medical Records* .....	3 credits	
MDAS	150	Disease Pathology/Diagnostic Lab Tests* .....	3 credits	
MDAS	160	Clinical Procedures I* .....	3 credits	
MDAS	205	Medical Insurance, Coding, and Billing* .....	3 credits	
MDAS	210	Clinical Procedures II* .....	3 credits	
MDAS	260	Medical Office Administration* .....	3 credits	
MDAS	275	Medical Assisting Practicum* .....	4 credits	
NUTR	110	Normal Nutrition with Lab .....	4 credits	
Total Credits Required for Degree:			66 credits	

*\*To receive departmental credit students must receive a grade of C or better in all Medical Assisting (MDAS) courses. A student must complete all required MDAS courses before taking the MDAS 275 Practicum.*

### Medical Assisting Certificate

The Medical Assisting Certificate is a closed apprenticeship program designed to fulfill the workforce development needs of health care providers in southern and mid-coast Maine. Students must be qualified employees of a partner health care provider in order to be eligible for the program. This one year course of study has a blend of on-campus, online, and hybrid courses mixed with a 20 hour per week apprenticeship experience at a health care provider. Courses vary from four to twelve weeks in length. At the conclusion of the program, graduates are qualified to sit for board examinations through either the certifying board of the American Medical Technologists (AMT) to become a Registered Medical Assistant (RMA) or through the certifying board of the American Association of Medical Assistants (AAMA) to become a Certified Medical Assistant (CMA). Certificate credits can apply to associate degree programs in Medical Assisting or Health Sciences at Southern Maine Community College.

Certificate  
Medical Assisting

Major Required Courses			
BIOL	105	Human Biology.....	4 credits
MDAS	100	Medical Terminology* .....	3 credits
MDAS	105	Medical Office Procedures* .....	3 credits
MDAS	111	Introduction to Medical Ethics and Law* .....	1 credit
MDAS	150	Disease Pathology/Diagnostic Lab Tests* .....	3 credits
MDAS	160	Clinical Procedures I* .....	3 credits
MDAS	205	Medical Insurance, Coding, and Billing* .....	3 credits
MDAS	210	Clinical Procedures II * .....	3 credits
MDAS	275	Medical Assisting Practicum* .....	4 credits
Total Credits Required for Degree:			27 credits

*\*To receive departmental credit students must receive a grade of C or better in all Medical Assisting (MDAS) courses. A student must complete all required MDAS courses before taking the MDAS 275 Practicum.*

Nursing

The nursing program prepares students to become registered nurses at the associate degree level. Upon completion of the program, graduates are eligible to take the NCLEX Registered Nurse (RN) licensure examination.

The Nursing Program is approved by the Maine State Board of Nursing, 161 Capitol Street, 158 State House Station, Augusta, Maine 04333-0158 (207-287-1133) and accredited by the Accreditation Commission for Education in Nursing (ACEN), 3390 Peachtree Road NE, Suite 1400, Atlanta, Georgia 30326 (404-975-5000, [www.acenursing.org](http://www.acenursing.org)).

The curriculum blends nursing courses with general education courses to provide a sound theoretical base for nursing practice. Clinical experiences are concurrent with didactic experiences during the four semesters. If students are unable to meet clinical objectives or obtain a course grade of C (76) or better, they fail that Nursing course. Students may apply for reinstatement/re-admission to the Nursing program one time.

**NOTE: The Maine State Board of Nursing may refuse to grant a license on the basis of the criminal history record information relating to convictions denominated in Title 5, Chapter 341, Section 5301, Subsection 2 of the Maine Revised Statutes Annotated (MRSA).**

**NOTE: To participate in the Nursing Program, students must register with American Databank/Castlebranch for a criminal background check 2-3 months before the first clinical course. Convictions and pending charges of concern will be reviewed by clinical agencies to determine if students can work at these sites. Students who are not accepted at a clinical agency will not be able to meet program requirements, resulting in dismissal from the Nursing Program.**

Student Learning Outcomes:

- Systematically apply the nursing process to provide care to clients in a variety of health care settings.
- Demonstrate client-centered caring behaviors and actions that result in an environment of respect and trust.
- Adhere to professional behaviors within legal, ethical, and practice standards.
- Demonstrates minimal practice of clinical judgment that results in safe outcomes.

\*PN only: Assume PN scope of responsibility for self-directed, goal-oriented growth.

Nursing Program Outcomes (January 2024):

**Goal:** The program’s annual licensure examination (NCLEX) pass rate is 80% or greater for all first-time test takers during the same 12 month period. (Dec 15th-Dec 15th)  
**Outcome:** SMCC meets this goal with a pass rate of 96% (2022-2023).

**Goal:** At least 80% of graduates report employment in nursing within 6 months of graduation  
**Outcome:** SMCC results are 100% employment of respondents within 6 months

The student rate of completion will be measured for two accreditation bodies, ACEN and NECHE when students enter either NURS 125 or NURS 111 LPN Upgrade Option:

Goals & Outcomes:  
ACEN: At least 55% of entering students complete the nursing program within 2-years  
Outcome: Spring 2021 Cohort: 78.57%  
NECHE: 70% of all students will complete the program in six semesters  
Outcome: Spring 2021 Cohort: 92.86%

LPN Program Outcomes

- 1. At least 70% of entering students complete the PN Program within two years. The 2-year benchmark-- results pending.
- 2. The program’s annual licensure examination pass rate is 80% or greater for all first-time test takers during the same 12-months-- results pending.
- 3. At Least 80% of graduates report employment as a practical nurse within 6 months of graduation--results pending.

*\*Last updated 01/2024*  
*\*All data by cohort available on request.*

Nursing Admission Requirements

For information about Southern Maine Community College health science admission requirements, visit the Admissions area of the website [www.smccme.edu/admissions-aid/health-science-applicants](http://www.smccme.edu/admissions-aid/health-science-applicants).

Associate in Science  
Nursing

General Education Requirements			
ENGL	100	English Composition .....	3 credits
ENGL	115	Introduction to Literature .....	3 credits
FIGS	102	Student Success – Health Sciences.....	1 credit
		Mathematics Elective (MATH 112 or higher) .....	3 credits
BIOL	132	Anatomy and Physiology I with Lab .....	4 credits
		Fine Arts or Humanities Elective .....	3 credits
PSYC	100	Introduction to Psychology .....	3 credits
PSYC	220	Lifespan Development .....	3 credits
Major Required Courses			
BIOL	138	Anatomy and Physiology II with Lab .....	4 credits
BIOL	250	Microbiology with Lab.....	5 credits
NURS	100	Dosage Calculations .....	1 credit
NURS	125	Nursing I* .....	9 credits
NURS	175	Nursing II* .....	9 credits
NURS	225	Nursing III* .....	9 credits
NURS	275	Nursing IV* .....	9 credits
Total Credits Required for Degree:			69 credits

\* To progress to the next course in the nursing sequence, students must receive a grade of C (76) or better. Students are allowed one repeat attempt in the duration of their program.

Associate in Science

Nursing

LPN Upgrade Option

General Education Requirements				
ENGL	100	English Composition .....	3 credits	
ENGL	115	Introduction to Literature .....	3 credits	
FIGS	102	Student Success – Health Sciences .....	1 credit	
		Mathematics Elective (MATH 112 or higher) .....	3 credits	
BIOL	132	Anatomy and Physiology I with Lab .....	4 credits	
		Fine Arts or Humanities Elective .....	3 credits	
PSYC	100	Introduction to Psychology .....	3 credits	
PSYC	220	Lifespan Development .....	3 credits	
Major Required Courses				
BIOL	138	Anatomy and Physiology II with Lab .....	4 credits	
BIOL	250	Microbiology with Lab .....	5 credits	
NURS	100	Dosage Calculations .....	1 credit	
NURS	111	LPN to ADN Role Transitions .....	5 credits	
NURS	175	Nursing II* .....	9 credits	
NURS	225	Nursing III* .....	9 credits	
NURS	275	Nursing IV* .....	9 credits	
Total Credits Required for Degree:			65 credits	

\* To progress to the next course in the nursing sequence, students must receive a grade of C (76) or better. Students are allowed one repeat attempt in the duration of their program.

Licensed Practical Nurse Certificate

The Licensed Practical Nurse Certificate prepares individuals to become Licensed Practical Nurses at the certificate level. The curriculum blends nursing and general education courses to provide a sound theoretical base for nursing practice, with concurrent clinical and didactic experiences. Upon completion of the program, graduates are eligible to take the NCLEX Licensed Practical Nurse licensure examination.

Certificate

Licensed Practical Nurse

General Education Requirements				
ENGL	100	English Composition .....	3 credits	
FIGS	102	Student Success – Health Sciences .....	1 credit	
		Mathematics Elective (MATH 112 or higher) .....	3 credits	
BIOL	132	Anatomy and Physiology I with Lab .....	4 credits	
PSYC	100	Introduction to Psychology .....	3 credits	
PSYC	220	Lifespan Development .....	3 credits	
Major Required Courses				
BIOL	138	Anatomy and Physiology II with Lab .....	4 credits	
NURS	100	Dosage Calculations .....	1 credit	
NURS	125	Nursing I* .....	9 credits	
NURS	175	Nursing II* .....	9 credits	
NURS	185	Practical Nursing Across the Lifespan .....	5 credits	
Total Credits Required for Degree:			45 credits	

\* To progress to the next course in the nursing sequence, students must receive a grade of C (76) or better. Students are allowed one repeat attempt in the duration of their program.

Nutrition and Dietetics

The Associate of Science in Nutrition and Dietetics degree at Southern Maine Community College provides introductory courses as a starting point for students interested in working in areas of nutrition care, dietary

management, health, fitness, and wellness. The nutrition and dietetics degree consists of foundational courses in science, English, math, social sciences, humanities, dietetics, and nutrition. This degree is especially appropriate for individuals interested in transferring to a baccalaureate program in health or exercise science and for those who wish to pursue a professional degree as a Registered Dietician.

Students pursuing a Nutrition and Dietetics degree may opt to complete a second major in Health Science or Culinary Arts. Acceptance into these programs is based upon application to the program and meeting minimum entrance criteria.

*Upon completion of the Nutrition and Dietetics program, graduates will be able to:*

- Use current technologies for information and communication.
- Conduct nutrition screenings, assessments and interventions.
- Apply principles of nutrition science for health promotion and disease prevention.
- Participate in nutrition care of individuals across the lifespan and a diversity of people, cultures and religions.
- Supervise production of food that meets nutrition guidelines, cost parameters and consumer acceptance.
- Perform ethically in accordance with the values of the healthcare system.

**Nutrition and Dietetics Admission Requirements**

For information about Southern Maine Community College admission requirements, visit the Admissions area of the website at <http://www.smccme.edu/apply>. High School or post-secondary coursework in algebra and biology is recommended.

**Associate in Science  
Nutrition and Dietetics**

General Education Requirements			
ENGL	100	English Composition.....	3 credits
ENGL	115	Introduction to Literature .....	3 credits
MATH	140	College Algebra <b>OR</b>	
MATH	155	Statistics.....	3 credits
		Science Elective with Lab .....	4 credits
ENGL	110	Oral Communications.....	3 credits
		History or Political Science Elective.....	3 credits
PHIL	105	Ethical Dilemmas.....	3 credits
PSYC	100	Introduction to Psychology .....	3 credits
Major Required Courses			
NUTR	100	Introduction to Nutrition and Health Promotion* .....	3 credit
NUTR	110	Normal Nutrition with Lab .....	4 credits
NUTR	140	Nutrition and Weight Loss .....	3 credits
NUTR	150	Principles of Food Preparation with Lab* .....	4 credit
NUTR	190	Fundamentals of Personal Training <b>OR</b>	
		Liberal Studies Electives .....	3-4 credits
NUTR	210	Nutrition in Disease Management and Prevention .....	4 credits
NUTR	220	Health Care Delivery Systems* .....	3 credits
NUTR	250	Nutrition Education and Counseling* .....	3 credits
NUTR	275	Community Field Experience <b>OR</b>	
HLTH	140	Lifetime Physical Fitness& Wellness.....	3 credits
BIOL	124	Biology I with Lab <b>OR</b>	
BIOL	132	Anatomy and Physiology I with Lab .....	4 credits
		Liberal Studies Electives .....	3-4 credits
Total Credits Required for Degree:			62-64 credits

\*To receive Departmental credit students must receive a grade of C or better in all Nutrition courses

**Precision Machining and Manufacturing**

Precision machinists control, design, maintain, upgrade and operate modern, computer-controlled production equipment and facilities equipment used to manufacture many of the world’s goods. The Precision Machining program equips its graduates with an in-depth multi-disciplinary education in mathematics, physics, engineering technology, both manual and CNC machining, manufacturing processes and methods, as well as a broad education in computer studies, business and liberal arts. Our highly skilled graduates have gone on to provide hands-on engineering and managerial service in state-of-the-art high volume and/or high-precision manufacturing enterprises across Maine. Our graduates are currently employed in diverse industries including automotive, packaging, metalworking, power generation, aerospace, medical, defense, bottling and even private consulting companies. Our graduates specialize in precision machining with precision tool making using Computer Numerical Controller (CNC) programming and operations.

*Upon completion of the Precision Machining and Manufacturing program, graduates will be able to:*

- Demonstrate knowledge and skills required to safely set up and operate conventional and CNC machines precision metalworking machinery.
- Demonstrate knowledge and skills required to safely machine precision parts.
- Demonstrate knowledge and skills required using CAM.
- Demonstrate knowledge and skills required to inspect machined parts using various measuring equipment and gauging.
- Demonstrate competency in general education requirements for work and life skills.

*Precision Machining and Manufacturing Admission Requirements*

For information about Southern Maine Community College admission requirements, visit the Admissions area of the website at <http://www.smccme.edu/apply>. High school or post-secondary coursework in algebra, physics, and geometry is strongly recommended.

***Associate in Applied Science  
Precision Machining and Manufacturing***

General Education Requirements				
ENGL	100	English Composition.....	3 credits	
ENGL	115	Introduction to Literature .....	3 credits	
FIGS	100	Student Success .....	1 credit	
MATH	130	Technical Math <b>OR</b>		
MATH	140	College Algebra <b>AND</b> .....	3 credits	
MATH	146	Introduction to Trigonometry .....	1 credit	
		Physics Elective with Lab.....	4 credits	
		Fine Arts or Humanities Elective .....	3 credits	
		Social Science Elective.....	6 credits	
Major Required Courses				
AEDD	170	Parametric Solid Modeling.....	3 credits	
AEDD	250	Mechanical Design.....	3 credits	
MACH	115	Introduction to Precision Machining <b>OR</b>		
MACH	101	Introduction to Manufacturing <b>AND</b>		
MACH	102	Precision Machining: Lathe <b>AND</b>		
MACH	103	Precision Machining: Mills/Grinding .....	7 credits	
MACH	165	Advanced Precision Machining <b>OR</b>		
MACH	151	Advanced Manufacturing Processes <b>AND</b>		
MACH	152	Advanced Turning and Grinding Processes <b>AND</b>		
MACH	153	Advanced Milling and Grinding Processes.....	7 credits	
MACH	215	Introduction to CNC Machining Practices .....	7 credits	
MACH	265	Advanced CNC Machining and Programming Practices.....	7 credits	
		Precision Machining Elective.....	3 credits	
WELD	100	Introduction to Welding.....	3 credits	
Total Credits Required for Degree:			63-64 credits	

The Computer Numerical Controller (CNC) Machine Operator Certificate offers new or returning students a competency based comprehensive CNC Machine Operator training. Along with general education courses and program specific technical courses, students will be able to apply a wide variety of industries and employment opportunities. Students will be exposed to basic manufacturing skills, precision machining and CNC machine operations. Students completing the CNC Operator Certificate are in high demand across several industries.

*Upon completion of the CNC Machine Operator Certificate, graduates will be able to:*

- Identify and practice safe metal cutting practices in the manufacturing environment.
- Demonstrate knowledge of common manual machining practice processes required for employment.
- Demonstrate knowledge of common technical drawing ASME standards.
- Demonstrate knowledge of precision measurement.
- Demonstrate knowledge of programming, setup and operations of Proto Trac-controlled machines.
- Demonstrate knowledge of Operating CNC Machining Centers.
- Demonstrate knowledge of Operating CNC Turning Centers.

*CNC (Computer Numerical Controller) Machine Operator Certificate Admission Requirements*

For information about Southern Maine Community College admission requirements, visit the Admissions area of the website at <http://www.smcme.edu/admissions>. High school or post-secondary coursework in algebra, physics, and geometry is strongly recommended.

**Certificate  
CNC Machine Operator**

Required Courses			
ENGL	100	English Composition .....	3 credits
FIGS	100	Student Success .....	1 credit
MATH	130	Technical Math <b>OR</b>	
MATH	140	College Algebra <b>AND</b> .....	3 credits
MATH	146	Introduction to Trigonometry .....	1 credit
AEDD	170	Parametric Solid Modeling .....	3 credits
MACH	115	Introduction to Precision Machining <b>OR</b>	
MACH	101	Introduction to Manufacturing <b>AND</b>	
MACH	102	Precision Machining: Lathe <b>AND</b>	
MACH	103	Precision Machining: Mills/Grinding .....	7 credits
MACH	165	Advanced Precision Machining <b>OR</b>	
MACH	151	Advanced Manufacturing Processes <b>AND</b>	
MACH	152	Advanced Turning and Grinding Processes <b>AND</b>	
MACH	153	Advanced Milling and Grinding Processes.....	7 credits
Total Credits Required for Degree:			24-25 credits

**Pre-Engineering**

Engineering involves the arrangement and modification of natural materials to produce devices and processes in order to accomplish human goals expeditiously, economically and safely. Engineering education is divided into such fields as aeronautical, agricultural, biomedical, chemical, civil, electrical, industrial, material, mechanical and nuclear.

The pre-engineering program at SMCC is a two year program that helps students determine if they are interested in engineering and prepares them to transfer to a Bachelor’s-level engineering program. The program focuses on developing a fundamental knowledge of physics, chemistry and mathematics, and provides an introduction to engineering. In addition, students take classes in English, communication, the social sciences and humanities.

One major advantage of attending a community college is the possibility of close association with faculty and fellow students. Students who choose to study engineering at SMCC believe that small classes in the basic



engineering, science and math courses and the supportive environment and personal attention of a community college are important in giving them a start toward a satisfying career in engineering.

*Upon completion of the Pre-Engineering program, graduates will be able to:*

- Develop expertise in and practice mathematical principles as they apply to the fields of Physics and engineering.
- Understand the role of chemistry in our physical and biological environment as it pertains to atomic and molecular structure, the laws of thermodynamics and how energy is exchanged between systems.
- Demonstrate a basic knowledge of introductory programming languages.

**Pre-Engineering Admission Requirements**

For information about Southern Maine Community College admission requirements, visit the Admissions area of the website at <http://www.smccme.edu/apply>. High School or post-secondary coursework in algebra and physics is recommended.

**Associate in Applied Science  
Pre-Engineering**

General Education Requirements			
ENGL	100	English Composition.....	3 credits
ENGL	115	Introduction to Literature .....	3 credits
MATH	140	College Algebra .....	3 credits*
MATH	146	Introduction to Trigonometry .....	1 credit
MATH	190	Pre-Calculus .....	3 credits*
CHEM	131	Chemistry for Engineers with Lab .....	4 credits
ENGL	110	Oral Communications.....	3 credits
		Social Science Elective.....	3 credits
Major Required Courses			
COMM	201	Technical Writing .....	3 credits
ENGR	100	Introduction to Engineering .....	2 credits
ENGR	216	Circuits I: Steady State Analysis.....	3 credits
MATH	260	Calculus I .....	4 credits
MATH	270	Calculus II .....	4 credits
MATH	275	Introduction to Differential Equations with Linear Algebra .....	4 credits
PHYS	200	Physics for Engineers I with Lab .....	4 credits
PHYS	250	Physics for Engineers II with Lab .....	4 credits
Computer Engineering Option			
CSCI	110	Principles of Computer Science.....	4 credits
ENGR	172	Digital Logic.....	4 credits
ENGR	217	Circuits II: System Dynamics with Lab .....	4 credits
MATH	225	Discrete Mathematics .....	3 credits
Electrical Engineering Option			
ENGR	172	Digital Logic.....	4 credits
ENGR	217	Circuits II: System Dynamics with Lab .....	4 credits
MATH	225	Discrete Mathematics .....	3 credits
Mechanical Engineering Option			
ENGR	200	Engineering Statics.....	3 credits
ENGR	230	Thermodynamics I: Laws and Properties.....	3 credits
ENGR	250	Strength of Materials .....	3 credits
MATH	280	Calculus III .....	4 credits
Total Credits Required for Degree:			62 to 66 credits

\*For students starting at a more advanced level in math based on placement testing, they can substitute CSCI 110 (Electrical/Mechanical Engineering) or CSCI 160 (Computer Engineering) in the place of MATH 140 and MATH 146 if testing at the pre-calculus level or substitute a Fine Arts/Humanities elective in the place of MATH

190 if placing at the calculus level. Please note this is only available to students with upper level placement in mathematics.

## Radiography

The radiographer, a vital member of the health care team, utilizes sophisticated x-ray equipment to obtain diagnostically valuable images of any body part or body system. In order to perform radiographic procedures, the radiographer must have a good working knowledge of human anatomy, radiographic procedures, radiation physics, principles of imaging, radiation protection, and quality assurance. Employment opportunities include hospitals, private offices, outpatient clinics, and specialty medical practices. Many Radiographers choose to specialize in a variety of imaging modalities areas such as mammography, computerized tomography, vascular and interventional radiography, and magnetic resonance imaging. The curriculum maintains clinical affiliations with six major hospitals in southern Maine and private practice groups, as well as several orthopedic offices in Portland.

This program prepares individuals to become radiographers at the associate degree level. Upon completion of the program, graduates are eligible to apply to take the certification examination of the American Registry of Radiologic Technologists, ARRT.

### *Program Mission*

The overall goal of the Radiography program is to educate and train highly skilled, competent, professional radiographers to serve patients using imaging modalities to perform radiographic diagnostic procedures. The didactic and clinical education provides a broad spectrum of professional functions consistent with standards of current professional practice which include: performance of general radiographic procedures utilizing a variety of equipment, utilization of radiation protection techniques, employment of critical thinking skills, utilization of professional communication skills and observance of confidentiality of information and appropriate patient care skills.

### *Program Goals and Objectives*

Goal 1: Students demonstrate critical thinking skills necessary to function effectively in the clinical setting

1. Students will adapt knowledge of positioning to routine and non-routine situations.
2. Students will use critical thinking skills to analyze and optimize image quality.

Goal 2: Students possess the knowledge and skills of an entry level radiographer to clinically perform radiographic exams competently while demonstrating patient care.

1. Students will perform routine and non-routine exams.
2. Students will pass the ARRT examination on first attempt.
3. Students possess knowledge of procedures, radiation protection, and patient care.
4. Students will demonstrate ethical values relative to quality patient care.

Goal 3: Students demonstrate professional development and growth consistent with the program's mission and expected outcomes.

1. Students will participate as members of their professional society (Maine Society of Radiologic Technologists).
2. Students will be oriented to other imaging modalities.
3. Students will demonstrate professionalism in didactic and clinical settings.

Goal 4: Students demonstrate the competence of entry level radiographers who will meet the needs of the health care community.

1. Graduates will pass the ARRT examination with an average grade of 85% or higher.
2. Employers will indicate overall satisfaction with the graduates' performance.
3. Graduates will be employed within 12 months after graduation.
4. Graduates will be satisfied with their education and can meet the needs of the health care community.
5. First semester radiography students will be retained and will graduate from the program.

Goal 5: Students exhibit professional communication skills.

1. Students will demonstrate professional communication skills with all personnel in the didactic and clinical settings.
2. Students will demonstrate professional communication skills with patients.

*Upon completion of the Radiography program, graduates will be able to:*

- Perform radiographic examinations on pediatric, adult and elderly individuals who present with a variety of challenges.
- Utilize a variety of radiographic and image processing equipment in a variety of clinical settings.
- Utilize appropriate radiation protection techniques for patients and personnel.
- Deliver appropriate patient care in a variety of clinical situations.
- Demonstrate attention to clerical detail relative to all aspects of clinical examinations, including archiving, filing and retrieval of images.
- Interact professionally and competently with other health care personnel.
- Communicate to patients the basic procedural details of special imaging modalities such as interventional angiography, mammography, CT and MRI.
- Be eligible to apply for the American Registry of Radiologic Technologists’ examination in diagnostic radiography.

### *Radiography Admission Requirements*

For information about Southern Maine Community College health science admission requirements, visit the Admissions area of the website [www.smcme.edu/admissions-aid/health-science-applicants](http://www.smcme.edu/admissions-aid/health-science-applicants). High school or post-secondary coursework in chemistry, physics, and algebra is highly recommended and biology is required. All students accepted undergo a criminal background check. Results of the background check are made available to all clinical facilities. If a student is denied access to any of our clinical facilities, he/she will be unable to continue in the program.

### *Radiography Clinical Hours Calculations.*

Clinical hours for Southern Maine Community College’s Radiography program are calculated with a ratio of 60 clinical hours per credit hour. The breakdown for each radiography clinical course is as follows:

RADG 130 Clinical Practicum I = 15 weeks X 16hours/week = 240 clinical hours/60 = 4 credits  
 RADG 160 Clinical Practicum II = 15 weeks X 16hours/week = 240 clinical hours/60 = 4 credits  
 RADG 190 Clinical Practicum III = 6 weeks X 40 hours/week= 240 clinical hours/60 = 4 credits  
 RADG 230 Clinical Practicum IV = 15 weeks X 24 hours/week = 360 clinical hours/60 = 6 credits  
 RADG 260 Clinical Practicum V = 15 weeks X 24 hours/week = 360 clinical hours/60 = 6 credits

## **Associate in Science Radiography**

General Education Requirements				
ENGL	100	English Composition.....	3 credits	
ENGL	115	Introduction to Literature .....	3 credits	
FIGS	102	Student Success – Health Sciences.....	1 credit	
MATH	112	Quantitative Reasoning (or higher) .....	3 credits	
BIOL	132	Anatomy and Physiology I with Lab .....	4 credits	
BIOL	138	Anatomy and Physiology II with Lab .....	4 credits	
		Fine Arts or Humanities Elective .....	3 credits	
PSYC	100	Introduction to Psychology .....	3 credits	
Major Required Courses*				
RADG	100	Radiography Patient Care and Radiation Protection .....	3 credits	
RADG	105	Radiographic Procedures I .....	4 credits	
RADG	115	Radiographic Exposure I .....	3 credits	
RADG	130	Clinical Practicum I .....	5 credits	
RADG	155	Radiographic Procedures II .....	4 credits	

RADG	160	Clinical Practicum II .....	5 credits
RADG	175	Radiographic Analysis I .....	1 credit
RADG	190	Clinical Practicum III .....	4 credits
RADG	205	Radiographic Procedures III .....	3 credits
RADG	215	Radiographic Exposures II .....	3 credits
RADG	230	Clinical Practicum IV .....	6 credits
RADG	235	Radiographic Exposure III .....	3 credits
RADG	245	Radiographic Pathology .....	3 credits
RADG	255	Principles of Quality Assurance .....	2 credits
RADG	260	Clinical Practicum V .....	6 credits
RADG	275	Radiographic Analysis II .....	1 credit
<b>Total Credits Required for Degree:</b>			<b>80 credits</b>

\*Inability to meet clinical objectives and a clinical grade of less than 85 or a radiographic didactic course grade less than 75 constitutes failure in that course.

## Respiratory Therapy

Respiratory Therapy is an allied health specialty involved with evaluation, treatment, management, diagnosis and preventive care of patients with cardiopulmonary problems. The respiratory therapist is a life-support specialist. During emergency calls respiratory therapists become responsible for the care of the patient through airway management, artificial ventilation, external massage and other sophisticated emergency support measures. Respiratory therapists must be efficient in many areas of specialized and therapeutic respiratory care, such as oxygen therapy, aerosol delivery, cardiopulmonary resuscitation, mechanical ventilation, airway management, pulmonary function studies and blood gas analysis. With the ever-increasing number of cardiopulmonary disorders and the advancement in respiratory therapy and specialty areas, job opportunities in this dynamic profession are rapidly expanding. Respiratory therapists are employed in hospitals, sleep labs, physician offices, and as healthcare educators. The program is run in close cooperation with clinical affiliates, including Maine Medical Center and Mercy Hospital in Portland; St. Mary's Regional Medical Center and Central Maine Medical Center in Lewiston; Southern Maine Health Care in Biddeford; Mid Coast-Parkview Health Care in Brunswick; Maine General in Augusta; and Wentworth-Douglass Hospital in Dover NH. The program is accredited by the Commission on Accreditation for Respiratory Care, 1248 Hardwood Road, Bedford TX 76021-4244. Program accreditation information can be viewed at CoARC.com.

### Program Goals

*To prepare graduates with demonstrated competence in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains of respiratory care as performed by registered respiratory therapists (RRT's). Upon completion of the Respiratory Therapy program, graduates will be able to:*

- Demonstrate cognitive behavior in the clinical setting consistent with a Registered Respiratory Therapist.
- Exhibit psychomotor skills in the clinical setting consistent with a Registered Respiratory Therapist.
- Demonstrate attitudes and behaviors, in the clinical setting consistent with a Registered Respiratory Therapist.

### Respiratory Therapy Admission Requirements:

For information about Southern Maine Community College health science admission requirements, visit the Admissions area of the website [www.smccme.edu/admissions-aid/health-science-applicants](http://www.smccme.edu/admissions-aid/health-science-applicants). High school or post-secondary coursework in chemistry, biology, physics, and algebra is recommended.

## Associate in Science Respiratory Therapy

General Education Requirements			
ENGL	100	English Composition .....	3 credits
ENGL	115	Introduction to Literature .....	3 credits
FIGS	102	Student Success – Health Sciences .....	1 credit

MATH	140	College Algebra (or higher) .....	3 credits
BIOL	132	Anatomy and Physiology I with Lab .....	4 credits
BIOL	138	Anatomy and Physiology II with Lab .....	4 credits
		Fine Arts or Humanities Elective .....	3 credits
		Social Science Elective.....	3 credits
<b>Major Required Courses*</b>			
RESP	100	Respiratory Therapy Patient Care .....	3 credits
RESP	101	Gas, Humidity, and Aerosol Therapy .....	4 credits
RESP	105	Pulmonary Assessment .....	3 credits
RESP	110	Airway Management.....	3 credits
RESP	120	Cardiopulmonary-Renal Anatomy and Physiology .....	4 credits
RESP	125	Clinical Practicum I.....	3 credits
RESP	170	Introduction to Mechanical Ventilation .....	3 credits
RESP	172	Clinical Ethics in Respiratory Care .....	3 credits
RESP	175	Clinical Practicum II .....	4 credits
RESP	200	Neonatology and Pediatrics .....	3 credits
RESP	210	Cardiovascular Assessment .....	3 credits
RESP	220	Clinical Mechanical Ventilation .....	4 credits
RESP	225	Clinical Practicum III .....	4 credits
RESP	250	Respiratory Care Senior Seminar .....	3 credits
RESP	275	Clinical Practicum IV.....	6 credits
<b>Total Credits Required for Degree:</b>			<b>77 credits</b>

\*Inability to meet clinical objectives and a clinical grade less than 77 or a Respiratory didactic course grade of less than 77 constitutes a failure in that course and therefore must be repeated to progress in the program.

## Surgical Technology

A certified Surgical Technologist (CST) is a member of the surgical team in the operating room who works with the surgeon, anesthesiologist and certified registered nurse, delivering direct patient care before, during and after surgery. Surgical technologists perform functions and tasks that provide a safe environment for surgical care and contribute to the efficiency of the operating team by supporting operating surgeons, nurses and others involved in operative procedures. Surgical technologists also work in other patient service settings that call for special knowledge about asepsis, or about methods of making or keeping an environment antiseptic.

The program is a cooperative effort between SMCC and the Maine Medical Center (MMC) in Portland. In the first part of the program, students complete prerequisite, general education credits provided by SMCC. SMCC requires a minimum of 22 general education and allied health credits to meet degree requirements. Transfer students should be aware that SMCC requires 15 credits of curriculum-specific coursework be taken at SMCC in order to award a degree. Transfer credits do not count toward this 15-credit minimum.

The second part of the program is a one-year, self-contained surgical technology program provided by MMC. Initial classes are held on the SMCC campus, including basic sciences, care and safety of the patient, and principles of operating room technique. The second phase of classes are held at MMC, enabling the student to gain practical experience in the operating room, participating in clinical rotations to several ambulatory surgery sites to maximize the student's clinical experience. Graduates are prepared and eligible to sit for the National Certification Examination offered by the National Board of Surgical Technology and Surgical Assisting (NBSTSA).

Upon completion of the MMC surgical technology program and the prerequisite general education requirements through SMCC, students will earn an SMCC associate degree. The candidate is awarded 42 credits for the surgical technology credits completed through MMC, which serve as the technical core of the associate degree. The associate degree enhances career opportunities through vertical mobility, practitioner levels refinement, and maximized employment prospects.

The MMC School of Surgical Technology is accredited by the Commission on Accreditation of Allied Health Education Programs ([www.CAAHEP.org](http://www.CAAHEP.org)). SMCC is fully accredited as a post-secondary educational institution by the New England Commission of Higher Education.

Upon completion of the program, graduates will be able to:

- Provide safe care to the patient in a surgical setting.
- Function as an integral part of a surgical team.
- Demonstrate aseptic technique.
- Practice as a surgical technologist in multiple clinical settings.
- Work in related medical settings such as research, infection control and medical sales.
- Sit for the national certification examination for surgical technologists.

**Surgical Technology Admission Requirements**

For information about Southern Maine Community College health science admission requirements, visit the Admissions area of the website <https://www.smcme.edu/admissions-aid/health-science-applicants>. High school or post-secondary coursework in chemistry, biology, physics, and algebra is recommended. For information about the Maine Medical Center program details, please visit <http://www.mmc.org/surgtech>, call 207-741-5589 or email [Brenda.Buck@MaineHealth.org](mailto:Brenda.Buck@MaineHealth.org).

**Associate in Applied Science  
Surgical Technology**

General Education Requirements – minimum of 15 credits must be taken at SMCC				
ENGL	100	English Composition .....	3 credits	
ENGL	115	Introduction to Literature .....	3 credits	
		Mathematics Elective (100-level or higher) .....	3 credits	
BIOL	100	Biology with Lab for Non-majors <b>OR</b>		
BIOL	124	Biology I with Lab .....	4 credits	
		Fine Arts or Humanities Elective .....	3 credits	
		Social Science Elective.....	6 credits	
Major Required Courses				
		Maine Medical Center Surgical Technology Program.....	42 transfer credits	
Total Credits Required for Degree:				64 credits

**Trade and Technical Occupations**

The associate in applied science in Trade and Technical Occupations program is designed to recognize the proficiency of people who are enrolled in, or have completed, a registered apprenticeship program (e.g., journey person status).

Women and men who have completed or are currently enrolled in a registered apprenticeship program or a formal program approved by the College may apply and simultaneously complete both their training program and degree requirements.

A registered apprenticeship program is one approved by the Maine State Apprenticeship and Training Council or the U.S. Department of Labor, Bureau of Apprenticeship and Training. Six credits per year of apprenticeship are allowed. Students earning less than twenty four credits will need to complete remaining credits in related or open electives.

**Trade and Technical Occupations Admission Requirements**

For information about Southern Maine Community College admission requirements, visit the Admissions area of the website <http://www.smcme.edu/apply>. Prospective students must be currently enrolled in a registered apprenticeship program or a formal program approved by the college and related to a degree program offered by the college.

**Associate in Applied Science  
Trade and Technical Occupations**

General Education Requirements				
ENGL	100	English Composition .....	3 credits	
ENGL	115	Introduction to Literature .....	3 credits	
		Mathematics Elective (100-level or higher) .....	3 credits	

Physics Elective .....	4 credits
Fine Arts or Humanities Elective .....	3 credits
Social Science Elective.....	6 credits
Major Required Courses	
Trade Related Electives .....	22 credits
Trade and Technical Occupations Electives.....	24 credits
Total Credits Required for Degree:	68 credits

# COURSE DESCRIPTIONS

## *Accounting Courses (ACCT)*

### **ACCT 105 Financial Accounting 3 cr.**

This is an introductory course that prepares a student to become skilled at basic accounting procedures, with the intent of accurately presenting financial information for decision-making. The material is vital for all participants in business. Students will learn about balance sheets, income measurement, recording processes involving journals and ledgers, and the accounting cycle. Students will also examine the major elements of financial statements such as cash accounts receivables, inventories, long-term assets, liabilities, and equity. Financial statement analysis occurs throughout.

Prerequisite(s): MATH-040 or appropriate placement  
Corequisite(s): ENGL-100 or ENGL-101

### **ACCT 155 Managerial Accounting 3 cr.**

Building on fundamentals learned in Financial Accounting, students are introduced to several important analytical tools found in business. Topics include the time value of money, the concept of risk, budgeting, costing of products, master and flexible budgeting, debt management, and short-term business decisions. A solid basis in financial accounting will be necessary.

Prerequisite(s): ACCT-105, MATH-040 or appropriate placement  
Corequisite(s): none

### **ACCT 205 Intermediate Accounting 3 cr.**

This course is the intensive study of accounting and the use of financial information for business decision making. This course is a continuation of the basic accounting principles and theories covered in Financial Accounting and Managerial Accounting. Intermediate Accounting is also a further introduction of accounting as a career profession.

Prerequisite(s): ACCT-105, MATH-040 or appropriate placement  
Corequisite(s): none

## *Academic Success Courses (ACSS)*

### **ACSS 100 Introduction to Career, Education and Life Planning 1 cr.**

This course will build on the academic success skills developed in the FIG and focus on developing career and transfer goals and mapping the necessary steps to achieve these goals. Students will explore their interests and learn how to match personal needs and expectations with satisfying career options.

Participants will learn how to access and apply career development and transfer planning tools located in My Maine Guide on the SMCC portal.

Prerequisite(s): Department Permission  
Corequisite(s): none

### **ACSS 104 Academic Success Seminar 3 cr.**

This is a three-unit course. Each unit is five weeks. Unit I: Academic Skills for College Success introduces students to the college environment and provides opportunities to strengthen skills necessary for success at the college level. Unit II: Learning Theories and Self-Assessment explores the learning process, learning styles, and student development theory. Unit III: Career Decision Making helps students understand and successfully manage, through readings, writing, and activities, some of their life and career transitions.

Prerequisite(s): none  
Corequisite(s): none

## *Architectural and Engineering Design Courses (AEDD)*

### **AEDD 100 Print Reading 3 cr.**

This course introduces the concepts of technical drawing, measurement, scale, format, and how they are applied to reading drawings in the fields of mechanical, architectural, civil, structural, and electrical. The relationship between the intent of the drawings, trade practices, ASME standards, and the ability to extract and utilize information found on various kinds of drawings will be stressed.

Prerequisite(s): MATH-040 or appropriate placement  
Corequisite(s): none

### **AEDD 105 CAD Graphics 3 cr.**

This course will involve the production of 2D technical drawings that meet industry standards using AutoCAD software. Emphasis will be placed on precision and accuracy, use of symbols, line types, line weights, orthographic projection, multi-view placement, text format, dimensions, section views, auxiliary views, isometric views, and plotting accuracy. A variety of design fields will be reviewed with an emphasis on ASME graphics standards.

Prerequisite(s): MATH-040 or appropriate placement  
Corequisite(s): none

### **AEDD 107 Industrial Design 3 cr.**

This course introduces the student to industrial design. Students will study the phases that a basic consumer product and environmentally related product or system goes through from conception to production. The "Carbon Footprint and Path" of a specific



consumer product will be studied. From this research, students will develop product innovations that are applied through design into a tangible manufactured product. Presentations of designs are required. Students with prior design experience may use any tools that they have acquired to create their prototypes, drawings, models etc. for presentations. Students with no prior design experience will be taught how to sketch and meet graphic standards, create model prototypes, and use other visual aids to organize and present their projects.

Prerequisite(s): ENGL-100 or ENGL-101

Corequisite(s): none

### **AEDD 109 Introduction to Marine Design 3 cr.**

This course presents topics required for understanding ship design at an introductory level. Why does it float? What effect will materials have on buoyancy and stability? Students will be introduced to the vocabulary of the marine industry as they develop an understanding of the basic requirements of design and an appreciation for systems engineering principles. The course will cover maritime history, dynamic forces on a ship, and design for manufacture concepts, and will include concepts involving basic geometry and algebra. Students will tour a working shipyard.

Prerequisite(s): none

Corequisite(s): none

### **AEDD 140 Introduction to Interior Design 3 cr.**

This course will introduce students to interior design, beginning with a historical overview of the profession. Topics will include space planning, color theory, ADA compliance, furnishings, materials, lighting, CAD applications, continuing education and the certification process. There will be a series of required projects that will include research and self-exploration.

Prerequisite(s): MATH-040 or appropriate placement

Corequisite(s): none

### **AEDD 160 CAD Applications 3 cr.**

This course will be based on AutoCAD software. Students develop drawings in a variety of fields of design, including architectural, civil, mechanical, and others. Emphasis will be placed on improving efficiency, advanced layout techniques, annotative scales, plotting, solving problems when working with existing drawings, creating hybrid vector-raster drawings, developing symbols and templates, and using software to solve design problems.

Prerequisite(s): AEDD-105

Corequisite(s): none

### **AEDD 165 Basic Architecture with CAD 3 cr.**

This CAD based course offers the fundamentals of architectural design as it relates to light wood construction consistent with, but not limited to, residential construction. Designed for the student with prior drafting and CAD courses, this course introduces building elements, CAD techniques, building code requirements, and professional and regional influences.

Prerequisite(s): none

Corequisite(s): AEDD-100

### **AEDD 170 Parametric Solid Modeling 3 cr.**

This course introduces students to the use of SolidWorks or Inventor software to produce parametric models, assemblies, and drawings for the manufacturing industry. Topics will include sketches, reference planes, relations, part modeling techniques, constraints, mates, evaluation tools, redesign, and presentation techniques. Each student will complete an individual design project involving a mechanical assembly with appropriate documentation.

Prerequisite(s): AEDD-100 or AEDD-105 or AEDD-110 or MACH-115 or MACH-101, MACH-102 and MACH-103

Corequisite(s): none

### **AEDD 185 Civil CAD 3 cr.**

This comprehensive course covers the fundamental tools of CivilCAD and their practical applications in planning, documenting, and creating roadways, subdivisions, and site plans with adherence to industry standards. Understanding and using the software, generating design concepts, drawing accuracy, layout and quality of work will be stressed.

Prerequisite(s): AEDD-105

Corequisite(s): none

### **AEDD 190 Interior Design II 3 cr.**

Students will have the opportunity to explore in more depth the Interior Design concepts established in the AEDD-140 Introduction to Interior Design class. Commercial Interior Design will be the primary focus. Students will learn the Design development process through exploration of initial concepts and analysis of effects on site/building conditions, form, space and programming. A set of conceptual drawings; floor plans, lighting plans, floor pattern plans, elevations, millwork sections, finish schedules, and materials boards will be required to be completed for design projects. Emphasis will be placed on one's ability to convey strong concepts, address human factors, coordinate documents and illustrations, and analyze 3D space and form. Independent research and exploration will be required.

Prerequisite(s): AEDD-140

Corequisite(s): none

**AEDD 205 Technical Illustration 3 cr.**

This comprehensive course covers technical and perspective forms of three-dimensional drawing, one and two point perspective, shade and shadow, color, and rendering. Extensive sketching, a thorough understanding of technical drawing/graphic concepts, and hands-on experience promote the development of artistic talent as it relates to architectural engineering design.

Prerequisite(s): AEDD-100 or AEDD-105

Corequisite(s): none

**AEDD 209 Marine Design II 3 cr.**

This course provides a broad overview of the general marine design skills expected of a middle-grade entry level designer. Students will learn the basics of creating interior and exterior ship designs and to rethink a ship's design if it isn't practical. Topics will include systems engineering considerations, electrical, pipe/machinery, HVAC, structural, hull outfit design, human factors, Human-Machine interface and Human-Computer interface, and design for manufacturing. Students will complete a design project and demonstrate oral and written presentation skills.

Prerequisite(s): AEDD-100, AEDD-109, ENGL-100 or ENGL-101

Corequisite(s): none

**AEDD 210 CAD 3D 3 cr.**

This is a survey course in 3D modeling using a variety of currently used modeling software. Students will produce multiple projects using selected acis and parametric modeling software. Rendering and animation software will be used to produce presentations of the models created.

Prerequisite(s): AEDD-160

Corequisite(s): none

**AEDD 216 Sustainable Design 3 cr.**

This course introduces the student to the concepts of green design and construction in residential and commercial projects. The course is presented in modules which will cover sustainable design elements. Presentation of current green technologies will be provided by the instructor through the use of text, mixed media and lectures. Local and global applications of green design will be analyzed, discussed and critiqued.

Prerequisite(s): AEDD-100 or AEDD-105 or CONS-115 and AEDD-115 or AEDD-165 or CONS-130

Corequisite(s): none

**AEDD 220 Architectural BIM 3 cr.**

Students will use architectural software widely used in the field to produce architectural models and working drawings. Building information management, design development, construction documentation and planning techniques as they relate to the software will be emphasized.

Prerequisite(s): AEDD-105, AEDD-165

Corequisite(s): none

**AEDD 240 Building Systems 3 cr.**

This course provides an overview of the systems needed in buildings with an emphasis on applicable codes and green design. Topics will include electrical system design and code compliance, basic homeowner wiring practices, heat calculations, heating systems, municipal and rural water systems, plumbing system design and codes, site planning, and Leadership in Environmental and Energy Efficient Design (LEED).

Prerequisite(s): AEDD-165

Corequisite(s): none

**AEDD 250 Mechanical Design 3 cr.**

This course provides an overview of the elements of mechanical design that are used in manufacturing industries. Topics will include ASME Y14.5 standards of technical graphics, geometric dimensioning and tolerancing (GDT), classes of fit, surface finishes, weld callouts, representation of fasteners, characteristics of materials, power transmission, and development of working drawings. Students may submit work using appropriate 2D or parametric CAD drawings.

Prerequisite(s): AEDD-100 or AEDD-105 or MACH-115 or MACH-101, MACH-102 and MACH-103

Corequisite(s): none

**AEDD 255 Applied Engineering-Buildings 3 cr.**

This course is a non-calculus introduction to the combined study of mechanics and strength of materials as it relates to building construction using Allowable Stress Design methods. Up to date values in wood, laminates/composites, steel and engineering applications are covered. It is intended for architects, builders, carpenters, designers, and code enforcement officers requiring only a background in algebra. This is a comprehensive basic engineering course with a focus on proper material selection.

Prerequisite(s): MATH-112 or higher

Corequisite(s): none

**AEDD 260 CAD Management 3 cr.**

This course will provide an introduction to the management of AutoCad using the current version of the software. Students will learn advanced techniques

in geometry creation, management of CAD systems, development of macros, use of scripts, programming for automation, customizing the software's interface, updating multiple drawings, managing externally referenced files, and other management tools.

Prerequisite(s): AEDD-160

Corequisite(s): none

#### **AEDD 265 Commercial Architecture 3 cr.**

This advanced course in architectural planning and presentation for commercial structures and applications introduces the student to client interaction, planning a renovation, rehabilitation, or a new design, generating a set of plans and part of a specification in preparation for work assisting an architect/engineer. Current codes, Barrier Free Design, and design elements will be discussed.

Prerequisite(s): AEDD-115 or AEDD-165

Corequisite(s): none

#### **AEDD 290 AutoLISP Programming 3 cr.**

This course provides students an opportunity to use the AutoLISP and Visual Basic programming languages to develop applications for automating the use of AutoCAD. Proficiency with AutoCAD is necessary for success, as this course is designed for the very competent AutoCAD user. Topics will include creation of new functions, command creation, using the VLISP editor, managing variables, looping functions, association table manipulation, and an introduction to objects, properties, classes, and methods in VBA.

Prerequisite(s): AEDD-160

Corequisite(s): none

### ***Anthropology Courses (ANTH)***

#### **ANTH 105 Introduction to Cultural Anthropology**

**3 cr.**

This course explores the diverse ways in which people organize and give meaning to their existence and the social, political and economic contexts in which they do so. We examine how structures of power and social relations over time shape inequalities by studying anthropological methods and perspectives. Our goal is to understand two common components in anthropological inquiry: 1) the ways in which human beings are differentiated, via history, geography, and culture differentiates such as subsistence patterns, kin relations, and social stratification, and 2) what human beings share across those boundaries.

Prerequisite(s): ENGL-080 or ENGL-101 or appropriate placement

Corequisite(s): none

### ***Arabic Courses (ARAB)***

#### **ARAB 101 Beginning Arabic I**

**4 cr.**

This course will focus on mastering the Arabic alphabet, pronouncing sounds correctly, and using commonly-used Arabic phrases and sentence structures. Attention will then turn to conversations, grammar development, and vocabulary building at the introductory level so that by the end of the course, the student will be able to have simple conversations and write simple sentences that express basic information about him- or herself.

Prerequisite(s): none

Corequisite(s): none

#### **ARAB 102 Beginning Arabic II**

**4 cr.**

During this course, students will build on the basic grammar and vocabulary learned in the first course in order to engage in more complex dialogues as well as more complex written and verbal communications. Students further their knowledge of commonly-used Arabic phrases, Arabic grammar, sentence structures, and expand their vocabulary. They hear and practice dialogues using colloquial Arabic in addition to learning the higher registers of Arabic. An emphasis is placed on students familiarizing themselves with using these variations in socially appropriate manners.

Prerequisite(s): ARAB-101 or instructor approval

Corequisite(s): none

#### **ARAB 105 Arabic Calligraphy**

**4 cr.**

Students will focus on the reading and writing process and study 29 connected and non-connected Arabic alphabet letters. They will improve their proficiency in the skills of reading and writing. Students will also learn and experience the six major calligraphy styles: Kufic, Riqa, Naskh, Thuluth, Diwani and Nastaliq style, as well as develop their skills of reading and writing correctly and beautifully.

Prerequisite(s): ARAB-101

Corequisite(s): none

### ***Art Appreciation Courses (ARTA)***

#### **ARTA 105 Introduction to Visual Art**

**3 cr.**

The class serves as an introduction to the world of visual art. Through the use of a unique thematic approach we will explore topical threads that cross cultural and historical boundaries, leading from cave drawings to the present. Each class will feature a different inspirational theme: memory, structure, humor, etc.; which will be explored through presentations, readings, writings, field trips, and studio projects in a variety of different media. This course is designed for students with little or no experience in

visual arts and is not recommended for students who intend to enroll in the Art Concentration.

Prerequisite(s): none

Corequisite(s): none

### **ARTA 110 The Art of Maine 3 cr.**

Maine holds a special place in the history of art and retains a vigorous presence in the contemporary art world. Some of the biggest names in American art history (including Frederic Edwin Church, Winslow Homer, Edward Hopper, Georgia O'Keeffe, Marsden Hartley, Dahlov Ipcar, William Wegman and Andrew Wyeth) found the inspiration from the beauty of Maine's coast and mountains. Others (including Louise Nevelson, William Pope.L, Yvonne Jacquette and a street artist named Pigeon) have looked to the people, politics, cities and culture of the state for the basis of their work. Many more have simply found creative clarity and focus, by living or spending extended time in our state. This class will introduce students to the history and current state of art in Maine, while challenging students to find personal means of creative expression, by making art in a variety of media that addresses what "Maine" means to them.

Prerequisite(s): none

Corequisite(s): none

### **ARTA 111 History of Architecture 3 cr.**

This class is a combination of the history of architecture and hands-on studio practices applied in the study of architecture. The course will introduce the canons of architecture in the Greco-Roman world, the Byzantine-Gothic, through the Renaissance-Baroque and the evolution of these styles into the modern world. The class will consist of 50% lecture, which will include slide presentations, seminar discussions, classroom activities, writing exercises, and oral presentations. The remaining 50% is applied to studio assignments including 2D and 3D projects. There will be a walking tour of the SMCC campus and Old Port in Portland to view structures that relate to topics in the class. By the end of the semester, the student will be versed in how the past styles, traditions, and ideologies influenced the rise of modernism and how it shaped the American landscape, both urban and rural.

Prerequisite(s): none

Corequisite(s): none

### **ARTA 115 Art and Culture 3 cr.**

Students will combine studio work with art history as they explore the way art is made and the role art plays in cultures from across the globe. The course will cover a time span from the origins of art in prehistoric cave paintings 20,000 years ago, to contemporary

graffiti. Other topics will include Australian Aboriginal painting, African fabric dyeing, Medieval Islamic tiles, Inuit carving, and Japanese ikebana and calligraphy. Students will gain a basic understanding of each culture through readings and films, and by viewing original artifacts wherever possible. Each section of the class will culminate in a hands-on studio project based on the skills, media and ideas of the culture studied. This class is designed for all ability levels. Out of class work will be expected.

Prerequisite(s): none

Corequisite(s): none

### **ARTA 135 Documentary Photography 3 cr.**

From the faded black and white photographs of the Civil War battlefield to the digital images on online newspapers and magazines, the stillness of a photograph remains a powerful influence on how we view the world. In this course students will focus on documentary photography, examining the works of photographers who have mastered this fine art of visual storytelling. Through readings, films, slide shows, and fieldwork, students will gain a better understanding of the medium. The class will explore and emulate different areas of social documentary, photo essays, photojournalism, and visual narrative. This course also invites students to question the context, purpose, and point of view of photographs. In addition, this is a hands-on photography class open to students of varying skills. Photographic processes both film and digital will be discussed, but shooting assignments will require a digital camera. Students will learn digital image editing and work on a semester-long photo documentary project: A photo essay of a chosen subject in the community.

Prerequisite(s): none

Corequisite(s): none

### **ARTA 179 Museum Skills Training 3 cr.**

This course offers intensive training in art logistics. Through lecture, hands-on workshops, and site visits, students will learn the industry-standard operations used in museums and galleries. Students will learn how to pack, handle, and move artwork, study practices of exhibition design and installation, and examine the management structure and day-to-day operations of commercial and non-profit art venues. After completing the course, students will demonstrate the requisite knowledge and experience for employment in art museums and galleries.

Prerequisite(s): none

Corequisite(s): none

**ARTA 180 Teaching Through the Arts****3 cr.**

This course is focused on integrating contemporary art and design theory into the K-12 classroom. Through readings, discussion, creative projects, journaling, and community engagement, students will explore the variety of ways artistic practices intersect and support learning objectives. This course will provide future teachers with insight to comprehending visual concepts and language to encourage life-long learning.

Prerequisite(s): none

Corequisite(s): none

**ARTA 191 Special Topics in Art****1 cr.**

Special topics courses are faculty-initiated programs of study designed to enhance and expand the studio arts curricula through intensive, focused exploration of a material, subject, and/or method in studio art.

Prerequisite(s): none

Corequisite(s): none

**ARTA 195 Children's Book Art and Publication****3 cr.**

Students are familiarized with the artist's role in the development and creation of a children's picture book. Assignments include breaking up manuscripts, designing characters, creating a storyboard, a wrap-around jacket, and several finished pieces. Upon successful completion of this class, the student should have a basic knowledge of the process needed to complete a 32-page picture book project as well as an increased understanding of storytelling, design, and character development.

Prerequisite(s): ARTS-130 or CNMS-115

Corequisite(s): none

***Art History Courses (ARTH)*****ARTH 120 Modern and Contemporary Art History****3 cr.**

This History of Modern and Contemporary Art Survey Course is a study and evaluation of the development of Modern Art and Artists. We begin the course with the origins of Modernism, and the art and artists involved, and then move chronologically through time uncovering the evolution of influences, themes, traditions, and contradictions within historical, social, political, technological, and religious context. Class modules will include slide presentations, movie/film screenings, journaling and discussion, and writing exercises. Topics to be covered will include: Impressionism and Post-Impressionism, Fauvism, Cubism, Futurism, Expressionism, Social Realism and Regionalism, the Bauhaus and de Stijl, Dada and Surrealism, American Modernism, Minimalism, Pop Art, Conceptual Art, Environmental Art, Feminist Art,

Photography, Modern and Postmodern Architecture, Video, and Computer Art and New Media.

Prerequisite(s): none

Corequisite(s): none

**ARTH 125 Art and Society****3 cr.**

This course will explore the many facets where Art and Society collide through lecture, discussion, film and analyzing various modes of artistic expression. Topics such as culture, inequality, class, race, gender, and public art will be viewed with a global approach through historical and contemporary lenses. Although we do not think of art as social, it is the product of extensive social networks and often reflects or challenges in the social context under which it is produced. Students will develop fundamental art and sociological concepts through writing exercises, observations, and a final independently guided project.

Prerequisite(s): ENGL-100 or ENGL-101

Corequisite(s): none

**ARTH 130 World Art****3 cr.**

This survey of Non-Western art and architecture serves as an introduction to the visual cultures of Asia, Oceania, Africa, and Native North and South America. This course will give an overview of the stylistic development and cultural context of the historical artistic production of Non-Western cultures around the world. Themes which unite these various cultures will be discussed, including the ornament of architecture, the importance of visual aids in ceremony and ritual, the creation and use of masks, connection to the landscape, the development of writing methods, and the continuation of art-making traditions. The course will include a focus on those cultures that continue to have some relation on modern and contemporary art history.

Prerequisite(s): ENGL-080 or ENGL-101 or appropriate placement

Corequisite(s): none

**ARTH 140 History of Photography****3 cr.**

This course introduces students to the history of photography, from its beginnings in the 1830's to the recent practices of photographers and artists working with photographic technologies in the context of postmodernism. The primary goal of the course will be to develop visual literacy and familiarity with the various genres and social functions of photographic image production. The course will familiarize students with the key figures in photographic history and the artistic movements of the different periods.

Prerequisite(s): none

Corequisite(s): none

**ARTH 145 Survey of Western Art History I 3 cr.**

Survey of Western Art History is a two-semester sequential survey of Western Art History with a concentration on artistic developments in the context of history, culture, and institutions, as well as visual analysis and technical knowledge. On completion of this course, students will have a basic knowledge of the development of Western Art History, be able to identify and discuss broad topics within the history of art, and relate these studies to studio coursework. Part I covers the following topics: Prehistory, Egypt and the Ancient Near East, the Ancient Aegean, Etruscan, Greek and Roman, Early Christian and Byzantine, Early Medieval, Islamic, Romanesque and Gothic.

Prerequisite(s): ENGL-100 or ENGL-101

Corequisite(s): none

**ARTH 155 Survey of Western Art History II 3 cr.**

Survey of Western Art History is a two-semester sequential survey of Western Art History with a concentration on artistic developments in the context of history, culture, and institutions, as well as visual analysis and technical knowledge. On completion of this course, students will have a basic knowledge of the development of Western Art History, be able to identify and discuss broad topics within the history of art, and relate these studies to studio coursework. Part II covers the following topics: Late Gothic, Italian and High Renaissance, Mannerism and Northern Renaissance, Southern Baroque, Northern Baroque, Rococo, Neoclassical, Romanticism, Realism, Impressionism and Post-Impressionism, and Modern and Contemporary Art.

Prerequisite(s): ARTH-145

Corequisite(s): none

**ARTH 175 History of Illustration 3 cr.**

This course examines the history of illustration from its origins in ancient and medieval art, through the Renaissance and the golden age of illustration in America, to the present. We will explore each era's illustrators and their work and evaluate how the history of illustration is both intertwined with and separate from that of the fine arts. We will study the genre as individual and cultural expression but will also assess the influence of technology, commerce, and other historical transformations on culture and arts. Students of this course will explore how public perceptions of illustration and illustrators have changed, as we grapple with the innovations and controversies associated with the field.

Prerequisite(s): none

Corequisite(s): none

**ARTH 192 Italian Renaissance Art and Architecture 3 cr.**

This course focuses on the art and architecture of the Italian Renaissance. Upon completion of this course, students will be able to identify, describe and analyze the art and artists associated with Northern Italy from the 14<sup>th</sup> to the 17<sup>th</sup> centuries. Through reading, writing, group discussion, lecture, and a required study abroad experience in Italy, students will examine the evolution and development of Western Art by experiencing important works in their original settings and cultural context in the cities of Ferrara, Venice, and Florence. This class is offered as part of the SMCC Global Classroom series. Global Classroom courses are full-semester online classes that include a module on cultural studies and a short-term study abroad experience.

Prerequisite(s): ENGL-080 or ENGL-101 or appropriate placement

Corequisite(s): none

**ARTH 193 Cuba: Nature, Culture and Photography 3 cr.**

This course focuses on the biodiversity, culture and photography of the Caribbean island of Cuba. Upon completion of this course, students will be able to identify, describe and analyze significant Cuban photographic contributions. Through reading, writing, group discussion, lecture, and a required study abroad experience in Cuba, students will examine the ecology and evolution of bio- and cultural diversity in the city of Havana and rural, natural areas such as Viñales. This class is offered as part of the SMCC Global Classroom series. Global Classroom courses are full semester online classes that include a module on cultural studies and a short-term study abroad experience.

Pre-requisite(s): Departmental Approval

Co-requisite(s): none

**ARTH 235 Contemporary Art Theory and Methods 3 cr.**

Contemporary Art Practice is an introduction to significant artistic and cultural developments from the mid to late 20<sup>th</sup> century. The course will introduce major theoretical concepts that have shaped and defined Modernism and Postmodernism through readings, written assignments, field trips, and oral presentations. Students will be introduced to the vocabulary, texts, audiences and technologies of visual art and new media and their interpretations. The intersection and crosspollination of contemporary art practices will be examined with special focus on issues regarding the use of art practice in institutional settings and in civic environments. Designed for the further education of art majors, the course will

examine contemporary art theory in relation to creative practice.

Prerequisite(s): ENGL-100 or ENGL-101

Corequisite(s): None

### **ARTH 236 Women Artists 3 cr.**

Women have been artists since the first cave paintings were created, however, their historical contributions to Art History have been lost or suppressed. In this course, we'll uncover the history of women in art, beginning with the Ancient and Medieval world, and continuing through major artistic movements from the Renaissance to today. We will approach this topic chronologically and thematically, exploring social, political, and ethical issues as well as the roles of education, attribution, gender, and sexuality. The main focus of this course will be 20th and 21st century artists and the influence of Feminist theory and movements in the recovery of the history of women in art. This course will consist of weekly assigned readings, class lectures including slide presentations, movie/film screenings, active discussion, and writing exercises.

Prerequisite(s): ENGL-100 or ENGL-101

Corequisite(s): None

### **ARTH 295 Portfolio Seminar 3 cr.**

In the Portfolio Seminar students work to develop artwork and professional materials that meet their individual goals. In addition to ongoing critiques of student work, the class will focus on the development of professional skills, including photographing artwork, building a web presence, and developing of resumes, artist statements and cover letters. Students will learn to research and apply for exhibitions, artist residencies, grants, and jobs within the art field, and explore contemporary issues in art through readings, discussions, and visits to galleries, museums and studios. The course will also feature guest critiques and lectures by local artists and curators. The seminar culminates with a student exhibition, artist talk, and the presentation of a thesis paper. The Portfolio Seminar is a recommended course for Liberal Studies with an Art Focus.

Prerequisite(s): ARTH-145, ARTS-130, ARTS-140, ARTS-210

Corequisite(s): ARTH-155

## ***Studio Art Courses (ARTS)***

### **ARTS 110 Drawing I 3 cr.**

This class will teach the fundamentals of observational drawing, beginning with the basic elements: line, shape, gesture, value and composition, and advancing to the use of non-traditional materials and the

origination of creative ideas through class projects, journal-keeping, and looking at art. Field trips to local museums and galleries will enhance the students' ability to put their own studio work in the context of the greater art world. The role of visual art as a tool for communication and expression will be explored.

Prerequisite(s): none

Corequisite(s): none

### **ARTS 120 Ceramics I 3 cr.**

This course is an introduction to ceramics class that will give students the basic skills to create work in clay. The students will learn hand building, wheel-throwing and glazing techniques, in addition to learning about the history of clay and the different methods of firing that have evolved over time. This course will be held at Portland Pottery, located at 118 Washington Ave in downtown Portland. Students will be responsible for purchasing a required supply kit consisting of tools and clay. The supplies will be pre-packaged and sold directly to students at Portland Pottery on the first day of class.

Prerequisite(s): none

Corequisite(s): none

### **ARTS 125 Jewelry and Metalsmithing 3 cr.**

This course will introduce students to basic concepts, design and execution of jewelry using non-ferrous metals. Students will learn a variety of techniques, and use them to design and fabricate a body of jewelry and metal objects. We will touch on the vast history of the medium and introduce the exciting range of contemporary jewelry and metal movements. No prior jewelry or metalsmithing experience is required. This course will be held at Portland Pottery, located at 118 Washington Ave in downtown Portland. Students will be responsible for purchasing a required supply kit consisting of tools and materials. The supplies will be pre-packaged and sold directly to students at Portland Pottery on the first day of class.

Prerequisite(s): none

Corequisite(s): none

### **ARTS 130 2D Design 3 cr.**

This foundation level course introduces students to the principles of 2D design and how the role of past and present media communications is influenced by core design concepts. Students will develop, discuss, and defend visual communication strategies within the context of past and present design successes and failures. Through detailed study of design concepts we will create artwork that is unified and effective in concept, form and purpose, and through studio projects, in-class exercises, group critique, and presentations we will practice how design principles

are essential for success in a chosen field of visual expression.

Prerequisite(s): none

Corequisite(s): none

### **ARTS 140 3D Design I: Sculpture Studio 3 cr.**

This course introduces the fundamentals of three-dimensional design and will ask students to construct and question visual relationships. Emphasis will be on developing an understanding of the basic elements of design: line, plane, volume, mass, movement, shape, form, space, value, texture and color. We will look closely at design organizational principles such as proportion, repetition, rhythm, emphasis, balance, symmetry and hierarchy. A range of materials (paper, cardboard, clay, plaster, wire and found object) and processes (constructing, modeling, carving, casting and fabricating) will be utilized to introduce a variety of approaches to 3D problem solving. Students will also be introduced to three-dimensional critical vocabulary where focus will be on communicating ideas and forming distinctions and connections through verbal and written formats. This class is open to all levels and from all departments within the college community.

Prerequisite(s): none

Corequisite(s): none

### **ARTS 145 Screenprinting I 3 cr.**

This course will introduce students to a wide variety of approaches to screenprinting in the "fine art" tradition using mostly non-toxic water-based media. Students will explore stencil-based printing techniques, including hand-cut and hand-drawn stencils. Students will become skilled in creating photo-based stencils by hand and using the computer. Students will gain computer skills including scanning, image resizing, contrast enhancement, halftone generation, and printing for use as photo stencils. Projects will focus on the exploration of visual themes through individual prints, series and editions. Visits to local print workshops and exhibitions will enrich the students' studio experience. A research assignment will require students to investigate and present their findings to the class. Outside-of-class work will be expected.

Prerequisite(s): none

Corequisite(s): none

### **ARTS 150 Metal Arts I 3 cr.**

This course is designed to provide a safe outlet for artistic expression using metal as the medium. Basic sheet metalworking, hand tools, bending equipment, cutting equipment and welding power source usage will be studied. Students will utilize the studied art forms to design and build individualized works using primarily mild steel as the medium, and will develop

their artistic expression and aesthetic awareness while learning the safe use of metalworking through creative projects.

Prerequisite(s): MATH-040 or appropriate placement

Corequisite(s): none

### **ARTS 155 Woodworking Sculpture I 3 cr.**

This course is an introduction to basic woodworking from a sculptural perspective. Students will learn a variety of design, joinery, construction, finishing, and sealing techniques by working with both hand and power tools in a safe and productive creative environment. The theories and methods integral to the design and creation of sculpture will be explored through five assigned projects. Students who successfully complete this course will develop the skills and experience necessary to shape space and form in wood.

Prerequisite(s): none

Corequisite(s): none

### **ARTS 160 Printmaking I 3 cr.**

This course will introduce students to a wide variety of approaches to fine art printmaking. Students will explore monoprinting techniques, block printing (including linoleum blocks and woodcuts), collograph and drypoint. Some non-toxic approaches to etching on copper plates may also be included in the class. Students will learn to print by hand and also become skilled in the use of the printing press. Projects will focus on the exploration of visual themes through a series of prints and by creating editions. Visits to local print workshops and exhibitions will enrich the students' studio experience.

Prerequisite(s): none

Corequisite(s): none

### **ARTS 165 Collage, Assemblage, and Found Object 3 cr.**

This course will look at the development of collage and assemblage in Western Art and explore the influence of these pivotal developments on contemporary image making and material use from Cubists, Dada, Surrealists, Post War Abstract Expressionists, Modern, and into the Post Modern. This course is a bridge for 2-D studio courses (drawing, painting, printmaking, photography) and 3-D (sculpture, design, and metal arts) involving students in the use of text, color, surface, image, texture, shape, context, and form.

Prerequisite(s): none

Corequisite(s): none

### **ARTS 170 Photography I 3 cr.**

This class will introduce and explore the technical, historical, and contemporary concerns of photography



as a form of artistic expression. Much of the work will be done in the digital environment, but projects will include other forms of making photographs. Students will gain a working knowledge of Adobe Photoshop as it relates to more traditional modes of image making. The central goal of the class is for students to learn and expand the vocabulary and grammar of the medium and find their own way of using it creatively to express original visual ideas and unique perspectives. Discussions will focus on gaining an understanding of the contemporary and historical contexts from which we work. Class time will be devoted to lectures, demonstrations, critiques, slide talks, and visits to galleries and museums. Students should have their own camera or access to a camera for the duration of the course.

Prerequisite(s): none  
Corequisite(s): none

**ARTS 179 Alternative Photographic Processes**

**3 cr.**

Focusing on historical and alternative (pre-digital) forms of photography, this class will explore the historic arc of picture making from the birth of the medium to digital intervention. Students will be exposed to the plastic camera, the pinhole camera, black and white film processing, and historic printing processes like the Cyanotype, Gum Bichromate and the Kallitype. Emphasis will be placed on using these historic photographic tools to create emergent physical forms of photographic and student expression. Students will be encouraged to combine and move between individual photographic processes and presentation, and to work together as individuals and collectives. There are no prerequisites for this class, however students must be willing to actively build and create.

Prerequisite(s): none  
Corequisite(s): none

**ARTS 180 Painting I**

**3 cr.**

This introduction to painting is designed for both beginners and more experienced painters. Using water-based oils and acrylic paints, the class will lead students through the basics of color theory, color mixing and paint application on a variety of surfaces. There will be a focus on creative approaches to observational work, using studio set-ups and the rich natural environment around SMCC. Class trips to Portland will introduce students to the resources of galleries and museums as well as the private studios of practicing artists.

Prerequisite(s): none  
Corequisite(s): none

**ARTS 185 Comics and Sequential Art**

**3 cr.**

Comics are one of the world's great storytelling media. In an increasingly visual culture, understanding the unique language of comics is more relevant than ever. This studio art class is designed for the student who wishes to investigate self-expression and storytelling using the narrative form of sequential art. Students will actively participate in projects, lectures, and discussions about the key elements and history of comics, and participate in drawing exercises that reinforce formal concepts. At the center of the course is a semester-long project in which each student creates a comic story that will be written, sketched, inked, and published in a class compendium as a final project.

Prerequisite(s): none  
Corequisite(s): none

**ARTS 189 Watercolor**

**3 cr.**

The objective of this class is to use watercolors to paint from nature, gaining mastery of the technique and exploring the environment. Coastal Maine has been an influential landscape for artists throughout the past century: John Marin, Marsden Hartley, Rockwell Kent, Fairfield Porter, and many others found it an inspiring place to investigate modern painting, and watercolor was the medium that allowed them the freedom to explore. Southern Maine Community College's coastal location will allow us to follow this tradition as we learn how to use watercolor outdoors to paint from observation. Students will learn skills needed to paint in watercolor, such as paper preparation, lifting color, and optical color mixing, and the emphasis will be on engagement with the surrounding environment and a willingness to experiment. Work will take place in the Art Studio and outdoors around the SMCC campus. A field trip to Peaks Island will allow for further exploration, and a second field trip to the Portland Museum of Art and local galleries will provide students with examples of other artists' reactions to the Maine environment.

Prerequisite(s): none  
Corequisite(s): none

**ARTS 190 Illustration**

**3 cr.**

This course is an exploration of the relationship between pictures and words, balancing an emphasis on concept and individual expression with the development of skills in a variety of wet and dry art media. Students will complete projects that address the many different usages of illustration: editorial, book, advertising, product and sequential art. Demonstrations, discussions and critiques on the creative process, professional development and individual style will be led by the instructor, guest artists and students.

Prerequisite(s): none  
Corequisite(s): none

**ARTS 210 Drawing II 3 cr.**

This class explores in greater depth the concepts and techniques covered in introductory drawing courses. Students will further develop their observational drawing skills and will work towards developing personal means of expression through expressionistic and conceptual drawing exercises. A significant amount of time is devoted to working from live models. A broad range of drawing materials including mixed-media will be utilized. Time will be spent preparing a well organized and presented portfolio.

Prerequisite(s): ARTS-110  
Corequisite(s): none

**ARTS 220 Photography II 3 cr.**

Photography II builds on the techniques and content delivered in Photo I. Students will gain a deeper understanding of the mediums ability to describe and their own forms of personal expression through individually developed projects, and an expanded understanding of the varying photographic tools including; plastic cameras, pinhole cameras, 35 mm cameras, digital cameras, medium format cameras, large format 4x5 cameras, color negatives, black and white negatives, scanning, and Inkjet printing. Students will produce a variety completed projects in multiple forms including, published books, web based portfolios, and Inkjet prints. Class time will explore the class material through lectures, demonstrations, critiques, lab time, visits to galleries, museums, artist's studios and places of photographic interest. Students should have their own camera or access to a camera for the duration of the course.

Prerequisite(s): ARTS-170  
Corequisite(s): none

**ARTS 230 Painting II 3 cr.**

This course builds on the skills and techniques explored in Painting I, with a stronger focus on creative approaches to figurative painting and individual expression. Using water-based oils and acrylic paints, the class will lead students to explore advanced color theory, color mixing and paint application on a variety of surfaces. Class trips to Portland will introduce students to the resources of galleries and museums as well as the private studios of practicing artists. Out of class work will be expected.

Prerequisite(s): ARTS-180  
Corequisite(s): none

**ARTS 240 3D Design II: Sculpture Studio 3 cr.**

This course will continue the visual and conceptual investigations introduced in 3D I: Sculpture Studio, with a focus on expanding and redefining a student's ideas and experiences of art making. Students will work on idea generation and development which will move from varying states in the design process: definition of the visual problem, search (brainstorming, multiple sketching, association), selection of materials and techniques, execution (production and fabrication), and evaluation. Students will use a range of materials including clay, plaster, wire, cement, earth, paper, mixed media, found object and wood. Fabrication methods may include mold making, casting, fiber techniques of coiling and wrapping, carving, and additive work.

Prerequisite(s): ARTS-140  
Corequisite(s): none

**ARTS 250 Metal Arts II 3 cr.**

This course will explore visual and conceptual aspects of sculpture through the use of steel. A series of structured and independent assignments, material demonstrations, lecture, and critique will enable students to investigate the potential for this media to offer a wide range of prospects in terms of context (object, installation, and environment) to support the content of their work. Students are expected to integrate this knowledge with their subjective concerns in order to further the depth and understanding of their studio practice. The content and physical nature of the work will be self-directed; however, there will be a series of technical assignments that build on the knowledge gained through ARTS 150.

Prerequisite(s): ARTS-150  
Corequisite(s): none

**ARTS 255 Woodworking Sculpture II 3 cr.**

This course is a continuation of Woodworking Sculpture I, but from an expanded sculptural perspective. Students who've already learned a variety of design, joinery, construction, finishing, and sealing techniques by working with both hand and power tools in Woodworking Sculpture I will continue their investigation of both concept and material. The theories and methods integral to the design and creation of sculpture within a contemporary context will be explored through assigned projects. Students who successfully complete this course will the expand on the skills and experience necessary to produce art projects with wood as the primary material.

Prerequisite(s): ARTS-155  
Corequisite(s): none

**ARTS 260 Printmaking II****3 cr.**

This course will expand on topics introduced in Printmaking I. In addition to basic techniques such as collograph, monotype and the relief print, students will investigate woodblock printing and etching on copper plates. The focus will be on creating larger work and extended series of prints as well as printing on non-traditional surfaces. Students will refine their presentation skills through exhibitions of their prints. Out of class work will be expected.

Prerequisite(s): ARTS-160

Corequisite(s): none

**ARTS 270 Ceramics II****3 cr.**

In this intermediate ceramics class students will continue to build on their vocabulary of ceramic techniques, methods and materials to create both sculptural objects and utilitarian vessels. Students begin to learn to fire the kiln and learn some of the technical basics of clay and glazes. Emphasis will be placed on personal aesthetic problem solving and successful design implementation, along with a focus on contemporary and historical ceramics.

Students will need their Ceramics I supply kit and will be responsible for purchasing clay and additional tools. The supplies will be pre-packaged and sold directly to students at Portland Pottery on the first day of class.

Prerequisite(s): ARTS-120

Corequisite(s): none

**ARTS 290 Advanced Studio Projects****3 cr.**

In this course students embark on an individualized studio exploration in an artistic medium of their choice. After the initial creation of a project plan that outlines goals and methods of evaluation for the semester, students work closely with the instructor to create an advanced body of artwork, culminating in a final faculty critique and written self-evaluation.

Prerequisite(s): Department Chair Permission

Corequisite(s): none

***Astronomy Courses (ASTR)*****ASTR 100 Introduction to Astronomy and Cosmology with Lab****4 cr.**

When humans first looked to the sky and wondered about the true nature of what they were seeing, Mankind's quest for a scientific understanding of our place in the Universe began. That sense of wonder continues to this day. This introductory course will outline the basic concepts of astronomy, its history, its scientific underpinnings, and how, in the last one hundred years, astronomy has inevitably led to the field of Cosmology. Topics will include but are not limited to: Features of our Solar System, standard

units of measurement used by astronomers, direct observation and recording of astronomical phenomena, optics, star formation, galaxies and nebulae, quasars, pulsars, black holes and the Universal Gravitational Constant, electromagnetism, basic wave theory, the Doppler Effect and the Red Shift, the Hubble Law, Special relativity, General Relativity and gravitational lensing, Inflation Theory and the Big Bang, Dark Matter and Dark Energy, COBE and WMAP discoveries, historical figures in astronomy. The course format emphasizes guided exploration, quantitative assessment, and critical thinking with particular emphasis of the Scientific Method; students are required to demonstrate an understanding of the material through independent research, written reports, and written examinations.

Prerequisite(s): ENGL-080 or ENGL-101 and MATH-040 or appropriate placement

Corequisite(s): none

***Automotive Courses (AUTO)*****AUTO 105 Introduction to Automotive Technology**  
**3 cr.**

This introductory prerequisite course will introduce students to workplace safety in the automotive shop. Safety topics will include shop hazards such as fire, airborne gases, blood borne pathogens, and chemical hazards. Equipment instruction will include the safe operation of an automotive lift and an introduction to oxygen-acetylene torches, among other shop equipment. Students will be introduced to the basics of identifying failures on the automobile and how to perform basic maintenance. Students will research vehicle information utilizing electronic technical information to determine the correct service procedures and specifications.

Prerequisite(s): Automotive program acceptance

Corequisite(s): None

**AUTO 106 Clean Air and Energy Independence****1 cr.**

This course will introduce students to eight alternative fuels and advanced technology vehicles. Topics include each fuel's source and its use in transportation, the basic scientific principles behind each type of vehicle and its components, advantages and disadvantages of each fuel and vehicle including performance issues, and infrastructure requirements of each fuel and vehicle type. This course will consider how well each alternative helps achieve the goals of cleaner air and energy independence for the United States. Students will examine the availability of the fuels, the vehicles and service for the vehicles.

Prerequisite(s): none

Corequisite(s): none

**AUTO 111 Steering and Suspension I 1 cr.**  
This is the first class in a two part study of steering and suspension systems, covering the topic of tires. Students will inspect and measure tires, diagnose vibration and pull problems. They will mount and dismount tires, repair air leaks, and service Tire Pressure Monitoring Systems.

Prerequisite(s): AUTO-105, AUTO-155  
Corequisite(s): AUTO-112

**AUTO 112 Steering and Suspension II 3 cr.**  
This is the second class in a two part study of steering and suspension systems. Students will diagnose and repair steering and suspension systems. Students will measure and adjust wheel alignment. Electronic steering and suspension systems will also be studied.

Prerequisite(s): AUTO-105  
Corequisite(s): AUTO-111\*, AUTO-205

\*Note that students may register for AUTO-111 and AUTO-112 in the same semester, but must pass AUTO-111 to move on to AUTO-112.

**AUTO 116 Brakes I 2 cr.**  
This is the first class in a two-part study of brake systems. Tasks from the NATEF Maintenance and Light Repair list will be performed. Students will inspect and perform maintenance tasks on hydraulic systems, power assist units, wheel bearings, and parking brakes; and measure and repair discs, drums, and linings.

Prerequisite(s): AUTO-102, AUTO-155  
Corequisite(s): AUTO-117, AUTO-205

**AUTO 117 Brakes II 2 cr.**  
This is the second class in a two-part study of brake systems. Tasks from the NATEF Master Automobile Service Technology list will be performed. Students will diagnose and repair hydraulic systems, power assist units, wheel bearings, parking brakes, and electronic brake systems.

Prerequisite(s): AUTO-102, AUTO-116\*, AUTO-155  
Corequisite(s): AUTO-205

\*Note that students may sign up for AUTO-116 and AUTO-117 in the same semester, but must pass AUTO-116 to move on to AUTO-117

**AUTO 125 Maine State Inspection Exam Prep 1 cr.**  
This elective course is a study of the Maine motor vehicle safety inspection standards and the law. This course will prepare students to sit for the exam with the Maine State Police and become a licensed Maine Motor Vehicle Safety Inspection technician, Class A and E. This course will focus on the responsibilities of the inspection technician, correctly performing a

safety inspection, as well as interpretation and presentation of the law from the Maine State Inspection Manual. Students must pay the applicable fee and complete an application to the Maine State Police at the beginning of the semester to be eligible to sit for the exam at the end of the course and receive the manual utilized in the course. See automotive faculty for a current application.

Prerequisite(s): Automotive program acceptance  
Corequisite(s): none

**AUTO 155 Electricity and Electronics 4 cr.**  
This course will introduce the fundamentals of electrical/electronics theory. Students will learn the fundamentals of electricity including the study of voltage, amperage, resistance, wattage and Ohm's Law. Students will understand the fundamentals of an electrical circuit, common failures and diagnostic procedures, as well as how to determine the appropriate corrective actions while utilizing a digital volt Ohm meter. Additionally, students will learn the basics of starting and charging systems as well as how to utilize a wiring diagram.

Prerequisite(s): AUTO program acceptance  
Corequisite(s): AUTO-101, AUTO-102, MATH-130

**AUTO 160 Automotive Business Operations 2 cr.**  
This course introduces students to basic business operations, such as business plan writing and finance, managing materials and supplies, OSHA regulations, human resources, payroll, cash flow, and risk management issues. Case studies and simulation activities may be included.

Prerequisite(s): Automotive program acceptance  
Corequisite(s): none

**AUTO 170 Automotive HVAC 3 cr.**  
This course is an examination of automotive heating, ventilation, and air conditioning systems, with a focus on identification of malfunctioning parts and the repair of these systems. Students will diagnose the heating and air conditioning system and determine necessary action for unusual operating noises and inoperative conditions. Students will diagnose temperature control problems and failures in the electrical controls of heating, ventilation, and air conditioning systems and determine necessary action.

Prerequisite(s): AUTO-205  
Corequisite(s): none

**AUTO 174 Advanced Level Lab 3 cr.**  
The advanced level lab provides the student with an alternative track to the internship. The lab will allow students to develop additional skills or fine tune skills

studied in previous courses. Students may elect this course in lieu of AUTO-175, Cooperative Education.

Prerequisite(s): AUTO-112, AUTO-117, AUTO-205  
Corequisite(s): none

**AUTO 175 Cooperative Education 3 cr.**  
Cooperative Education Placement is on-the-job training, providing the student with a work experience in the areas of preventative maintenance; steering and suspension; brakes; heating, ventilation and air conditioning; or related field of specific interest to the student. Students will function as part of a team in an automotive repair facility and will assist in the inspection, diagnosis, and repair of faulty parts. The student is primarily responsible to the employer for the various work responsibilities established, and is also responsible to the course instructor to complete the internship requirements.

Prerequisite(s): AUTO-112, AUTO-117, AUTO-205  
Corequisite(s): none

**AUTO 176 Externship/Cooperative Education 3 cr.**  
This course involves job shadowing, providing the student with exposure to work as an automotive technician in a repair facility. The externship will expose students to concepts studied in previous courses. Students will interact with a mentor who performs inspections, maintenance, diagnosis, and repair of vehicles. The student is primarily responsible to the employer for the various responsibilities established, and is also responsible to the course instructor to complete the externship requirements.

Prerequisite(s): AUTO-112, AUTO-117, AUTO-205  
Corequisite(s): none

**AUTO 205 Electricity and Electronics II 4 cr.**  
The second of two courses, this course examines the electrical and electronic systems of automobiles. Students will study inputs, outputs and processors of electronic systems. Students will diagnose starting, charging and ignition systems, and remove and install starters and generators. Students will also diagnose incorrect operation of chassis and body electrical and electronic systems and determine necessary actions.

Prerequisite(s): AUTO-155  
Corequisite(s): none

**AUTO 210 Engine Repair 4 cr.**  
This course will introduce the theory, operation and repair of the four stroke gasoline. Students will perform compression tests, cylinder leakage tests and vacuum tests to identify failed areas of the engine and required service procedures. Students will disassemble engines and identify internal components and their

function within the engine. Students will learn to make measurements of bearing journals, cylinder bores, pistons, camshafts and other internal components necessary to determine failures and the appropriate repair and service procedures.

Prerequisite(s): AUTO-205  
Corequisite(s): AUTO-260

**AUTO 215 Manual Transmissions and Drivelines 4 cr.**  
This course will cover manual drive train and axles theory, diagnosis and repair. Students will learn to remove and reinstall transmission/transaxles. Students will inspect and repair manual transmission systems, inspect and reinstall power train, and perform clutch diagnosis and repair. Students will apply critical thinking skills, utilizing service information, to diagnose problems with transaxles, clutches, and drive shafts and determine necessary corrective action.

Prerequisite(s): AUTO-102  
Corequisite(s): none

**AUTO 260 Engine Performance I 4 cr.**  
The first of two courses in automotive engine performance, this course is the study of mechanical engine performance and ignition systems. Students will learn to utilize proper diagnostic procedures and determine appropriate corrective procedures to repair, replace or install components that cause poor engine performance. Students will be introduced to ignition components and controls and their effect on engine performance when they are not operating properly.

Prerequisite(s): AUTO-205  
Corequisite(s): AUTO-210

**AUTO 265 Auto Transmissions and Transaxle 4 cr.**  
This course will cover automatic transmission theory, diagnosis, and repair. Students will perform full in-vehicle and off-vehicle transmission inspection and apply critical thinking skills, utilizing service information, to diagnose problems and determine necessary corrective action. Students will disassemble an automatic transaxle, inspect for failed parts and rebuild transaxle to operating condition.

Prerequisite(s): AUTO-205  
Corequisite(s): none

**AUTO 270 Engine Performance II 4 cr.**  
The second of two courses, this course is a comprehensive overview of automotive electronic fuel injection systems and vehicle emission systems. Students will learn to utilize proper diagnostic procedures and determine appropriate corrective

procedures to repair, replace, or install components that cause poor engine performance. Students will be introduced to emission controls, their purpose on OBDII engines and their effect on engine performance when they are not operating properly.

Prerequisite(s): AUTO-205

Corequisite(s): none

### **AUTO 280 Light Duty Diesel Engine Performance**

**2 cr.**

This course will introduce the student to basic diesel engine operation and diagnosis. Students will be exposed to the newest diesel technology used in the light duty diesel market. Students will study fuel controls, diagnostics systems, and emission controls. Students will learn service procedures for common diesel faults. Students will utilize blackboard online learning in addition to the course textbook.

Prerequisite(s): none

Corequisite(s): AUTO-270

### **AUTO 285 Machining and Welding for Automotive**

**2 cr.**

This course prepares students to perform welding and machining operations on automobiles. Students will learn how to repair broken fasteners with welding and machining techniques. Students will learn to repair exhaust systems and body components.

Prerequisite(s): AUTO-105

Corequisite(s): none

## ***Human Service Courses (BHHS)***

### **BHHS 100 Introduction to Human Services**

**3 cr.**

This course offers a broad overview of the human service field. Topics of study include the history of human services, theoretical approaches to human service work, human service systems, ethics, and future trends. The course provides a well-rounded look at the many career options available in human services and discusses the challenges that human-service workers face in day-to-day work.

Prerequisite(s): ENGL-080 or ENGL-101 or appropriate placement

Corequisite(s): FIGS-100

### **BHHS 104 High Risk Populations**

**3 cr.**

This course provides students with an overview of common high risk populations encountered in human services work. The course addressed the behavioral symptoms in these high risk populations as well as the care, treatment, and rehabilitation approaches to each group. Note: This course meets the MHRT/Community requirement – Mental Health and Aging.

Prerequisite(s): ENGL-080 or ENGL-101 or appropriate placement

Corequisite(s): none

### **BHHS 105 Crisis Intervention**

**3 cr.**

This course provides an introduction to observing and analyzing behavioral symptoms in persons with behavioral health disabilities. Emphasis is placed on recognizing common behavioral elements and in utilizing interventions appropriate to specific situations. Diagnostics, behavioral management approaches, crisis intervention methods, and links between analysis and intervention will be presented. The course is taught in three modules: a) observation, analysis, assessment; b) management and modification of behavior; c) crisis management, intervention and safety. Note: This course meets the MHRT/Community Requirement - Crisis Identification and Resolution.

Prerequisite(s): ENGL-080 or ENGL-101 or appropriate placement

Corequisite(s): BHHS-100

### **BHHS 110 Psychosocial and Vocational Rehabilitation**

**3cr.**

This course will examine a coherent model of psychosocial rehabilitation (PSR) as a core organizing principle of all behavioral health care. The core philosophy and values of PSR and their application in essential client services is examined. The experience of disability and recovery are emphasized. The key processes of PSR are explored conceptually and experientially. The application of PSR within the behavioral health care system is examined. Note: This course meets the MHRT/Community Requirement - Psychosocial Rehabilitation.

Prerequisite(s): ENGL-080 or ENGL-101 or appropriate placement

Corequisite(s): BHHS-100

### **BHHS 145 Human Diversity**

**3 cr.**

This course explores the many aspects of human diversity including race, culture, class, gender, age, and sexual orientation. Students learn the skills needed to become more culturally competent professionals. Best practices and appropriate interventions are discussed. Note: This course meets the MHRT/Community requirement – Cultural Competence/Diversity.

Prerequisite(s): ENGL-080 or ENGL-101 or appropriate placement

Corequisite(s): none

**BHHS 220 Interviewing and Counseling 3 cr.**

This course introduces students to the fundamentals of interviewing and counseling through a combination of reading, experiential exercises, presentations, and lecture. Students will learn basic counseling skills, while obtaining a conceptual framework for understanding the process of counseling. The emphasis is on building basic skills (i.e., fundamentals of interviewing, communication and relationship building) while exploring helping theory and its application to special populations. Note: This course meets the MHRT/Community Requirement - Interviewing and Counseling.

Prerequisite(s): BHHS-100, BHHS-104, BHHS-145

Corequisite(s): none

**BHHS 225 Practicum I 3 cr.**

This practicum course is required for all students matriculated in the associate's degree program. It is designed to give students a structured experience in the field of human services through field work in a local organization. As part of the practicum experience, students will examine their own interests and preferences, learn how to use supervision effectively, and familiarize themselves with their host organization.

Prerequisite(s): BHHS-100, BHHS-105, BHHS-110, BHHS-220, ENGL-100 or ENGL-101, Department Approval

Corequisite(s): none

**BHHS 230 Substance Abuse 3 cr.**

This course provides students with an introduction to the delivery of substance abuse services to various populations. It reviews the physical, psychological, and social impact of substance abuse as well as the strategies used to care for various populations. Note: This course meets the MHRT/Community Requirement - Substance Abuse.

Prerequisite(s): BHHS-100

Corequisite(s): none

**BHHS 260 Group Process 3 cr.**

This course introduces students to the basic concepts of group dynamics and group work in the human service field. Students will study such topics as leadership, group dynamics, group theory, ethics, diversity in groups, and group development. Note: This course meets one the MHRT Community Requirement - Group process.

Prerequisite(s): BHHS-100

Corequisite(s): none

**BHHS 265 Trauma and Recovery 3 cr.**

This course introduces students to the fundamentals of child sexual abuse and Traumatic Stress Disorders: Post Traumatic Stress Disorder (PTSD) and Acute Stress Disorder (ASD) through a combination of reading, experiential/small group exercises, presentations, and lecture. Students will learn basic concepts of a trauma theory, Constructivist Self Development Theory (CSDT), the signs and symptoms of PTSD/ASD, and how traumatic events affect an individual's thoughts and behaviors. The emphasis is on developing basic knowledge (i.e., fundamentals of how trauma affects an individual, signs and symptoms of trauma reactions, appropriate level treatment options and self-care techniques for the client and worker). Application to special populations will be explored. Note: This course meets the MHRT/Community Requirement - Trauma, Sexual Abuse, and Recovery.

Prerequisite(s): BHHS-105, BHHS-110

Corequisite(s): BHHS-220

**BHHS 270 Case Management 3 cr.**

This course introduces students to the fundamentals of case management practice. Students will review different models of case management and learn about common case management functions such as outreach, engagement, assessment, planning, accessing resources, coordination, and disengagement. Note: This course meets the MHRT/Community Requirement - Case Management.

Prerequisite(s): BHHS-105, BHHS-110

Corequisite(s): BHHS-220

**BHHS 275 Practicum II 3 cr.**

This practicum course is required for all students matriculated in the associate degree program. It is designed to build upon a student's earlier field experiences through more advanced work in a local human service organization.

Prerequisite(s): BHHS-225, BHHS-230, BHHS-260, Department Approval

Corequisite(s): BHHS-270

## ***Biology Courses (BIOL)***

**BIOL 100 Biology with Lab for Non-Majors 4 cr.**

BIOL 100 is a one-semester survey course, designed to give students who are non-science majors a solid foundation in the basic principles and unifying concepts of biology. Students develop an understanding of science, the nature of scientific inquiry, and how evolution explains the unity and diversity of all life on Earth. The course focuses on common features that all organisms (living things) share, as well as their unique characteristics. The

“basics” of living things are explored: their biochemistry, structure, classification, ecological role, genetics, and evolution.

Prerequisite(s): ENGL-080 or ENGL-101 or appropriate placement

Corequisite(s): MATH-040 or appropriate placement

**BIOL 105 Human Biology with Lab 4 cr.**

This introductory course is available to any student needing a lab-science class. The course will cover basic body anatomical structures and functions. A body system approach will be used beginning with organizational structure, and continuing through each of the eleven human organ systems. All major topics will be supported by appropriate laboratory activities. It should be noted that this class is NOT a substitute for Anatomy and Physiology I and II.

Prerequisite(s): none

Corequisite(s): none

**BIOL 108 Science of Food with Lab 4 cr.**

This interdisciplinary science course with lab gives students who are non-science majors a solid foundation in the basic principles of chemistry, biology and ecology and how they apply to food and food systems. Students develop an understanding of the scientific process, the nature of scientific inquiry, of evolution as a theoretical background to the science of food, and of ethical dilemmas in the production of food. The course focuses in part on food sources from animals, plants, fungi and seaweed and preparation methods such as baking and fermentation.

Prerequisite(s): ENGL-080 or ENGL-101 or appropriate placement

Corequisite(s): MATH-040 or appropriate placement

**BIOL 110 Biotechnology with Lab 4 cr.**

This introductory science course provides curious students with a survey of the field of biotechnology. Hands-on laboratory skills are also taught. Biotechnology is a discipline that is becoming more important because of advances in recombinant DNA technology and immunology, but biotechnology is broadly defined as any technology that uses organisms (living things) or their products to improve our quality of life. The roots of biotechnology go back to the use of fermentation to produce foods like bread, wine or sauerkraut, as well as the breeding of animals and plants. Modern biotechnology brings together many branches of science, including molecular genetics, microbiology, chemistry, and cell biology, for applications from agriculture to medical treatments to bioremediation of polluted sites. This course will cover fundamentals in all of these fields. Laboratory work, outside speakers, and field trips will supplement

lecture presentations. Biotechnology industry and projects carried out in Maine are emphasized.

Prerequisite(s): ENGL-080 or ENGL-101 and MATH-040 or appropriate placement

Corequisite(s): none

**BIOL 115 Botany with Lab 4 cr.**

This is an introductory course designed to introduce students to the structures and functions of plants and the science of plant systems. Course content provides lecture and laboratory topics in plant anatomy, morphology, and physiology, as well as the history of plant science. The objective of the course is to provide students with the fundamentals of plant biology, ecology, and taxonomy that will foster greater confidence and success identifying, growing and maintaining plants.

Prerequisite(s): none

Corequisite(s): none

**BIOL 122 Genome Research 2 cr.**

This course is being run in cooperation with the Howard Hughes Medical Institute Science Education Alliance. The students in this section will do a year-long research project on the isolation and identification of a novel bacterial virus that infects soil bacterium. All students taking this class are strongly encouraged to take BIOL 127 in the spring semester.

Prerequisite(s): ENGL-080 or ENGL-101 and MATH-040 or appropriate placement

Corequisite(s): BIOL-124

**BIOL 124 Biology I with Lab 4 cr.**

This is the first semester of a two-semester Biology sequence intended for biology/science majors or students looking to transfer laboratory science credits. Biology I concentrates on the molecular aspects of biology, cell structure and function, homeostasis, energy transformations, and genetics. The laboratory component is intended to provide students with experiential learning in support of concepts and principles introduced in the lecture class.

Prerequisite(s): ENGL-080 or ENGL-101 and MATH-040 or appropriate placement

Corequisite(s): none

**BIOL 127 Viral Genomics 2 cr.**

This is the second semester of a two semester series in viral genomics, beginning with BIOL 122 - Genome Research. Students in this course will annotate the DNA sequence they prepared in the first semester. Students will use genomics software to align DNA sequences, identify genes, and determine the function of proteins coded for by the genes.



This course is run in cooperation with the Howard Hughes Medical Institute Science Education Alliance and the University of Pittsburgh.

Prerequisite(s): BIOL-122

Corequisite(s): none

#### **BIOL 128 Biology II with Lab 4 cr.**

This is the second semester of a two-semester Biology sequence intended for biology/science majors or students looking to transfer laboratory science credits. Biology II concentrates on living organisms at structural levels above the molecular and cellular levels addressed in Biology I. Specific topics include taxonomy and the principles of biological diversity, evolution, and ecology. The laboratory component is intended to provide students with experiential learning in support of concepts and principles introduced in the lectures.

Prerequisite(s): BIOL-124

Corequisite(s): none

#### **BIOL 132 Anatomy and Physiology I with Lab 4 cr.**

This four-credit lecture/lab course is designed for first-year students preparing for a career in the medical field. Emphasis will be on anatomical terminology, fundamental biochemistry, and structure and function of the following components of the human body: cells, tissues, integument, skeleton, joints, muscles, and nervous system. The laboratory portion of the course complements and reinforces the lecture through the use of additional resources, focusing on closer examination of the body's components. Students who have not passed a college biology course are strongly encouraged to take BIOL-100 Biology with Lab for Non-Majors or BIOL-105 Human Biology before attempting BIOL-132.

Prerequisite(s): MATH-040 or appropriate placement

Corequisite(s): ENGL-100 or ENGL-101

#### **BIOL 138 Anatomy and Physiology II with Lab 4 cr.**

This four-credit lecture/lab course is a continuation of BIOL 132, building on many of the fundamentals. Emphasis will be on the structure and function of the following organ systems in the human body: nervous, endocrine, cardiovascular, lymphatic, digestive, respiratory, urinary, and reproductive. The laboratory portion complements and reinforces the lecture, focusing on closer examination of these system structures via live and virtual dissection, and demonstration of their functions via simple testing. Anatomical models, prepared microscope slides, and online resources may also be incorporated.

Prerequisite(s): BIOL-132

Corequisite(s): none

#### **BIOL 190 Natural History of Casco Bay with Lab**

**4 cr.**

This course brings together the various disciplines of biology, botany, zoology, ecology, geology, hydrology, and oceanography to study the biodiversity of the Casco Bay area. Students will gain field and laboratory experience as naturalists in the identification, taxonomy and natural history of selected plants, animals, fungi and ecosystems common in this bioregion. Ecological relationships are explored, and concepts such as evolution are examined. The importance of appreciating and conserving our local biodiversity is emphasized.

Prerequisite(s): MATH-040 or appropriate placement

Corequisite(s): none

#### **BIOL 209 Biology Research Experience Short Course**

**1 cr.**

This is a hands-on intensive laboratory course in molecular biology and bioinformatics. The specific research questions and techniques are different each year but will usually include RNA and DNA extraction, polymerase chain reaction, DNA sequencing and data analysis. The curriculum will mix laboratory work with several informal seminars. This course is funded by an INBRE (IDeA Networks of Biomedical Research Excellence) grant that SMCC has received from the NIH (National Institute of Health) to promote the biomedical research capacity in the state of Maine.

Prerequisite(s): Instructor approval

Corequisite(s): none

#### **BIOL 212 Genetics with Lab**

**4 cr.**

The two major branches of genetics, molecular and classical genetics, are studied in detail. The first half of this course focuses on studying structure and function of genes at the molecular level, including discussions on recombinant DNA and DNA analysis techniques. Classical, or Mendelian, genetics encompasses the second half of the course and centers on transmission of traits from one generation to the next. Other topics include transposable elements, bacterial and viral genetics. The laboratory experiments are designed to provide students with hands-on activities to further elucidate the concepts discussed in lecture. Additionally, field trips to local research institutions and biotechnology companies will be scheduled during lab time.

Prerequisite(s): BIOL-128

Corequisite(s): none

#### **BIOL 235 Pathophysiology**

**3 cr.**

This course is designed to provide the student with an introduction to the study of disease, both congenital and acquired. Emphasis is placed on the alteration of

normal physiology in the presence of disease processes to include signs and symptoms as well as physical consequences and laboratory findings.

Prerequisite(s): BIOL-138

Corequisite(s): none

#### **BIOL 250 Microbiology with Lab 5 cr.**

This course studies the principles and techniques utilized in microbiology. Consideration will be given to microbial structure, growth, physiology and the reaction of microorganisms to their physical, chemical and biological environment. Laboratory emphasis will be placed on development of proper laboratory techniques and the identification of microorganisms.

Prerequisite(s): BIOL-100 or BIOL-124 or BIOL-132

Corequisite(s): none

#### **BIOL 255 Cell Biology 3 cr.**

Students will develop an understanding of how eukaryotic cells function, along with an appreciation of the experimental approaches that are behind this knowledge. The course will focus on cell architecture, the structure and function of proteins, genetics and molecular biology, biomembranes, transport across cell membranes, the integration of cells into tissues, control of transcription, and signaling pathways. Critical reading and discussion of journal articles is introduced in the course. Methods in molecular and cellular biology are also introduced.

Prerequisite(s): BIOL-100 or BIOL-124

Corequisite(s): none

#### **BIOL 275 Biotechnology Internship 2 cr.**

This course is an opportunity for students to work in a professional laboratory setting. This work-based learning will enhance students' abilities well beyond the scope or capabilities of the academic program at SMCC and will provide students with valuable real life experience and the opportunity to refine career objectives. The student is primarily responsible to the employer for the various work responsibilities established and is also responsible to the course instructor to complete specific academic requirements. This course may be repeated for credit.

Prerequisite(s): BIOL-110, BIOL-124, BIOL-250

Corequisite(s): none

### ***Marine Biology Courses (BIOM)***

#### **BIOM 112 Marine Biology with Lab 4 cr.**

This course is designed for students needing an introductory college level science class. In order for the student to gain an understanding of the marine environment, the course begins with a brief overview

of basic physical, chemical and geological oceanography. A discussion of major phyla in each of the kingdoms that live in the sea will include taxonomy, evolution, ecology, as well as, where appropriate, concerns relating to future survival/extinction of groups under consideration. Laboratory exercises are designed to give a "hands-on" opportunity to further enhance students' appreciation of the incredible diversity of sea life.

Prerequisite(s): ENGL-080 or ENGL-101 and MATH-040 or appropriate placement

Corequisite(s): none

#### **BIOM 170 Invertebrate Zoology with Lab 4 cr.**

This course examines the invertebrate phyla, covering aspects of form and function, evolution, classification, natural history, and water-land transitions of invertebrate animals. Students will explore local marine habitats to collect live specimens and observe ecological interactions in the field. Laboratory work will encompass dissection and identification of common invertebrates, using both classical taxonomic methods and DNA bar coding.

Prerequisite(s): BIOL-100 or BIOL-124

Corequisite(s): none

#### **BIOM 180 Phycology: Biology of Seaweeds with Lab 4 cr.**

This course is designed to introduce the student to the major groups of algae with particular focus on marine algae found along the North Atlantic shore. Emphasis will be placed on the methods of study, taxonomy, morphology, zonation, physiology and ecology of the principal groups of algae. Aquaculture and biotechnology will also be discussed.

Prerequisite(s): BIOL-100 or BIOL-124

Corequisite(s): none

#### **BIOM 255 Ecology with Lab 4 cr.**

This course covers the basic principles of general ecology: the physical environment, populations, communities, ecosystems, and global issues. Fundamentals of the scientific method, the impact of limiting factors, biogeochemical cycles, and the significance of human activity will also be stressed. Sampling techniques are described and practiced during the laboratory.

Prerequisite(s): BIOL-100 or BIOL-124

Corequisite(s): none

#### **BIOM 265 Fishery Science with Lab 4 cr.**

This course covers the taxonomy and life history of important families of fishes, aspects of anatomy and physiology that are unique to the fishes, fish culture and topics in fisheries management. There is a strong

field component to this course. Field trips will include beach seining and fisheries surveys aboard a vessel in Casco Bay.

Prerequisite(s): BIOL-100

Corequisite(s): none

## ***Business Courses (BUSN)***

### **BUSN 100 Introduction to Business 3 cr.**

A rigorous examination of the key decisions that business organizations face, with particular emphasis on the role that technology and society play when making those decisions. Students examine numerous situations involving products, processes, ethics, teamwork, and markets to familiarize themselves with the choices that face business owners and their employees. A short entrepreneurial, product-design project and longer negotiation module are included.

Prerequisite(s): MATH-040 or appropriate placement

Corequisite(s): ENGL-100 or ENGL-101

### **BUSN 106 Social Media Marketing for Business 3 cr.**

This course will explore the foundations and principles of social media marketing and its role in branding and growing a small business. The basic concepts of social media and small business marketing will be discussed. Social networking, bookmarking, blogging, email marketing, video/photo sharing, location-based sites, guerilla marketing and more will be explored during this course. Course homework and projects will focus on using social media tactics to market a small business. A social media marketing plan will be developed in theoretical exercises and practical plans for students intending to enter and grow a small business.

Prerequisite(s): none

Corequisite(s): ENGL-100 or ENGL-101

### **BUSN 115 Personal Finance 3 cr.**

This course helps students to overcome difficulties with managing personal finances. Foremost emphasis is placed on methods of measuring and evaluating expenditures with a budget so that the individual will maximize the use of their earnings. Included is an evaluation of occupations and income potential; investments and mutual funds, use of credit and the borrowing of money, taxes and estate planning, purchase of major assets, including home, vehicle and appliances, and also various types of insurance.

Prerequisite(s): MATH-040 or appropriate placement

Corequisite(s): ENGL-100 or ENGL-101

### **BUSN 130 Entrepreneurship 3 cr.**

This course will explore the foundations and principles of entrepreneurship and the relationship to small business. The basic concepts of business and the application in operating a new or existing business will be discussed. Benefits, challenges and key elements of entrepreneurship, ownership options, planning, marketing, financial plans and management will be explored. Course homework and projects will focus on strategic planning, market plan development and the rudiments of the overall business plan. A business plan will be developed in theoretical exercises and practical plans for students intending to enter a defined business venture.

Prerequisite(s): MATH-040 or appropriate placement

Corequisite(s): ENGL-100 or ENGL-101

### **BUSN 151 Spreadsheet Applications 3 cr.**

The purpose of this course is to familiarize students with electronic spreadsheet development using Microsoft Excel for Windows. In this intensive hands-on course, students will create various types of worksheets for personal and professional uses. Emphasis will be placed on problem solving and developing quality worksheets using concepts and techniques found in most spreadsheet software. This course covers all basic skills and techniques and several advanced topics including how to design and print graphs and charts; develop worksheets for "what-if", "goal-seek" and "sensitivity" analysis; generate reports; use mathematical, financial, statistical, logical as well as date and time functions; generate reports; use database operations; and develop and use macros.

Prerequisite(s): ENGL-080 or ENGL-101 and MATH-040 or appropriate placement

Corequisite(s): none

### **BUSN 195 Business Modeling with Excel 3 cr.**

This course is an examination of problem-solving techniques using modern computer applications software (Microsoft Excel 2016). The primary focus is on the in-depth use of electronic spreadsheets as a problem-solving tool, including proper spreadsheet model design and the use of appropriate graphical representation of model results. Interpretation and effective communication of results, both written and oral, are practiced.

Prerequisite(s): BUSN-100

Corequisite(s): ENGL-100 or ENGL-101

### **BUSN 200 Marketing 3 cr.**

This course merges activities used to market a product or service into a logical framework. Students learn about building relationships with customers according

to the customer's needs. Skills developed and used are segmenting the market, defining buyer behavior, positioning a product to satisfy customer needs, and developing a strategy for the product, price, and marketing communication. Areas of focus include modern distribution systems such as direct marketing, telemarketing, and the Internet. There is also extensive focus on E-commerce.

Prerequisite(s): BUSN-100

Corequisite(s): ENGL-100 or ENGL-101

### **BUSN 255 Human Resource Management 3 cr.**

Specific attention is placed in this course on the day-to-day administrative and management procedures necessary to support the workforce. Included are matters of recruiting, selecting and hiring personnel, legal requirements that govern records and interactions with employees, rules and regulations covering termination, task definition, and training.

Prerequisite(s): none

Corequisite(s): ENGL-100 or ENGL-101

### **BUSN 260 Business Law 3 cr.**

This course will provide a foundation for business managers to operate within the legal environment in which all businesses in our society function. It provides an overview of the law and our legal system, covering topics such as Tort Law, contract and sales law, negotiable instrument law, agency and employment law, business organizations and property law.

Prerequisite(s): BUSN-100

Corequisite(s): ENGL-100 or ENGL-101

### **BUSN 265 Business Problem Solving 3 cr.**

A capstone course for the second year student, this study plan is fast-paced and dynamic. Students are challenged to use their learning to confront structured and unstructured problems with confidence and creativity. Experience in using multi-disciplinary skills is stressed. While problems are primarily business oriented, themes also include the interaction between business and government or business and society.

Prerequisite(s): BUSN-100; ECON-120 or ECON-125

Corequisite(s): ENGL-100 or ENGL-101

### **BUSN 275 Business Internship 3 cr.**

This course is designed to introduce the student to the practical work environment in their interested field of business study. The internship will be supervised, approved and monitored during the semester. A minimum of 180 hours must be worked during the semester. The student will keep a weekly log of their activities and experiences and will prepare an in-depth research paper on their organization to be reviewed by the instructor. The student must be prepared to work

as an unpaid intern and should have an updated resume prior to the first class.

Prerequisite(s): none

Corequisite(s): none

### **BUSN 276 Business Internship for Visiting Students 12 cr.**

This course is designed to introduce the student to the practical work environment in their interested field of business study. The internship will be supervised, approved and monitored during the semester. A minimum of 600 hours must be worked during the 15 week internship (an average of 40 hours a week). The student will keep a bi-weekly log of their activities and experiences to be submitted to the instructor. Note: An internship may be an unpaid position, so students should be prepared to gather the experience and the course credits if an opportunity is an unpaid internship.

Prerequisite(s): none

Corequisite(s): none

## ***Cardiovascular Courses (CARD)***

### **CARD 100 Introduction to Cardiovascular Tech 3 cr.**

This course is designed to provide students with an overview of cardiovascular procedures, the history of cardiovascular medicine, professional organizations and affiliations, internships, legal and ethical responsibilities in patient care, clinical indications for cardiac testing, medical terminology, HIPAA standards in healthcare, and living wills.

Prerequisite(s): ENGL-100 or ENGL-101, BIOL-132

Corequisite(s): BIOL-138

### **CARD 105 Medical Instrumentation 3 cr.**

This course is designed to give entry-level cardiovascular students an overview of electronic circuits, their components and the manner in which they function and operate medical equipment. Students will have a working knowledge of physiologic recording systems and the various functions they provide, with emphasis placed on electrical safety in the healthcare setting.

Prerequisite(s): Program Acceptance

Corequisite(s): none

### **CARD 115 Electrocardiogram (ECG) Interpretation 3 cr.**

This course emphasizes electrocardiogram (ECG) dysrhythmia recognition in the health care setting. Review of the cardiac conduction system and its relation to mechanical events in the cardiac cycle will provide the basis for understanding interpretation of

cardiac rhythm strips and 12 lead electrocardiograms. Assessment of normal and abnormal rhythms will be completed.

Prerequisite(s): CARD program acceptance, BIOL-138  
Corequisite(s): none

**CARD 120 Vascular Imaging and Pathology 3 cr.**

This course provides fundamental knowledge for vascular diagnostic and interventional testing and vascular pathology. An overview of current testing techniques in ultrasound imaging, angiography, vascular MRI and Computed tomography (CT) will be provided. This course includes a review of vascular pathophysiology and current medical therapy. Physiology and hemodynamics of normal and diseased vessels will be reviewed. Risk factors associated with vascular disease will complete the course.

Prerequisite(s): CARD program acceptance  
Corequisite(s): CARD-100, CARD-105, CARD-125, HLTH-155, PHYS-110

**CARD 125 Clinical Practicum I 1 cr.**

All students will rotate through the clinical affiliate hospitals. Students will be assigned to select departments (cardiac catheterization, echocardiography, non-invasive cardiology, and the ambulatory cardiac care unit). The rotations are primarily observational and provide students with the opportunity to see the diagnostic and interventional tests and procedures performed on patients with cardiovascular disease. Limited performance of non-invasive tasks under direct supervision is permissible.

Prerequisite(s): BIOL-138  
Corequisite(s): CARD-100, CARD-105, CARD-120

**CARD 140 Radiation Safety in Invasive Cardiology 1 cr.**

This course prepares students entering the invasive realm of cardiology for safely working around ionizing radiation. Students will learn what ionizing radiation is, potential effects on the body, and how to keep patients, themselves, and their colleagues safe during procedures. Fluoroscopy and cineangiography will be discussed. Principles of ALARA, time, distance, shielding, and the inverse square law will be covered as well as stochastic and deterministic effects of ionizing radiation and how best to mitigate them.

Prerequisite(s): CARD-120  
Corequisite(s): CARD-150, CARD-155

**CARD 150 Invasive Cardiovascular Tech I 3 cr.**

This course is designed to provide an in-depth study of cardiovascular physiology, including circulatory hemodynamics, cardiac output and control

mechanisms, electrophysiology and myocardial mechanics. The course will also include a review of angiographic techniques, right and left heart catheterization protocols for diagnosis of ventricular function abnormalities, assessment of coronary anatomy, and hemodynamic waveform morphology analysis in the clinical setting.

Prerequisite(s): CARD-100, CARD-105, CARD-120, HLTH-155, PHYS-110  
Corequisite(s): NURS-100, CARD-115, CARD-155

**CARD 155 Invasive Cardiovascular Tech Lab I 1 cr.**

This laboratory is designed to provide a simulation experience in which students will learn to prepare manifold systems, cardiac catheters, guide wires, needles and sheaths. Students will also utilize cardiac output machines, oximeter and defibrillator/cardioverters. Students will acquire a working knowledge of pacemakers and ICD's, and will learn hemodynamic analysis data.

Prerequisite(s): CARD-100, CARD-105, CARD-120, HLTH-155, PHYS-110 **1 cr.**  
Corequisite(s): NURS-100, CARD-115, CARD-150

**CARD 160 Cardiovascular Physiology and Pathophysiology I 3 cr.**

This course includes the review of cardiovascular anatomy and structural relationships with the cardiopulmonary and vascular system. The function and regulation of the heart and blood vessels, cellular structure and function, electrical activity and cardiovascular integration and adaptation will be discussed. Heart sounds and murmurs will be reviewed as will blood pressure regulation. The study of cardiovascular pathophysiology will include an in-depth review of various cardiac diseases, related etiology and treatment options including: ischemic cardiac disease, heart failure, and valvular heart disease. **1 cr.**

Prerequisite(s): CARD-100, CARD-105, CARD-120, BIOL-138  
Corequisite(s): CARD-115, CARD-150, CARD-155 or CARD-165, CARD-170

**CARD 165 Ultrasound Physics and Instrumentation 3 cr.**

This course is an introduction to the principles of ultrasound physics, instrumentation and theory relevant to the Cardiac Sonographer and Ultrasonographer. Concepts discussed will include: math for physics review; ultrasound physics; transducer construction and characteristics; sound beam formation and characteristics; instrumentation; image storage and display; Doppler instrumentation and principles; artifacts and bio-effects.

Prerequisite(s): PHYS-110  
Corequisite(s): CARD-170

**CARD 170 Echocardiography I 3 cr.**

This course is designed to provide Cardiovascular Technology students with the foundations of Echocardiography. The course will provide an explanation of cardiac ultrasound and its use in the evaluation of normal and abnormal cardiac anatomy. The course will also provide students with the knowledge necessary to determine the presence of cardiac diseases and pathology as seen during an echocardiographic exam. A review of the various medical and surgical treatments used in the care of patients with cardiac disease will be included in the course. Basic machine mechanics, basic physics as related to ultrasound, two-dimensional, M-mode, Doppler, and Color Doppler techniques will be covered.

Prerequisite(s): CARD-100, CARD-105, CARD-120, BIOL-138

Corequisite(s): CARD-115, CARD-165, CARD 171

**CARD 171 Echocardiography I Lab 1 cr.**

This laboratory is designed to provide a simulation experience in which students will learn patient set-up and preparation, echo machine set-up, and general preparation for the echocardiographic procedure. Students will apply didactic concepts from CARD-165 and CARD-170 to assist in their understanding of how to care for and scan echocardiography patients. Students will learn all the major echocardiographic windows and views. General troubleshooting concepts of the echocardiographic machine will also be covered.

Prerequisite(s): CARD-100, CARD-105, CARD-120, HLTH-155, PHYS-110.

Corequisite(s): CARD-115, CARD-165, CARD-170

**CARD 175 Clinical Practicum II 4 cr.**

This course includes 240 clinical hours. The students will learn and practice skills in aseptic technique, infection control, patient monitoring, as well as pre and post-procedure patient care, for invasive and non-invasive diagnostic and therapeutic procedures. This 6-week summer clinical rotation will include clinical assignments in open-heart surgery, cardiac rehabilitation, cardiac catheterization and/or echocardiography. Lab assignments will take place at Southern Maine Community College and clinical rotations will include hospitals experiences throughout Southern and Central Maine and Southern New Hampshire.

Prerequisite(s): CARD-115, CARD-125, CARD-160, HLTH-155 and either CARD-150 and CARD-155 or CARD-165 and CARD-170

150

Corequisite(s): none

**CARD 190 Clinical Hemodynamics 2 cr.**

This course includes a review of hemodynamic concepts such as the physical principles of measurement, normal pressure values and how pressures should relate to each other, waveform morphology, breakdown of waveform components, and the cardiac cycle diagram. New concepts will include: hemodynamic assessment in the cardiac catheterization lab, waveform artifacts and pitfalls, cardiac output and shunts, mitral and aortic valve disorders, left ventricular hemodynamics, heart failure and shock, right-sided heart pressures, pulmonary hypertension, pericardial disease, restrictive myocardial disease and hypertrophic cardiomyopathy. This course will also include coronary and peripheral artery hemodynamics and the hemodynamics of congenital heart disease. Hemodynamic formulas and calculations will also be studied.

Prerequisites: CARD-100, CARD-105, CARD-120, MATH-130, PHYS-110

Corequisites: CARD-150, CARD-155

**CARD 200 Invasive Cardiovascular Tech II 3 cr.**

This course is designed to provide an in-depth study of Interventional Cardiology and complements materials from Invasive Cardiovascular Technology I. Instruction includes: percutaneous coronary intervention, permanent pacemakers, bi-ventricular cardiac devices, cardiac biopsy, intra-aortic counterpulsation, electrophysiology studies, and cardiac ablation.

Prerequisite(s): CARD-150, CARD-155

Corequisite(s): none

**CARD 210 Cardiovascular Physiology and Pathophysiology II 3 cr.**

This course continues the evaluation of cardiovascular physiology and disease from Cardiovascular Physiology and Pathophysiology I and provides in-depth review of hypertensive heart disease, cardiomyopathy, diseases of the pericardium and congenital malformations. Neurohumoral control of the heart and microcirculation mechanisms will be reviewed.

Prerequisite(s): CARD-160

Corequisite(s): none

**CARD 220 Echocardiography II 3 cr.**

This course is a continuation of the principles learned in CARD-170. The echocardiography student will learn more detailed applications for the use of Doppler ultrasound and in the determination of systolic and diastolic dysfunction; review disease pathologies such as cardiac tumors; and learn performance techniques for the evaluation of pericardial disease. Students will also be introduced to the echo findings commonly

associated with of congenital heart disease in the adult and child. An introduction to advanced applications associated with of echocardiography will include: Transesophageal Echo (TEE), stress echo, vascular ultrasound, contrast echocardiography use and 3-D echocardiography.

Prerequisite(s): CARD-165, CARD-170

Corequisite(s): none

#### **CARD 225 Clinical Practicum III 6 cr.**

This clinical rotation is designed for students who have chosen one of the four clinical areas as a career-training path. Students will spend 24 hours per week in the hospital setting gaining knowledge and expertise in one of the following areas: cardiac cath lab, echocardiography, non-invasive electrocardiography, or anesthesia monitoring within the operating room.

Prerequisite(s): CARD-175

Corequisite(s): none

#### **CARD 275 Clinical Practicum IV 12 cr.**

This clinical course is for students wishing to pursue a career in one of the four employment opportunities within the CV Technology program. The student will spend 40 hours per week in their designated specialty: cardiac cath lab, echocardiography, non-invasive testing, or as a member of the anesthesia monitoring team.

Prerequisite(s): CARD-225

Corequisite(s): none

### ***Chemistry Courses (CHEM)***

#### **CHEM 100 Fundamentals of Chemistry with Lab 4 cr.**

Fundamentals of Chemistry is a one-semester, stand-alone survey course for non-science majors. Fundamental principles, terminology, and applications of inorganic, organic, and biochemistry are introduced, as well as basic laboratory techniques. The course relates chemical concepts to everyday life through analysis and discussion of fundamental principles, and will enable students to make better-informed decisions regarding their health, their community, and the world they live in.

Prerequisite(s): ENGL-080 or ENGL-101 and MATH-040, or appropriate placement

Corequisite(s): none

#### **CHEM 102 Chemistry for Emergency Responders 3 cr.**

This survey, no-laboratory course is designed to acquaint the student with the broad principles of chemistry as they relate to application and hazards in

the fire fighting field. The survey includes basic chemical terminology, structure of matter, atomic bonding, molecular theory of matter, chemical and physical change, and the general states of matter, gases, liquids, and solids. Discussion of the more common elements, compounds they form, and the resulting hazards and their uses, completes the course.

Prerequisite(s): none

Corequisite(s): ENGL-100 or ENGL-101, MATH-130 or MATH-140

#### **CHEM 103 Chemistry for Emergency Response with Lab 4 cr.**

This survey laboratory course is designed to acquaint the student with the broad principles of chemistry as they relate to application and hazards in the firefighting field. The survey includes basic chemical terminology, structure of matter, gases, liquids, and solids. Discussion of the more common elements, compounds they form, and the resulting hazards and their uses, completes the course with attention to nuclear applications, pesticides, and waste disposal. There will be specific lab demonstration times each week of the semester to assist the student with their learning.

Prerequisite(s): none

Corequisite(s): ENGL-100 or ENGL-101, MATH-130 or MATH-140

#### **CHEM 120 General Chemistry I with Lab 4 cr.**

This is the first semester of a two-semester college chemistry sequence. The topics discussed begin with physical and chemical property definitions and dimensional analysis. Chemical reactions and reaction stoichiometry are studied in the context of aqueous solutions. Types of aqueous reactions are investigated (i.e., acid/base, oxidation/reduction) as well as quantitative aspects of the reactions (i.e., molar solutions, dilutions, titrations, limiting reagents, reaction yields). Topics in gaseous-state chemistry and introduction to basic thermodynamics, quantum theory, electronic structure of atoms, basic chemical bonding, molecular geometry and molecular orbitals follow the reaction chemistry section.

Prerequisite(s): ENGL-080 or ENGL-101, or appropriate placement

Corequisite(s): MATH-130 or MATH-140

#### **CHEM 125 General Chemistry II with Lab 4 cr.**

This course is the second semester of a two-semester college chemistry sequence. Topics covered start with a brief discussion of the physical properties of liquids, solids and solutions. The major focus of this course will be chemical equilibria and the applied aspects in solution chemistry. Topic areas include reaction

kinetics, equilibrium reactions and calculations as applied to solutions, gas-phase reactions, acid/base reactions, buffers, and solubility. Also, entropy, free energy and equilibrium will be discussed before covering electrochemistry.

Prerequisite(s): CHEM-120

Corequisite(s): none

### **CHEM 131 Chemistry for Engineers with Lab 4 cr.**

This is a one-semester course in general chemistry designed for civil, mechanical, and electrical engineering majors. The major areas which will be covered are: atoms and molecules, chemical equations, Stoichiometry, gases, atomic structure, chemical bonding and molecular structure, molecules and materials, matter and energy relationships, thermodynamics, kinetics chemical Equilibria, oxidation-reduction, and electrochemistry.

Prerequisite(s): MATH-190

Corequisite(s): none

## ***Criminal Justice Courses (CJUS)***

### **CJUS 104 Public Safety Telecommunicator 3 cr.**

This course is designed to prepare students for emergency telecommunicator duties, to meet the requirements of the NFPA 1061 Professional Qualification Standard for Public Safety Telecommunicator I, as well as meeting the State of Maine statutory requirement for those employed at public safety dispatch centers in Maine (25 MRSA §2926 2(b)). The course combines instructor presentations, student activities and simulation exercises to develop skills and knowledge in the field. The course will provide the student with the knowledge of roles and responsibilities, current technologies, interpersonal communications skills, telephone communication and call processing skills, radio broadcast procedures, legal aspects of public safety communications and stress management skills. In addition the course will introduce students to the skills necessary to manage requests for police, fire and medical services. This course is cross-listed as PUBS-104, EMST-104, and FIRE-104

Prerequisite(s): none

Corequisite(s): none

### **CJUS 105 Introduction to Criminal Justice 3 cr.**

This course offers an orientation to careers in law enforcement — their philosophic base and historic development; agencies and processes; technical and legal problems, and the role of criminal justice in a democratic society.

Prerequisite(s): none

Corequisite(s): none

### **CJUS 106 Introduction to Homeland Security 3 cr.**

An introduction to the public and private sector dimensions of the theory and practice of homeland security at the national, regional, state, and local level. An overview of the administrative, legislative, and operational elements of homeland security programs and processes including a review of homeland security history, policies, and programs is provided. Topics include the threat of terrorism and countermeasures, including intelligence, investigation, and policy that support U.S. homeland security objectives.

Prerequisite(s): none

Corequisite(s): none

### **CJUS 107 Transportation and Border Security Management 3 cr.**

This course provides an overview of modern border and transportation security challenges, as well as different methods employed to address these challenges. The course covers a time period from post 9-11 to the present. The course explores topics associated with border security and security for transportation infrastructure, to include: seaports, ships, aircraft, airports, trains, train stations, trucks, highways, bridges, rail lines, pipelines, and buses.

Prerequisite(s): CJUS-106

Corequisite(s): none

### **CJUS 108 Intelligence Analysis and Security Management 3 cr.**

This course examines intelligence analysis and its indispensable relationship to the security management of terrorist attacks, man-made disasters, and natural disasters. It also explores vulnerabilities of our national defense and private sectors, as well as the threats posed to these institutions by terrorists, man-made disasters, and natural disasters. Students will discuss substantive issues regarding intelligence support of homeland security measures implemented by the United States and explore how the intelligence community operates.

Prerequisite(s): CJUS-106

Corequisite(s): none

### **CJUS 109 Introduction to Conservation Law Enforcement 3 cr.**

This course is designed to introduce students to the profession of conservation law enforcement, the laws and policies associated with conservation law and the various aspects of conservation and resource management.

Prerequisite(s): CJUS-105



Corequisite(s): none

### **CJUS 110 Police Operations 3 cr.**

This course deals with the everyday problems, situations and operations of the police department and the police officer. Included in the course is a study of the different career paths open in this area. It is basically a study of the patrol officer's function with a background to the entire organization. The deployment of personnel, tactical operations and the use of specialized equipment will be presented. Ethical and legal standards related to the patrol function will be covered.

Prerequisite(s): none

Corequisite(s): CJUS-105

### **CJUS 115 Introduction to Criminology 3 cr.**

This course will define crime and evaluate the various ways crime is measured. Students will be provided with an overview of the more popular criminological theories, emphasizing the biological, psychological and sociological schools of thought. In addition, crime control and prevention strategies as they relate to each theory will be examined in terms of theory, practice and effectiveness.

Prerequisite(s): none

Corequisite(s): CJUS-105

### **CJUS 116 Crisis Intervention for Criminal Justice Professionals 3 cr.**

This course was developed through collaboration between criminal justice and mental health practitioners. It is designed to educate students and those individuals currently working in the criminal justice field on issues related to the role of a Crisis Intervention Team (CIT) member. The course will cover the legal aspects of mental health commitments; liability issues; mental disorders; indicators of mental illness; understanding mental illness; documentation of incidents; the interpersonal skills necessary to effectively work with the mentally ill, their families, and the mental health system; and intervention strategies for dealing with both low and high risk situations. Students will participate in role playing scenarios during this class.

Prerequisite(s): none

Corequisite(s): none

### **CJUS 120 Introduction to Corrections 3 cr.**

This course takes a practical approach to introducing students to the ideas and practices of modern corrections and skills required to succeed in the field. Included in this course are society's goals for correctional institutions, an overview of the correctional function, the everyday operations of

correctional prisons and jails, and procedures of parole and probation. A central theme throughout the course will be professionalism in corrections.

Prerequisite(s): none

Corequisite(s): CJUS-105

### **CJUS 125 Criminalistics 3 cr.**

This course deals with the study of the scientific investigation of crime scenes, criminal evidence and evidence handling techniques. This course deals with the theory and application of police and scientific principles involved in solving crimes.

Prerequisite(s): none

Corequisite(s): CJUS-105

### **CJUS 130 Laws of Arrest, Search and Seizure 3 cr.**

This course is designed to present the background and current information about the laws pertaining to arrest, search and seizure. It will explore the development of standards in the police field by examining the issues involved in the Fourth, Fifth, and Sixth Amendments to the U.S. Constitution, State Laws and Court interpretations.

Prerequisite(s): none

Corequisite(s): CJUS-105

### **CJUS 140 Juvenile Justice System 3 cr.**

An examination of the impact of family, school, community and abuse on the conduct of juveniles will be undertaken. Past and current theoretical approaches to delinquency will be discussed. General topics of: gangs; delinquency and violence in schools; the Juvenile Court system; behavior modification programs; federal funding; law enforcement's role; as well as juvenile corrections and probation will be studied. The Maine Juvenile Code will be examined.

Prerequisite(s): CJUS-105, CJUS-115

Corequisite(s): none

### **CJUS 145 Safety and Wellness for Criminal Justice 3 cr.**

This course will explore the foundations and principles of reducing the number of law enforcement line of duty injuries and deaths. It will emphasize that best practices must be adopted to ensure the safety and health of law enforcement officers. This course will explore topics regarding fitness, nutrition, stress, emotional survival, and how they relate to the law enforcement field. Students will be required to take part in physical exercises throughout the semester.

Prerequisite(s): none

Corequisite(s): none

**CJUS 200 Rules of Evidence 3 cr.**

This course is designed to acquaint the student with the Rules of Evidence. The purpose of these rules is to determine the admissibility of evidence during the criminal trial process and the legal challenges available to the opposing side. It also covers the legal requirements for a wide range of evidence, i.e.: real and circumstantial; best evidence rule; privileged communication; the Hearsay Rule; etc.

Prerequisite(s): CJUS-105, CJUS-130

Corequisite(s): none

**CJUS 215 Substantive Criminal Law 3 cr.**

This course is designed to acquaint the student with the history of criminal law, the necessary elements of an offense which must be proven to sustain a criminal conviction, and the defenses to criminal conduct. A comprehensive study of Maine's Revised Criminal Code, Title 17-A is a major part of this course.

Prerequisite(s): CJUS-105, CJUS-130

Corequisite(s): none

**CJUS 220 Seminar in Criminal Justice 3 cr.**

This course is designed to acquaint the student with a variety of issues, some controversial, that confront the criminal justice community. The emphasis will be on reading about these issues and then in-depth discussion in a seminar setting. In addition, classroom time will be spent on preparing the student for employment. In furtherance of this goal, there will be discussion of the employment procedure, with emphasis on the application process and oral interviews. Prospective employers will be invited to participate in discussions with students.

Prerequisite(s): CJUS-105

Corequisite(s): none

**CJUS 225 Community Policing 3 cr.**

This course studies the evolution of policing to the present day. Community policing is compared and contrasted with traditional policing organizations and management styles. Community policing theory and the identification of community problems underlying crime will be examined relating to the process and strategy of change. Problem solving effectiveness of community policing as a law enforcement strategy will be considered. A community service learning project for each student is an integral part of this course. This course has been designated as a writing-intensive course.

Prerequisite(s): CJUS-105, ENGL-100 or ENGL-101

Corequisite(s): none

**CJUS 230 Crime Scene Reconstruction I 4 cr.**

This course provides students with the knowledge of the principles of effective crime scene management. Topics include: physical evidence collection and preservation, laboratory analysis, legal and practical documentation of evidence, and criminal investigation protocols. Students will engage in extensive laboratory work and analysis, review of case studies, and hands-on work at mock crime scenes, which will prepare them to present the results of their crime scene investigations in court. The course is designed for students pursuing a career as a crime scene technician.

Prerequisite(s): CJUS-105, CJUS-125 (C or better), CJUS department approval

Corequisite(s): none

**CJUS 235 Crime Scene Reconstruction II 4 cr.**

The second course in the crime scene reconstruction sequence, this course will build on the work in Crime Scene Reconstruction I. Students will examine additional and more advanced techniques related to the collection, preservation and analysis of crime scene evidence used in a court of law. This course provides students with the knowledge of the principles of effective crime scene management. Topics include physical evidence collection and preservation, laboratory analysis, legal and practical documentation of evidence, and criminal investigation protocols. Students will engage in extensive laboratory work and analysis, review of case studies, and hands-on work at mock crime scenes, which will prepare them to present the results of their crime scene investigations in court. The course is designed for students pursuing a career as a crime scene technician.

Prerequisite(s): CJUS-105, CJUS-125 (C or better),

CJUS-230, CJUS department approval

Corequisite(s): none

**CJUS 240 Comparative Criminal Justice 3 cr.**

Comparative Criminal Justice is an observation of the varying forms of law enforcement as practiced on an international basis. This course addresses the organization and practices of foreign law enforcement agencies and how they compare with the American system of criminal justice. Students will travel to Ireland to compare the policing experience of Ireland during the one-week spring semester break to that of the United States.

Prerequisite(s): CJUS-105

Corequisite(s): none

**CJUS 242 Courtroom Preparation and Presentation 3 cr.**

This course will prepare students to testify effectively by learning the foundations of persuasive testimony,

by understanding the court system and its rules governing testimony and by practicing techniques that are the hallmarks of successful testimony for public safety professionals, such as law enforcement officers, firefighters or paramedics.

Prerequisite(s): CJUS-105  
Corequisite(s): none

**CJUS 245 Case Preparation 3 cr.**  
This course is designed to teach students proper methods in which to prepare a case for possible court presentation. Included in the course will be appropriate information gathering techniques; report writing; and pre-court preparation. Proper courtroom procedures, witness styles and behavior will also be discussed. Legal standards related to acquiring information by police officers will be presented.

Prerequisite(s): CJUS-105, CJUS-130, CJUS-215  
Corequisite(s): none

**CJUS 250 Criminal Justice Internship 3 cr.**  
This course provides an opportunity for a student to work in the field of criminal justice. Students will spend a prescribed period of time working within a local criminal justice or public safety agency.

Prerequisite(s): CJUS-105, 3.2 GPA, and CJUS department approval  
Corequisite(s): none

**CJUS 255 Criminal Investigation 3 cr.**  
Criminal Investigation is an observation or inquiry into allegations, circumstances or relationships in order to obtain factual information. This course deals with the duties and responsibilities of the investigator/detective/patrol officer in the course of an investigation.

Prerequisite(s): CJUS-105  
Corequisite(s): CJUS-245

***Information Technology Courses (CMIT)***

**CMIT 100 Introduction to Information Technology 3 cr.**  
This course introduces a wide variety of concepts encountered in real-world Information Technology (IT) work and provides an overview of computer organization and hardware, Windows and Linux operating systems, system administration duties, scripting, computer networks, and computer security. It also gives students insight on IT-related careers such as network and web administration, computer forensics, web development, and software engineering. The course addresses concepts essential

to all IT professionals to include operating systems and hardware to information security and computer ethics.

Prerequisite(s): none  
Corequisite(s): ENGL-080 and MATH-040, or appropriate placement

**CMIT 105 Network Fundamentals 3 cr.**  
This course gives students the technical skills and industry know-how required to install, configure, and troubleshoot computer networks. Topics include the OSI Model, TCP/IP, Ethernet, topologies, hardware, network design, wireless transmission, and security concepts. The course teaches toward the CompTIA's Network+ N10-005 certification exam.

Prerequisite(s): none  
Corequisite(s): ENGL-080 and MATH-040, or appropriate placement

**CMIT 110 Database Fundamentals 3 cr.**  
This course covers relational databases and systems commonly used in Information Technology. Topics include creating, query usage, and maintaining a database; reports, forms, and creating menu driven applications. Other topics include server-side systems commonly used in the Information Technology industry. This course will utilize working in groups to emphasize how to plan, create, and implement a project in the business setting.

Prerequisite(s): none  
Corequisite(s): ENGL-080 and MATH-040 or appropriate placement

**CMIT 120 Linux System Administration 3 cr.**  
This course will introduce the student to the concepts of Open Source Operating Systems, commonly referred to as Linux. Open Source Linux has continued to evolve into a variety of dependable, stable operating systems many of which are designed to work as servers. This course will deal with Red Hat Enterprise Linux and its various server configurations. During the semester the student will learn to install, configure, and manage the server environment. The course format will emphasize student exploration; development of critical thinking skills and student demonstration of understanding through practical assessments and written documentation. The class time for this course is a combination of lecture and hands-on activities.

Prerequisite(s): CMIT-100, CMIT-105  
Corequisite(s): none

**CMIT 135 Scripting for IT 3 cr.**  
This course introduces students to basic principles of scripting for a system administrator or cyber security professional. Multiple languages will be studied with

an emphasis on the practical application of using learned skills in an IT profession. Basic programming concepts, such as variables, lists, arrays and loops will be reviewed. Best practices for documenting and writing clean code will be demonstrated. As the IT field continues to grow, it is important for students to know how to solve a problem using command-line tools regardless of the language or OS. Students will also learn how to research an unfamiliar language and write successful scripts using the logical reasoning skills introduced in this course.

Prerequisite(s): CMIT-100, CMIT-105

Corequisite(s): none

#### **CMIT 140 Virtualization Essentials 3 cr.**

This course focuses on concepts surrounding virtualization with emphasis on Desktop Virtualization. Virtualization is abstracting hardware from operating systems. Technology, procedures, and methods of implementation will be examined. Subsections will include managing CPU's, memory, storage, and other peripherals. Specific labs include basic installation, setup, and configuration of a PC Virtual Machine.

Prerequisite(s): CMIT-100, CMIT-105

Corequisite(s): none

#### **CMIT 215 Microsoft Client Operating Systems 3 cr.**

This course covers the installation, configuration, and maintenance of Microsoft Windows. The operating systems utilized in this course include various current versions of Microsoft Windows operating systems. Other topics covered in this course shall include Windows desktop deployment, Windows desktop restrictions, and networking in peer to peer and client server environments. The class time for this course is a combination of lecture and hands-on practice.

Prerequisite(s): CMIT-100, CMIT-105

Corequisite(s): none

#### **CMIT 220 Windows Server and Active Directory Fundamentals 3 cr.**

This course is an introduction to network operating systems with an emphasis on the management of network objects, e.g. users, groups, shared folders, and other shared network resources. Other topics to be covered in this course include login scripts, group policies, physical and logical network topologies, network media, and network distribution devices. The operating systems utilized in this course include various current versions of Microsoft Windows server and client operating systems. The class time is a combination of lecture and hands-on practice.

Prerequisite(s): CMIT-100, CMIT-105

Corequisite(s): CMIT-215

#### **CMIT 225 Routing and Switching Fundamentals 3cr.**

This course focuses on the architecture, components, and operating of routers and switches, and explains the principles of switching, routing, and primary routing protocols. The course will utilize Cisco routing kits for a physical hands-on approach reinforcing concepts in preparing students for Cisco CCENT and CCNA exams.

Prerequisite(s): CMIT-100, CMIT-105

Corequisite(s): none

#### **CMIT 240 Advanced Virtualization 3 cr.**

This course introduces students to advanced virtualization concepts found in enterprise-class Information Technology (IT) infrastructures. Expanding on the foundation built in CMIT-140 Virtualization Fundamentals, this course explores virtualization management tools, databases, advanced virtual networking, enterprise storage concepts, Storage Area Networks, and iSCSI implementation. Students will design and implement environments with a focus on reliability and high availability managing and balancing virtual and physical system resources. Students will practice infrastructure design and implementation while mastering industry-relevant subjects such as virtual networking and enterprise storage.

Prerequisite(s): CMIT-140, CMIT-220

Corequisite(s): CMIT-250

#### **CMIT 250 Advanced Active Directory 3 cr.**

This course deals with the management of Active Directory Services in Windows Server domains and is based upon the sections of the MSCE exam. Topics to be covered shall include active directory DHCP, DNS; AD system state maintenance, recovery and restore; FSMO (Flexible Single Master Operations), AD migration, and other common scenarios. The course time will be a combination of lecture and hands-on lab work.

Prerequisite(s): CMIT-215, CMIT-220

Corequisite(s): none

#### **CMIT 270 Project Management 3 cr.**

This course gives students the real world skills necessary to guide a project from genesis to completion. They will learn about the different stages of a project, the responsibilities of each project team member role, and how to create a project methodology that matches the requirements of different production environments. The course teaches towards the CompTIA's Project+ certification exam.

Prerequisite(s): CMIT-100, CMIT-105

Corequisite(s): none

**CMIT 295 Senior Capstone Project 3 cr.**  
The Senior Capstone Project provides students with the opportunity to apply skills learned throughout the Information Technology program to solve business-driven problems with technology solutions. Taking a whole-business approach to IT, students will analyze real-world scenarios, design appropriate solutions, and implement them in the IT Department's extensive virtual lab environment.

Prerequisite(s): CMIT-215  
Corequisite(s): none

## *Communication Courses (COMM)*

**COMM 105 Professional Communication for the Job Market 3 cr.**  
This course prepares students to search for and obtain employment. Students will produce a resume, list of references, cover letter, thank you letter, and portfolio of certificates and awards. Students will learn techniques for interviews and salary negotiation.

Prerequisite(s): ENGL-080 or ENGL-101 or appropriate placement  
Corequisite(s): none

**COMM 201 Technical Writing/Communication 3 cr.**  
This course presents a basic study of techniques used in technical fields to communicate in writing and through presentations. Study includes document purpose, situation analysis, style, format and production of reports, proposals, procedure sheets, technical descriptions, forms, letters, memos, and visual aids. Assignments will include reports, business letters, forms, memos, resumes, and proposals that require graphics and other supportive data.

Prerequisite(s): ENGL-100 or ENGL-101  
Corequisite(s): None

## *Communications and New Media Courses (CNMS)*

**CNMS 105 Introduction to Mass Communication 3 cr.**  
We can watch the media as detached outsiders—as observers, we can praise them when they perform well and blame them for our social predicaments. Or we can become active participants—we can analyze the impact and investigate the consequences of the stories that media industries tell and sell. We can challenge our media to perform at high levels and steer them to serve and preserve democratic ideals. And as involved citizens, we can be aware of the consequences of the business of media and we can

give voice to the issues that matter most to us and that most affect our daily lives. Each week in this class, students will be armed with the tools necessary to navigate this cultural terrain. Students will be asked to participate in the critical work of evaluating mass media and shaping their direction.

Prerequisite(s): none  
Corequisite(s): none

**CNMS 111 Digital Media 3 cr.**  
Students will be introduced to the tools used in digital drawing, imaging and design, using the Adobe Creative Suite. Through the use of step-by-step tutorials, individual classroom instruction, guest lecturers and class discussions, students will be exposed to many facets of this powerful graphics package and its use in the industry. Examples of recent work by computer graphic artists will be shown and discussed. Students will examine the ever-growing applications of computer graphics and learn to recognize techniques used in the industry today.

Prerequisite(s): none  
Corequisite(s): none

**CNMS 115 2D Design 3 cr.**  
This foundation level course introduces students to the principles of 2D design and how the role of past and present media communications is influenced by core design concepts. Students will develop, discuss, and defend visual communication strategies within the context of past and present design successes and failures. Through detailed study of design concepts we will create artwork that is unified and effective in concept, form and purpose, and through studio projects, in-class exercises, group critique, and presentations we will practice how design principles are essential for success in a chosen field of visual expression.

Prerequisite(s): CNMS program acceptance  
Corequisite(s): none

**CNMS 120 Digital Art I 3 cr.**  
This introductory course will focus on the creation and manipulation of digital images using the industry standard software for digital imaging. Topics covered will include: additive and subtractive color theory, scanning and printing, masking and compositing, optimizing images for web, 3D, motion graphics and video. A series of hands-on tasks will further develop the student's personal expression and critique sensibility.

Prerequisite(s): CNMS-111, CNMS-115 or ARTS-130  
Corequisite(s): none

**CNMS 125 Writing for Visual Media****3 cr.**

Scriptwriting for moving image media is a key skill for making it in the world of film and video production in the realm of New Media. To compete in this field, students will learn how to write scripts for moving image media of movies, television, and the internet. Students will explore script writing for non-fiction and fiction moving image projects combining visual elements with audio components. Students will develop effective concepts for visual media programs aimed at specific viewing audiences. A variety of script writing formats geared for the different types of moving image media will be utilized. Final written scripts and oral presentations will be used to develop portfolio level work.

Prerequisite(s): ENGL-100 or ENGL-101

Corequisite(s): none

**CNMS 135 Graphic Design I****3 cr.**

Students will become knowledgeable in the use of Adobe In Design to produce documents which are of professional typesetting quality using a laser printer and a color ink jet printer. Students will work with templates, prepare and use style sheets, import graphics, place text, select fonts and prepare a variety of desktop publishing projects.

Prerequisite(s): CNMS-111, CNMS-115 or ARTS-130

Corequisite(s): none

**CNMS 140 Scriptwriting****3 cr.**

In the art of scriptwriting students focus on how to tell stories visually along with developing creative skills and gaining practical experience in writing scripts for both documentary (non-fiction) and narrative (fiction) films. Students will write and produce short film trailers for their scripts as well as present oral pitches as part of their promotion. With these new skills, students will be able to navigate through established visual media formats like filmmaking and television as well as New Media and social media.

Prerequisite(s): ENGL-100 or ENGL-101

Corequisite(s): none

**CNMS 145 Introduction to Journalism****3 cr.**

Introduction to Journalism is a writing intensive course for students looking to pursue a career in journalism, web, and new media. Coursework will cover the basic techniques of strong writing needed in news media, including but not limited to proper grammar, sentence structure, and active writing for visual scripts and print media. Students will also learn the elements and principles of journalism, deciphering what qualifies something as news, how news is created, and the impact it has on society. In this course, students will build a foundation of strong writing skills that will

prepare them for future media courses as well as entry-level careers in visual media.

Prerequisite(s): ENGL-100 or ENGL-101

Corequisite(s): none

**CNMS 146 News Writing and Production****3 cr.**

This course is designed to give students a basic understanding of online journalism with a focus on writing techniques and social media marketing. Students will create content (writing articles, photojournalism, poetry, calendar events), edit content, solicit for content from SMCC students outside of class, and post content online to the student publication, "The SMCC Beacon." Students will learn to maintain a social media presence for the publication on Twitter, Instagram and FaceBook. Students will be encouraged to submit two news articles to local community newspapers. Participating video/audio students may also produce a video and audio content of their news with the number and frequency of broadcasts/podcasts to be determined during the semester, and dependent upon the number of students in the course. Students will develop and fine tune writing abilities, editing skills, image manipulation and graphic design skills.

Prerequisite(s): none

Corequisite(s): none

**CNMS 150 Introduction to iOS App Design****3 cr.**

This course provides an immersive introduction to conceiving and designing applications for mobile devices driven by Apple's proprietary iOS. Students gain skills specific to designing and building user interfaces (UI) for applications on iPhones, iPads and Apple Watch. Working in Adobe Photoshop, students learn to generate graphics for importing into Apple's proprietary Xcode software, the tool required for making and publishing apps on their App Store. In addition to weekly lessons and incremental assignments, students work on a semester-long project to create a solid foundation for an app of their own, complete with icons and user interface elements that adjust to the size and orientation of the device.

Prerequisite(s): CNMS-111

Corequisite(s): none

**CNMS 155 Mass Media and Mass Movements: A History****3 cr.**

The history of journalism has always been intertwined with the history of politics and social change in the United States. From the development of the abolitionist newspapers of the 1830's, to the muckrakers of the late 19th century, to the radio broadcasts of Father Coughlin and the impact of televised images from the Vietnam war, all the way up

to the current use of social media by protest movements today: mass media and social movements have always been in conversation with one another. In this course we will learn about the history of mass communication through the lens of its relationship to social change.

Prerequisite(s): CNMS program acceptance  
Corequisite(s): none

### **CNMS 160 Video and Audio Production Basics 3 cr.**

This course is an introduction to basic video production. Classes are held in a TV studio where students learn the fundamental skills of video production through lectures and demonstrations. Topics include: production organizations and the production environment, camera operation, lighting, use of microphones, audio mixing and the use of special effects and graphics systems.

Prerequisite(s): CNMS program acceptance  
Corequisite(s): none

### **CNMS 165 Website Production 3 cr.**

This is an intermediate level course designed to provide students with the basic skills to author HTML web pages. Students will learn to code HTML, incorporate images into web pages and embed various types of media. All aspects of authoring with CSS will be covered including formatting, design and layout, using a code editor. In addition, an overview of digital image editing as it relates to web design will be introduced.

Prerequisite(s): CNMS, CMIT, or CSCI program acceptance  
Corequisite(s): none

### **CNMS 170 Street Photography 3 cr.**

This course is designed for students who would like to understand, challenge, and express themselves through the camera lens. It is both for the student who would like to work behind the camera, as well as the everyday photographer who is interested in discovering how to express themselves cinematically through the use of many physical and visual tools available to filmmakers and photographers alike. Cinematic terms such as pattern, eye-line, movement, blocking, composition, lighting, color, contrast, and depth of field will be taught to emphasize the narrative component of each image. A major objective of the class is to encourage and empower students to recognize and capture the "narrative" of a single image.

Prerequisite(s): none  
Corequisite(s): none

### **CNMS 175 Design Thinking 3 cr.**

Design Thinking is a creative problem-solving process that focuses on human needs. This course is for students with an interest in human centered design, product design, UI/UX design, interaction design, graphic design, business management, or any other related field. Design teams will create products that provide meaningful and significant solutions to "wicked problems."

Prerequisite(s): CNMS-135, CNMS-180  
Corequisite(s): none

### **CNMS 176 Design Thinking: UX/UI Lab 1 cr.**

Design Thinking is a creative problem-solving process. This lab is for students with a specific interest in UI/UX design. Using industry standard software and tools, design teams will create products that provide meaningful and significant experiences to users, focusing on how aesthetics is integrated with usability and function.

Prerequisite(s): none  
Corequisite(s): CNMS-175

### **CNMS 180 Digital Illustration I 3 cr.**

This introductory course will focus on the creation and manipulation of vector images using industry standard software. Topics covered will include: application of principles and elements of 2D design theory, typography, vector drawing and painting tools, and exporting files for web, print, and motion graphics. A series of hands-on tasks will further develop the student's personal expression and critique sensibility.

Prerequisite(s): CNMS-111, CNMS-115 or ARTS-130  
Corequisite(s): none

### **CNMS 195 Children's Book Art and Publication 3 cr.**

Students are familiarized with the artist's role in the development and creation of a children's picture book. Assignments include breaking up manuscripts, designing characters, creating a storyboard, a wrap-around jacket, and several finished pieces. Upon successful completion of this class, the student should have a basic knowledge of the process needed to complete a 32-page picture book project as well as an increased understanding of storytelling, design, and character development.

Prerequisite(s): ARTS-130 or CNMS-115  
Corequisite(s): none

### **CNMS 200 Video Boot Camp 3 cr.**

Have you ever wanted to make a movie? Video Boot Camp aims to do just that. In this six week course, students will complete a short film from start to finish. Every two weeks, we will explore a different phase of

production. During preproduction, students will write scripts, scout locations, create a production schedule, and cast talent. During production, students will learn how to conduct themselves on set, work with actors, and will learn the technical skills to shoot, light, and collect quality sound. Finally, during postproduction, the students will learn how to edit using Adobe Premiere, and will assemble the footage they've acquired into a unified whole. Other topics covered in class during this phase will include sound design, color correction, and Foley.

Prerequisite(s): CNMS-140, CNMS-160

Corequisite(s): none

### **CNMS 205 Digital Art II 3 cr.**

This course explores advanced production techniques using Adobe Photoshop for the production of images for print, web and video production. Students will learn advanced design and image manipulation techniques, generate original art works, will participate in peer reviews of work and observe the history and social impact of digital manipulation. Hands on demonstrations, lectures and class studio time will be supplemented by tutorials and lessons from a variety of sources.

Prerequisite(s): CNMS-120

Corequisite(s): none

### **CNMS 210 Video Preproduction 3 cr.**

This advanced course concentrates on the development of a short film in inclusion in the Maine Mayhem Film Festival. Emphasis will be placed on current trends in the industry. The role of a project Producer/Director will be followed in depth, specifically as it relates to the development and "pre-production" stages. Students will write a script, develop a short project proposal, including a budget and production "break down," and pitch to a panel of industry producers at the conclusion of the course.

Prerequisite(s): CNMS-160, CNMS-125 or CNMS-140

Corequisite(s): none

### **CNMS 211 Advanced Video Production 3 cr.**

This advanced production course is designed for students who have developed and pre-produced projects as part of the CNMS-210 Video Preproduction course. Students will produce a short film, either alone or with a partner, for exhibition at the Maine Mayhem Film Festival. Projects must obtain a "green light" from a panel of industry producers prior to beginning production. In class, discussion will focus on topics such as: conducting yourself on set, directing actors, blocking a scene, contracts and releases, and promoting a film. Students will be expected to work

outside of the scheduled course meeting time and should be prepared to adjust schedules as needed.

Prerequisite(s): CNMS-210

Corequisite(s): none

### **CNMS 215 Video and Audio Streaming Tech 3 cr.**

This course is designed to introduce New Media students to the production of video for Internet and broadband technologies. Emphasis is placed on digital video technology theory including: bandwidth, capturing video, compression and streaming architectures.

Prerequisite(s): ENGL-100 or ENGL-101

Corequisite(s): none

### **CNMS 225 Interactive Multimedia Basics 3 cr.**

This course is designed to introduce students to multimedia production techniques. Students will use a flowchart program to layout project concepts. Multimedia authoring will be done with Macromedia Flash 8. Topics to be covered include animation, interactive scripting, video and audio assets and Shockwave publishing techniques. Weekly reading assignments and in-class tutorials will provide hands on approach to learning.

Prerequisite(s): CNMS-111

Corequisite(s): CNMS-120 or CNMS-180

### **CNMS 230 Video on Location Basics 3 cr.**

Working outside of the studio environment, students will learn basic "on location" video production skills. Using basic field production equipment students will shoot and edit simple exercises designed to build good on location habits. Through the exploration of a wide range of audio and video tools, commonly used on location, students will learn how to recognize and solve potential problems. Emphasis will be placed on developing strong pre-production planning and research skills.

Prerequisite(s): CNMS-160

Corequisite(s): none

### **CNMS 235 Computer Animation Basics 3 cr.**

This advanced computer graphics course is designed to introduce students to 3D animation. Topics covered will include mesh and spline modeling, surface mapping, lighting, camera techniques and animation basics. While primarily a hands on task based course, additional and supplemental material will be covered in a series of class lectures. Various examples of 3D animation will be shown and critiqued. Students will have the opportunity to design and execute 3D animations suitable for use in an interactive portfolio or a demo reel.

Prerequisite(s): CNMS-111, CNMS-115 or ARTS-130



Corequisite(s): none

**CNMS 240 Non-Linear Editing Essentials 3 cr.**

This course will take the student through the process of editing video in a digital, non-linear environment using current, industry standard software. The course explores typical computer hardware systems as well as software applications typically used in the non-linear process. Emphasis will be placed on helping students gain organizational skills, become familiar with the non-linear editing process as well as the input/output of material used in the process. Some advanced functions such as compositing, mattes, titling, and animations will be taught on a limited basis.

Prerequisite(s): CNMS-160

Corequisite(s): none

**CNMS 250 Art of the Documentary 3 cr.**

A hands-on class in which students learn the art of the documentary by making a variety of short documentary films. After a series of camera and editing practice sessions, students, working in teams and on their own, create documentaries on local subjects and topics. They learn how to use the basic elements of documentary film in a creative manner that engages an audience while getting at the real story and truth of the subjects and topics in their films. Landmark and contemporary documentary films are analyzed to broaden the understanding and definition of what a documentary film is.

Prerequisite(s): CNMS-105

Corequisite(s): none

**CNMS 251 Introduction to Narrative Cinema 3 cr.**

This course explores the art of storytelling in the history of film in American cinema. Starting with The Great Train Robbery in 1903 on up to current cinema, the course will show a variety of landmark films by American directors. PowerPoint presentations will provide a context for the films viewed. Discussions and reading will center on how a story is told in film by bringing together story, character, visual design and music to create the magic of movies. The competing forces of the director's desire to create art and the pressures of commercial success at the box office will be analyzed.

Prerequisite(s): CNMS-105

Corequisite(s): none

**CNMS 255 Multimedia Programming Basics 3 cr.**

This course introduces students to multimedia programming using popular interactive software. Programming concepts such as variables, looping, conditional statements and arrays will be covered.

Students will develop several projects including simple games and database search engines.

Prerequisite(s): CNMS-111 or CNMS-120

Corequisite(s): none

**CNMS 260 Graphic Design II 3 cr.**

Advanced Graphic Design focuses on four areas of development: the application of the principles and elements of design; advanced technical skills using Adobe InDesign and Illustrator; the study of past movements that have shaped today's design trends; and output for web and commercial print. Topics include color management, spot and process colors, die cuts and custom printing specs, preparation of typography, photography, illustration, color separations, and the relationship between cost and quality. You'll conceptualize projects, distill complex information, motivate your audience, and learn professional best practices when working with clients and printers. This is a hands on, project oriented course which will culminate in portfolio level work.

Prerequisite(s): CNMS-115 or ARTS-130, CNMS-135

Corequisite(s): CNMS-180

**CNMS 261 Typography I 3 cr.**

This course is a study of the history of typography, the specialized vocabulary of typography, and the principles of typographic design to visual communication in the context of the typographic image, letter, text, and grid. Both print and screen-based delivery systems will be explored in this class. Design challenges will be approached through exploration, experimentation, selection, critique and refinement. The class covers technical and aesthetic topics related to producing effective visual communication for digital and print media.

Prerequisite(s): CNMS-111, CNMS-115 or ARTS-130

Corequisite(s): CNMS-135

**CNMS 265 Advanced Website Production 3 cr.**

Advanced Website Production is a second level course that extends the media skills learned in the Website Production course. Students will deepen their knowledge of CSS layout techniques, use HTML5 and CSS3 techniques for styling and media elements, work with Content Management Systems, and incorporate prepackaged scripts and plugins into Web pages. Current industry standard software will be used as needed.

Prerequisite(s): CNMS-165

Corequisite(s): none

**CNMS 266 Scripting for the Web 3 cr.**

Scripting for the Web is a second level course focusing on the use of browser scripting to enhance the end

user browser experience. Students use script to respond to browser events, exchange data with various Web Service APIs, resolve security issues, affect the look and behavior of Web pages at run-time, interact with multimedia elements, and store browser and user information locally. Over the course of the semester, students develop and refine a series of solutions that can be used in future situations.

Prerequisite(s): CNMS-165 or CSCI-110  
Corequisite(s): none

**CNMS 270 Advanced Video on Location 3 cr.**

This course is an introduction to portable video production techniques, and involves extensive work with portable video gear and related lighting/sound equipment in typical field settings. Material shot in this class will be integrated into the editing class in an attempt to give the student a realistic learning experience. The course will take a hands-on, project approach to learning the techniques of producing video material outside of the studio setting.

Prerequisite(s): CNMS-200 OR CNMS-230  
Corequisite(s): none

**CNMS 271 The Art of Audio 3 cr.**

This course will expand upon audio skills learned in CNMS 160: Audio and Video Production Basics. Emphasis will be placed on furthering the student's knowledge of audio dynamics, microphone types, recording for film and sound design. Students will gain a proficiency in field audio acquisition, audio mixing, and Foley techniques.

Prerequisite(s): CNMS-160  
Corequisite(s): none

**CNMS 275 Web Application Programming 3 cr.**

This second level course introduces students to web application servers and their integration with databases. An introduction into relational databases will be explored as well as an explanation of basic SQL language and functions. An overview of server applications such as ASP, PHP and Perl will be presented. Students will cover a variety of topics including connecting to data sources, retrieving and inserting data, designing dynamic tables from a data source, password and security issues, database search forms and e-commerce applications. Students are expected to have a thorough knowledge of HTML and experience authoring in an HTML editor.

Prerequisite(s): CNMS-165  
Corequisite(s): none

**CNMS 280 Advanced Digital Illustration 3 cr.**

This course is designed for the advanced student who

wishes to go beyond the basics of Adobe Illustrator in order to enhance vector artwork quality and complexity. We will focus on advanced design and illustration techniques that are applicable to the student interested in combining Adobe Illustrator with the rest of the Adobe Creative Suite. Design topics will include good and effective use of color, shape, line and type in logo, package and corporate identity design.

Prerequisite(s): CNMS-111 or CNMS-120, CNMS-115 or ARTS-130, CNMS-180  
Corequisite(s): none

**CNMS 290 Advanced Non-Linear Editing 3 cr.**

This course will take expand upon the skills learned in CNMS 240: Non-Linear Editing Essentials. Emphasis will be placed on furthering the student's editing knowledge base by using the current, industry standard software. Students will gain a proficiency in color correction, audio mixing, advanced compositing techniques, and multi-camera editing.

Prerequisite(s): CNMS-240  
Corequisite(s): none

**CNMS 291 2D Animation 3 cr.**

This course is an introduction into understanding and AfterEffects in the creation of motion graphics. Focus will be given on learning the interface in AfterEffects, putting graphics in motion, and rendering finished movie and animation projects. Participants will also explore a workflow between Photoshop and AfterEffects. Be prepared for an intensive hands-on learning experience.

Prerequisite(s): CNMS-120 or CNMS-240  
Corequisite(s): none

**CNMS 294 Storytelling for Social Media 3 cr.**

This course dives into the relevancy and importance of storytelling in creating an identity for yourself as well as your clients. One of the jobs in the media marketplace is "Storyteller." Part social media and part brand manager this job is about creating an identity for your clients and/or yourself using a variety of audiovisual techniques. Students will learn to craft these identities though understanding basic storytelling methodologies. From aural storytelling and micro fiction to visual media, the class will explore the commonalities of how stories are told, interpreted and subsequently become part of our culture. Using a variety of audiovisual technology, students will learn how to apply their storytelling skills to social media in order to create and promote a brand. The class will also examine current social media platforms as well as Search Engine Optimization (SEO) and software designed for social media distribution. Students will

learn how to and be challenged to create their own “pitch” for small local businesses.

Prerequisite(s): ENGL-100 or ENGL-101  
Corequisite(s): none

**CNMS 295 Senior Capstone Project 3 cr.**  
Students who apply for the Senior Capstone Project will present proposals prior to the start of the semester outlining a project to be completed in their final semester as a capstone to their study in the program. An application is available through their faculty advisor. Students may work alone or in small groups. Students may also integrate an internship into their capstone project. Students must complete the capstone application, receive approval from the department faculty and be maintaining a 3.0 GPA. Projects shall be made available for presentation to the faculty, the department and the college. Space in this course is limited.

Prerequisite(s): CNMS department approval  
Corequisite(s): none

**CNMS 296 Senior Portfolio 3 cr.**  
This course covers the theory and production of an effective portfolio showcasing the specific skills of each student. A portfolio is a critical asset in the pursuit of a career or transfer to another college or university. The course will focus on the professional and aesthetics practices in the Communications and New Media Design field. It will address the art of self-promotion, relevant employment and life skills necessary in finding employment in this competitive industry. Course materials will be presented through student presentations, lectures, peer and professionally reviewed critiques.

Prerequisite(s): CNMS department approval  
Corequisite(s): none

**CNMS 297 Radio Production Internship 3 cr.**  
This course is an experiential internship held off campus at Portland Radio Group. It involves hands on training and engagement in Broadcast Radio and Radio Journalism based projects. Upon completion the student will have a portfolio that will demonstrate they have had experience at the radio station with a focused area of interest, such as: radio production and engineering, news gathering and news demo reel production, event planning and promotions.

Prerequisite(s): CNMS department approval  
Corequisite(s): none

*Construction Courses (CONS)*

**CONS 105 Tool Safety 1 cr.**  
This course is a study of the safe operation of hand and power tools that are required in the workplace.

Prerequisite(s): none  
Corequisite(s): none

**CONS 115 Practical Building Concepts and Leveling 3 cr.**  
This course is an introduction to basic hand drafting of building components and the proper setup and use of levels, transits, and lasers commonly used within the industry. Students will be introduced to reading basic house plans and drafting details from given criteria using a scale ruler. Leveling will include the proper use of a builder's level, water level, laser level, and transit. The course includes a variety of activities involving the use of these instruments. This course introduces floor framing practices commonly found in the residential construction industry today. Topics of discussion will include safe use of hand, power, and air tools, the correct layout, cutting, building, and estimating of a simple floor system.

Prerequisite(s): none  
Corequisite(s): CONS-105, CONS-125

**CONS 125 Framing Methods 3 cr.**  
This course is an introduction to the framing practices commonly found in the residential construction industry today. Topics of discussion include safe use of hand, power, and air tools, the correct layout, cutting, building, and estimating of a simple floor, wall, and roof system.

Prerequisite(s): none  
Corequisite(s): CONS-105, CONS-115

**CONS 135 Roof Framing and Interior Coverings 3 cr.**  
This course takes an in-depth look at advanced roof framing and interior coverings currently practiced in residential construction. Students will calculate, layout and install hip and valley rafters. The design and installation of trusses, construction of dormers, roofs with unequal pitches, cornice design and fabrication, roof ventilation, roof flashing, and various roofing materials and their installation will also be covered. Interior coverings will address building insulation and energy efficiency and interior wall coverings including gypsum board installation.

Prerequisite(s): CONS-105, CONS-115, CONS-125  
Corequisite(s): CONS-150

**CONS 147 Building Science and Energy Auditing 3 cr.**  
This course is an introduction to residential building science including weatherization, energy efficiency,

energy movement within buildings, ventilation, indoor air quality, surface and air transported heat loss, R and U values, types of building framing, and types of insulation. This course includes a variety of activities involving the use of the blower door, manometer, infrared imaging camera, moisture meters, and other instruments.

Prerequisite(s): CONS-105, AEDD-100  
Corequisite(s): none

**CONS 150 Exterior Finishes and Sustainable Construction 3 cr.**

Exterior finishes include preparing exterior walls for window, door, and corner trim, proper layout of a story pole for installation of siding, and installing a variety of siding types. Students will prepare, prime, and paint finish coat on all trim work. Students will construct a sustainable structure.

Prerequisite(s): CONS-105, CONS-115, CONS-125  
Corequisite(s): CONS-135

**CONS 200 Kitchen Design and Millwork 3 cr.**

This course is the study of efficient kitchen design, acquisition and installation of pre-fabricated kitchen cabinets. The course will also cover fabrication and installation of plastic laminate countertops, as well as familiarizing students with solid surface, stone and tile countertops. Students will also create custom designed millwork projects. Estimating of all components will be covered.

Prerequisite(s): CONS-105, CONS-115, CONS-125, CONS-135, CONS-150  
Corequisite(s): CONS-210

**CONS 210 Interior Finish and Stair Construction 3 cr.**

This course is the study of the various types of interior trim commonly used both in the residential and commercial building industry. Topics will include door installation and trim, window trim, base applications, shelving systems, and the construction of a variety of interior stairs. The proper methods of determining the appropriate-sized windows for a given building will be discussed. Estimating of all components will be covered.

Prerequisite(s): CONS-105, CONS-115, CONS-125, CONS-135, CONS-150  
Corequisite(s): CONS-200

**CONS 220 Commercial Building Systems 4 cr.**

This course is a study of various commercial building systems. Students will layout and place concrete footings, complete with anchor bolts, according to plan, after which they will construct a pre-engineered

building. Students will learn proper fabrication, rigging and erection techniques. Installation of metal roofing and siding will be covered. The course includes an introduction to masonry, whereby the students will learn the history of masonry, how to mix mortar, the various patterns and bonds of masonry material, and the technique of laying brick and block. Estimating of all components will be covered.

Prerequisite(s): CONS-105, CONS-115, CONS-125, CONS-135, CONS-150  
Corequisite(s): CONS-230

**CONS 230 Concrete Construction 3 cr.**

This course is an introduction to the practices found in the concrete industry. This course includes but is not limited to the use of the tools of the trade, the design of normal and high performance concretes as well as performance of a variety of field tests. This course introduces the student to laboratory testing of cement and aggregates; the strength of the cured concrete as well as climatic conditions effecting concrete. This course investigates the various types of concrete finishes and their applications. This course also covers the design and fabrication of site built forms as well as the layout and erection of patented forms. It includes bridge deck forming and stay in place forms (ICF's).

Prerequisite(s): CONS-105, CONS-115, CONS-125, CONS-135, CONS-150  
Corequisite(s): none

**CONS 245 Timber Framing 3 cr.**

This course is an introduction to the study of early American house and barn framing. Using traditional joinery, the class will fabricate and erect a small timber frame building. Proper sizing of timber frame components will be discussed, along with the proper use of joinery tools, timber handling, and frame.

Prerequisite(s): CONS-105 or department approval  
Corequisite(s): none

**CONS 257 Construction Internship 4 cr.**

The End-of-Program Internship is an on-the-job training opportunity, providing the student with work experience in an area of residential or commercial related construction site experience of specific interest to the student and mutual benefit to the employer. The student is primarily responsible to the employer for the various work responsibilities established but is also responsible to the course instructor to complete specific objectives necessary to satisfy the requirements for student evaluation.

Prerequisite(s): Department approval  
Corequisite(s): none

**OSHA 120 Construction Safety****1 cr.**

The OSHA 10 Hour Construction Industry Safety course is the study of safe operating procedures that are required to be performed in the construction industry. Students will be instructed how to interpret the OSHA safety standards as they pertain to daily tasks performed in the construction industry. Students will receive OSHA Construction safety cards after attending all 10 hours of classes.

Prerequisite(s): none

Corequisite(s): none

**OSHA 130 Construction Safety - 30 hour****2 cr.**

The OSHA 30 Hour Construction Industry Outreach Training course is a comprehensive safety program designed for anyone involved in the construction industry. The program provides complete information on OSHA compliance issues. OSHA recommends Outreach Training Programs as an orientation to occupational safety and health for workers covered by OSHA 29 CFR 1926. Construction workers must receive additional training, when required by OSHA standards, on specific hazards of the job. Students will learn the essentials for construction safety.

Prerequisite(s): none

Corequisite(s): none

***Computer Science Courses (CSCI)*****CSCI 110 Principles of Computer Science****4 cr.**

This course teaches students how to design and write computer algorithms to solve a variety of problems. Algorithms will be implemented as programs in Java. Topics include primitive data types and operations in Java, three types of control statements, methods, arrays and introduction of object-oriented concepts such as classes and encapsulation. Most of these topics are designed to provide students with tools that are useful when encountering computers in today's workplace. Furthermore, they are designed to enhance problem-solving and logical reasoning abilities.

Prerequisite(s): MATH-040 or appropriate placement

Corequisite(s): none

**CSCI 160 Object Oriented Design and Programming****4 cr.**

This course is an in-depth treatment of the concepts of object-oriented design and programming using Java. The Java language will be taught along with the concepts of object orienting programming. Design of programming solutions using UML is emphasized along with programming using designs provided by the instructor. Topics will include: classes and methods, branching and method design, loops and external files,

arrays, collections, recursion and object oriented software engineering.

Prerequisite(s): CSCI-110

Corequisite(s): none

**CSCI 230 Mobile Application Development****3 cr.**

This project-oriented course examines the principles of mobile application design and development. Students will learn application development on the Android or iOS platform. Topics will include memory management, user interface design, user interface building, input methods, data handling, network techniques, and URL loading. Projects will be deployed in real-world applications. Course work will include project conception, design, implementation, and pilot testing of mobile phone software applications.

Prerequisite(s): CSCI-160

Corequisite(s): none

**CSCI 250 Computer Organization****4 cr.**

This course introduces the hardware components of a computer. It focuses on their function, design, and performance characteristics, including discussions of recent developments. Students will examine the hardware-to-software interface, where high-level language statements are reduced to a sequence of assembly language statements, each of which represents a single primitive instruction of the processor. Students will learn binary and hexadecimal numbers and how variables, arithmetic/logic operations, branching, loops, arrays, and function calls are written in the "native language" of a microprocessor (in this case the MIPS R3000 32-bit RISC instruction set). Advanced topics include performance features such as processor caches and pipelining.

Prerequisite(s): CSCI-110

Corequisite(s): CSCI-160

**CSCI 260 Database Management Systems****3 cr.**

This course introduces fundamental concepts of database management, including data modeling, query languages, database design, transaction processing, data integrity and security. In addition, students will write Web applications using SQL.

Prerequisite(s): CSCI-160

Corequisite(s): none

**CSCI 265 C# Programming****3 cr.**

The goal of this course is to provide a comprehensive introduction to programming using C#. This course introduces the basic programming constructs of simple sequence, selection, and iteration. The course shows how to create a number of different types of

applications including console-based and Windows applications. The event-driven programming model, which is based on interactively capturing and responding to user input on Windows and XML forms, is covered. It includes instruction on developing applications using rapid application development techniques illustrating the drag-and-drop construction approach. From the beginning, the course illustrates how to use the .NET predefined types, their member methods, data fields, and properties using an object-oriented approach to development. The course also illustrates how to create user-defined classes and stand-alone class libraries, and introduces a number of advanced object-oriented concepts and Factory Patterns.

Prerequisite(s): CSCI-110

Corequisite(s): none

### **CSCI 275 Programming in C++ 3 cr.**

Building on the programming knowledge gained in CSCI 110, this course introduced the language and then broadens the skills of a C++ language programmer by examining sophisticated C++ concepts such as templates, exceptions, memory management, advanced inheritance issues, disambiguation of overloaded functions, private and protected inheritance, binary I/O and class libraries. Students will write real world applications in areas such as data visualization, graphics, or systems.

Prerequisite(s): CSCI-110

Corequisite(s): none

### **CSCI 290 Data Structures 4 cr.**

This course is an in-depth study of abstract data types using the Java programming language. Topics include: stacks, queues, recursion, priority queues, lists, binary search trees, heaps, graphs, and an exploration and evaluation of sorting and searching algorithms. Most of these topics are designed to enhance your problem-solving and logical reasoning abilities.

Prerequisite(s): CSCI-160

Corequisite(s): none

### **CSCI 296 Systems Programming in C 3 cr.**

This course is a study of systems programming introducing the C programming language and the Unix programming environment and operating system interface. Students will explore these concepts using hands on exercises and larger projects.

Prerequisite(s): CSCI-250, CSCI-290

Corequisite(s): none

### **CSCI 298 Topics in Computer Science 3 cr.**

This course covers topics of special interest to the faculty or students. The topics will be cutting edge or special technologies that are not covered in other CSCI courses, or new programming languages or programming paradigms not covered by other courses.

Prerequisite(s): Permission of instructor

Corequisite(s): none

### **CSCI 299 Programming Autonomous Robots 3 cr.**

Introduction to the programming concepts involved with autonomous robotic systems. Using off-the-shelf "robot kits" students will design a simple robotic platform to meet specific goals. Then, using a common platform for the remainder of the course, students will develop their programming capabilities. Simple open-ended, feedback, and artificial intelligence systems will be explored throughout the course. Several benchmarks and robotic competitions will be used to demonstrate the platform and programming learned in the course.

Prerequisite(s): CSCI-290

Corequisite(s): none

## ***Culinary Arts Courses (CULA)***

### **CULA 102 Introduction to Culinary, Hospitality and Tourism 3 cr.**

This course will provide students with a thorough overview of the culinary, hospitality and tourism industry along with the critical management principles that underlie the smooth operations of these areas. Students will be exposed to history, culture, philosophy, structure, organization and opportunities in the industry. This course will explore the purpose and benefits of professional organizations within the field. This course will help the student understand different market segments, trends, growth and the future of the industry.

Prerequisite(s): none

Corequisite(s): none

### **CULA 103 ServSafe® 1 cr.**

This course is the ServSafe® program in food safety, culminating with the national certification exam.

Prerequisite(s): none

Corequisite(s): none

### **CULA 110 Culinary Skills 4 cr.**

This course includes the theory and practical application of kitchen orientation, knife skills, proper cutting techniques, breakfast cookery, salad preparation, vegetable cookery, potato, pasta and rice cookery, and soups and sandwich preparation. The

course also includes proper presentation and service of those items. Instruction includes lectures, demonstrations, films, class discussions and lab preparations. Students are required to be in uniform and to have culinary tool kit with them at every class.

Prerequisite(s): none

Corequisite(s): CULA-102, CULA-103, MATH-040 or appropriate placement

#### **CULA 120 Basic Food Preparation 4 cr.**

This course teaches the basic preparation and cooking methods of meat, fish and poultry and the preparation of sauces and stocks. The preparations, services and techniques of basic cooking methods, with emphasis on kitchen sanitation and safety, are presented. Instruction includes demonstrations, lectures and films, as well as a high degree of hands-on practices. Students are required to be in uniform and to have culinary tool kit with them at every class.

Prerequisite(s): none

Corequisite(s): CULA-102, CULA-103, MATH-040 or appropriate placement

#### **CULA 130 Basic Baking 4 cr.**

This course is concerned with the basic principles of mixing, scaling and baking, methods and techniques of bread, cake, frosting, cookie and pie production, and laminated dough. Written and performance exams are given to evaluate student progress. Students are required to be in uniform and to have culinary tool kit with them at every class.

Prerequisite(s): none

Corequisite(s): CULA-102, CULA-103, MATH-040 or appropriate placement

#### **CULA 140 Food and Beverage Purchasing 4 cr.**

This course is designed to teach the proper procedures for receiving, ordering through computerized and conventional methods, inventory control and storage of all restaurant/hotel products (including cleaning, ware, and linens). Emphasis will be placed on establishing specifications, determining food cost, comparative shopping, and ordering with a computer and conventional methods. Additionally, Culinary Math is covered. The class also cleans and maintains all dry goods, freezer space and cold storage used to house all items coming into the Culinary Arts Department. Students are required to be in uniform in every class.

Prerequisite(s): none

Corequisite(s): CULA-102, CULA-103, MATH-040 or appropriate placement

#### **CULA 200 Culinary Arts Externship 3 cr.**

This course is designed to give students exposure to the hospitality industry in order that they may practice skills gained in their first year at SMCC and gain knowledge of a segment of the industry that is of particular interest to them. Students must complete a minimum of 400 hours of work experience and a portfolio documenting their experience. Students are required to be in uniform as employer requires.

Prerequisite(s): CULA-102, CULA-103, CULA-110, CULA-120, CULA-130, CULA-140, department approval

Corequisite(s): none

#### **CULA 233 Advanced Baking 2 cr.**

This course teaches advanced baking techniques. Course activities include advanced production methods of classical types of breads and baked goods with proper presentation and service in the Culinary Arts dining room. Students are required to be in uniform and to have culinary tool kit with them at every class.

Prerequisites: CULA-102, CULA-103, CULA-110, CULA-120, CULA-130, CULA-140

Corequisite(s): CULA-234

#### **CULA 234 Advanced Pastry Techniques 2 cr.**

This course teaches advanced pastry techniques. Course activities include advanced production methods of classical types of desserts: chocolate work, use of fine liqueurs, fruits, and sugar work with proper presentation and service in the Culinary Arts dining room. Students are required to be in uniform and to have culinary tool kit with them at every class.

Prerequisites: CULA-102, CULA-103, CULA-110, CULA-120, CULA-130, CULA-140

Corequisite(s): CULA-233

#### **CULA 241 Planning/Dining Room Service 2 cr.**

This course is designed to teach Culinary Arts students proper dining room service and procedures. Emphasis will be placed on teamwork, personal appearance, customer service skills, and the importance of the relationship between the dining room staff and the kitchen staff in a food service operation. Students are required to wear proper dining room attire in every class.

Prerequisite(s): CULA-102, CULA-103, CULA-110, CULA-120, CULA-130, CULA-140

Corequisite(s): CULA-270

#### **CULA 250 Menu Planning and Development 3 cr.**

This course is designed to introduce students to the business side of the food service industry. Through the hands-on planning of a hospitality operation, students

will learn the importance and intricacies of food and beverage menus, business plans, equipment layout, design, and state regulations.

Prerequisite(s): CULA-102, CULA 103, CULA-110, CULA-120, CULA-130, CULA-140 (or HSMP-101), MATH-040 or appropriate placement  
Corequisite(s): none

#### **CULA 260 Modern Culinary Trends 2 cr.**

This course is designed to give students exposure to contemporary issues in culinary arts. Students will explore current fads and trends in culinary arts through demonstration, lecture, guest speakers, field trips, and hands-on cooking exercises related to these fads and trends in the ever-changing and evolving modern culinary world.

Prerequisite(s): CULA-102, CULA-103, CULA-110, CULA-120, CULA-130, CULA-140  
Corequisite(s): CULA-261

#### **CULA 261 Catering 2 cr.**

This course is designed to give students a basic understanding and working knowledge of planning and preparation of on-site and off-site catered events of various styles to meet the needs of different types of clients. Instruction will include demonstrations, lectures, recipe analysis, and conversion for large batch cooking, and actual planning and preparation of meals for service. Students are required to be in uniform and to have a culinary tool kit with them at every class.

Prerequisite(s): CULA-102, CULA-103, CULA-110, CULA-120, CULA-130, CULA-140  
Corequisite(s): CULA-260

#### **CULA 262 Chef in Residence 2 cr.**

This is a course in developing and executing a menu with a local chef to provide a dining experience for guests. Students will work with a faculty member, as well as a local chef to create, prepare and serve a menu. That will include current industry cooking techniques based on the expertise of the chef. Students are required to be in uniform and to have culinary tool kit with them at every class.

Prerequisite(s): CULA-102, CULA-110, CULA-120, CULA-130 and CULA-140  
Corequisite(s): none

#### **CULA 263 International Cuisine 2 cr.**

This is a course in à la carte preparation and service with a theme of International Cuisine utilizing meat, fish, poultry, soups, sauces and gravies, as well as lab preparation of foods served in the Culinary Arts Dining

Room. Students are required to be in uniform and to have culinary tool kit with them at every class.

Prerequisite(s): CULA-102, CULA-110, CULA-120, CULA-130 and CULA-140  
Corequisite(s): none

#### **CULA 264 Classical French Cuisine 2 cr.**

This is a course in a la carte preparation and service with a theme of classical French cuisine, utilizing meat, fish, poultry, soups, sauces, and gravies, as well as lab preparation of foods served in the culinary arts dining room. Students are required to be in uniform and to have a culinary tool kit with them at every class.

Prerequisite(s): CULA-102, CULA-103, CULA-110, CULA-120, CULA-130, CULA-140  
Corequisite(s): none

#### **CULA 270 Beverage 2 cr.**

This course introduces the beverage sector, including coffee, wine, beer and distilling. Planning topics include concept, production, selection, and service of alcoholic and nonalcoholic beverages. The course aims to give a comprehensive understanding of all beverages that relate to the hospitality industry.

Prerequisite(s): ENGL-100 or ENGL-101, CULA program acceptance  
Corequisite(s): none

### ***Early Childhood Education Courses (ECED)***

#### **ECED 100 Introduction to Early Childhood Education 3 cr.**

This course provides an overview of the field of early childhood education. The course explores the historical and philosophical foundation of early education and care and developmentally appropriate practices related to learning and development. Students examine the role of the teacher in terms of developing classroom communities, using teaching strategies, planning curriculum, assessing learning and development, and building relationships with children, families, and communities. Note: It is recommended students take this together with ECED-110 Child Development in their first semester.

Prerequisite(s): ENGL-080 or ENGL-101, or appropriate placement  
Corequisite(s): none

#### **ECED 110 Child Development 3 cr.**

This course provides an overview of the principles, stages, and theories that guide human growth and development from conception through adolescence. Emphasis is placed on the developmental sequences in



the physical, social-emotional, cognitive, and language domains in response to environmental and genetic influences. Note: Students are recommended to take this together with ECED-100 Intro to Early Childhood in their first semester.

Prerequisite(s): ENGL-080 or ENGL-101, or appropriate placement  
Corequisite(s): none

**ECED 150 Infant and Toddler Caregiving 3 cr.**  
This course will address methods of caring for and guiding infants and toddlers (pre-natal through 36 months) in group settings. Developmental characteristics and needs of the very young child and the child's family will be examined. The emphasis is on developing competent caregiving skills and on providing a stimulating, developmentally appropriate environment.

Prerequisite(s): ECED-100 or EDUC-100, ECED-110  
Corequisite(s): none

**ECED 160 Positive Guidance 3 cr.**  
This class is designed to provide students with an understanding of, and the tools necessary to support, the social and emotional development of young children. The course begins with an examination of developmentally appropriate goals for children's social and emotional competence and moves on to explore methods of direct and indirect guidance for use in diverse settings. Students will develop a repertoire of strategies for use with children, including those who may exhibit challenging behaviors. Consideration will be given to partnering with families and the role played by values and culture in children's development and in guiding their behavior.

Prerequisite(s): ECED-100, ECED-110  
Corequisite(s): none

**ECED 200 Children's Literature and Language Arts 3 cr.**  
This course explores children's literature and its role in supporting language and literacy development. Students will examine the genres of children's literature and learn how to select quality, age-appropriate texts. Students will develop strategies to share literature with children and families to cultivate a love of reading. Additionally, the students will use developmentally appropriate goals and objectives for creation of literacy activities and a literacy-rich environment

Prerequisite(s): ECED-100, ECED-110  
Corequisite(s): none

**ECED 210 Teaching Young Children with Exceptionalities 3 cr.**  
This course is designed to broaden students' understanding of the theoretical and legal foundations for programs serving young children (infancy through age eight) with a wide range of special educational needs. Students will examine the causes, symptoms, and behavioral characteristics of children with exceptionalities and their implications for classroom settings. Students will learn how to interpret and work with IEPs and IFSPs as well as local and state agencies supporting young children and their families. Students will design curriculum across all areas of development and consider implementation within inclusive classroom settings.

Prerequisite(s): ECED-100, ECED-110  
Corequisite(s): none

**ECED 220 Observation and Record Keeping 3 cr.**  
In this course, students will examine the importance of and various methods of observation as a crucial aspect of the teacher's role in the early childhood classroom. The role of observation in assessing students and planning appropriate curriculum will be addressed. Students will make numerous formal observations (covering all the developmental domains) of one typically developing child. Together these formal observations along with photos, audiotapes, drawings as well as activity plans will comprise a case study to be submitted at the end of the course.

Prerequisite(s): ECED-100, ECED-110  
Corequisite(s): none

**ECED 225 Student Teaching Practicum I 4 cr.**  
This course is designed to support students in developing the skills and dispositions of early childhood professionals. Students connect theory to practice through direct participation in an early childhood setting and through weekly seminar discussions. Students design, implement, and evaluate developmentally effective activities under the guidance of an early childhood professional. Students develop a portfolio documenting their experiences. Students complete 104 hours of supervised field experience in an early childhood setting. SMCC ECE faculty and on-site supervisors review and evaluate student progress during their practicum experience.

Prerequisite(s): none  
Corequisite(s): ECED-200, ECED-250

**ECED 250 Curriculum Development for Young Children 3 cr.**  
This course explores the elements involved in planning, implementing, and evaluating developmentally appropriate, evidence-based,

curriculum for young children. The course highlights the relationship between developmental theory, philosophy, and practice based on the needs of young children. Emphasis is also placed on understanding children's developmental stages and developing appropriate learning opportunities, interactions, and environments.

Prerequisite(s): ECED-100, ECED-110  
Corequisite(s): none

### **ECED 260 Early Childhood Program Administration 3 cr.**

This course is a comprehensive study of the early childhood profession and the components necessary to start and operate quality early childhood education programs including center-based and family-based programs. Licensing and other credentialing systems will be reviewed as well as handling financial matters and connecting with families and community members. Staffing and supervision will be explored with focus on orientation, training, evaluating and motivating staff in relation to the business of child care. All topics and decision making will consider ethical obligations particular to the field of early childhood education.

Prerequisite(s): ECED-100, ECED-110  
Corequisite(s): none

### **ECED 270 Diverse and Responsive Education 3 cr.**

This course is an exploration of the complex relationships found between children, their families, and the larger community and how those impact education and learning. Content will focus on the development of self and social identities within diverse societies including theoretical and practical implications as they apply to young children, families, programs, classrooms, and teaching. Students will investigate various classroom strategies emphasizing culturally and linguistically appropriate anti-bias approaches that support all children in becoming competent members of a diverse society.

Prerequisite(s): none  
Corequisite(s): ENGL-100 or ENGL-101

### **ECED 275 Student Teaching Practicum II 6 cr.**

In this second field placement, students take on greater responsibility in an early childhood setting. Students continue to connect theory to practice through direct participation in an early childhood setting and through weekly seminar discussions. Seminar discussions revolve around students' interests, concerns, and reflections on their work and also consider relevant topics such as guidance, program management, family involvement, and professionalism. Students develop a portfolio

documenting their experiences. Students complete 208 hours of supervised field experiences in an early childhood setting. SMCC ECE faculty and on-site supervisors review and evaluate student progress during their practicum experience.

Prerequisite(s): ECED-225  
Corequisite(s): none

## ***Economics Courses (ECON)***

### **ECON 120 Microeconomics 3 cr.**

This course is an introduction to the analysis of firms and consumers in a market economy: the functioning of prices, economic decision-making by procedures and consumers, and market structure. Topics discussed include consumer producers and consumer behavior, production choices and production costs, industry structure and resource pricing.

Prerequisite(s): MATH-040 or appropriate placement  
Corequisite(s): ENGL-100 or ENGL-101

### **ECON 125 Macroeconomics 3 cr.**

This course is an introduction to the modern economy both at the national and international levels. Topics include production of goods and services, consumption, employment, inflation, government fiscal and monetary policy, and causes of economic growth or decline. A special feature of this course is that students will manage their own hypothetical investment portfolio during the semester.

Prerequisite(s): MATH-040 or appropriate placement  
Corequisite(s): ENGL-100 or ENGL-101

## ***Education Courses (EDUC)***

### **EDUC 100 Introduction to Teaching 3 cr.**

Building on the research about how human beings learn, this course will expose students to the parallels between human cognition and teaching for learning with deep levels of understanding. Students will be exposed to the many facets of teaching, from a successful classroom environment, to the changing roles of teachers in the information age, to the impact and challenges of learner diversity, and the issues involved in school reform. The course format will emphasize group work and thinking as well as individual critical reflection on topics throughout.

Prerequisite(s): none  
Corequisite(s): ENGL-100 or ENGL-101

### **EDUC 105 Introduction to American Education 3 cr.**

This course will introduce students to the major issues and challenges surrounding education and schooling in the United States. Students will study the purposes of schooling, the trends in education, and strategies that

have been used to address emerging problems/needs. The course will also cover role and impact of communities, educational bureaucracies, government (local, state, and federal), and other factors on education and education systems.

Prerequisite(s): ENGL-080 or ENGL-101, or appropriate placement

Corequisite(s): none

### **EDUC 110 Technology and Learning in the Classroom 3 cr.**

This course will provide a survey of the uses of instructional technology as a way to support optimum teaching for learning in twenty-first century classrooms. Using the International Society of Technology in Education Standards (ISTE) as a foundation, students will be introduced to current technology that will both inspire student learning and creativity with an eye focused on supporting best practices. Students will design, develop, and evaluate authentic learning experiences and assessments incorporating contemporary tools and resources to maximize content learning in the K-12 classroom.

Prerequisite(s): EDUC-100, ENGL-100 or ENGL-101; or Advanced Certificate in Education Program Acceptance

Corequisite(s): none

### **EDUC 115 Culturally Responsive Teaching 3 cr.**

This course is designed to expand students' awareness of both the cognitive knowledge and skills necessary to effectively teach, interact with, and serve culturally diverse populations in classroom settings. Examining students' beliefs and attitudes about the fabric of our culturally diverse society will become the through-line for course content. The emphasis on "teaching to" cultural diversity will help students acquire more accurate knowledge about the lives, cultures, contributions, experiences, and challenges of different ethnic and racial groups in U.S. society.

Prerequisite(s): EDUC-100, ENGL-100 or ENGL-101, or Advanced Certificate in Education Acceptance

Corequisite(s): none

### **EDUC 120 Teaching Through the Arts 3 cr.**

This course is focused on integrating contemporary art and design theory into the K-12 classroom. Through readings, discussion, creative projects, journaling, and community engagement, students will explore the variety of ways artistic practices intersect and support learning objectives. This course will provide future teachers with insight to comprehending visual concepts and language to encourage life-long learning.

Prerequisite(s): none

Corequisite(s): none

### **EDUC 205 Becoming an Ed Tech III 3 cr.**

This foundational class will explore the many facets and responsibilities of an Educational Technician III planning to work in a public school setting. This course will cover a variety of relevant topics as it relates to ways in which Ed Tech III employees support both teachers and students in the learning process. Group work, group inquiry, and weekly written reflections and analysis are requirements of this course.

Prerequisite(s): Advanced Certificate in Education Program Acceptance

Corequisite(s): none

### **EDUC 210 Instructional Methods for Teaching ELL Students 3 cr.**

This course provides an overview of the underlying principles, characteristics, and applicability of various methods for teaching English as a second language. It explores the historical and current trends of instructional approaches, methods, and techniques. It then goes on to explore methods and techniques for teaching specific language skill areas, followed by analysis and evaluation of currently marketed ESL textbooks. The course concludes with a look at current professional issues in language teaching, including language assessment, culture, and the use of technology.

Prerequisite(s): ENGL-100 or ENGL-101

Corequisite(s): none

### **EDUC 220 Foundations of Literacy 3 cr.**

Learning to Read and Reading to Learn. It is often assumed that learning how to read is a basic developmental milestone, just like learning how to walk and talk. Educators understand that learning how to read is a both a dynamic and complex intellectual process. This course explores the research on language acquisition and development in children as a way to better understand how students begin to acquire and progress through requisite skills to produce both confident and competent readers. Group work, group inquiry, and field work in classrooms are integral parts of this course.

Prerequisite(s): ENGL-100 or ENGL-101

Corequisite(s): none

### **EDUC 230 Teaching Exceptional Learners 3 cr.**

This course is designed to broaden and strengthen the pre-service teachers' understanding of the wide range of exceptionalities found in the classroom. Central to this course is the belief that students with special needs should be educated and socially interact, to the greatest extent possible, with their peers in a regular education setting. To that end, the regular educator's role in teaching exceptional learners will be

emphasized. Specifically covered in this course will be the abilities and needs of students with disabilities, English Language Learners (ELL), and those identified as gifted and talented. Other topics included will include: Response to Intervention (RTI), collaborative teaming, co-teaching, building relationships with parents, the referral process, modifying curriculum, individual education plans (IEP), behavior management techniques, and state and federal legislation regarding exceptional students.

Prerequisite(s): EDUC-100, EDUC-105, or Advanced Certificate in Education Acceptance  
Corequisite(s): none

### **EDUC 250 Theory Into Practice 6 cr.**

This course will consist of a directed and evaluated internship in heterogeneous classrooms serving as an Educational Technician III. Students will experience working in collaboration with teaching professionals for four days each week and experience teaching appropriate content to students with varied learning needs as a way to connect current theory into classroom practice. Additionally, a weekly seminar will provide the needed time to solidify new learning, to pose questions, and to surface assumptions in a collaborative learning environment.

Prerequisite(s): 15 credits earned in the Advanced Certificate in Education, department approval  
Corequisite(s): none

## ***Electrical Courses (ELEC)***

### **ELEC 100 Basic Electrical Principles - HVAC 3 cr.**

This course is a fundamental approach to the study of basic electrical principles, such as: safety, static and current electricity, Ohm's Law, series and parallel circuits; Kirschhoff's Laws, magnetism and its applications, chemical and heating effects, electromagnetic induction, alternating current, and measuring instruments. Classroom demonstrations with student participation are included.

Prerequisite(s): HVAC program acceptance  
Corequisite(s): none

### **ELEC 101 Introduction to Electrical Engineering Technologies 3 cr.**

This is a first semester gateway course intended to introduce new electrical engineering technologies (EET) students to their program. Through the design and completion of a robotics project, combined with seminars and lectures in student success, students are prepared to successfully complete their EET program requirements and graduate. Students are also introduced to local employers through field trips, and guest lectures. In this course each student will create a

customized robotics project that will be presented at the end of the semester. This class will also include collaborative work. Engineering topics that will be covered include Arduino based prototyping, programming in C++, microcontrollers, basic robotics with sensors, soldering, electrical measurements, and an introduction to digital oscilloscopes.

Prerequisite(s): none  
Corequisite(s): none

### **ELEC 105 Basic Electricity I 2 cr.**

This course is one of two foundational courses in the study of electricity. It examines direct current (DC) circuits, voltage, current, resistance and power. Students will learn to build, test and troubleshoot different types of circuits (series, parallel and series-parallel). A grade of C or better is required to move onto the next electrical course (ELEC-115).

Prerequisite(s): none  
Corequisite(s): MATH-140, MATH-146

### **ELEC 110 DC Circuits 3 cr.**

This is one of two foundational courses in the study of electricity. It examines the principles of electricity (voltage, current, resistance, power) and the electric circuit. Common circuits (series, parallel, series-parallel) are examined as well as circuit theorems including Superposition, Thevenin's Theorem and Maximum Power Transfer. Troubleshooting skills are emphasized.

Prerequisite(s): ELEC or ENGR program acceptance  
Corequisite(s): MATH-140, MATH-146

### **ELEC 115 Basic Electricity II 2 cr.**

Basic Electricity II is the 2nd of the two foundational courses in electricity. Students will examine the principles of alternating current (AC) electricity including peak and RMS voltages, frequency, power factor and the impact of inductors and capacitors placed in AC circuits. Series and parallel RL, RC and RLC circuits will be examined. A grade of C or better is required to move on to subsequent electrical courses.

Prerequisite(s): ELEC-105 w/grade of C or better  
Corequisite(s): MATH-140, MATH-146

### **ELEC 120 Digital Electronics 3 cr.**

Digital electronics is the study of the logic circuits and components that control devices from cell phones and Blu-Ray players to computers and industrial control devices. Numbering systems (binary, octal, hexadecimal) will be examined. The student will study and connect all basic gates, combination circuits, arithmetic circuits, counters, flip flops and registers.

Prerequisite(s): ELEC program acceptance

Corequisite(s): none

**ELEC 130 Programmable Logic Controllers 3 cr.**

This course covers the use of programmable logic controllers (PLC's) in the field of automation and process control. By using the PLC, a computer interface to connected Inputs/Outputs (I/O), and software tools, the technician can control and troubleshoot the most sophisticated systems. Students will work with two PLC platforms. Using simulation software will provide exposure to the Allen Bradley SLC500 platform. The GE Fanuc VersaMax platform will be examined with a lab fully equipped with hardware and software.

Prerequisite(s): ELEC or CSCI program acceptance

Corequisite(s): none

**ELEC 140 AC Circuits 3 cr.**

This course is a study of alternating circuits including magnetism, electromagnetic induction, AC current and voltage, AC circuits, basic inductance, capacitance, and RC and L/R time constants, complex numbers, phasor diagrams, AC RLC circuit analysis, power factor and power factor correction, resonance and filters.

Prerequisite(s): ELEC-101, ELEC-110 w/grade of C or better, MATH-140, MATH-146

Corequisite(s): none

**ELEC 150 Transformers 2 cr.**

This course covers the theory associated with Polyphase Circuits and the comparison between single-phase and polyphase power generation; balanced and unbalanced 'wye' and 'delta' circuits; use of various wattmeters in various configurations; power factor and power factor correction techniques; single and three phase transformers; percent voltage regulation; transformer impedances.

Prerequisite(s): ELEC-115 w/grade of C or better

Corequisite(s): none

**ELEC 160 Controls I 3 cr.**

Controls I introduces students to residential wiring materials and techniques. Electrical wire, cable, devices and other materials are examined. In addition, wiring schematics utilizing device symbols will be reviewed. The National Electrical Code will be referenced to ensure safe electrical installations in the lab.

Prerequisite(s): ELEC-105 w/grade of C or better

Corequisite(s): none

**ELEC 170 Three-Phase Circuits 3 cr.**

This course covers the theory associated with Polyphase Circuits and the comparison between

single-phase and polyphase power generation; balanced and unbalanced 'wye' and 'delta' circuits; use of various wattmeters in various configurations; power factor and power factor correction techniques; single- and three-phase transformers; autotransformers; 'vee' to 'vee'; scott tap percent voltage regulation; transformer impedances.

Prerequisite(s): ELEC-140 w/grade of C or better

Corequisite(s): none

**ELEC 175 Wiring Practices 3 cr.**

This course is designed to cover the principles and materials used in residential and some commercial electrical wiring applications. It will focus on devices, materials, and circuitry as they relate to residential and light commercial wiring techniques. Reference to the appropriate articles of the latest edition of the National Electrical Code will be an ongoing part of the course.

Prerequisite(s): ELEC program acceptance

Corequisite(s): none

**ELEC 205 Basic Electronics I 3 cr.**

This course examines the construction, operation and application of discrete electronic components including diodes, bipolar and field effect device characteristics, thyristors and operational amplifiers.

Prerequisite(s): ELEC-115 w/grade of C or better

Corequisite(s): none

**ELEC 210 Electrical Topics 3 cr.**

This course will be used to explore important and timely topics in the electrical field. Examples of the topics that might be examined would include: cabling and connectors for data and voice communications (networking installations), lighting options (the application and installation of incandescent, florescent, and HID lighting).

Prerequisite(s): ELEC-115 w/grade of C or better

Corequisite(s): none

**ELEC 215 Electrical Machinery 3 cr.**

This course will examine DC and AC generators and motors. Calculations and measurements of current, speed, and torque will be taken on motors. Percent voltage regulation and efficiencies will be taken on generators. Lab experiments will be used to better understand the theory behind electrical machines.

Prerequisite(s): ELEC-140

Corequisite(s): ELEC-170

**ELEC 220 Electric Motors 2 cr.**

This course will cover DC and AC generators and motors. The student will examine DC shunt, series and compound machines, single and three phase induction

motors and three phase alternators in the class and lab.

Prerequisite(s): ELEC-115

Corequisite(s): ELEC-150

### **ELEC 230 Electronics I 3 cr.**

Electronics I is the first of a two course series in analog electronics. It begins with an introduction to semiconductor physics, and diodes with applications. The bipolar junction transistor (BJT) is emphasized, biasing, modeling, characterization, and small signal analysis. Single- and multi-stage amplifiers are designed and analyzed, including frequency domain analysis.

Prerequisite(s): ELEC-140 w/grade of C or better

Corequisite(s): none

### **ELEC 235 Electronics II 3 cr.**

Electronics II is the second of a two course series in analog electronics. It begins with an introduction to field effect transistors- biasing, modeling, characterization, and small signal analysis. Single- and multi-stage amplifiers are designed and analyzed, including frequency domain analysis. 4-layer device characterization, and applications are covered, as well as designing basic applications with discrete operational amplifiers.

Prerequisite(s): ELEC-230

Corequisite(s): none

### **ELEC 240 Fluid Power Systems 3 cr.**

This course is an overview of basic components, applications, and circuitry involved in hydraulics and pneumatics. Lecture and lab experiments involve design, purpose, construction, and the basic maintenance of fluid power devices and systems.

Prerequisite(s): ELEC or ENGR program acceptance

Corequisite(s): none

### **ELEC 250 National Electrical Code 3 cr.**

This course will examine the rules, regulations and requirements of the current version of the National Electrical Code for safe electrical installations. Examples, calculations and graphics will be used to explain requirements to better prepare students to take the State exam.

Prerequisite(s): ELEC-215 and ELEC-170 or ELEC-150 and ELEC-220

Corequisite(s): none

### **ELEC 260 Motor Controls and Automation 3 cr.**

This course covers the theory, study, and application of electro-mechanical devices; ladder logic diagrams; control wiring techniques; electronic motor starters

and circuits; proximity and photoelectric sensors; variable frequency drives.

Prerequisite(s): ELEC-215

Corequisite(s): none

### **ELEC 265 Renewable Energy Resources 3 cr.**

This course is designed to cover the principles of electricity generation using wind, solar, hydro, and biomass alternative energy sources. Emphasis will be on characteristics, design, and implementation of direct and electromechanical energy conversion; types of storage devices; large-scale applications; and power system issues associated with integration of these technologies.

Prerequisite(s): ELEC-110

Corequisite(s): none

### **ELEC 280 Controls II 2 cr.**

The theory and application of electro-mechanical devices using relays and switches, the study of ladder logic diagrams, the theory and application of motor starter circuits, sensor technology and reduced voltage starting systems.

Prerequisite(s): ELEC-150

Corequisite(s): none

## ***Emergency Medical Services / Paramedicine Courses (EMSP)***

### **EMSP 115 Paramedic Procedures 3 cr.**

Students will develop the abilities needed by the out-of-hospital healthcare provider to safely and effectively perform the necessary skills to manage most out-of-hospital emergencies. Through the usage of peer-review and instructor validation, students will practice and demonstrate the safe and correct methods of immobilization of bones and joints, spinal assessment and immobilization, bleeding control, oxygen administration, and airway management. The student will learn the current evidence based techniques and methods and how to successfully communicate and document these methods.

Prerequisite(s): EMSP program acceptance, BIOL-132, ENGL-100 or ENGL-101, MATH-112 or higher

Corequisite(s): BIOL-138, EMSP-120, EMSP-150

### **EMSP 120 Paramedic Pharmacology and Medical Administration 3 cr.**

This course will provide the student with knowledge about the principles of pharmacology and medication administration. It will include pharmacologic classifications, mechanism of drug actions, pharmacokinetics, key adverse effects and drug interactions. It will also contain an overview of the bodily effects of drugs as well as review of major drug

categories. This course provides students with knowledge, responsibilities, and accountability, in the administration of medications across the lifespan. This course will also cover dosage calculations necessary for safe preparation and administration of medications. The student will learn the current evidence based techniques and methods and how to successfully communicate and document these methods.

Prerequisite(s): EMSP program acceptance, BIOL-132, ENGL-100 or ENGL-101, MATH-112

Corequisite(s): BIOL-138, EMSP-115, EMSP-150

### **EMSP 150 Introductory Cardiology 3 cr.**

This course is designed to provide the healthcare provider with an understanding of the cardiovascular system including the conduction system of the heart, and electrocardiography (ECG) interpretation through monitoring and 12-Lead ECG. Topics include a review of the anatomy and physiology of the heart and circulatory system, electrophysiology, and assessment of the cardiac patient.

Prerequisite(s): EMSP program acceptance, BIOL-132, ENGL-100 or ENGL-101, MATH-112 or higher

Corequisite(s): BIOL-138, EMSP-115, EMSP-120

### **EMSP 165 EMS Operations 3 cr.**

This course will introduce the student to the complexity of providing medical care in the pre-hospital or out-of-hospital environment. The foundational and operational elements of Emergency Medical Services (EMS) will be discussed. The student will develop understanding for our history, future, effective and ethical evidence-based practice, professionalism, and the various operational challenges we experience.

Prerequisite(s): EMSP-115, EMSP-120, EMSP-150, BIOL-138

Corequisite(s): EMSP-170, EMSP-175

### **EMSP 170 Patient Assessment 4 cr.**

This course will develop the skills needed to perform an effective and thorough patient assessment for the pre-hospital and healthcare environment. The student will learn the proper techniques of physical examination, patient interview and history taking, body systems evaluation, and how to document the findings. Additionally the student will learn how to assess various age groups of patients, obstetric patients, and how to deliver a neonate in standard and emergent conditions.

Prerequisite(s): BIOL-138, EMSP-115, EMSP-120, EMSP-150

Corequisite(s): EMSP-165, EMSP-175

### **EMSP 175 Advanced Cardiology 4 cr.**

This course provides an in-depth study into the pathophysiology and management of cardiovascular disease and related emergencies. Topics include a review of the cardiac patient, pathophysiology of heart and valve disease, acute coronary syndromes, atherosclerosis, specific conditions resulting from the atherosclerotic heart disease, peripheral vascular emergencies, pharmacologic intervention, dysrhythmia recognition, and management of cardiac emergencies.

Prerequisite(s): BIOL-138, EMSP-115, EMSP-120, EMSP-150

Corequisite(s): EMSP-165, EMSP-170

### **EMSP 200 Paramedic Clinical Practicum I 3 cr.**

Paramedic students will be scheduled for 120 hours of clinical experience in their first clinical practicum. The student will be assigned to various clinical settings where the student will perform patient assessments, administer medications, manage airways, and assist in the care and treatment of patients. Students will gain clinical experience integrating cognitive and psychomotor skills under the supervision of a hospital preceptor. Students will complete clinical rotations in a variety of medical facilities to include emergency departments, intensive care units, labor and delivery, respiratory therapy, specialty units, and urgent cares. Students will be required to document all clinical time and complete a minimum number of assessments and skill sets.

Prerequisite(s): EMSP-165, EMSP-170, EMSP-175,

Corequisite(s): EMSP-201

### **EMSP 201 Medical Emergencies 5 cr.**

The course will utilize anatomy, physiology, epidemiology, and pathophysiology of multiple medical disorders to teach the student how to develop a pre-hospital treatment plan to stabilize a patient, transport them to definitive care, and communicate the assessment and treatment of the patient. This course will focus on the assessment and treatment of respiratory disorders, nervous system disorders, endocrinology, shock, anaphylaxis, gastroenterology, renal and urological emergencies, behavioral and psychiatric disorders, toxicology, infectious diseases, diseases of the head, eyes, ears, nose, and throat, and non-traumatic musculoskeletal diseases.

Prerequisite(s): EMSP-165, EMSP-170, EMSP-175

Corequisite(s): EMSP-200

### **EMSP 205 Trauma Management 4 cr.**

This class will consist of the pathophysiology and management of trauma patients to include, but not limited to: mechanism of injury, assessment of the

trauma patient, management of head injuries, chest injuries, abdominal injuries, spinal injuries, orthopedic and pediatric injuries, management of the multitrauma patient, management of special airway problems, and current trends in trauma management.

Prerequisite(s): EMSP-200, EMSP-201

Corequisite(s): EMSP-235, EMSP-250

### **EMSP 235 Special Populations 4 cr.**

This course will allow students to integrate pathophysiological principles and assessment findings to formulate a field impression, and to implement a treatment plan of the obstetric, neonatal, pediatric, geriatric, and special healthcare challenge patient. Topics will include assessment and treatment of obstetric, neonatal, pediatric, geriatric, and special healthcare challenge patient populations in the out-of-hospital environment.

Prerequisite(s): EMSP-200, EMSP-201

Corequisite(s): EMSP-205, EMSP-250

### **EMSP 250 Paramedic Clinical Practicum II 3 cr.**

Paramedic students will be scheduled for 180 hours of clinical experience and 30 hours of laboratory experience in their second clinical practicum. The student will be assigned to various clinical settings where the student will perform patient assessments, administer medications, manage airways, and assist in the care and treatment of patients. The student will also begin to transition to the pre-hospital environment where they will begin to transition to a leadership role within the patient care team. Students will continue to gain clinical experience integrating cognitive and psychomotor skills under the supervision of a hospital and field preceptor. Students will complete clinical rotations in a variety of medical facilities to include ambulances, emergency departments, intensive care units, labor and delivery, respiratory therapy, specialty units, and urgent cares. Students will be required to document all clinical time and complete a minimum number of assessments and skill sets.

Prerequisite(s): EMSP-200, EMSP-201

Corequisite(s): EMSP-205, EMSP-235

### **EMSP 280 Paramedic Boards Review 3 cr.**

This senior level course taken in the final semester will review major topics and prepares the senior paramedic student for the National Registry paramedic written and practical examination. This course will also prepare the student to enter the field as an entry level paramedic, perform paramedic interfacility transfer in accordance with Maine EMS rules, and help the student to use evidence to make a persuasive

argument about emergency medical care in the out-of-hospital environment.

Prerequisite(s): EMSP-205, EMSP-235, EMSP-250

Corequisite(s): EMSP-285

### **EMSP 285 Paramedic Field Internship 6 cr.**

Paramedic students will be scheduled for 300 hours of clinical and field internship experience and 30 hours of laboratory experience in their final clinical practicum. Students will apply their previous educational experiences in the pre-hospital environment as a supervised team leader in the healthcare environment. Students will be required to document all clinical time and complete a minimum number of assessments and skill sets.

Prerequisite(s): EMSP-205, EMSP-235, EMSP-250

Corequisite(s): EMSP-280

## ***Emergency Medical Technician Courses (EMST)***

### **EMST 110 Emergency Medical Responder 3 cr.**

This course is designed to give students, through lecture and practical lab, the entry-level knowledge and skills necessary to provide emergency medical responder care for patients who access the emergency medical system. Upon successful course completion, students are eligible to take the National Registry of Emergency Medical Technicians (NREMT) Emergency Medical Responder (EMR) certification examination. Students will perform interventions necessary to provide patient care including rapid patient assessment, airway management and oxygen administration, CPR, shock management, bandaging, and splinting.

Prerequisite(s): none

Corequisite(s): none

### **EMST 125 Emergency Medical Technician 7cr.**

This course is designed to give students, through lecture, practical lab, and clinical experience, the entry-level knowledge and skills necessary to provide basic emergency medical care and transportation for patients who access the emergency medical system. Upon successful course completion, students are eligible to take the National Registry of EMT's certification examinations. Students will perform interventions necessary to provide patient care and transportation including basic level patient assessment, airway management and oxygen administration, CPR, spinal immobilization, shock management, bandaging and splinting, and medication administration. Knowledge and skills obtained at the EMT level provide the foundation for further advancement to Advanced EMT and Paramedic.



Prerequisite(s): none  
Corequisite(s): none

**EMST 200 Advanced Emergency Medical Technician I 6 cr.**

This course is designed to give students, through lecture and laboratory, the foundational-level knowledge and skills necessary to provide advanced emergency medical care and transportation for patients who access the emergency medical system. Students will demonstrate proficiency with interventions necessary to provide patient care and transportation including patient assessment, airway management and oxygen administration, cardiac arrest management, shock management, medication administration, and emergency care.

Prerequisite(s): Maine EMS Emergency Medical Technician Licensure or Departmental Chair Permission  
Corequisite(s): none

**EMST 201 Advanced Emergency Medical Technician II 6 cr.**

This course is designed to give students, through lecture and laboratory, the foundational-level knowledge and skills necessary to provide advanced emergency medical care and transportation for patients who access the emergency medical system. Students will demonstrate proficiency with interventions necessary to provide patient care and transportation including patient assessment, airway management and oxygen administration, cardiac arrest management, shock management, medication administration, and emergency care.

Prerequisite(s): EMST-200  
Corequisite(s): none

## ***English Courses (ENGL)***

**ENGL 040 Integrated Academic Reading and Writing: Intermediate Level 4 cr.**

This is an integrated reading, writing, and grammar course, which will provide students with the intermediate-level skills they need to prepare for ENGL 080 (Integrated Academic Reading and Writing: Advanced Level). The focus will be on understanding reading and writing as processes and how each can be used as a lens through which to understand and gain proficiency in the other. Students will learn comprehension skills and strategies to understand intermediate-level texts of different types and use these readings as models to identify the structure and elements of strong writing, focusing on paragraphs and patterns of organization. They will apply the conventions of grammar and mechanics in the context

of integrated reading and writing activities and build information literacy skills to understand the research process. While the course will focus on gaining proficiency in paragraph writing in a variety of rhetorical modes, students will also analyze the relationship between paragraphs and essays in terms of their structure and elements and learn how to write a basic three-part essay to prepare for college-level writing in advanced classes. The credits earned in this course will not count toward a degree with SMCC.

Prerequisite(s): Appropriate placement  
Corequisite(s): none

**ENGL 080 Integrated Academic Reading and Writing: Advanced Level 4 cr.**

This is an integrated reading, writing, and grammar course, which will provide students with advanced level skills that will prepare them for English Composition and other college-level courses. Students will strengthen their critical reading, writing, and research skills to read a variety of college-level texts and use them as models to write essays in multiple rhetorical modes, using the appropriate standards of documentation and the conventions of grammar and mechanics. The emphasis will be on learning how to read as writers, write as readers, and gain proficiency in advanced academic grammar through the processes of reading and writing. At the same time, the integration of reading, writing, and research will be built around a single theme, to maximize students' understanding of the distinctions between different rhetorical modes and how they could be effectively combined in academic writing, thus laying a strong foundation for writing research papers at the college level. The credits earned in this course will not count toward a degree with SMCC.

Prerequisite(s): ENGL-040 or appropriate placement.  
Corequisite(s): none

**ENGL 100 English Composition 3 cr.**

English Composition is the introduction to college writing across the curriculum. It will introduce students to the standard rhetorical modes which will be assigned in this course but will also be assigned in other courses in other disciplines. An emphasis will be placed upon writing as a process of creating first drafts then revising, rewriting and proofreading them for accuracy, clarity and succinctness of written expression. The course will explore the distinctions between spoken and written, formal and informal uses of language. The course will also provide an introduction to research and the task of producing a formal research paper that follows MLA style and documentation practices.

Prerequisite(s): ENGL-080 or appropriate placement  
Corequisite(s): none

**ENGL 101 Enhanced English Composition 4 cr.**  
English Composition is the introduction to college writing across the curriculum. In addition to any necessary review of grammar, sentence structure, and paragraph composition, this course covers the writing of personal essays in several rhetorical modes, academic papers, and research analysis. Emphasis will be placed upon writing multiple drafts with an eye toward revising, rewriting and editing, as well as the utilization of close reading and critical thinking as literacy tools. ENGL101 is part of an Accelerated Learning Program (ALP), an enhanced version of ENGL100 with one additional credit hour of built-in lab time to address issues of academic writing that need review for success with college-level assignments. The course offers more time for writing practice, advising work with the instructor, and more attention to individual academic challenges.

Prerequisite(s): Appropriate placement  
Corequisite(s): none

**ENGL 110 Oral Communications 3 cr.**  
This course in public speaking includes organization of speech materials, practice of oral reading, participation in panel discussions, and presentations of informal talks and formal speeches. Self-evaluation and growth are encouraged through the use of videotaping.

Prerequisite(s): ENGL-080 or ENGL-101, or appropriate placement  
Corequisite(s): none

**ENGL 115 Introduction to Literature 3 cr.**  
This course introduces the student to the literary genres: poetry, drama, fiction and non-fiction. It emphasizes literature as a reflection of culture. This includes the discussion of literary terms, close textual reading, and historical backgrounds. This course has been designated as a writing-intensive course.

Prerequisite(s): ENGL-100 or ENGL-101  
Corequisite(s): none

**ENGL 200 Creative Writing 3 cr.**  
This course, which is a writing workshop, will welcome all four of the major literary genres: fiction, poetry, drama, and the personal essay. Most of class time will be spent discussing student manuscripts; the remaining time will consist of lectures on craft, critical discussion of assigned readings, and writing exercises. While a book will be assigned, student's original writing is the primary "text" which will be submitted to the class in regular rotation so that all have equal air time.

Prerequisite(s): ENGL-100 or ENGL-101  
Corequisite(s): ENGL-115

**ENGL 220 Introduction to Theater 3 cr.**  
This course will be an introduction to the collaborative enterprise of theater. The central object of study will be dramatic literature and the ways by which it is brought to life in performance. Students will read six to eight full-length plays. This reading will involve detailed scene analysis from the point of view of playwrights, actors, directors and set designers. Students will be introduced to basic rehearsal techniques and will explore the means by which a play may be visually realized upon stage. The course will consist of a survey of the history of Western theater, by means of reading representative plays. This course is writing intensive.

Prerequisite(s): ENGL-100 or ENGL-101  
Corequisite(s): ENGL-115

**ENGL 225 Writing Tutors 3 cr.**  
This course prepares skilled writing students to work as peer tutors in the college's Learning Assistance Center. It provides advanced instruction in grammar and composition, with special emphasis on the writing process. Through the weekly seminar and tutoring sessions, students develop teaching strategies, problem-solving skills, and greater understanding of composition theory and practice.

Prerequisite(s): ENGL-100 or ENGL-101  
Corequisite(s): none

**ENGL 230 New England Myth and Folklore 3 cr.**  
This course is designed as an expansion of the fundamental Introduction to Literature course. It explores regional oral and written tradition and its influence on New England writers. Utilizing past and present prose and poetry, fiction and nonfiction as catalysts, students will reflect upon and write responses to those experiences and explore their own perceptions of familial and cultural folklore through independent study. This course is writing intensive.

Prerequisite(s): ENGL-100 or ENGL-101  
Corequisite(s): ENGL-115

**ENGL 231 Maine Women Writers 3 cr.**  
From Sally Wood (Maine's first novelist) to Monica Wood (no relation), women writers have influenced the cultural, political, and creative landscape of Maine. In turn, these same writers often claim that their sense of place helped to form their voices and identities. In this course, students will explore this connection of place and identity, through in-depth reading of primary sources of fiction, nonfiction, and poetry, as well as investigative research into primary sources through UNE's Maine Women Writers' Collection. Students also have an opportunity to plan, organize, and present a panel of contemporary writers from

Maine. This course is designated as writing-intensive (WI), with substantial attention to the research writing process and revision.

Prerequisite(s): ENGL-100 or ENGL-101

Corequisite(s): ENGL-115

**ENGL 235 African-American Literature 3 cr.**

This course surveys the rich literary tradition of African-American literature. It seeks to acquaint students with the major writers, literary movements, and historical events that shaped writers such as Phyllis Wheatley, purchased as a slave by a wealthy Boston family in 1761, through poetry and prose writers of the 21st century. Topics will include the antebellum period, the Gilded Age, the Harlem Renaissance, the Black Power Movement, and the present. Texts will include poetry, prose, short stories, and/or a novel. This course is writing intensive.

Prerequisite(s): ENGL-100 or ENGL-101

Corequisite(s): ENGL-115

**ENGL 240 Varieties of Non-Fiction 3 cr.**

This class will examine contemporary creative nonfiction literature in the sub-genres of memoir, nature writing, the personal essay, and literary journalism. Although the readings will be "contemporary," an overview of the history, variety and evolution of the genre will be provided as well. Students will explore nonfiction as both scholars and writers. The class will be a combination of reading and composing with a focus on critical and creative writing. Students will keep a journal of critical and reflective responses to assigned readings (annotations); comments on the drafts of other students' work, and notes towards one's own work-in-progress. Class time will be devoted to critical examination of work read, sharing of journals, and free-writing exercises suggested by the techniques demonstrated in the texts. This course is writing intensive.

Prerequisite(s): ENGL-100 or ENGL-101

Corequisite(s): ENGL-115

**ENGL 245 Literature and the Environment 3 cr.**

This course explores the genre of Nature Writing as it has existed over the last 200 years. Beginning with New England, students will read authors from the American West, the Great White North, and the Southwestern Desert. This class will examine how these writers have connected with Nature for inspiration, for retreat, to ignite revolution, and to test oneself against. This class will focus on creative non-fiction, travel writing, memoir and fiction. Students will also spend time with poets, filmmakers, and philosophers who consider Nature and Environmental issues in their work. There will be a Field Trip

component to this course as well. Possible locations are Walden Pond, Portland Museum of Art, and Prouts Neck. Finally the class will focus its attention to the cities, where Nature exists in often vibrant and profound ways. This course is writing intensive.

Prerequisite(s): ENGL-100 or ENGL-101

Corequisite(s): ENGL-115

**ENGL 250 The Twentieth Century Novel 3 cr.**

This course surveys the 20th century novel. While the focus will be on the American novel, students will read at least two non-American novels as well. The novel both as an artistic form and a cultural and political artifact will be examined. The course will explore the literary canon, the works that many believe should be read and studied for all time: How is the canon formed? Who deserves to be included? When appropriate, the course will cover literary movements and periods. This is not to say an author has to be part of a specific group to merit biographical attention; the private and public lives of all the novelists on the reading list will be touched upon, in part to further understand how a great work gets written, but also in part because many of these novelists are just so fascinating people. This course is writing intensive.

Prerequisite(s): ENGL-100 or ENGL-101

Corequisite(s): ENGL-115

**ENGL 255 World Literature I 3 cr.**

This course introduces students to literary works of enduring significance from the Ancient Period through the Middle Ages. Students will examine the first flowering of written literature in Mesopotamia and the Mediterranean basin, be introduced to sacred writings from east and west, and track the development of literary genres with a focus on innovative and influential writings from around the world.

Prerequisite(s): ENGL-100 or ENGL-101

Corequisite(s): ENGL-115

**ENGL 256 Russian Literature 3 cr.**

This course exposes students to a survey of Russian literature spanning two hundred years, emphasizing what is considered the "Golden Age" (approximately 1860-1940). Students will read and analyze poetry, drama, short stories, and novels from influential authors including Tolstoy, Chekhov, and Dostoevsky, as well as view two film adaptations. This class is designated as a writing intensive (W) course.

Prerequisite(s): ENGL-115

Corequisite(s): none

**ENGL 260 Literature and Film****3 cr.**

Throughout time humans have had a need to tell a story. These stories have had some common goals: to reflect current culture, to inform the future, to examine the past, and to make sense of existence. Film and Literature are two modern forms of media that try to achieve these same goals. This course covers the techniques, vocabulary, and art of film and literature. It also explores the connections between both media. In this course students will learn how to "read" a film, examine the options and choices filmmakers have to tell their stories, identify those choices and link them to the thematic ideas the story holds. This course is writing intensive.

Prerequisite(s): ENGL-100 or ENGL-101

Corequisite(s): ENGL-115

**ENGL 270 Poetry****3 cr.**

This course will be a close examination of poetry as a universal form of human verbal expression. It will explore the varieties of the genre, the fundamentals of prosody, and the different poetics that have been articulated and embraced through-out history. Different forms and styles of poetry will be examined as well as the different incarnations of poetry among world cultures. In addition to reading a significant quantity of poetry, students will also read critical essays about important poets and essays by poets containing their statements of aesthetics. The course will emphasize poetry deemed 'accessible' - capable of being read and analyzed by a non-specialized audience - but not to the extent of eschewing poetry that has over time been considered profound and enduring. Representative poets will be assigned, and their work will be analyzed in terms of various aesthetic, historical, cultural, political, and ethical contexts. This course is writing intensive.

Prerequisite(s): ENGL-100 or ENGL-101

Corequisite(s): ENGL-115

**ENGL 280 Women in Literature****3 cr.**

The rich tradition of women's literature has received new attention and benefited from exhaustive scholarship in recent decades. This course examines that tradition, concentrating on both public and private writing as integral to the study of women in literature. In addition to the works themselves, the course considers political, economic, and cultural forces which shaped the evolution of women's writing. This course is writing intensive.

Prerequisite(s): ENGL-100 or ENGL-101

Corequisite(s): ENGL-115

**ENGL 285 The Short Story****3 cr.**

This course is a study of the modern short story from its origins in the early 19th century to its current form. Areas of focus will include: the history/development of the short story as a prose fiction form, the short story as a reflection of social and cultural movements/issues, and the use of the form as a mode of personal expression and identity. Readings will include a variety of authors, notably key figures in the development of the form as well as contemporary voices poised to influence the future of the genre. This is a writing intensive course.

Prerequisite(s): ENGL-100 or ENGL-101

Corequisite(s): ENGL-115

***Engineering Courses (ENGR)*****ENGR 100 Introduction to Engineering****2 cr.**

This course is intended for students who are interested in exploring the field of engineering and its many specialties. Students will gain an understanding of the engineer's approach to problem solving using active learning techniques. The course will introduce students to the theoretical and applied aspects of engineering, focusing on basic engineering principles. Students will work in teams to analyze and solve design and production problems throughout the semester. Guest speakers and site visits will assist students in gaining an understanding of the profession and its role in our technological society.

Prerequisite(s): ENGL-080 or ENGL-101 or appropriate placement

Corequisite(s): none

**ENGR 172 Digital Logic****3 cr.**

Digital Logic is an introduction to the study of binary logic circuits, their analysis, and design. This field is fundamental to modern electronics from cell phones, tablets, cameras, and televisions, to powerful computers, robotics, and industrial controls. Topics include application of Boolean algebra, analysis and design of combinatorial, and sequential logic circuits, encoding, decoding, flip-flops, counters, registers, programmable logic devices, hardware description language, and simple digital systems.

Prerequisite(s): ENGR program acceptance, MATH-225

Corequisite(s): none

**ENGR 200 Engineering Statics****3 cr.**

Statics is the study of forces on objects in equilibrium. Students will examine two and three dimensional force systems, properties of area and friction, stress and strain, centers of gravity and torque. Demonstrations, simulations, and web-based course materials will be used to illustrate concepts.

Prerequisite(s): ENGR-100, PHYS-200, MATH-260  
Corequisite(s): none

### **ENGR 216 Circuits I: Steady State Analysis 3 cr.**

This calculus-based engineering course studies the fundamentals of engineering circuit analysis. It is the first in a two-course survey that is the starting point of circuit analysis for future engineers. This course begins with a study of the basic electrical quantities, and the physical properties of basic circuit elements; resistors, inductors, and capacitors. It proceeds to study the laws and theorems fundamental to circuit analysis including Ohm's Law, Kirchoff's Laws, and Watt's Laws. Network analysis is examined including series and parallel combinations, nodal, loop, and superposition techniques, Thevenin's and Norton's Theorems, source conversions, and sinusoidal AC steady-state analysis. This course concludes with introductions to first-order transient circuit analysis with differential equations, SPICE circuit simulation, complex power, Bode plots, and passive and active filters.

Prerequisite(s): none  
Corequisite(s): MATH 270, PHYS 250

### **ENGR 217 Circuits II: System Dynamics with Lab 4 cr.**

This calculus-based engineering course studies the fundamentals of engineering circuit analysis. It is the second in a two-course survey that is the starting point of circuit analysis for future engineers. This course includes a laboratory component comprised of measurement, testing, and analysis of circuit applications. This course begins with a study of complex AC power, and magnetically coupled networks. It proceeds to study poly-phase circuits, with an emphasis on three-phase circuits. First- and second-order transient circuits are studied with analogies to mechanical, fluid, and thermal systems. This course concludes with studies of variable-frequency networks including poles and zeroes, sinusoidal frequency analysis, and Bode plots, the Laplace transformations, and transfer functions.

Prerequisite(s): ENGR-216  
Corequisite(s): COMM-201, MATH-275

### **ENGR 230 Thermodynamics I: Laws and Properties 3 cr.**

This is an introduction to thermodynamics, the science of transferring energy from one place or form to another place or form. Students will learn engineering principles, concepts and approaches to analyze energy systems such as heat pumps, heat engines, co-generation of electricity, and chemical processes involving phase changes (liquid/solid/vapor). More

specifically, the following topics will be covered: the zero, first and second laws of thermodynamics; properties and behaviors of pure substances; analysis of thermodynamic systems operating at steady state conditions.

Prerequisite(s): MATH-270, PHYS-200  
Corequisite(s): none

### **ENGR 250 Strength of Materials 3 cr.**

This course is an introduction to the mechanics of material science examining the principles of strength and the properties of materials. Topics include stress and strain analysis, tension, equilibrium, moments of inertia and Mohr Circle.

Prerequisite(s): ENGR-200 and MATH-270  
Corequisite(s): none

## ***Environmental Science Courses (ENVR)***

### **ENVR 110 Fundamentals of Environmental Science with Lab 4 cr.**

This survey course is designed to provide students with a sound foundation in basic principles and unifying concepts of Environmental Science. Topic selection is based on major themes of modern environmental sciences: humans and sustainability; science and ecological principles; sustaining biodiversity and natural resources; and sustaining environmental quality and human societies. Students will gain an awareness of the importance of Earth's systems in sustaining our daily lives, plus the scientific foundation and tools needed to apply critical thought to contemporary environmental issues. The course is intended for both science and non-science majors.

Prerequisite(s): ENGL-080 or ENGL-101 and MATH-040, or appropriate placement  
Corequisite(s): none

### **ENVR 115 Earth Science with Lab 4 cr.**

This survey course is designed to provide students with a sound foundation in basic principles and unifying concepts of modern geology. Major topics include: 1) the study of geologic processes and materials including, plate tectonics, erosion, soils, rocks and minerals; 2) geologic hazards such as floods, landslides, volcanoes, and earthquakes; 3) geologic resources such as water, fossil fuels, and metals; and 4) environmental challenges such as water supply, waste management, depleting energy and mineral resources, and global change. We will study these topics from a global perspective, paying particular attention to their importance in Maine and New England. Weekly laboratories will complement lecture topics and will include field trips, mapping exercises,

internet exercises, guest speakers, and laboratory analysis of earth materials.

Prerequisite(s): none

Corequisite(s): none

#### **ENVR 120 Environmental Geology with Lab 4 cr.**

Environmental Geology is a course developed to investigate how geology determines the success and failure of living systems across our globe. Topics including volcanism, earthquakes, erosion, pollution and their effect on biological systems will be explored. Additionally, basic geological principles that explain our world will be discussed.

Prerequisite(s): none

Corequisite(s): none

### ***Student Success Courses (FIGS)***

#### **FIGS 100 Student Success 1 cr.**

Student Success (FIGs) are theme based one-credit courses that combine college success skills, goal exploration and setting, and investigation of a topic. Thematic components are intended to capture the interest of students, who are free to choose the FIG that appeals to them, and link that interest to academic goals while building a foundation of essential college success skills.

Prerequisite(s): none

Corequisite(s): none

#### **FIGS 102 FIG – Coordinated Healthcare Introductory Program 1 cr.**

This FIG will introduce students who are interested in pursuing a career in the healthcare professions to the challenges, demands, and rewards of being a member of a healthcare profession. CHIP content will include an overview of the various healthcare professions available at SMCC. The course will also include information related to the responsibilities of the professional in caring for people who have accessed the healthcare system, the competencies needed to be successful in a healthcare program, and strategies to promote effective learning. Students will participate in simulated activities related to care responsibilities that are necessary to be an effective member of the healthcare community.

Prerequisite(s): none

Corequisite(s): none

#### **FIGS 110 Advanced Financial Literacy 1 cr.**

Advanced Financial Literacy is a one-credit course that provides students with a multitude of information on financial literacy and practices. Topics such as goal

setting, money management, understanding credit, student educational finance, and personal finance planning will be coupled with projects that allow the student to display real life insight and investigation into financial management. Students will explore future career opportunities and assessment, and related financial outlook. Students will also use mathematical operations and skills to help solve problems involving interest, loan calculations, investment, and sound financial planning.

Prerequisite(s): ACSS-100 or FIGS-100

Corequisite(s): none

### ***Fire Science Technology Courses (FIRE)***

#### **FIRE 102 Fire Academy Part I 4 cr.**

This course provides an occupational foundation for fire suppression in municipal and industrial settings by focusing on the art and science of controlling and extinguishing fires. The course is based on the National Fire Protection Association (NFPA) 1001 Firefighter Professional Qualifications Standard, Firefighter Levels I and II and Maine Bureau of Labor Standards. Students will be held accountable and must complete pre-class and post-class assignments on time and operate as part of a firefighting team. Successful students will work towards an opportunity to earn Maine Structural Firefighter qualification and test for state (MFSI) and national (Pro Board) Firefighter I & II certification.

Prerequisite(s): NFPA 1582 compliant medical evaluation and Maine Bureau of Labor Standards respiratory protection requirements.

Corequisite(s): none

#### **FIRE 103 Fire Academy Part II 3 cr.**

This course continues the development of a student's occupational foundation for fire suppression in municipal and industrial settings by focusing on the art and science of controlling and extinguishing fires. The course is based on the National Fire Protection Association (NFPA) 1001 Firefighter Professional Qualifications Standard, Firefighter Levels I and II. Students will be held accountable and must complete pre-class and post-class assignments on time and operate as part of a firefighting team. Successful students will have the opportunity to earn Maine Structural Firefighter qualification and test for state (MFSI) and national (Pro Board) Firefighter I & II certification.

Prerequisite(s): FIRE-102, NFPA 1582 compliant medical evaluation and Maine Bureau of Labor Standards respiratory protection requirements.

Corequisite(s): FIRE-105

**FIRE 105 Fire Studies and Stayin' Alive FIG 3 cr.**

This course is designed to be the initial course of the Fire Science Technology program. It is recommended for students new to the fire service. The course is a survey of the fire protection field, with emphasis on developing an awareness of history, organization, career options, and study skills.

Prerequisite(s): none

Corequisite(s): none

**FIRE 106 Firefighter I and II 3 cr.**

This course provides an occupational foundation for fire suppression in municipal and industrial settings by focusing on the art and science of controlling and extinguishing fires. The course is based on the National Fire Protection Association (NFPA) 1001 Firefighter Professional Qualifications Standard, Firefighter Levels I and II. Successful students will achieve a foundation of knowledge and skills in the vital mission of protecting people, property, and the environment from a range of threats by employing proactive, reactive, and leadership/administration methods. Students will be held accountable and must complete pre-class and post-class assignments on time and operate as part of a firefighting team. Successful students will have the opportunity to earn Maine Structural Firefighter qualification and test for state (MFSI) and national (Pro Board) Firefighter I and II certification.

Prerequisite(s): NFPA 1582-compliant medical evaluation and Maine Bureau of Labor Standards respiratory protection requirements. Non-Fire Department affiliated students must arrange for compliant personal protective equipment (PPE) and self-contained breathing apparatus (SCBA) to use throughout the course.

Corequisite(s): FIRE-105

**FIRE 110 Fire Protection Systems 3 cr.**

This course is an introduction to fire protection and detection systems and their role in community fire protection. The focus of this course is on understanding fire behavior and the basic components that make up fire protection systems. Topics covered in this class include: Fire behavior, portable fire extinguishers, fire alarm and detection systems, standpipe systems, commercial/industrial automatic sprinkler systems, residential sprinkler systems, special extinguishing systems, and community fire protection.

Prerequisite(s): none

Corequisite(s): FIRE-105

**FIRE 115 Fire Service Building Construction 3 cr.**

This course is designed to be a comprehensive study of building materials, methods and design as they are

related to fire protection and suppression. Topics covered in this class include: building materials and their impact on the fire service, types of construction, methods of construction, fire protection features, building codes, an examination of fire's effect on buildings and evaluation of fire damage. Many case studies are used during the delivery of this course to illustrate the importance of understanding building construction. This course concludes with presentations of semester long student projects.

Prerequisite(s): none

Corequisite(s): FIRE-105

**FIRE 120 Fire Behavior and Combustion 3 cr.**

Effective fire control and extinguishment requires a basic understanding of the chemical and physical nature of fire. This includes information describing sources of heat energy, composition, and characteristics of fuels and the environmental conditions necessary to sustain the combustion process. This course will provide an opportunity to inquire, explore, understand, apply, and reflect on theories and concepts associated with how and why fires start, spread, and are controlled, in hopes of helping to develop highly competent fire service professionals.

Prerequisite(s): MATH-130 or MATH-140

Corequisite(s): none

**FIRE 125 Fire Occupations Practicum 1 cr.**

This course, one in a continuous series of Service Learning courses, provides the Fire Science Technology student with experiential learning opportunities in the field of fire protection. Service Learning credits are available to the student for each semester with a maximum of four credits awarded. The student will live at an area fire station and become a fully participating member of that department. The student will learn and practice job responsibilities in the functional areas of fire suppression, fire prevention, equipment maintenance, and facility maintenance. The student will keep a log of his/her activities and reflect on experiences in regular group meetings. This course is available only to full time, matriculated Fire Science Technology students participating in the Southern Maine Community College Live-In Program and may be taken up to four times for credit.

Prerequisite(s): FIRE or EMSP program acceptance

Corequisite(s): none

**FIRE 140 Fire in American Society 3 cr.**

This course traces the challenges faced by early settlers in the New World, how they protected themselves, their homes and their property from the ravages of fire. The evolution of building construction

and its impact on how fires react, laws relating to maintaining fire as a friend and how to control it as a foe, and the equipment used to combat fires and water supply to maintain the battle will be examined in detail. Major fires in American history will be examined to determine how they changed the very fabric of the American lifestyle.

Prerequisite(s): none

Corequisite(s): none

### **FIRE 145 Public Safety, Survival and Wellness 3 cr.**

This course will explore the foundations and principles of reducing the number of firefighter and EMS line of duty injuries and deaths. This course will emphasize that our way of thinking must change by taking action to adopt accepted practices through four core concepts: Culture, Safety, Accountability, and Health + Wellness that will keep fire department members safe, physically, behaviorally, and mentally. This course will explore those charges through NIOSH reports, case studies, and one of the most important topics, individual fitness. Participants will be required to take part in physical exercise each class throughout the semester.

Prerequisite(s): none

Corequisite(s): none

### **FIRE 150 Fire Inspector 3 cr.**

This course provides a demonstration of the basics of municipal fire inspection and code enforcement principles. Students will learn the basics of inspections, the identification of common hazards, the basics of special inspections, and the use of NFPA 101 Life Safety Codes and NFPA 1 Uniform Fire Code.

Prerequisite(s): none

Corequisite(s): none

### **FIRE 151 Fire Inspector Certification Lab 1 cr.**

This course provides practical application of material found in the NFPA codes and standards to allow the student to sit for the NFPA Certified Fire Inspector I examination. Upon successful completion of the examination the applicant will complete a series of practical application exercises required by NFPA for certification.

Prerequisite(s): FIRE-150

Corequisite(s): none

### **FIRE 155 Fire Service Hydraulics 3 cr.**

This is a foundation course in the principles of hydraulics as applied to fire service hose and appliances. This course applies theoretical and application principles to solve hydraulics based

challenges. Topics include principles involving water at rest and in motion, solving hydraulic problems in fire hose layouts by exact mathematical calculation and fire ground estimation, establishing the ability to make rapid fire ground hydraulic determinations, and to evaluate the efficiency and effectiveness of various hydraulic systems including hydrant flows.

Prerequisite(s): none

Corequisite(s): MATH-130 or MATH-140

### **FIRE 160 Fire Investigation 3 cr.**

In this course students will learn the fundamentals of fire investigation. This class will have a variety of guest instructors with expertise in their field to enhance this program. We will be working through the textbook, engage in groupwork, and the semester will culminate with an investigation of an actual fire scene. There is a heavy emphasis on interaction with fellow students to draw conclusions from the weekly topic. This will be consistent with what would be expected of professionals and in the field.

Prerequisite(s): none

Corequisite(s): none

### **FIRE 165 Introduction to Wildland Fire 3 cr.**

Wildfires are responsible for property damage throughout Maine and the United States every year. In addition, prescribed fire is used as land management tool to accomplish ecological objectives. This class will provide students with an introduction to wildland fire management. The class will cover topics in fire behavior, fire weather, fire ecology, and fuel management. This class will prepare an untrained wildland firefighter with the tools required to work on a wildland or prescribed fire. Students can earn National Wildland Coordinating Group (NWC) certification for Wildland firefighter with this course and an additional eight hour field exercise.

Prerequisite(s): none

Corequisite(s): none

### **FIRE 170 Wildland Fire Behavior 3 cr.**

Throughout history, wildland fires have shaped much of the natural landscape in New England as well as the rest of the United States. Relating fire behavior to modern landscapes will help managers make informed decisions about fuel management practices. This class will provide students with an understanding of expected fire behavior. Topics will include an in depth understanding of weather, topography, and fuels effect on wildland fire behavior. Although this class is not a firefighting class, a field component should be expected with the possibility to observe prescribed fire. It is recommended that students take



Introduction to Wildland Fire management prior to this class.

Prerequisite(s): MATH-040 or appropriate placement  
Corequisite(s): none

**FIRE 200 Hazardous Materials 3 cr.**

Because of the ever-increasing rate at which new industrial materials are being introduced into our world, and because it is the fire-fighter or fire-protection specialist who must deal with the hazards associated with these new chemicals, this is a particularly valuable course. This course is designed to meet the NFPA 472 standard at the "Operations" level. Some of the areas of study include flammable materials, pressurized vessels, cryogenics, oxidizing agents, corrosives, explosive and toxic materials. Students will become familiar with tools, equipment and response techniques as well as the federal and state laws that govern the handling of hazardous materials and the incidents they create. This course concludes with presentations of semester long student projects. In conjunction with this course, there is an opportunity to participate in a field training that may result in State Hazardous Materials certification at the "Operations" level.

Prerequisite(s): 30 credits earned  
Corequisite(s): none

**FIRE 205 Fire and Life Safety Educator 3 cr.**

This course is designed to meet the requirements of the NFPA 1035, the professional qualification standards for Public Fire and Life Safety Educator I and II. The course combines student activities, instructor presentations and community-based projects to develop skills and knowledge in the field. The course will provide students with the knowledge to design a public fire and life safety program, to organize a budget to meet the needs of the program, and to present a fire safety or life safety education presentation. Students can earn state certification from successful completion of this course and community based teaching assignments.

Prerequisite(s): none  
Corequisite(s): none

**FIRE 210 Fire Instructor 3 cr.**

This course is designed to meet the requirements of NFPA 1041, the professional qualifications for Fire Instructor, and assist current and aspiring fire/rescue officers in teaching fire-service-oriented subjects and developing an understanding of the various methods of teaching fire/rescue occupational subjects. This course will aid students in preparing instructor lesson plans and help them to recognize and practice the effective use of other instructor resource materials.

Students can earn state and national certification from successful completion of this course and a practical teaching demonstration.

Prerequisite(s): none  
Corequisite(s): none

**FIRE 215 Fire Service Leadership 3 cr.**

This course is designed to develop a foundation of leadership, supervision and communication skills for the fire officer. The subject matter, instruction, activities, and assignments will follow the recommendations for Fire Officer I and II as presented in NFPA 1021, Standard for Fire Officer Professional Qualifications. Students will study basic issues related to all supervision, as well as issues specific to fire service supervision. Students can earn state and national Fire Officer I and II certification by successfully completing this course, additional writing assignments, and community-based training and certification requirements. This course has been designated as a writing-intensive course.

Prerequisite(s): ENGL-100 or ENGL-101  
Corequisite(s): none

**FIRE 216 Leadership Applications: Peer Mentoring 1 cr.**

This leadership applications course allows students to develop leadership skills and apply classroom lessons by serving as peer mentors for fire science and other pre-service students as part of a comprehensive student success program. Each student will be paired with one or more mentee(s) and will serve as role models, guides, advisors, and coaches to help mentees succeed in academic and fire-EMS settings. Mentor development opportunities including workshops, discussions, and other professional development activities as well as coaching by faculty members and peer mentor coordinator. This course provides a more in-depth, practical, hands-on application of the Fire Service Leadership curriculum.

Prerequisite(s): ENGL-100 or ENGL-101  
Corequisite(s): FIRE-215

**FIRE 230 Water Supply Analysis 3 cr.**

Water is the most important and frequently used extinguishment medium used by the emergency fire services. The effective application of limited water resources is critical to successful control of unwanted fire. Students will gain a basic understanding of fire protection water supply systems in use in rural communities, urban communities and industrial settings. This course will require the application of hydraulic principles and pre-incident planning. Along with classroom lecture, the course will involve significant field application of classroom concepts.

Prerequisite(s): FIRE-155  
Corequisite(s): none

**FIRE 250 Fire Ground Operations 3 cr.**  
This course offers basic tactics and strategies to the firefighter. The course looks at three major response apparatus and explores the internal structure and skills needed to operate at the scene of a fire.

Prerequisite(s): 30 credits earned  
Corequisite(s): none

**FIRE 265 Community Risk Reduction 3 cr.**  
This course prepares students to better protect community residents and first responders by applying a comprehensive risk-reduction process in collaboration with community partners. Community Risk Reduction (CRR) gets to the heart of community safety and health by "getting ahead of the emergency call" by assessing community risks, establishing priorities, developing plans and partnerships, and implementing targeted interventions designed to reduce the losses that negatively affect people, property and natural resources. This is a writing-intensive course with weekly draft and final paper assignments, as well as a practicum assignment working with a local agency developing a community risk assessment and community risk reduction plan for a selected community risk. The course also requires the development and defense of a Fire Science Capstone Portfolio documenting attainment of Fire Science learning outcomes through student academic and professional growth.

Prerequisite(s): ENGL-100 or ENGL-101, 30 credits toward major  
Corequisite(s): none

## ***French Courses (FREN)***

**FREN 100 Conversational French 4 cr.**  
This course is designed for students of all levels of French. The course focuses on the students' ability to produce the language orally. Content begins with basics and becomes increasingly complex as the semester progresses. The course does not include explanations of grammar and all assessments are done orally. The course is intended for people who plan to use spoken French in some capacity in their lives.

Prerequisite(s): none  
Corequisite(s): none

**FREN 101 Beginning French I 4 cr.**  
This beginner's course in French equally emphasizes the four skills of language learning: listening comprehension, speaking, reading and writing. Interactive materials and a laboratory component

create a multifaceted and challenging learning environment. This course is appropriate for students with two or fewer years of high school French.

Prerequisite(s): none  
Corequisite(s): none

**FREN 102 Beginning French II 4 cr.**  
This course in French equally emphasizes the four skills of language learning: listening comprehension, speaking, reading and writing. Interactive materials and a laboratory component create a multifaceted and challenging learning environment. This course is a continuation of FREN-101 and follows the course sequence.

Prerequisite(s): FREN-101 or instructor approval  
Corequisite(s): none

## ***Geographic Information Systems Courses (GISS)***

**GISS 150 Introduction to Geographic Info Systems 3 cr.**

This computer intensive course provides an overview of cartography, spatial data structures, sources of data used in GIS, and analysis of spatial data. Students will gain an understanding of uses and applications of GIS, as well as a working knowledge of ESRI's ArcMap software. Classes will consist of lectures and computer exercises. Recommended: Knowledge of Windows based software.

Prerequisite(s): none  
Corequisite(s): none

**GISS 250 Geographic Information Systems II 3 cr.**  
GISS-250 is an advanced class for students who have taken GISS-150 and wish to advance their skills in an applied fashion. The focus of the course is on development of individual projects. Students will define a real world problem and develop a GIS application which can be used to analyze the problem and make recommendations toward a solution. Students will prepare a report and publically presentation of their work at the end of the course. Class sessions are used to work on software applications and to meet with individual students to discuss the progress of their projects.

Prerequisite(s): GISS-150  
Corequisite(s): none

## ***German Courses (GRMN)***

**GRMN 100 German I 4 cr.**  
This is a beginner's course in German equally emphasizing the four skills of language learning:

listening comprehension, speaking, reading and writing. This course is appropriate for students with no prior German knowledge.

Prerequisite(s): none  
Corequisite(s): none

**GRMN 200 German II 4 cr.**

This is a continuation of the beginner's course in German equally emphasizing the four skills of language learning: listening comprehension, speaking, reading and writing. This course is appropriate for students with little prior German knowledge.

Prerequisite(s): GRMN-100  
Corequisite(s): none

## ***Global Classroom Courses (GLBL)***

**GLBL 110 Global Classroom: Intercultural Studies 1 cr.**

This Global Classroom course is a general introduction to the social science of Intercultural Studies. Students will build cultural competency and global citizenship from an international perspective by taking an active, hands-on approach to the examination of cultures – including their own -- through readings, discussions, quizzes, and writing assignments.

Prerequisite(s): none  
Corequisite(s): GLBL-120

**GLBL 120 Global Classroom: Topics in Cultural Analysis 1 cr.**

This Global Classroom course focuses on the location and focus of the Field Experience destination. In this course students will develop understanding of the history and culture of their travel destination, and also develop a framework for specific content in the Field Experience module. Examples include: Art and Architecture of the Italian Renaissance, Education in Iceland, Flora and Fauna of Cuba. The course includes weekly readings, discussions, quizzes, and writing assignments.

Prerequisite(s): none  
Corequisite(s): GLBL-110

**GLBL 130 Global Classroom: Field Experience 1 cr.**

This experiential module is a short-term, faculty-led travel program. Students are expected to be present, prepared, and active participants in all seminars, excursions, discussions, and events. This course is assessed through participation, a journal project, and a final essay or digital storytelling assignment.

Prerequisite(s): none  
Corequisite(s): GLBL-110, GLBL-120

## ***Health Science Courses (HLTH)***

**HLTH 100 Introduction to Health Sciences 3 cr.**

This course explores the essential principles and professional qualities associated with people working in a variety of medical careers. Review of best practices for working collaboratively within the healthcare setting; changes in how medical care is provided throughout the United States; and a broad overview of currently available healthcare opportunities for medical professionals. Students will review current issues in healthcare and determine best medical practices for the protection of patients and medical professionals. Throughout the course pertinent aspects of medical ethics; diversity and cultural competence; maintenance of confidential patient information; and the use of electronic medical records will be explored.

Prerequisite(s): ENGL-080 or ENGL-101 or appropriate placement  
Corequisite(s): none

**HLTH 105 Medical Terminology 3 cr.**

This course is designed as an introduction to medical terminology using a body systems approach. The student will develop a basic understanding of medical language by analyzing prefixes, suffixes, root words, and combining forms as they relate to the different body systems and the basic cellular structure.

Prerequisite(s): ENGL-080 or ENGL-101 or appropriate placement  
Corequisite(s): none

**HLTH 115 Electrocardiogram (ECG) Interpretation 3 cr.**

This course emphasizes electrocardiogram (ECG) dysrhythmia recognition in the health care setting. Review of the cardiac conduction system and its relation to mechanical events in the cardiac cycle will provide the basis for understanding interpretation of cardiac rhythm strips and 12 lead electrocardiograms. Assessment of normal and abnormal rhythms will be completed.

Prerequisite(s): BIOL-138  
Corequisite(s): none

**HLTH 120 Medical Ethics and Law 3 cr.**

In this course students examine common ethical issues they could face as medical professionals in a variety of healthcare settings. Students will examine the ethical and social issues surrounding the practice of medicine, in particular the relationship between patients and healthcare providers. Additionally, students will evaluate the ethics and morality behind patient care for a wide variety of issues, including euthanasia,

organ transplantation, and human genetic modification. The course also covers issues such as whether or not patients or parents have a right to refuse care for themselves or their children.

Prerequisite(s): none

Corequisite(s): none

### **HLTH 125 Electronic Health Records 3 cr.**

This course provides instruction in the use of an Electronic Health Record (EHR) system with an understanding of how EHRs change healthcare delivery workflows that affect quality improvement, patient safety and care coordination. Included is the use of industry-standard software for hands-on experience with electronic input to establish patient demographics for charting and clinical documentation generated during patient encounters. Various methods of capturing and recording EHR data are used including source documents and the creation of templates. Decision support productivity tools are introduced. The course reviews standards criteria, aspects of compliance and related regulations including the linking of Meaningful Use (MU) criteria and measures to the function of EHRs.

Prerequisite(s): HLTH program acceptance

Corequisite(s): none

### **HLTH 130 Gerontology for Health Professions 3 cr.**

This course introduces the student to the field and study of gerontology and will provide a broad overview of the impacts of an aging population on the US healthcare system. Students will review current subjects pertinent to healthcare provision of the older adult, including health, wellness and illness measures; stereotypes and ageism; public policy; caregiving issues; and death and dying. A strong focus will be on the issues as they exist in the state of Maine.

Prerequisites: ENGL-100 or ENGL-101,

Corequisite(s): none

### **HLTH 135 Cannabis in Maine: History and Use 3 cr.**

This interdisciplinary course is designed to introduce fundamental concepts in pharmacology and key concepts in human physiology underlying medicinal and recreational cannabis use. Students gain an up-to-date, scientific foundation in a complex and evolving area of healthcare. Historical, political, and socio-economic influences on marijuana legislation will be discussed, along with Maine's experience with legalizing medical marijuana use beginning in 1999 and recreational use in 2016.

Prerequisites: ENGL-100 or ENGL-101, BIOL Elective with Lab or CHEM-120 or NUTR-110

Corequisite(s): none

### **HLTH 140 Lifetime Physical Fitness and Wellness**

**3 cr.**

This course examines the primary factors involved with lifetime physical fitness and wellness. It is designed to provide a framework for your own development of a positive, healthy lifestyle. Topics to be studied in-depth include the various components of physical fitness and wellness, physical activity, nutrition and weight control, stress management and relaxation, chronic disease prevention, substance abuse prevention, and various related topics.

Prerequisite(s): none

Corequisite(s): none

### **HLTH 155 Pharmacology**

**3 cr.**

This course is designed to provide students with a broad knowledge base of drug therapy. Emphasis is placed on preparing students to safely administer medications to patients (in other clinical courses). Basic pharmacological concepts provide students with essential information related to principles of pharmacology, clinical applications, and biopsychosocial aspects. Lifespan considerations are included within the essential information. Students also focus on major drug categories and a review of body systems. There is not a clinical component for this course.

Prerequisite(s): BIOL-105 or BIOL-132

Corequisite(s): BIOL-138 (if BIOL-132)

### **HLTH 192 Global Healthcare Systems**

**3 cr.**

In this course, students will explore the realms of global healthcare. The aim of the course is to introduce students to the fields of study within the science of public health both nationally and internationally. Assessment of major global health care challenges and how individual countries address regional, national, and international concerns related to health care systems, health care reform, health care priorities, emerging disease prevention and health promotion.

Prerequisite(s): none

Corequisite(s): ENGL-100 or ENGL-101

### **HLTH 200 Foundations of Community and Public Health**

**3 cr.**

This course provides an overview of the practice and function of public health systems in the United States and globally. The role and relevance of public health professionals in today's world will be examined. An overview of the history, purpose, organization, policy formation, and availability of health services in communities will be identified. The core functions and determinants of health will be categorized accordingly. The course addresses current health issues and

identifies the relevance of public health locally, regionally, nationally, and internationally. Throughout the course all concepts will be evaluated through the lens of diversity, equity, and inclusion.

Prerequisite(s): ENGL-100 or ENGL-101  
Corequisite(s): none

**HLTH 205 Cultural Competence in Healthcare 3 cr.**  
This course will prepare students to provide culturally competent care in the healthcare setting. The modules will cover the foundations of cultural competence as well as cultural considerations for specific patient populations.

Prerequisite(s): ENGL-100 or ENGL-101  
Corequisite(s): none

**HLTH 210 Introduction to Healthcare Informatics 3 cr.**  
This course will provide students with an overview of the depth and breadth of informatics in healthcare. Informatics is the intersection of information science, computer/technology science, and healthcare science. This intersection promotes healthcare decision making specific to the patient by ensuring the communication between patient data and information and healthcare providers.

Prerequisite(s): ENGL-100 or ENGL-101  
Corequisite(s): none

**HLTH 220 Foundations of Organizational Leadership 3 cr.**  
This course provides the student with a fundamental understanding of organizational leadership skills needed to guide the direction of an organization. The student will create a framework of leadership success based on the fundamental attributes of leadership that can be applied to any leadership challenge. The review of organizational topics associated with innovative problem solving, decision making, relationship building, leading others to succeed, organizational culture, leading change, and leading a team will be essential components within the context of this course.

Prerequisite(s): ENGL-100 or ENGL-101  
Corequisite(s): none

*Heavy Equipment Operations Courses (HEOP)*

**HEOP 100 Construction Safety for HEOP 1 cr.**  
This course is designed to provide students with knowledge and skills as prescribed by the Occupational Safety and Health Administration. This course will

provide students with the ability to recognize and avoid hazardous situations as well as the ability to conduct themselves safely on the job site throughout their career. Students who successfully complete this section of the course will earn the industry-recognized credential, OSHA (10 or 30) Hour card. In addition, students enrolled in this course will study aspects of safety prescribed by the Mining Health and Safety Administration as pertinent to heavy equipment operators and laborers who will be working in and around trenches and other excavation work sites.

Prerequisite(s): HEOP program acceptance  
Corequisite(s): none

**HEOP 115 Maintenance and Service 3 cr.**  
This course is designed to provide students with fundamental knowledge and skills of the Heavy Equipment Operations / construction industry. As a result of this course, students will acquire the knowledge to safely work on a heavy equipment construction site. Students will study various types and functions of heavy equipment, as well as how to perform a pre-start safety inspection. Students will learn how to properly start up and shut down the equipment as well as the purpose and use of the operational controls. Students will complete this course with an introduction to construction site layout and grades.

Prerequisite(s): none  
Corequisite(s): HEOP-100, HEOP-130

**HEOP 130 Backhoe, Excavator and Bulldozer (Sim Lab) 3 cr.**  
This course will introduce students to the basic operation of a backhoe, an excavator and a bulldozer to perform fundamental procedures required for operation on the job site. This simulation lab will provide students with opportunity to practice basic backhoe and excavator operations repetitively. This lab will develop proficiency in preparation for an internship.

Prerequisite(s): none  
Corequisite(s): HEOP-100, HEOP-115

**HEOP 145 Site Finishing and Grades 3 cr.**  
This course is designed to give students the skills to perform print reading, plotting and site preparation of ground work. This course describes the use of various types of heavy equipment to finish and trim grades and slopes of roads, pads, ditches and other structures. Information is presented regarding the responsibilities and leadership abilities in relation to organizing and directing workers and operations. Students will understand and interpret production requirements and specifications used for grade layout.

Prerequisite(s): HEOP-100  
Corequisite(s): none

**HEOP 160 Backhoe, Excavator and Bulldozer (Site Lab) 3 cr.**

This course will introduce students to the basic operations of a backhoe, an excavator and a bulldozer to perform fundamental procedures required for operation of each piece of equipment on the job site. This lab will provide students with the opportunity to practice basic skills on a job site associated with the equipment operations repetitively. The lab will develop proficiency in preparation for an internship.

Prerequisite(s): HEOP-100, HEOP-115, HEOP-130  
Corequisite(s): HEOP-145

**HEOP 175 Heavy Equipment Internship 4 cr.**

The Heavy Equipment Operations Internship comprises on-the-job training provided by employers on actual construction sites. A training agreement specifies the tasks the student will be expected to perform. The instructor will determine the number of hours a student will participate in the internship.

Prerequisite(s): HEOP-130, HEOP-145, HEOP-160  
Corequisite(s): none

## *History Courses (HIST)*

**HIST 120 World History to 1500 3 cr.**

This is an introductory survey covering the history of the global past from the origins of humanity through the 15th century, from the rise of early civilizations through the moment of European contact in the western hemisphere during the late-15th century. This course will introduce students to the process of thinking historically: students will seek to understand the problems, events, and people of the global past under their own terms and in the broadest contexts. Historians wage vigorous debates over such questions as: How did human society first evolve? What constitutes "civilization"? How has religion changed over time? What has been the significance of cultural exchange between peoples? Students will become attuned to how different the past was to our own lifetimes, being ever mindful of how even ancient world history has and continues to shape our present.

Prerequisite(s): ENGL-080 or ENGL-101 or appropriate placement  
Corequisite(s): none

**HIST 125 World History Since 1500 3 cr.**

This is an introductory survey covering the history of the global past from the 15th century through contemporary times, from the moment of European

contact in the western hemisphere during the late-15th century through the modern global context. This course will introduce the process of thinking historically: students will seek to understand the problems, events, and people of the global past under their own terms and in the broadest contexts. Students will examine important historical issues such as: How did the modern world evolve? How have institutions such as slavery, religion and capitalism shaped the global experience? What caused nations to emerge and how does nationalism affect individuals? Students will develop an appreciation of how our contemporary world emerged from and is shaped by these critical issues.

Prerequisite(s): ENGL-080 or ENGL-101 or appropriate placement  
Corequisite(s): none

**HIST 130 United States History to 1877 3 cr.**

This is an introductory survey covering the history of the United States through Reconstruction. This course is designed to acquaint students with most major topics in the American experience ranging from the origins of British settlement in North America through the civil war and the end of reconstruction in 1877. This course will explore the cultures that discovered and created American society and the interactions of European, Native American and African peoples. It also will introduce students to the process of thinking historically, with a focus on original historical sources.

Prerequisite(s): ENGL-080 or ENGL-101 or appropriate placement  
Corequisite(s): none

**HIST 135 United States History Since 1877 3 cr.**

This is an introductory survey covering the history of the United States since the end of Reconstruction. This course is designed to acquaint students with most major topics in the American experience ranging from the aftermath of the Civil War through the contemporary period. Some of the key topics to be covered include: industrialization, progressivism, World Wars I and II, the Great Depression and the Civil Rights Movement. This course also will introduce students to the process of thinking historically, with a focus on original historical sources.

Prerequisite(s): ENGL-080 or ENGL-101 or appropriate placement  
Corequisite(s): none

**HIST 136 Modern America 3 cr.**

This course examines the history of the United States since World War II, with special focus on the social, cultural, political and foreign policy history that has defined the modern American experience. To examine

this history, this course will explore a broad range of topics, from Cold War diplomacy through the nation's current conflicts in Iraq and Afghanistan, from the evolution of major New Left Social movements to the impact of technology, immigration, and party politics in contemporary America. Devoting particular attention to primary source documents and historical artifacts, including popular music and television programs, this course endeavors to understand the roots of the modern United States.

Prerequisite(s): ENGL-080 or ENGL-101 or appropriate placement

Corequisite(s): none

### **HIST 139 American Environmental History 3 cr.**

This course explores the interaction between humans and their environments throughout the history of the United States, from its colonial origins through our contemporary era. Focusing on how Americans and their communities have both shaped and have been shaped by the environment, this course also emphasizes Americans' perspectives on the environment throughout history, including the idea of wilderness, the advent of conservationism, the study of ecology, and the modern environmental movement. While introducing students to the study of environmental history, this course emphasizes the use of original historical sources and encourages the consideration of contemporary environmental issues in historical context.

Prerequisite(s): ENGL-080 or ENGL-101 or appropriate placement

Corequisite(s): none

### **HIST 140 Maine and New England Maritime Heritage 3 cr.**

Maine and New England's Maritime Heritage is designed to give students an introduction to Maine's maritime history in the context of the larger history of the region and country. Students will be introduced to maritime history at the time of the Native Americans, but the primary focus will be 1500 to the present day, from sailing vessels to supertankers. Course topics will include: early fishing communities in the area, Native Americans, minorities and women in the seafaring community, sail power to steam power, and the current state of the region's maritime realm.

Prerequisite(s): ENGL-080 or ENGL-101 or appropriate placement

Corequisite(s): none

### **HIST 145 Maine History 3 cr.**

Maine has a rich and varied history, at once unique and simultaneously deeply enmeshed in the broader history of the United States. The course will develop

both the singularity of the Maine experience and the contributions of the state to the growth of the nation in various periods. Primary attention will be given to the economic and social development of Maine, that is "history from the bottom up." Consistent stress will also be placed on the relationships of Maine's past to contemporary issues facing the state. The course will stress documentary sources to understand the processes involved in that growth. The arts, musical, visual, and literary, will provide other avenues to understanding how people related to their setting and experiences.

Prerequisite(s): ENGL-080 or ENGL-101 or appropriate placement

Corequisite(s): none

### **HIST 155 Historical Archaeology 3 cr.**

Historical archaeology is the study of the archaeological remains of literate cultures throughout the world. Historical archaeologists turn to a variety of disciplines including history, anthropology, geography, ecology, and biology as they explore the historic peoples of the world over the last 3,000 years. Students will delve into the origins of historical archaeology in North American, its methods, and contributions the field has made to our understanding of the settlement of the continent since the 11th century. This course will include hands-on activities using artifacts and documents, a visit to an archaeological laboratory, and films detailing the excavations at sites such as Jamestown, Red Bay, and the plantation south. This course is offered Spring semester.

Prerequisite(s): ENGL-080 or ENGL-101 or appropriate placement

Corequisite(s): none

### **HIST 165 Social History Civil War 3 cr.**

This course explores the varied causes of the Civil War, examines the experience of the conflict in both the Union and Confederacy, and traces the contested legacies of the war through the Reconstruction period and beyond. Considering more than military strategy, this course ranges well beyond the battlefield and draws widely from original sources that illuminate the social and political impact of the Civil War and its aftermath, paying particular attention to the experiences of ordinary Americans including common soldiers, women, and African Americans.

Prerequisite(s): ENGL-080 or ENGL-101 or appropriate placement

Corequisite(s): none

**HIST 170 History of World Religions****3 cr.**

Religion is a complex network of ideas and actions, both ethical and ritual, that expresses a groups' sense of ultimate meaning of life. Students will examine how the beliefs and values of contemporary and historical cultures shape and are shaped by societal factors, longstanding traditions, and distinctive forms of literary expression. The aim of this course is to introduce students to some of the major religious traditions and to think critically and analytically about the various human phenomena we name "religious." The traditions to be surveyed include Judaism, Christianity, Islam, Hinduism, Buddhism, Native American and newer expressions of religion.

Prerequisite(s): ENGL-080 or ENGL-101 or appropriate placement

Corequisite(s): none

**HIST 175 History of Islam/Middle East****3 cr.**

This course presents a survey of Islamic civilizations from the origins of the Muslim faith until the present day. Topics of study include Islamic origins, the early Islamic conquests, the medieval caliphates, the Crusades and Mongol invasions, the rise of Islamic Asian empires, and the era of Western imperialism in Africa, Asia and the Middle East. Special attention will be paid to understanding the Qur'an in its historical context, the status of women in Islamic history, the complex interaction between Islamic societies and the West in the modern age, and the histories of contemporary issues in the Islamic world, such as the Israeli/Palestinian conflict, the tensions between India and Pakistan, and theocracy in Iran.

Prerequisite(s): ENGL-080 or ENGL-101 or appropriate placement

Corequisite(s): none

**HIST 201 History of Science****3 cr.**

The History of Science is designed to help the student better understand the impact of science and technology on our way of life, through discussions of the history of science, resulting technological changes, and our relationship to the social and physical environment. Textbook readings will be supplemented with original writings by some of the builders of our scientific society, from Plato and Aristotle to Newton and Einstein. While names, dates, and places are an important part of the course, the emphasis will be to provide an understanding of changes in ideas, knowledge, and culture over time.

Prerequisite(s): ENGL-080 or ENGL-101 or appropriate placement

Corequisite(s): none

**HIST 202 History of Technology****3 cr.**

The History of Technology will help the student better understand the impact of science and technology on our way of life, through discussions of technological change and the inter-relationship with the social, political and economic forces of society. The course will focus on the impact of major 20th Century American technologies such as the automobile, nuclear energy and computers.

Prerequisite(s): ENGL-080 or ENGL-101 or appropriate placement

Corequisite(s): none

**HIST 203 History of Health Care****3 cr.**

This course is designed to enrich the student's knowledge of the history of science, medicine, and technology that have impacted the development of modern health care. This course will explore the practice of health care providers and study the role of institutions and of the economic and social changes in the development of health care.

Prerequisite(s): ENGL-080 or ENGL-101 or appropriate placement

Corequisite(s): none

**HIST 205 Field School Historical Archaeology****3 cr.**

The Field School in Historical Archaeology is a hands-on 3-credit history course that provides the students with on-site archaeological field and laboratory experience. The course will expose students to the field of historical archaeology at the site of the Robert Given Farmstead (c.1761-c.1835) at Pemaquid Falls on the south-central coast of Maine, under the supervision of the project director and several experienced volunteers. This experience is a great hands-on opportunity for college students seeking course credit and experience in historical archaeology, teachers in need of recertification credits, or history buffs interested in exploring an area with a rich colonial history. HIST-155 is recommended prior to enrolling in this course.

Prerequisite(s): none

Corequisite(s): none

**HIST 208 American Biography****3 cr.**

This course serves as an introduction to reading and writing biography as an historical genre. By examining biographical techniques, this course evaluates biography as a method of narrating and interpreting the past. To do so, this course focuses on the history of political protest and social activism in the United States, investigating such topics as the radicalism of the American Revolution, utopianism, abolitionism, Progressivism, the labor movement, the struggle for African American freedom, feminism, the movements



of the New Left, and environmentalism. Exploring the lives and times of the figures who created and sustained the nation's tradition of radical reform while assessing a range of original historical sources will provide students the chance to understand the challenges – and rewards – of crafting historical biography.

Prerequisite(s): ENGL-080 or ENGL-101 or appropriate placement

Corequisite(s): none

### **HIST 225 African American Freedom Struggle 3 cr.**

This course examines the ongoing struggle for African American freedom from emancipation through the Black Lives Matter movement. This course will focus on how both ordinary African Americans, as well as renowned leaders, created and sustained the civil rights movement. Regional histories of the black freedom struggle – from Montgomery, Alabama to Portland, Maine – will also be emphasized. To investigate these topics, students will be introduced to a broad range of primary sources and will be encouraged to consider contemporary issues in historical context.

Prerequisite(s): ENGL-080 or ENGL-101, or appropriate placement

Corequisite(s): none

## ***Horticulture Courses (HORT)***

### **HORT 100 Introduction to Horticulture with Lab**

**3 cr.**

The student will be presented with an overview of the field of horticulture. Career opportunities, educational options and industry associations will be discussed. The principles of propagating, growing, arranging, maintaining, utilizing, and marketing of plants will be presented. Practical experience in greenhouse setting, such as transplanting occurs the first month of class. Field trips are required.

Prerequisite(s): none

Corequisite(s): none

### **HORT 110 Woody Plant Materials 2 cr.**

This course focuses on the identification, selection, uses and culture of trees, shrubs, groundcovers and vines in the northern New England landscape. Native and introduced or exotic plants are discussed, with an emphasis on the identification and selection of plants appropriate to various sites encountered in the urban and rural landscape. Field trips are required.

Prerequisite(s): none

Corequisite(s): none

### **HORT 120 Pruning**

**1 cr.**

This course is an introduction to the principles and practices of pruning. The course will cover selected topics on the science and art of pruning. Topics will include types and maintenance of pruning tools, reasons for pruning, plant responses to pruning and the various techniques used to effectively prune trees, shrubs, vines, edible fruits and herbaceous plants. Field trips are required.

Prerequisite(s): HORT-110

Corequisite(s): none

### **HORT 130 Soils and Soil Fertility**

**3 cr.**

This is an introductory soil science course investigating the physical, biological and chemical properties of soils and the relationships between plants and soil. Areas of study include: soil sampling and testing, organic matter management and composting, water relationships, soil surveys, soil horizon interpretation, soil fertility, and plant nutrition based on the selection and use of natural and synthetic fertilizers and soil amendments.

Prerequisite(s): none

Corequisite(s): none

### **HORT 135 Cannabis in Maine: History and Use 3 cr.**

This interdisciplinary course is designed to introduce fundamental concepts in pharmacology and key concepts in human physiology underlying medicinal and recreational cannabis use. Students gain an up-to-date, scientific foundation in a complex and evolving area of healthcare. Historical, political, and socio-economic influences on marijuana legislation will be discussed, along with Maine's experience with legalizing medical marijuana use beginning in 1999 and recreational use in 2016.

Prerequisites: ENGL-100 or ENGL-101, BIOL Elective with Lab or CHEM-120 or NUTR-110

Corequisite(s): none

### **HORT 140 Integrated Pest Management**

**3 cr.**

This course introduces students to applied entomology and plant pathology, and pest management strategies using the principles of integrated pest management (IPM). Common insect and plant disease organisms are identified and discussed. Emphasis is placed on plant health and pest management tactics resulting from systematic, logical, effective, and environmentally safe management decisions. Field trips are required. Maine Board of Pesticides Control Private Applicators License exam is given.

Prerequisite(s): none

Corequisite(s): none

- HORT 150 Arboriculture and Lab** **3 cr.**  
This is an introductory course in arboriculture: the planting and care of trees and shrubs. Students study the identifying features, growth habits and cultural requirements of urban trees and shrubs. The principles of tree care, pruning, repair and maintenance are covered. The techniques of tree climbing and appropriate knot tying and usage are presented. Preparation to become a licensed Maine arborist is given. Field trips are required.  
Prerequisite(s): HORT-110  
Corequisite(s): none
- HORT 175 Placement Training** **3 cr.**  
This summer internship is on-the-job training, providing students with a work experience in an area of horticulture or related field of specific interest to the student. Students are primarily responsible to the employer for the various work responsibilities established. Students are also responsible to the course instructor to complete academic requirements.  
Prerequisite(s): HORT-130, HORT-140, and HORT-110 or HORT-200  
Corequisite(s): none
- HORT 180 Freshman Seminar** **1 cr.**  
Students present a seminar of a topic of interest. Students are required to attend the "Distinguished Speaker Series." Speakers may include leading horticultural researchers, industry representatives, green industry professionals or experts in other fields.  
Prerequisite(s): none  
Corequisite(s): none
- HORT 185 Introduction to Floral Design** **3 cr.**  
This course is an introduction to the profession of Floral Designer. The course covers elements, principles and techniques of floral design. Classes will consist of lecture followed by hands on design. Classes will also cover the daily practices of a traditional floral shop. This course will prepare students for a career in the floral industry, including sales, design and merchandising. Students may purchase their arrangements on a weekly basis.  
Prerequisite(s): none  
Corequisite(s): none
- HORT 200 Herbaceous Plant Materials** **2 cr.**  
This course focuses on the identification, selection, uses, and culture of herbaceous landscape plants in the northern New England landscape. Emphasis is placed on the identification, environmental adaptation, and ornamental value of selected plants, with applications in the perennial and annual gardens.  
Prerequisite(s): HORT-110 or department approval  
Corequisite(s): none
- HORT 210 Surveying and Mapping** **2 cr.**  
This course gives students a working knowledge of landscape mapping as it might relate to landscape construction and design. Students learn various measuring techniques, develop technical skills using a level and transit, and produce base maps showing land contours, surface draining patterns, vegetative characteristics, and other landscape information.  
Prerequisite(s): MATH-112 or higher  
Corequisite(s): none
- HORT 220 Landscape Management** **3 cr.**  
This course presents the principles and techniques of landscape management. Components of landscape contracting and landscape gardening are discussed, with an emphasis on the efficient and environmentally sound management of the landscaped area. Topics include weed management, hardscape construction elements, landscape maintenance, job estimating and bidding, and business and resource management. Preparation to become a Maine Certified Landscape Professional is given.  
Prerequisite(s): HORT-110, HORT-130  
Corequisite(s): none
- HORT 230 Nursery and Garden Center Operations** **3 cr.**  
This course introduces students to the scope and nature of the nursery and garden center industries in Maine and New England. Current nursery crop production and management methods are discussed as well as applications of nursery equipment and irrigation techniques. Preparation is given to become a Maine Certified Nursery Professional. Field trips are required.  
Prerequisite(s): HORT-110  
Corequisite(s): none
- HORT 240 Turfgrass Management** **2 cr.**  
This course presents the principles and practices of managing turfgrass in the landscape. Course content includes the growth, development and maintenance of cool season turfgrasses. Seeding, sodding, mowing, fertilization, turf weeds and pests and related management practices are discussed. Field trips are required.  
Prerequisite(s): none  
Corequisite(s): none

**HORT 250 Greenhouse Management 3 cr.**

This is an introductory commercial greenhouse operations and management course. Students become familiar with greenhouse structures and equipment, the greenhouse environment, insect, disease and weed management, and crop production and marketing. Students apply methods and techniques to manage the greenhouse facility and environment and to gain experience and knowledge about common greenhouse crops. Field trips are required.

Prerequisite(s): HORT-130, HORT-200

Corequisite(s): none

**HORT 280 Senior Seminar 1 cr.**

Students present a seminar of their work experiences in HORT-175, Summer Placement. Students are required to attend the "Distinguished Speaker Series." Speakers may include leading horticultural researchers, industry representatives, green industry professionals or experts in other related fields.

Prerequisite(s): HORT-175, HORT-180

Corequisite(s): none

**HORT 290 Landscape Design 3 cr.**

This course introduces students to the fundamentals of landscape design as it applies to residential and small scale commercial landscapes. Included are the study of site evaluation, plan graphics, plant and landscaping materials selection, business aspects of landscape design and the principles of formal and informal design. Students prepare sketches and finished designs.

Prerequisite(s): HORT-110, HORT-200, HORT-210

Corequisite(s): none

## ***Hospitality Management Courses (HSPM)***

**HSPM 102 Introduction to Culinary, Hospitality and Tourism 3 cr.**

This course will provide students with a thorough overview of the culinary, hospitality and tourism industry along with the critical management principles that underlie the smooth operations of these areas. Students will be exposed to history, culture, philosophy, structure, organization and opportunities in the industry. This course will explore the purpose and benefits of professional organizations within the field. This course will help the student understand different market segments, trends, growth and the future of the industry.

Prerequisite(s): none

Corequisite(s): none

**HSPM 106 The Guest Experience 3 cr.**

This course examines critical elements of exceptional customer service in the hospitality industry. Considering all segments of the industry including transportation, lodging, food, beverage and attractions, students will develop appropriate communication skills related to guest service, self-presentation, interpersonal interactions and awareness of diversity and inclusion. In addition, students will explore and understand how to navigate difficult situations and develop problem-solving skills. Students will identify their own work ethic and guest service standards.

Prerequisite(s): none

Corequisite(s): none

**HSPM 175 LRM Internship 3 cr.**

This course is designed to give Lodging and Restaurant Management students a working knowledge of the hospitality industry. Students will familiarize themselves with the daily internal operations of a lodging or restaurant establishment and document the experience using a journal. This course is designed to introduce the student to the practical work environment in their interested field of business study. The internship will be approved, supervised and monitored during the semester. A minimum of 180 hours must be worked during the semester. Students will keep a weekly log of their activities and experiences and will prepare an in-depth research paper on their organization to be reviewed by the instructor. The students must be prepared to work as an unpaid intern and should have an updated resume prior to the first class.

Prerequisite(s): HSPM program acceptance

Corequisite(s): none

**HSPM 230 Hotel and Lodging Management 3 cr.**

This course will provide students with a comprehensive introduction to the management of hotels and lodging properties that combines detailed presentations of each department along with a close examination of organizational structure and the interdependent relationship among departments.

Prerequisite(s): HSPM-102

Corequisite(s): none

**HSPM 240 Hospitality Marketing 3 cr.**

This course looks at how to identify and sell to the most appropriate market segments in local, national and international settings. The ability to develop and implement effective marketing plans is stressed. Applying key marketing methodologies to research, sales, advertising, public relations, promotions and pricing are discussed at great length.

Prerequisite(s): none  
Corequisite(s): none

**HSPM 245 Events Management 3 cr.**

This course will provide the knowledge, skills and experience necessary to produce effective events, in accordance with traditional business services, which include but are not limited to the following: advertising; booking and coordinating events; providing audio, visual, wireless internet equipment and print media; catering and banquet services; handicap support services; and entertainment, spousal and child care services, as well as shuttle service.

Prerequisite(s): none  
Corequisite(s): HSPM-240

**HSPM 255 Hospitality Finance 3 cr.**

This course covers basic and intermediate topics in hospitality financial management, including accounting for lodging and food service businesses, performance metrics across various hotel types, profit and loss evaluation, topline growth, revenue management, and systems integration. It also provides an introduction to new business evaluation, renovation considerations, STAR reporting, and tax issues.

Prerequisite(s): ACCT-105  
Corequisite(s): none

**HSPM 270 Beverage 2 cr.**

This course introduces the beverage sector, including coffee, wine, beer and distilling. Planning topics include concept, production, selection, and service of alcoholic and nonalcoholic beverages. The course aims to give a comprehensive understanding of all beverages that relate to the hospitality industry.

Prerequisite(s): ENGL-100 or ENGL-101, HSPM program acceptance  
Corequisite(s): none

**HSPM 275 Dark Tourism 1 cr.**

Students will explore historical locations that fall under the realm of dark tourism. These sites are typically associated with some type of death or tragedy. The value of this exploration is considering the historical significance rather than the association with death and suffering. Students will understand the type of traveler that visits these locations and their motivation for visiting.

Prerequisite(s): HSPM-102  
Corequisite(s): none

## *Heating, Air Conditioning, and Refrigeration Courses (HVAC)*

**HVAC 115 Residential Heating Systems 7 cr.**

This course covers the study of heating systems beginning with basic energy units, work, power, measurements, fuel, combustion theory, burner, heat exchange controls, system types and application.

Prerequisite(s): HVAC program acceptance  
Corequisite(s): MATH-040 or appropriate placement

**HVAC 120 Basic Refrigeration 7 cr.**

Basic Refrigeration prepares students for entry-level positions in the industry through theory, demonstration and hands-on practice in a simulated workplace environment. The areas of instruction include safety, tools, commercial refrigeration equipment, refrigeration cycles, compressors, evaporators, all associated controls (both electrical and mechanical), and basic electrical theory.

Prerequisite(s): HVAC program acceptance  
Corequisite(s): MATH-040 or appropriate placement

**HVAC 215 System Design and Industrial Heating 7 cr.**

This course covers System Design, forced hot water and forced warm air piping, and duct layout. System zone control is emphasized in all common residential systems. Other topics include light industrial heating equipment and controls.

Prerequisite(s): ELEC-100, HVAC-115  
Corequisite(s): none

**HVAC 220 Basic Air Conditioning 7 cr.**

Basic Air Conditioning continues to prepare students for entry level positions in the HVAC industry through comfort cooling theory, demonstration, and "hands-on" practice in a simulated workplace environment. The areas of instruction include review of trade safety practices, proprietary tools, instruments, workplace readiness for installation, service and repair of air conditioning systems and heat pumps.

Prerequisite(s): ELEC-100, HVAC-120  
Corequisite(s): none

## *Plumbing Courses (HVPL)*

**HVPL 100 Blueprint Reading and Sketching 3 cr.**

This course is a study of isometric plans and elevation drawings for plumbers. It includes exercises in bathroom layouts and producing isometric pipe drawings. Restricted to Plumbing and HAC students.

Prerequisite(s): HVAC program acceptance

Corequisite(s): MATH-040 or appropriate placement

### **HVPL 105 Plumbing Application and Methods 7 cr.**

This course offers an introduction to the plumbing trade as practiced in the State of Maine. Students will develop a working knowledge of the codes governing the installation of plumbing and when where to use the proper materials in the different plumbing systems. Students will also learn the safe and proper way to use the different tools and equipment used in the trade. Students will be required to work on individual projects over the course of the semester.

Prerequisite(s): HVAC program acceptance

Corequisite(s): MATH-040 or appropriate placement

### **HVPL 205 Plumbing Application and Code 7 cr.**

This course is a further concentration of Maine Plumbing Code. Mock-ups will be used for actual piping and fixture layout allowing students the opportunity to design, build and test plumbing installations. This course continues preparation to qualify the students to sit for the Maine State Journeyman Plumbers Exam.

Prerequisite(s): HVPL-105

Corequisite(s): none

## ***International Cultural Exchange Courses (ICEX)***

### **ICEX 130 Cultural Experience - Austria 3 cr.**

This course is intended to include SMCC's culinary arts two-week study tour in Austria, which takes place at the end of each spring semester. The study tour is based at Bad Gleichenberg Tourismsschule. The hands-on application in Bad Gleichenberg is 8 full days of cooking Austrian cuisine including: moist methods of cooking beef, poultry, veal and pork; dry methods such as Vienna Schnitzel, cutlets, and smoking of fresh native fish; Austrian dumplings; spaetzle; vegetable salads; dressings and vegetable compliments for the main course. Desserts and pastries include items such as Lindzer torte, Sacher Torte, a variety of dumplings, souffles, Palatchinken, Kaisersharm and the beverages to accompany the meals. During our stay, we will have two evenings of wine education in any one of the school's six wine cellars, and attend a graduation ceremony, performed by the students under the supervision of their chefs and Maitre d'hotel. Additionally, after cooking and serving of the meals, we will visit several castles and learn the history of the Hapsburg Dynasty. Students will also visit wineries, chocolate manufacturing, local agricultural sites and several upscale resort spas and spend the last weekend touring museums and city activities.

Prerequisite(s): none

Corequisite(s): none

### **ICEX 160 Cultural Experience-Mexico 3 cr.**

For this trip to Mexico, students will be required to complete a significant amount of reading from the work of at least two major Mexican writers. The motifs of geographical proximity and cultural contrast will be the primary focus of study. A journal of the Mexican sojourn and a five-page essay reflecting travel experiences and the required reading will be expected of students. The course will also include one three-hour meeting/discussion and the viewing of at least one Mexican-made film or film made about Mexico.

Prerequisite(s): none

Corequisite(s): ENGL-115

## ***Interdisciplinary Studies Courses (IDST)***

### **IDST 120 Symmetry, Shape, and Space 3 cr.**

What is the Golden Ratio and how do artists and scientists use it? This interdisciplinary course is a survey of geometrical topics in mathematics and our world, focusing on problem solving and the connections between mathematics and culture. For example, is our social order influenced by mathematics or spatial awareness? A selection of introductory topics will be covered from among these: Euclidian geometry; mathematics and social satire; ruler-and-compass constructions; tessellations; symmetries in two dimensions; and perhaps more as time permits. The course format emphasizes guided exploration and critical thinking; students will be required to demonstrate an understanding of the material through journal writing and reports. A mathematics text and a novel are used to introduce concepts and related themes. This course has been designated as a writing-intensive course. Listed as MATH-120 and IDST-120.

Prerequisite(s): ENGL-080 or ENGL-101 and MATH-040 or appropriate placement

Corequisite(s): none

### **IDST 140 America's Working Women 3 cr.**

This course is designed to introduce students to new scholarship on women and work. It covers the evolution of the household economy as well as the role of women in the paid labor force. Recognizing that work considerations have had a powerful influence on family life and economic status, this course will allow students to place their lives in a larger historical context, enabling them to comprehend the experiences and problems of women and men as gender and work took on new shape and meaning in modern times. The course is writing intensive.

Prerequisite(s): ENGL-100 or ENGL-101

Corequisite(s): none

### **IDST 150 Nature and Culture**

**3 cr.**

This interdisciplinary course uses the combined perspectives of sciences such as biology, ecology and economics together with history, philosophy and literature to study how cultures and individuals interact with nature. Through close reading of essays, poems and scientific papers, as well as through students' own field observations and writings on their local environment, this course explores the underlying values and ethical judgments involved in making choices on environmental issues that range from the local to global. Topics include basic concepts such as evolution and cell theory and current issues such as animal rights, biotechnology, global warming and biodiversity conservation. No college science background is required.

Prerequisite(s): ENGL-080 or ENGL-101 and MATH-040 or appropriate placement

Corequisite(s): none

### **IDST 160 The Nature of Music/Music of Nature**

**3 cr.**

This 100-level interdisciplinary course combines the scientific perspectives of biology and the artistic perspective of music to examine the relationship of music and nature. This course will integrate composition, performance and instrument-making together with ethnomusicology, evolutionary theory and bioacoustics. Students examine the vocalizations of animals such as birds, frogs and insects, the gamelan music of Indonesia and other cultures, and composers and compositions inspired by nature. The course culminates in a performance of an original composition using handmade instruments constructed during the semester.

Prerequisite(s): ENGL-080 or ENGL-101 and MATH-040 or appropriate placement

Corequisite(s): none

### **IDST 170 Seminar on HIV/Aids in America**

**3 cr.**

HIV/AIDS presents challenges for all people. This multidisciplinary course focuses on the biological, sociocultural, political and humanistic components of this worldwide epidemic. It also emphasizes the prevention of the spread of HIV infection. Students will have an opportunity to learn about the science of HIV/AIDS, treatment, issues related to the societal and political impact of HIV/AIDS, and the education/prevention of HIV/AIDS. Students will participate in service learning projects related to educating the SMCC community on HIV/AIDS.

Prerequisite(s): ENGL-080 or ENGL-101 or appropriate placement

Corequisite(s): none

## ***Cyber Security (INSC)***

### **INSC 160 Fundamentals of Network Security**

**4 cr.**

This course provides an introduction to the fundamentals of network security, including compliance and operational security; threats and vulnerabilities; application, data, and host security; access control and identity management; and cryptography. The course also covers topics in network security, including psychological approaches to social engineering attacks, web application attacks, penetration testing, data loss prevention, cloud computing security, and application programming development security. This course offers a comprehensive guide for anyone wishing to take the Computer Technology Association (CompTIA Security+) Certification Exam.

Prerequisite(s): CMIT-100, CMIT-105, MATH-040 or appropriate placement

Corequisite(s): ENGL-100 or ENGL-101

### **INSC 170 Computer Forensics**

**4 cr.**

This course prepares students to acquire, investigate, and report on electronic evidence. This computer forensics specialization can help students master leading computer forensic software applications and gain an understanding of the diversity of computer crime as well as the laws and principles concerned with computer forensics and electronic evidence. Students will also learn how to discover data that resides in a computer system, and to recover deleted, encrypted, or damaged file information.

Prerequisite(s): ENGL-080 or ENGL-101 and MATH-040 or appropriate placement

Corequisite(s): none

### **INSC 260 Management of Information Security**

**4 cr.**

This course focuses on the managerial aspects of information security and assurance. Topics covered include access control models, information security governance, and information security assessment and metrics. Coverage of the foundational and technical components of information security is included to reinforce key concepts. The course includes up-to-date information on changes in the field, such as national and international laws, and international standards like the ISO 27000 (international standard entitled: information technology) development security.

Prerequisite(s): CMIT-105, INSC-160

Corequisite(s): none

**INSC 270 Information Security and Ethics 4 cr.**

The objective of the course is to provide a broad understanding of information security principles, strategies, tactics, and technologies with the underlying theme of ethics. This course will cover information security concepts, offensive and defensive tactics, and analysis methodologies regarding vulnerability and risk. In addition, students will gain hands on experience applying the first line of defense tactics and methodologies.

Prerequisite(s): INSC-160

Corequisite(s): none

**INSC 275 Cyberlaw 3 cr.**

This course examines how changing laws address the expansion of cybercrime in the digital age. Advances in digital technology has led to cybercrime and led to the creation of laws specific to e-commerce, identity theft, sexual harassment, intellectual property rights, plagiarism, and confidential information of individuals and businesses. Students will examine case studies from a wide range of cybercrimes throughout the course.

Prerequisite(s): ENGL-100 or ENGL-101

Corequisite(s): none

**INSC 280 Ethical Hacking 4 cr.**

This course provides an in-depth understanding of how to effectively protect computer networks. Students will learn the tools and penetration testing methodologies used by ethical hackers. In addition, the course provides a thorough discussion of what and who an ethical hacker is and how important they are in protecting corporate and government data from cyber-attacks. Students will learn updated computer security resources that describe new vulnerabilities and innovative methods to protect networks. Also covered is a thorough update of federal and state computer crime laws, as well as changes in penalties for illegal computer hacking.

Prerequisite(s): INSC-160, CMIT-225

Corequisite(s): none

***Liberal Studies (LIBS)*****LIBS 200 Liberal Studies Internship 3 cr.**

The Liberal Studies Internship is designed to expose students to a number of disciplines and occupations from history to education, psychology to social work and more. By participating in this internship, students create a portfolio, mid-term, and final report, and gain 180 hours of real work practical experience. The goal is for students to work with professionals in their field in order to polish and refine their career objectives.

This course counts as a free elective for the liberal studies degree program.

Prerequisite(s): 24 credits earned

Corequisite(s): none

***Machining Courses (MACH)*****MACH 101 Introduction to Manufacturing 1 cr.**

This course provides skills that allows students to work on most manufacturing environments, with theory and labs focused on the fundamentals needed to perform more advanced learning in the Precision Machining and Manufacturing Technology program. The primary goal of this course is to deliver instruction focused on safe work practices while in the lab as well most shops. Students will be introduced to standard operational procedures (SOPs). Coursework will focus on measurement, both precise and semi-precise, operation of machine tools, and layout work. Current industry standards will be emphasized.

Prerequisite(s): MATH-040 or appropriate placement

Corequisite(s): none

**MACH 102 Introduction to Precision Machining****Practices: Lathe 3 cr.**

This course utilizes theory and lab focused on basic precision manual machining on lathes. Students will study workplace and machine safety, best work practices, and complete projects in lab. Students will be exposed to a variety of manual lathe setups and operations. Projects are assigned based on the National Institute of Metalworking Skill Level 1 standards (NIMS). Other projects may be assigned to further assist student skill set development. Students will demonstrate the proper use of precision measuring equipment throughout the course.

Prerequisite(s): MATH-040 or appropriate placement

Corequisite(s): MACH-101

**MACH 103 Introduction to Precision Machining****Practices: Mills/Grinding 3 cr.**

This course utilizes theory and lab focused on basic precision manual machining on milling machines and surface grinding. Students will study workplace and machine safety, best work practices, and complete projects in lab. Students will be exposed to a variety of manual milling and surface grinding setups and operations. Projects are assigned based on the National Institute of Metalworking Skill Level 1 standards (NIMS). Other projects may be assigned to further assist student skill set development. Students will demonstrate the proper use of precision measuring equipment throughout the course.

Prerequisite(s): MATH-040 or appropriate placement

Corequisite(s): MACH-101

**MACH 105 Basic Machine Theory 4 cr.**

This course emphasizes basic precision machining theory. Students will study workplace and machine safety. This course will focus on the development of best work practices and related theory including: precision measuring, layout, hand tool, lathes, drill press, grinding and milling.

Prerequisite(s): MATH-040 or appropriate placement

Corequisite(s): AEDD-105, MACH-106

**MACH 106 Basic Machine Lab 3 cr.**

This lab complements the theory taught in MACH-105 Basic Machine Theory. Students will apply the skills reviewed in MACH-105 including: precision measuring, layout, hand tools, lathes, drill press, grinding and lathe operations. Development of best work practices will be emphasized including safe work habits to build student confidence in manual machining. Students will complete a series of assignments and Lab Projects as required to validate entry level metalworking competencies.

Prerequisite(s): MATH-040 or appropriate placement

Corequisite(s): AEDD-105, MACH-105

**MACH 115 Introduction to Precision Machining Practices 7 cr.**

This course emphasizes basic precision machining theory and practices including: precision measuring, layout, hand tools, lathes, drill press, grinding and milling. Development of best work practices will be emphasized including safe work habits to build student confidence in manual machining. Students will complete a series of assignments and lab projects as required to validate entry level metalworking competencies.

Prerequisite(s): MATH-040 or appropriate placement

Corequisite(s): none

**MACH 151 Advanced Manufacturing Processes 1 cr.**

Using theory and labs focused on advancing skills needed in the Precision Machining and Manufacturing Technology careers, this course provides skills that will allow students to work in most manufacturing environments. Students will focus on safe work practices in the lab/shop and learn to adhere to the expected standard operational procedures (SOPs). Instruction includes lab demonstrations and advanced project coursework. The course utilizes an online learning platform and current industry standards.

Prerequisite(s): MACH-115, or MACH-101 and MACH-103

Corequisite(s): AEDD-170

**MACH 152 Advanced Turning Processes 3 cr.**

This course utilizes Immerse 2 Learn online coursework as well as theory and lab focused on advanced manual machining processes on the lathes. Students will study workplace and machine safety. Best work practices and complete projects in lab. Students will also be exposed to entry level conversational CNC lathe programming and set-up and operations. Projects are assigned based on the National Institute of Metalworking Skill level II standards (NIMS). Other projects may be assigned to further assist student skill set development. Students will demonstrate the proper use of precision measuring equipment throughout the course.

Prerequisite(s): MACH-115, or MACH-101, MACH-102 and MACH-103

Corequisite(s): AEDD-170, MACH-151

**MACH 153 Advanced Milling and Grinding Processes 3 cr.**

Using theory and labs this course will focus on fundamentals needed to safely precision mill and surface grinding precision machined parts. Students will be exposed to a variety of advanced milling and surface grinding set-up and operations. Projects are assigned based on the National Institute of Metalworking Skill level 1 standards (NIMS). Other projects may be assigned to further assist student skill set development. Students will demonstrate the proper use of precision measuring equipment throughout the course. The course utilizes an online learning platform and current industry standards.

Prerequisite(s): MACH-115, or MACH-101, MACH-102 and MACH-103

Corequisite(s): AEDD-170, MACH-151

**MACH 155 Advanced Machine Theory 4 cr.**

The second semester course teaches safe work habits and modular set-ups, and develops student confidence and imagination. Emphasis is on advanced machine operations and closer tolerances with projects are introduced. This course is designed to make the student more aware of the importance of efficient use of time in the machining process. Hand tools, drilling, electric discharge machining on a vertical ram machine, grinding and tool and die construction will be explored.

Prerequisite(s): MACH-105, MACH-106, AEDD-105

Corequisite(s): MACH-156

**MACH 156 Advanced Machine Lab 3 cr.**

This course is a continuation of lab work in MACH-106. This lab complements the theory taught in MACH-155. Students will apply advanced skills for higher tolerance precision measuring, turning, drill press, grinding and



milling operations. Development of best work practices, safe work habits and time management will be emphasized. Students will complete a series of Lab Projects as required to meet NIMS national credentials.

Prerequisite(s): MACH-105, MACH-106, AEDD-105  
Corequisite(s): MACH-155

**MACH 165 Advanced Precision Machining Practices 7 cr.**

This second semester course teaches safe work habits and modular set-ups, and develops student confidence and imagination. Emphasis is on advanced machine operations and closer tolerances with projects are introduced. This course is designed to make the student more aware of the importance of efficient use of time in the machining process. Students will apply advanced skills for higher tolerance precision measuring, turning, drill press, grinding and milling operations. Development of best work practices, safe work habits and time management will be emphasized. Students will complete a series of Lab Projects as required to meet NIMS national credentials.

Prerequisite(s): MACH-115 or MACH-101, MACH-102, MACH-103  
Corequisite(s): AEDD-170

**MACH 205 Introduction to CNC Machining Theory 4 cr.**

This course is divided into three units of study, including NIMS national credentialing, CNC (Proto TRAK milling and turning), and CNC (fanuc), PC and various other machine controllers. Information gained from each of the units will be applied to a series of assignments that develop the skills required to produce production planning and CNC codes, tooling and operations for CNC machining.

Prerequisite(s): MACH-155, MACH-156  
Corequisite(s): MACH-206, AEDD-170

**MACH 206 Introductory CNC Machining Lab 3 cr.**

This lab complements the theory taught in MACH-205 Introductory CNC Machining Theory. Students will work on projects utilizing Computer Numerical Controlled machine tools, (CNC) Proto TRAK milling and turning with Fanuc, PC and various other controllers. Particular emphasis is placed on NIMS national credentialing and safe CNC machine operations.

Prerequisite(s): MACH-155, MACH-156  
Corequisite(s): MACH-205, AEDD-170

**MACH 215 Introduction to CNC Machining Practices 7 cr.**

This course is divided into three units of study. Students will work on projects utilizing Computer Numerical Controlled machine tools, (CNC) Proto TRAK milling and turning with Fanuc, PC and various other controllers. Particular emphasis is placed on NIMS national credentialing and safe CNC machine operations. Information gained from each of the units will be applied to a series of assignments that develop the skills required to produce production planning and CNC codes, tooling and operations for CNC machining.

Prerequisite(s): MACH-165  
Corequisite(s): AEDD-170

**MACH 255 CNC Programming 4 cr.**

This course is divided into five units, consisting of Advanced Computer Numerical Control (CNC) operations and programming, and four other areas of study. They are metallurgy and materials, Statistical Process Control (SPC) and Quality Control (QC), an integration of various CAD (Computer Aided Design) programs, and CAM (Computer Assisted Manufacturing) programs (Solidworks and Camworks). Students will complete a capstone project to validate all skills attained in the program.

Prerequisite(s): MACH-205, MACH-206  
Corequisite(s): MACH-256

**MACH 256 CNC Machining Lab 3 cr.**

This lab complements the theory taught in MACH-255 CNC Programming. Students will work on projects utilizing Numerical Control (CNC) operation and programming, and Statistical Process Control (SPC) and Quality Control (QC). Projects will integrate CAD (Computer Aided Design) programs and CAM (Computer Assisted Manufacturing) programs (Pro CAM, Solid Works, CAM Works). Students will complete a capstone project to validate all skills attained in the program.

Prerequisite(s): MACH-205, MACH-206  
Corequisite(s): MACH-255

**MACH 265 Advanced CNC Machining and Programming Practices 7 cr.**

This course is divided into five units, consisting of Advanced Computer Numerical Control (CNC) operations and programming, metallurgy and materials, Statistical Process Control (SPC) and Quality Control (QC), an integration of various CAD (Computer Aided Design) programs, and CAM (Computer Assisted Manufacturing) programs (Solidworks and Camworks). Students will work on projects in each of these units. Projects will integrate CAD (Computer Aided Design) programs and CAM (Computer Assisted

Manufacturing) programs (Pro CAM, Solid Works, CAM Works). Students will complete a capstone project to validate all skills attained in the program.

Prerequisite(s): MACH-215

Corequisite(s): none

### **MACH 275 Senior Internship 3 cr.**

This course is designed to give the student practical experience to enter the job market. Students will be required to complete 90 documented hours of trade related job shadowing and work. This course may be spread out during the senior year as work schedule permits.

Prerequisite(s): MACH-105, MACH-106

Corequisite(s): none

## ***Mathematics Courses (MATH)***

### **MATH 040 Pathway To College Mathematics 4 cr.**

This foundational course is intended to prepare students for college-level mathematics. It offers a review of basic math skills and exposes students to the various math topics in the various math pathways required for degrees at Southern Maine Community College (SMCC). This course will emphasize activity-based learning. It streamlines introductory level algebra content and introduces students to other fields of math, including geometry, consumer mathematics, probability and statistics. The credits earned in this course will help prepare for, but not count toward, a degree at SMCC.

Prerequisite(s): none

Corequisite(s): none

### **MATH 111 Enhanced Quantitative Reasoning 4 cr.**

This course provides a foundation in critical thinking, problem solving, and mathematical and statistical skills aligned with citizenship, workforce and real-world applications. The goals of the course are to engage students in meaningful mathematical experiences that will increase their quantitative and logical reasoning abilities and strengthen the mathematical abilities that they will encounter in other disciplines. A focus of the course is to develop and support communication and collaboration skills. This course is designed as a gateway course for students entering non-STEM degree programs. This enhanced version of the Quantitative Reasoning course is an Accelerated Learning Program (ALP) course. The additional scheduled class time gives the opportunity for more collaboration, individualized help, and classroom activities supporting learning.

Prerequisite(s): Appropriate placement

Corequisite(s): none

### **MATH 112 Quantitative Reasoning 3 cr.**

This course explores connections between mathematics and various facets of modern life. Quantitative reasoning enables both understanding and decision-making about aspects of work, money management, civic participation, and recreation. Topics in this course include unit analysis, percentages, personal finance, statistics, probability, linear and exponential growth, mathematical modeling, and geometry.

Prerequisite(s): MATH-040 or appropriate placement

Corequisite(s): none

### **MATH 115 Foundations of Mathematics for Teachers I 3 cr.**

This is the first of a two-course sequence for future teachers designed to deepen their conceptual understanding of mathematics. Topics will include problem solving, patterns, reasoning and proof, making mathematical connections, sets, understanding algebraic thinking, numeration systems, understanding the four fundamental operations of arithmetic, basic number theory, and the Real numbers system.

Prerequisite(s): MATH-040 or appropriate placement, EDUC or ECED program acceptance

Corequisite(s): none

### **MATH 116 Foundations of Mathematics for Teachers II 3 cr.**

This is the second of a two-course sequence for future teachers designed to deepen their conceptual understanding of mathematics. Topics will include problem solving that involves ratio and proportion, applying algebra to percents and formula usage, mathematics of data collection and chance, geometry as shapes and transformations of shapes, and geometry of measurement.

Prerequisite(s): MATH-115

Corequisite(s): none

### **MATH 120 Symmetry, Shape, and Space 3 cr.**

What is the Golden Ratio and how do artists and scientists use it? This interdisciplinary course is a survey of geometrical topics in mathematics and our world, focusing on problem solving and the connections between mathematics and culture. For example, is our social order influenced by mathematics or spatial awareness? A selection of introductory topics will be covered from among these: Euclidian geometry; mathematics and social satire; ruler-and-compass constructions; tessellations; symmetries in two dimensions; and perhaps more as

time permits. The course format emphasizes guided exploration and critical thinking; students will be required to demonstrate an understanding of the material through journal writing and reports. A mathematics text and a novel are used to introduce concepts and related themes. This course has been designated as a writing-intensive course. This course is listed as both MATH-120 and IDST-120.

Prerequisite(s): ENGL-080 or ENGL-101 and MATH-040 or appropriate placement

Corequisite(s): none

**MATH 125 Introduction to Discrete Mathematics 3 cr.**

An introduction to the ideas of discrete mathematics, this course presents the topics needed to prepare the student for success in courses in computer science and electronics. Topics include number systems, logic, computer arithmetic, coding, sets, Boolean algebra, networks, circuits, flowcharts, computer functions, algorithms, graphs, arrays, and summation.

Prerequisite(s): MATH-040 or appropriate placement

Corequisite(s): none

**MATH 130 Technical Math 3 cr.**

In this course, students learn mathematics relevant to a variety of technical disciplines. The course content includes proportions, percentages, measurement, algebra, geometry, trigonometry, and statistics. An emphasis is placed on practical, contextual applications.

Prerequisite(s): MATH-040 or appropriate placement

Corequisite(s): none

**MATH 140 College Algebra 3 cr.**

This course covers variables and symbols; scientific notation; formulas and literal equations; slope intercepts, and equations of lines; graphs of linear and quadratic functions; graphs of linear inequalities; solving systems of linear equations; polynomials, products and factors; roots, rational exponents and complex numbers; rational expressions; solving linear, quadratic and higher order equations; solving linear inequalities; an introduction to exponential and logarithmic functions, and applied problem solving.

Prerequisite(s): MATH-040 or appropriate placement

Corequisite(s): none

**MATH 142 Enhanced College Algebra 4 cr.**

This course covers variables and symbols; scientific notation; formulas and literal equations; slope intercepts, and equations of lines; graphs of linear and quadratic functions; graphs of linear inequalities; solving systems of linear equations; polynomials, products and factors; roots, rational exponents and

complex numbers; rational expressions; solving linear, quadratic and higher order equations; solving linear inequalities; an introduction to exponential and logarithmic functions, and applied problem solving. This enhanced version of the College Algebra course is an Accelerated Learning Program (ALP) course. The additional scheduled class time gives the opportunity for more collaboration, individualized help, and classroom activities supporting learning.

Prerequisite(s): Appropriate placement

Corequisite(s): none

**MATH 145 College Algebra and Trigonometry 4 cr.**

This course covers variables and symbols; scientific notation; logarithms and applications; roots, rational exponents and complex numbers; formulas and literal equations; polynomials, products and factors; solving linear, quadratic and higher order equations; rational expressions; solving inequalities; graphs of linear functions and inequalities; graphs of quadratic functions; slope, intercepts, and equations of lines; solving systems of linear equations; degree and radian angle measure; right triangle trigonometry and its applications; trigonometric functions and their inverses; graphing trigonometric functions; solutions of oblique triangles; vectors; and applied problem solving.

Prerequisite(s): MATH-040 or appropriate placement

Corequisite(s): none

**MATH 146 Introduction to Trigonometry 1 cr.**

This course covers degree and radian angle measure; right triangle trigonometry and its applications; trigonometric functions and their inverses; graphing trigonometric functions; solutions of oblique triangles; vectors; and applied problem solving.

Prerequisite(s): MATH-040 or appropriate placement

Corequisite(s): MATH-140 or MATH-142

**MATH 155 Statistics 3 cr.**

This course is designed for students with little or no experience in statistical analysis. Topics of study include sampling theory, descriptive statistics, probability theory, normal distribution, confidence intervals, hypothesis testing, inference, regression, and correlation. Students will develop skills in collecting, examining, and interpreting data using statistical techniques.

Prerequisite(s): MATH-040 or appropriate placement

Corequisite(s): none

**MATH 160 College Trigonometry 3 cr.**

Topics include degree and radian angle measure, right triangle trigonometry and its applications, trigonometric functions and their inverses, graphing

trigonometric functions, applications of trigonometric functions, analytic trigonometry, solutions of oblique triangles, vectors, polar coordinates and the trigonometric form complex numbers including DeMoivre's Theorem.

Prerequisite(s): MATH-140 or MATH-142

Corequisite(s): none

**MATH 190 Pre-Calculus 3 cr.**

This course is designed to add depth and breadth to a student's mathematical background before embarking on a study of the methods of calculus. The course covers a review of algebra, linear, and quadratic functions; polynomial, rational, exponential, radical, and logarithmic functions; compositions and inverses of functions; theory of polynomials with the Fundamental Theorem of Algebra; trigonometric functions and identities; additional topics and applications.

Prerequisite(s): MATH-140 or MATH-142, MATH-146 or MATH-160

Corequisite(s): none

**MATH 220 Finite Mathematics 4 cr.**

This course emphasized mathematical modeling and decision making in the fields of business, economics, social science, and non-physical sciences. Topics include the mathematics of finance, matrices, linear programming, and probability. Data description and probability distributions are optional topics.

Prerequisite(s): MATH-140

Corequisite(s): none

**MATH 225 Discrete Mathematics 3 cr.**

In this course, students will explore mathematical concepts in which the objects of study are discrete, as opposed to continuous. Such ideas have particular importance for both computer science and engineering. Topics will include logic, sets, methods of proof, sequences, series, recursion, functions, counting, and probability.

Prerequisite(s): ENGL-080 or ENGL-101 or appropriate placement, MATH-140 or MATH-142

Corequisite(s): none

**MATH 260 Calculus I 4 cr.**

This course introduces the concepts of limit, continuity, differentiation and integration of algebraic, trigonometric, exponential, logarithmic, and inverse trigonometric functions of a single variable. Emphasis is placed on applications of the derivative and the integral using the rules of differentiation and integration.

Prerequisite(s): MATH-190

Corequisite(s): none

**MATH 270 Calculus II 4 cr.**

This course is a continuation for Calculus I. Topics include an introduction to differential equations, techniques and applications of integration, L'Hopital's Rule, improper integrals, infinite series, conics, and parametric and polar equations.

Prerequisite(s): MATH-260

Corequisite(s): none

**MATH 275 Introduction to Differential Equations and Linear Algebra 4 cr.**

This course is an introduction to ordinary differential equations and linear algebra for engineers and science students. Linear algebra topics covered in this course are matrix algebra, determinants, linear independence, linear transformations, vector spaces, eigenvalues and eigenvectors. Ordinary differential equation (ODE) topics include first-order ODEs, high-order linear ODEs, linear systems of ODEs, Laplace transform method, mathematical modeling, and numerical analysis.

Prerequisite(s): MATH-270

Corequisite(s): none

**MATH 280 Calculus III 4 cr.**

This course is the extension of calculus in one variable to calculus in more than one variable introducing the concepts of limits and continuity in multiple dimensions, partial differentiation, multiple integration, gradients, divergence, Stokes Theorem, and Greens Theorem. This course is for students interested in the fields of mathematics, engineering, economics, and the sciences.

Prerequisite(s): MATH-270

Corequisite(s): none

***Medical Assisting Courses (MDAS)***

**MDAS 100 Medical Terminology 3 cr.**

This course is designed as an introduction to medical terminology using a body systems approach. Students will develop a basic understanding of medical language by analyzing prefixes, suffixes, root words, and combining forms as they relate to the different body systems and the basic cellular structure.

Prerequisite(s): ENGL-080 or ENGL-101 or appropriate placement

Corequisite(s): none

**MDAS 105 Medical Office Procedures 3 cr.**

Students will learn and apply through reading, discussions and projects all aspects of the health care operation including the profession of medical assisting,

patient communication, telephone triage techniques, scheduling, and medical records.

Prerequisite(s): MDAS-110

Corequisite(s): none

### **MDAS 110 Introduction to Medical Assisting 1 cr.**

This course is designed as an introduction to the profession of Medical Assisting. Students will be exposed to various topics related to Medical Assisting which will include background, concepts, ethics/standards of practice, professional responsibilities, current issues in healthcare, and the relationship of Medical Assisting with other healthcare professions.

Prerequisite(s): MDAS program acceptance, ENGL-080 or ENGL-101 or appropriate placement

Corequisite(s): MDAS-100, MATH-040 or appropriate placement

### **MDAS 111 Introduction to Medical Ethics and Law 1 cr.**

This course is designed as an introduction to Medical Ethics and Law. Students will be exposed to various topics related to Medical Assisting which will include ethical/legal standards of practice, understanding Scope of Practice, HIPAA privacy laws, reducing liability, patient rights including rules around consent, the medical record as a legal document, and the importance of making ethical decisions in one's professional capacity.

Prerequisite(s): MDASC program acceptance

Corequisite(s): none

### **MDAS 120 Medical Ethics and Law 3 cr.**

This course will provide students with an overview of laws, ethics, liabilities, and their relationships as they relate to the Medical Assisting profession. Covered topics will include ethical and legal responsibilities, licensure requirements, physician and patient rights, negligence, medical records confidentiality, and revocation of licensure.

Prerequisite(s): none

Corequisite(s): none

### **MDAS 125 Electronic Medical Records 3 cr.**

This course provides instruction in use of an electronic health system with an understanding of how Electronic Health Records (EHR) changes healthcare delivery workflows that affect quality improvement, patient safety, and care coordination. Included is the use of industry-standard software for hands-on experience with electronic input to establish patient demographics for charting and clinical documentation generated during patient encounters, and the creation

of templates. Decision support productivity tools are introduced. This course reviews the standards criteria, aspects of compliance and related regulations including the linking of Meaningful Use (MU) criteria, and measures the functions of EHRs.

Prerequisite(s): MDAS-110

Corequisite(s): none

### **MDAS 150 Disease Pathology/Diagnostic Labs 3 cr.**

This course is designed to apply knowledge previously learned in Medical Terminology and Anatomy and Physiology to the disease process. Common diseases will be covered in a body systems approach. Laboratory and diagnostic tests will also be applied to each body system. The relationship between diagnostic testing and diagnosis of disease will be explored.

Prerequisite(s): MDAS program acceptance, MDAS-100, BIOL-132

Corequisite(s): none

### **MDAS 160 Introduction to Clinical Office Procedures 3 cr.**

This beginning Clinical Procedures course will cover a limited number of procedures necessary for the medical office. This course will include disease transmission and infection control cycle, beginning surgical asepsis, vital sign procedures, obtaining patient history data, and assisting the physician in a general physical examination, and Cardiopulmonary Resuscitation (CPR).

Prerequisite(s): BIOL-132

Corequisite(s): BIOL-138, MDAS-105

### **MDAS 205 Medical Insurance, Coding and Billing 3 cr.**

This course focus is on the cycle of activities that are embedded in medical services to ensure accurate and complete healthcare provider reimbursement. These include national coding and billing policies, and procedures inherent in the medical billing workflow process. Predetermination, precertification, and preauthorization for physician rendered services and supplies by commercial, state, federal, and third party liability insurance companies are key topics. Legal, regulatory, and Health Insurance Portability and Accountability Act (HIPAA) compliance issues are explored. The student is introduced to the principles, guidelines, and conventions for assigning current International Classification of Diseases/Clinic Modification (ICD/CM) and Current Procedural Terminology (CPT) / Health Common Procedure Coding System (HCPS) procedural coding to patient encounters for physician services.

Prerequisite(s): MDAS-105, MDAS-150  
Corequisite(s): HLTH-155

**MDAS 210 Clinical Office Procedures 3 cr.**

This course is designed to provide students with the didactic knowledge necessary to effectively assess and treat patients in a variety of clinical medical settings. Lessons will include instruments and equipment used in the medical practice settings, medical and surgical asepsis, general physical examination skills, venipuncture, common lab tests, emergency preparedness, and administration of medications.

Prerequisite(s): MDAS-125, MDAS-150, MDAS-160, HLTH-155, BIOL-138, MATH-130 or higher  
Corequisite(s): none

**MDAS 260 Medical Office Administration 3 cr.**

This advanced course is designed to integrate administrative office skills including: human resources and business organization management, professionalism, quality assurance, healthcare compliance, office safety compliance, patient interaction and other office communications, maintenance of supplies and equipment and appropriate documentation.

Prerequisite(s): MDAS-105, MDAS-160  
Corequisite(s): none

**MDAS 275 Medical Assisting Practicum 4 cr.**

This practicum is designed to reinforce the accumulation of knowledge acquired in the Medical Assistant Program. The practicum experience affords students the opportunity to spend 160 hours of directed practice in a medical office setting applying theory to medical practice.

Prerequisite(s): All MDAS Courses and department approval  
Corequisite(s): none

## *Music Courses (MUSI)*

**MUSI 100 Music Appreciation and History 3 cr.**

Music Appreciation and History is a one-semester survey of the Western music tradition, from the chant of the Middle Ages to the art music of this century. It includes study of the major composers, genres and forms of each period. An understanding of musical style through repeated listening is a primary goal of the class.

Prerequisite(s): none  
Corequisite(s): none

**MUSI 101 West African Drumming 3 cr.**

This class introduces students to basic hand drumming techniques and various rhythms that originate on the African continent. The traditional drumming repertoire is taught mostly by rote. Therefore, students acquire these skills necessary for the intricate and complex drumming styles of West Africa through imitation and repetition. This class is open to students with little or no prior drumming experience.

Prerequisite(s): none  
Corequisite(s): none

**MUSI 102 Guitar Theory and Practice 3 cr.**

Students will learn the fundamental techniques required to play the guitar with a plectrum. The course will cover the skills related to chord, scale and song playing, as well as an introduction to improvisation. Students will not be required to read standard musical notation and no previous experience is necessary. In addition to group lessons, weekly lectures will be presented on guitar history and theory. As a final project, students will be required to give a ten-minute presentation on a guitarist of their choosing. A short midterm and final playing/written exam will also be part of the final grade.

Prerequisite(s): none  
Corequisite(s): none

**MUSI 103 Introduction to Violin/Fiddle 3 cr.**

Students will learn and apply basics of playing the fiddle (violin). Students experience a variety of fiddle styles by learning several tunes with a focus on both technique and cultural context. There will be emphasis on the ergonomics of fiddle playing, timing, musicality from day one, sound quality, learning intonation through finger relationships. Fiddling is a community-based activity, and students will learn to pay attention to and make music with each other. They will learn by ear, and will also learn the language of reading music on paper, specifically as used on the instrument.

Prerequisite(s): none  
Corequisite(s): none

**MUSI 104 Piano Lab 3 cr.**

This self-paced class offers beginning, intermediate, and advanced skills tracks in keyboard playing. Beginning students will learn the basics of music notation, and then use the piano lab to hone keyboard skills. Progress will be determined by evaluations. More advanced students will follow a learning plan developed in consultation with the instructor. Proctored practice time will be offered subject to availability. This class can provide

intermediate/advanced students with the keyboard skills required for Music Theory 1.

Prerequisite(s): none  
Corequisite(s): none

**MUSI 106 SMCC Singers 3 cr.**

Learn to sing and express yourself musically in a lively, interactive group. Use music in various styles to hone skills including breathing, voice placement, intonation, rhythm, and blend while, at the same time expanding your knowledge of the choral repertoire over ages, and attending concerts to learn from and comment on the work of other groups in the area. Required performances will occur during class times. Evaluation will be based on participation in rehearsals and concerts, and a few brief essays.

Prerequisite(s): none  
Corequisite(s): none

**MUSI 107 SMCC Singers II 3 cr.**

This performance-based course is for students who have some prior choral experience. Stress is placed on individual musicianship, personal reliability, and the ability to blend with other singers' voices. Students will participate at a high level in regular concerts provide by the SMCC Singers and supplement the latter upon occasion as part of a smaller ensemble.

Prerequisite(s): MUSI-106  
Corequisite(s): none

**MUSI 109 Music Theory I 3 cr.**

This is a course in the basics of music featuring active elementary performance exercises aimed at exploring how music works. Topics include notes, scales, and rhythms as they are heard in pop, jazz, and blues. Students will also learn and build upon the basic concepts of music theory with written exercises, listening examples and ear training exercises. Online listening resources will also help the students to develop a solid musical foundation.

Prerequisite(s): none  
Corequisite(s): none

**MUSI 110 Fundamentals of Music 3 cr.**

This course is a one semester introduction to basic music theory, including clefs, rhythmic notation, key signatures, scales, intervals, chords, melodic writing, and harmonization. It is designed for the student with no background in music, but will also be useful to students who have had some musical experience.

Prerequisite(s): none  
Corequisite(s): none

**MUSI 111 Music and Movement 3 cr.**

Use movement, improvisation, conducting, and spoken word to learn basic musical skills and concepts: reading, writing, and performing. The course is action-based and will culminate in students' performances of their own original compositions. Allowances will be made for students with prior knowledge, while those new to the study of music will find the pacing congenial.

Prerequisite(s): none  
Corequisite(s): none

**MUSI 112 Music Theory II 3 cr.**

This course features hands-on exercises and ear-training activities to help students use chords effectively. Students will learn basic triads and seventh chords, inversions, voice-leading, how to use chords to accompany melodies, and how to create melodies that grow out of chord progressions.

Prerequisite(s): none  
Corequisite(s): none

**MUSI 115 Music History I 3 cr.**

This course explores the development of Western music from Greco-Roman antiquity to the mid-eighteenth century of the common era. Special attention will be paid to aural recognition of musical styles and authorship, to the role of culture and related arts in understanding the music of a given period, and to the intrinsic aural elements which, along with human creativity, fostered the evolution of musical forms and styles. Because music is about sound, students will listen to significant selections from the repertoires of the various time periods under consideration and read about the music and the times in the assigned texts.

Prerequisite(s): none  
Corequisite(s): none

**MUSI 116 Music History II 3 cr.**

This course explores the development of Western music from the classical period to the present. Special attention will be paid to aural recognition of musical styles and authorship, to the role of culture and related arts in understanding the music of a given period, and to the intrinsic elements which, along with human creativity, fostered the evolution of musical forms and styles. We will also consider the impact of bourgeois industrial capitalism and of the development of technology on the evolution of music after 1750. Students will listen to significant selections from the repertoires under consideration, and will read about the music and the times in the assigned texts.

Prerequisite(s): none  
Corequisite(s): none

**MUSI 125 World Music 3 cr.**

World Music is an introduction to the music and musical life of many cultures of the world, emphasizing the unique character of each musical expression, as well as those elements that are universal to all music. The great diversity of global musical styles will be explored and celebrated, with an emphasis on a relativistic view: the belief that each society has a musical system that suits its culture, and should be understood and appreciated within that cultural context.

Prerequisite(s): none  
Corequisite(s): none

**MUSI 135 Jazz Appreciation and History 3 cr.**

Jazz Appreciation and History is an introductory survey of American jazz history including key styles and seminal musicians from the birth of jazz until the present day.

Prerequisite(s): none  
Corequisite(s): none

**MUSI 145 History of Rock 3 cr.**

History of Rock will explore the development of one of the major musical art forms in the United States in a chronological survey, from its origins in blues, country, and rockabilly to its varied present-day manifestations. The course will focus on close study of a wide variety of rock music, from Elvis Presley to contemporary compositions. After completing the course, students will understand the historical and cultural origins of rock, as well as the formal design and harmonic structure of its major stylistic variations.

Prerequisite(s): none  
Corequisite(s): none

**MUSI 151 West African Drumming II 3 cr.**

Students will expand their knowledge and skills acquired in MUSI 101 West African Drumming. This class introduces students to more advanced hand drumming techniques and various rhythms that originate from West Africa. Students will learn the complexities of playing solo rhythms and learn how to read drumming notations.

Prerequisite(s): MUSI-101 or permission of the instructor  
Corequisite(s): none

**MUSI 152 Advanced Guitar Theory and Practice**

**3 cr.**

Students will expand their knowledge and skills acquired in MUSI 102 Guitar Theory and Practice. Students with prior guitar experience may take the course with the permission of the instructor. This course will cover skills related to chord, scale and song playing, as well as an in depth look at improvisation. Students will be required to read standard musical notation and tablature. In addition to group lessons, weekly lectures will be presented on guitar history and theory. As a final project, students will be required to give a fifteen-minute presentation on a guitarist of their choosing. A short midterm and final playing/written exam will also be part of the final grade.

Prerequisite(s): MUSI-102 or permission of the instructor  
Corequisite(s): none

**MUSI 153 Violin/Fiddle Level II 3 cr.**

Students who have had some experience with the fiddle/violin will learn new tunes and techniques to improve their timing, sound, and musicianship. Efficient (ergonomic) technique gives players more stamina to play better and longer. The class will review and elaborate upon basics of technique that help to better and more easily learn and play the music. Understanding the cultural context of fiddle styles helps students play tunes more convincingly, and allows them to find a style or styles they wish to pursue. It also builds an appreciation for a variety of cultures, how they use the music, and why they love their own style of playing. Fiddling is a community-based activity, and students will learn to pay attention to, make music with, and help each other. They will learn by ear, and will also learn the language of reading fluently on the fiddle/violin.

Prerequisite(s): MUSI-103 or permission of the instructor  
Corequisite(s): none

**MUSI 154 Piano Lab II 3 cr.**

Class Piano is designed for the student with at least one semester of experience or its equivalent. This course is considered a continuation of Piano I Lab, or a more advanced version of the class. This self-paced class offers intermediate and advanced skills tracks in keyboard playing. The advanced student will follow a learning plan developed in consultation with the instructor, and as students have their music prepared and are ready to play, they will perform for the teacher.

Prerequisite(s): MUSI-104 or permission of the instructor



Corequisite(s): none

## ***Nursing Courses (NURS)***

### **NURS 100 Dosage Calculation 1 cr.**

This course is required for pre-nursing students to acquire the mathematical skills and knowledge used by nurses in the clinical setting. Students must have strong basic math skills (knowledge of decimals, fractions, metric system, conversions between systems of measurement, ratio-proportion, and ability to do basic algebraic equations) required for medication administration. Emphasis is placed on the safety and accuracy required for medication administration. This course will include clinically-based problems that provide students with practice and mastery of clinical calculations. Students taking the on-line version of this course must be able to work independently.

Prerequisite(s): none

Corequisite(s): MATH-112 (or higher)

### **NURS 111 LPN to ADN Role Transitions 5 cr.**

This course provides LPN Bridge students with the knowledge and skills to transition from a licensed practical nurse (LPN) to an associate degree nursing student. Core concepts for competent nursing practice are reviewed: nursing process, caring, and professional behaviors. Students will review basic nursing skills related to client assessment, nursing process, documentation, therapeutic interventions, caring behaviors, and professional behaviors. Students will demonstrate selected skill competencies. Emphasis is placed on methods to be successful in classroom requirements and clinical practice as an associate degree nursing student. Upon completion of this course, students will have the necessary competencies to make a successful transition to Nursing II.

Prerequisite(s): NURS-100, BIOL-132, ENGL-100 or ENGL-101, department approval

Corequisite(s): none

### **NURS 125 Nursing I 9 cr.**

This course introduces nursing students to the fundamental knowledge, behaviors, and skills used by nurses to promote health and prevent disease. Core concepts for competent nursing practice are introduced: nursing process, caring, and professional behaviors. Emphasis is on client assessment and interview skills; principles of client care; written and verbal communication skills, documentation; culturally sensitive care; and receiving and giving feedback about personal performance. The concepts of health promotion and wellness across the lifespan are explored. Populations include children, adults, older adults, and the antepartum client. Exemplars focus on

clients' health promotion needs across the lifespan. Students learn skills and behaviors in the laboratory and clinical setting. Successful completion of Nursing 1 is required for continuation in the nursing program.

Prerequisite(s): NURS program acceptance, MATH-112 or higher

Corequisite(s): BIOL-138, PSYC-100

### **NURS 175 Nursing II 9 cr.**

In this second nursing course, the core concepts for competent nursing practice are expanded: nursing process, caring, and professional behaviors. This course focuses on assessments and common interventions for clients with acute and chronic illnesses common across the lifespan. The client's and family's experiences with acute and chronic illness are coupled with clinical practice guidelines and current research evidence used to guide clinical decisions. Concepts introduced in NURS 125 will be expanded and new concepts introduced. The focus is on the application of these concepts and skills to assist individuals and families to meet their goals. Successful completion of Nursing 2 is required for continuation in the nursing program.

Prerequisite(s): NURS-125 or NURS-111(LPN Upgrades), BIOL-138, PSYC-100

Corequisite(s): PSYC-220

### **NURS 185 Practical Nursing Across the Lifespan**

**5 cr.**

In the final course to satisfy requirements for graduation of the practical nursing program, students use prior theoretical and clinical learning experiences to incorporate the core concepts for competent nursing practice: clinical reasoning, caring, and professional behaviors. Concepts introduced in prior nursing courses focusing on care of the client across the life span will be expanded. Students are expected to consistently demonstrate professional behaviors in all settings. Concepts presented will be applied across the lifespan in the synthesis and evaluation of nursing situations in selected community settings. With successful completion of NURS 185, the student is eligible to sit for the PN-NCLEX exam for licensure.

Prerequisite(s): NURS-175

Corequisite(s): none

### **NURS 195 Geriatric Nursing Externship 2 cr.**

This summer clinical experience provides an opportunity to explore the specialty of geriatric nursing and the role of the registered nurse as a leader in the clinical environment. Students will demonstrate proficiency in assessment of the geriatric client, medical administration, and clinical decision-making. Leadership and clinical decision-making are supported

with evidence-based practice. The student will work with the preceptor's schedule for 32 hours/week for 10 weeks and attend clinical seminars during the 10-week course. This elective does not change the clinical requirements for the nursing program. Students will work with a clinical preceptor in the clinical sites and under the direction of clinical faculty from SMCC. Students must meet criteria for selection set up SMCC and also apply for employment at the clinical facility and meet their employment requirements.

Prerequisite(s): NURS-175, PSYC-220, department approval

### **NURS 225 Nursing III 9 cr.**

In this third nursing course, students' skills and knowledge are advanced in the core concepts for competent nursing practice: nursing process, caring, and professional behaviors. Emphasis is placed on care of clients who require acute care. Concepts introduced in earlier courses will be expanded and new concepts introduced, with the focus on the application and analysis of these concepts. Emphasis will be placed on recognizing cultural differences and age appropriate interventions when treating ill clients and their families. Evidence-based practice and management of care are central in didactic and clinical experiences. Successful completion of Nursing 3 is required for continuation in the nursing program.

Prerequisite(s): NURS-175, PSYC-220

Corequisite(s): BIOL-250

### **NURS 275 Nursing IV 9 cr.**

In this final nursing course, students use prior theoretical and clinical learning experiences to incorporate the core concepts for competent nursing practice: nursing process, caring, and professional behaviors. Concepts introduced in prior nursing courses will be expanded, with emphasis placed on the development of leadership skills and the systematic use of nursing process and critical thinking to manage client care. Students are expected to consistently demonstrate professional behaviors in all settings. Concepts presented will be applied across the lifespan in the synthesis and evaluation of complex nursing situations in selected high acuity care and community settings. Successful completion of Nursing IV is required for students' eligibility to take the NCLEX-RN examination.

Prerequisite(s): NURS-225, BIOL-250

Corequisite(s): ENGL-115

## ***Nutrition and Dietetics Courses (NUTR)***

### **NUTR 100 Introduction to Nutrition and Health Promotion 3 cr.**

This hybrid course orients students to the field of nutrition and health promotion, with an emphasis on the variety of skills utilized and areas of work encompassed within the field. Course content will focus on enhancing student habits of academic success, exploring core concepts of wellness including the interrelationships of nutrition and fitness in disease prevention and health maintenance both on a personal and national population level, the identification of quality scientific information and the communication of effective health and nutrition messages through a variety of methods. The course is comprised of one lecture per week along with online reading and assignments.

Prerequisite(s): NUTR program acceptance

Corequisite(s): none

### **NUTR 110 Normal Nutrition with Lab 4 cr.**

This course is an introduction to the field of nutrition, which includes the study of carbohydrates, fats, proteins and other essential nutrients. Students will also gain a workable knowledge of digestion, absorption, and metabolism, life cycle nutrition, nutrition guidelines, and nutrition programs. The concepts covered in the lecture course are explored in greater detail during lab time using a variety of activities including food experiments, anthropometric measurement, nutrient analysis, and enhanced problem sets.

Prerequisite(s): ENGL-080 or ENGL-101 and MATH-040 or appropriate placement

Corequisite(s): none

### **NUTR 140 Nutrition and Weight Loss 3 cr.**

This course provides an in-depth look at current topics in nutrition, up-to-date weight loss trends, popular nutrition, and eating patterns as they relate to macro and micro nutrient content. Students will gain a workable knowledge of sound nutrition guidelines, health weight goals, and nutrition trends. The concepts covered in this course are explored in greater detail during each unit and utilize a variety of activities including goal setting, analyzing anthropometric data, and nutrient analysis with comparison to established guidelines for various nutrition plans. The course will also emphasize practical application of nutrition knowledge to enhance general health, including analyzing one's present nutrition and evaluating it according to the latest nutritional guidelines. This course presents a challenging science-based nutrition curriculum that reviews the role of nutrition in health

promotion/disease prevention and provides an overview of interrelationships between nutrition, weight-loss, and various acute/chronic medical conditions.

Prerequisite(s): ENGL-080 or ENGL-101 and MATH-040 or appropriate placement  
Corequisite(s): none

**NUTR 150 Principles of Food Preparation 4 cr.**  
This course provides an introduction to the science of food preparation with emphasis on the chemical and biological changes that occur in processing and storage of food products. Attention is given to cooking technique, material handling, heat transfer, sanitation in processing, kitchen safety, nutrient retention, product and ingredient quality characteristics, ingredient role in product structure, modification of foods to meet varied nutrient restrictions, and coordination of products to maximize palatability.

Prerequisite(s): NUTR program acceptance  
Corequisite(s): none

**NUTR 190 Fundamentals of Personal Training 3 cr.**  
This course is designed to give students the knowledge and understanding necessary to prepare for the ACE Personal Trainer Certification Exam and become innovative, safe and effective personal trainers. The information covered by this course and the ACE IFT Model will help students learn how to facilitate rapport, adherence, self-efficacy and behavior change in clients, as well as design programs that help clients to improve posture, movement, flexibility, balance, core function, cardiorespiratory fitness, and muscular endurance and strength

Prerequisite(s): none  
Corequisite(s): none

**NUTR 210 Nutrition in Disease Management and Prevention 3 cr.**  
This course is designed to investigate the use of nutrition in the treatment of disease. Emphasis will be placed upon diagnoses that require nutrition which modify for specific nutrient groups, calories, and food textures. Special needs of allergy patients, athletes, alcohol use, and fad food claims will be explored. Also included will be identification of patients at risk for poor nutritional status, and an investigation into the diabetic exchange list and carbohydrate counting techniques. This course includes a medical terminology component.

Prerequisite(s): NUTR-110  
Corequisite(s): MATH-040 or appropriate placement

**NUTR 220 Health Care Delivery Systems 3 cr.**

This course is designed to acquaint students with all facets of health care delivery systems, including advanced level medical nutrition therapy, record communication and the systems available for delivering health care in the United States.

Prerequisite(s): NUTR-110, NUTR-210  
Corequisite(s): none

**NUTR 250 Nutrition Education and Counseling 3 cr.**  
In this survey course, students will learn to apply current and traditional theories of human behavior as they relate to effective change. Theorists studied include Sigmund Freud, Carl Jung, B.F. Skinner, Carl Rogers and other major behaviorists. Communication and counseling techniques, introduction to behavior modification theories, group process skills, and development of educational tools will be studied.

Prerequisite(s): ENGL-100 or ENGL-101, NUTR-100, NUTR-210  
Corequisite(s): none

**NUTR 275 Community Field Experience 3 cr.**  
The Community Field Experience is conducted in a combination of outpatient based nutrition program settings and long-term care settings. This course is a hands-on practicum that emphasizes the implementation of nutritional care in community and long-term care settings. Students will participate in two different community based nutrition programs selected from the WIC program, the National School Nutrition program, the Area Agency on Aging Senior Nutrition program, the Cooperative Extension, and the Portland based Project on Supported Living. Additionally, students will complete a rotation at a long-term care setting, focusing on the delivery of nutrition care and the administrative functions of a food service department. A minimum of 180 contact hours is required for completion of this rotation.

Prerequisite(s): NUTR-210  
Corequisite(s): none

## ***Oceanography and Marine Science Courses (OCEA)***

**OCEA 105 Elements of Oceanography with Lab 4 cr.**  
This introductory science course is designed to give students an overview of marine processes and phenomena as a foundation for further learning about the oceans. Many measurable oceanographic parameters are defined and described. Major topics are supported by appropriate laboratory activities.

Prerequisite(s): ENGL-080 or ENGL-101 or appropriate placement  
Corequisite(s): MATH-040 or appropriate placement

**OCEA 125 Seetime I: Introduction to Marine Field Methods 2 cr.**

This course introduces students to the basic principles and activities of marine and aquatic field research. This is a hands-on, field-based course, and much of the activity takes place on SMCC's research vessel. Students develop small boat handling skills, practice knot and splicing skills; and apply basic navigation skills including piloting, rules of the road and boat safety. Students apply field sampling methods including water-quality and biological sampling techniques and basic microscopy skills. Students collect, compile, and analyze data using manual and digital tools. Students identify and describe important physiographic features of the Gulf of Maine and discuss current scientific issues facing the local and global marine environment and their implications. Finally, this course introduces students to potential careers in marine and aquatic science and informs students about internship opportunities.

Prerequisite(s): BIOM program acceptance  
Corequisite(s): OCEA-105

**OCEA 225 Advanced Seetime 2 cr.**

This is the second semester of a two semester field experience. Students will collect oceanographic and biological data while on the SMCC research vessel. The course will be structured around a class project of topical importance. Projects may cover such topics as harmful algal blooms, habitat mapping, seasonal trends in water quality parameters, invasive species, or circulation studies. Projects will be centered on western Casco Bay. The course will introduce the calibration and use of instrumentation for mapping and data collection, safety on the water, piloting, and small boat handling.

Prerequisite(s): OCEA-105, OCEA-125  
Corequisite(s): none

**OCEA 290 Capstone Research 2 cr.**

Students will propose a testable hypothesis, review scientific literature, design and conduct experiments, analyze data, and summarize the results in a report or scientific poster. This course is typically taken in the last semester of a student's tenure at SMCC and draws upon prior classes to provide experience for a research project.

Prerequisite(s): none  
Corequisite(s): OCEA-225

***Philosophy Courses (PHIL)***

**PHIL 100 Introduction to Philosophy 3 cr.**

This course is an introduction to the "basics" of philosophy. It will introduce the basic questions, frame the basic arguments these questions have engendered, and introduce students to the major figures in the history of philosophy who have both raised the questions and attempted to answer them. This course seeks to define what philosophy is and what its parameters are. It will also attempt to answer the question "why philosophize"?

Prerequisite(s): ENGL-080 or ENGL-101 or appropriate placement  
Corequisite(s): none

**PHIL 105 Ethical Dilemmas 3 cr.**

This course will examine the roots of moral life, and ask how ethical values affect decision-making on social and individual issues. The course will focus on ethics as derived from a variety of philosophical, social, political, and religious traditions. Assigned readings will deal with both ethical theory and practice.

Prerequisite(s): ENGL-080 or ENGL-101 or appropriate placement  
Corequisite(s): none

**PHIL 155 Philosophy in Action 3 cr.**

This course in community leadership bridges the gap between thinking and doing. It involves critical reflection on social problems in the light of personal experience and of the Western philosophical tradition. A significant service learning component, self-assessments, and written and video case studies foster students' self-understanding and abilities as leaders in the community.

Prerequisite(s): ENGL-100 or ENGL-101  
Corequisites(s): none

***Physics Courses (PHYS)***

**PHYS 110 Technical Physics with Lab 4 cr.**

This course represents a non-calculus, but rigorously algebraic, approach to the analysis of the concepts and relationships of all the principal areas of Physics. Topics of study include Mechanics, such as Kinematics in one and two dimensions, Dynamics and Newton's Laws of Motion, Friction, Rotations and Torque, Uniform Circular Motion, Universal Gravitation, Momentum and Angular Momentum, Kinetic and Potential Energy, Properties of Solids and Fluids, Strength of Materials, Harmonic Motion, Waves, Sound, Light and Electromagnetic Waves, Heat and Thermodynamics, and Electricity and Magnetism, as well as Relativity, and Quantum and Nuclear Physics, if time permits. Emphasis will be placed in understanding natural phenomena and solving numerical problems in both the Metric (SI) and English

(US) Systems of units. Weekly laboratory experiments help the student develop a feel for realistic measurements and meaningful calculations. Successful completion of this course fulfills the Associates of Arts degree science requirement.

Prerequisite(s): none

Corequisite(s): MATH-040 or appropriate placement

#### **PHYS 150 College Physics I with Lab 4 cr.**

The first semester of a two semester series, this course represents a non-calculus, but rigorously algebraic, approach to the analysis of the concepts and relationships of Mechanics: Kinematics in one and two dimensions, Dynamics and Newton's Laws of Motion, Friction Forces, Rotations and Uniform Circular Motion, Universal Gravitation, Torque and Static Equilibrium; Momentum and Angular Momentum, Kinetic and Potential Energy. Emphasis will be placed on understanding natural phenomena and solving numerical problems in both the Metric (SI) and English (US) Systems of units. Weekly laboratory experiments help the student develop a feel for realistic measurements and meaningful calculations in Mechanics.

Prerequisite(s): MATH-130 or MATH-140 or MATH-142

Corequisite(s): none

#### **PHYS 155 College Physics II with Lab 4 cr.**

The second part of a two semester series, this course represents a non-calculus, but rigorously algebraic, approach to the analysis of the concepts and relationships in Solids and Fluids, Heat and Thermal Physics, Thermodynamics, Waves and Sound, Light, Electromagnetism, and Modern Quantum, Atomic and Nuclear Physics. Emphasis will be placed in understanding natural phenomena and solving numerical problems. Weekly laboratory experiments help the student develop a feel for realistic measurements and meaningful calculations in the topics studied.

Prerequisite(s): PHYS-150

Corequisite(s): none

#### **PHYS 200 Physics for Engineers I with Lab 4 cr.**

The first in a two semester series, this course represents a calculus based approach to introductory physics, primarily serving students with a strong mathematics and high school physics background intending to major in engineering. Topics include Kinematics, Dynamics, Newton's Laws, Kinetic and Potential Energy, Rotational Motion, Gravitation, Simple Harmonic Motion, and Mechanical Waves. Emphasis will be placed on understanding natural phenomena conceptually and numerical problem solving through recitations and workshops, in addition

to lectures. Weekly laboratory experiments assist the student to develop a feel for realistic measurements and meaningful calculations in applied problem solving.

Prerequisite(s): MATH-190

Corequisite(s): MATH-260

#### **PHYS 250 Physics for Engineers II with Lab 4 cr.**

The second in a two semester series, this course represents a calculus based approach to introductory physics, primarily serving students with a strong mathematics and high school physics background intending to major in engineering. Topics include Waves and Superposition, Physical and Geometric Optics, Electric Charges and Forces, Electric Field and Potential, DC Circuit Analysis, Magnetic Fields and Induction, Electromagnetic Fields and Waves. Emphasis will be placed on understanding natural phenomena conceptually and numerical problem solving through recitations and workshops, in addition to lectures. Weekly laboratory experiments assist the student to develop a feel for realistic measurements and meaningful calculations in applied problem solving.

Prerequisite(s): PHYS-200, MATH-260

Corequisite(s): none

### ***Political Science Courses (POLS)***

#### **POLS 100 Introduction to Political Science:**

##### **Contemporary World Problems 3 cr.**

Introduction to Political Science will expose students to the four common sub-fields of political science: political theory, American government, comparative politics and international relations. Contemporary issues, such as democracy and authoritarianism, environmental concerns, and human rights, are used to explore these areas of study. Topics vary each semester based on current events. Students will learn to analyze the world using concepts from the field of political science and to explore connections between their own lives and the rapidly changing, globally interdependent world in which they live

Prerequisite(s): ENGL-080 or ENGL-101 or appropriate placement

Corequisite(s): none

#### **POLS 105 Introduction to American Government**

**3 cr.**

This course introduces students to the institutions and political practices of American Government. Students will gain an understanding of the origins, structure and operation of the American government system. The course focuses primarily on the structures and processes at the national level, but will also touch on state and local governments. This course will examine

the relationship between the President, Congress, and Courts. It will review the political dynamics of campaigns and elections and also examine the fundamentals values of freedom and equality under the Constitution.

Prerequisite(s): ENGL-080 or ENGL-101 or appropriate placement  
Corequisite(s): none

**POLS 110 Introduction to International Relations 3 cr.**

Introduction to International Relations examines the political and power relationships among the nations of the world. The course introduces and analyzes current world issues including the impact of the Cold War on global relations, the war on terror, international environmental issues, globalization, international health concerns, militarism, and the foreign policies of countries toward these complex issues. The important role that cultural perceptions play in global relations is emphasized. Through assigned readings and class discussions, students gain an understanding of the many different actors in international relations and how they affect today's global society.

Prerequisite(s): ENGL-080 or ENGL-101 or appropriate placement  
Corequisite(s): none

**POLS 115 State and Local Government 3 cr.**

Most citizen and business contact with government takes place at the state and local levels. This course examines the politics, policies and processes of Maine government particularly, but within the context of state and local governments nationally. It will review the legislative, judicial and administrative functions of government with attention to the Constitutional structure of federalism, intergovernmental relations, and contemporary issues. Topics covered may include law enforcement, land use planning, education, social services, taxation and budgeting. This course is offered occasionally.

Prerequisite(s): ENGL-080 or ENGL-101 or appropriate placement  
Corequisite(s): none

**POLS 120 Introduction to Public Policy 3 cr.**

Introduction to Public Policy will introduce students to key concepts in public policy formation, implementation and evaluation in the American political system. An array of public policy issues will be presented from which class selections will be made for in-depth study and analysis. This course begins with a thorough analysis of the federal government's financial condition as a backdrop for government policy decisions. The use of the federal budget with its

limitations and opportunities in providing resources and benefits as the fundamental tool in government policymaking will be explored. Policy discussions will be drawn from domestic and foreign policies treating economic, social welfare, medical care, environmental, and national security issues. The course will be centered on class and group discussions, presentations, debates, independent student research and written analysis.

Prerequisite(s): ENGL-080 or ENGL-101 or appropriate placement  
Corequisite(s): POLS-100 or POLS-105

**POLS 175 Political Science Internship 3 cr.**

Political Science Internship is a three-credit course in which students will combine readings, reports and seminar discussions with professional experience in the local offices of Maine's US. Congressmen and Senators, the State Legislature or other area political organizations. Students will spend approximately 12 hours per week in the assigned office, carrying out a variety of tasks from standard office work to constituent work and small research projects. During the semester, the student also will meet regularly with their SMCC instructor and other interns to discuss readings and experiences.

Prerequisite(s): none  
Corequisite(s): POLS-100 or POLS-105 or POLS-110

**POLS 180 Gender and Politics 3 cr.**

This course is an analysis of the role that gender plays in shaping politics and other aspects of American society based on the history of women's quest for power. It will examine the impact of politics on women's lives and women's impact on politics within the United States and will survey global issues pertaining to women and politics. Using classic and contemporary feminist texts, students will examine theories of gender difference, gender voice, gender and political office, and gender and public policy. This course is offered occasionally.

Prerequisite(s): none  
Corequisite(s): POLS-100 or POLS-105 or POLS-110

**POLS 205 Comparative Politics 3 cr.**

Comparative Introduction to Political Science will expand the student's understanding of the practices and procedures involved in political institutions at the national and international levels of government. This course provides an introduction to the study of government and politics from a comparative perspective, focusing especially on political structures and behavior in a wide range of nations and international organizations. Students will gain an understanding of the institutional and operations of

American government through a comparative analysis of other political systems. Students will examine democratic, authoritarian and totalitarian forms of government and the ideological foundations on which they are based.

Prerequisite(s): POLS-100 or POLS-105 or POLS-110

Corequisite(s): none

**POLS 212 Peace, War, and Security 3 cr.**

This course will examine the military, economic, political and cultural factors that lead to peace. It will look at the changing nature of war, whether between countries, within a country, or, as with the war on terror, virtually independent of nation states. Last, it will set out a framework for looking at security on a national, as well as local, concrete level. The war in Iraq will be a central case study, but students also will be able to study other conflicts, such as Kosovo, the Sudan, and the war on terror.

Prerequisite(s): POLS-100 or POLS-105 or POLS-110

Corequisite(s): none

**POLS 250 Introduction to Political Theory 3 cr.**

Using selected contemporary and classical readings in political philosophy, this course will study important political systems, such as democracy and socialism, and key political concepts such as political authority, law, personal liberty and justice. Lecture and classroom discussion will emphasize applications to contemporary events and problems.

Prerequisite(s): ENGL-080 or ENGL-101 or appropriate placement

Corequisite(s): POLS-100 or POLS-105

## *Psychology Courses (PSYC)*

**PSYC 100 Introduction to Psychology 3 cr.**

This course is designed to provide a broad overview of the field of Psychology. Special attention will be given to helping the student become a better thinker, by learning to take charge of ideas one has about psychology. The goal of this course is to think consciously, deliberately and skillfully about human behavior. Topics such as physiological psychology, perception, learning, cognition, emotions, health psychology, psychological disorders, as well as others are included.

Prerequisite(s): none

Corequisite(s): ENGL-080 or ENGL-101 or appropriate placement

**PSYC 200 Abnormal Psychology 3 cr.**

This course is an introduction to the psychological theory and research regarding abnormal and

maladaptive human behavior. It provides a comprehensive overview of the major categories of abnormal behavioral disorders with an emphasis on theory and research (e.g., schizophrenia, affective disorders, substance abuse, eating disorders, etc.) Special attention will be given to the study of major concepts, theoretical perspectives, empirical findings and historical trends as they pertain to psychological problems: as well as exposure to issues in diagnostics and treatment techniques. This course is writing intensive and will use a variety of types of writing (e.g., class writing, reaction papers), in addition to or in place of more conventional formal papers.

Prerequisite(s): ENGL-100 or ENGL-101, PSYC-100

Corequisite(s): none

**PSYC 215 Social Psychology 3 cr.**

This course introduces the major classic and contemporary theories and research in social psychology. One definition of social psychology is that it represents "an attempt to understand and explain how the thought, feeling, and behavior of individuals are influenced by the actual, imagined, or implied presence of others" (Allport, 1985). Defined more broadly, social psychologists study social behavior. This course investigates the mental processes, situational factors, individual differences, and group phenomena that influence the way people interact with other people.

Prerequisite(s): ENGL-100 or ENGL-101, PSYC-100

Corequisite(s): none

**PSYC 220 Lifespan Development 3 cr.**

This course utilizes a life-span approach to human development, focusing on factors associated with physical, cognitive, social, and personality development from birth through adulthood. Using major developmental theories as a framework, both psychological and environmental factors and their interplay will be discussed. Topics will also include philosophical and historical bases of theories, as well as cultural factors which influence development. Students will be encouraged to think critically and apply their knowledge of development to their own lives.

Prerequisite(s): ENGL-080 or ENGL-101 or appropriate placement, PSYC-100

Corequisite(s): none

**PSYC 225 Educational Psychology 3 cr.**

Educational Psychology is the overview of the psychology of learning, motivation, growth and development, personality dynamics and social adjustment. Emphasis is placed on the learning process and related ideas such as child development,

individual differences, cognition, learning environments, motivation, and effective teaching-learning relationships in schools. This course is offered spring semester.

Prerequisite(s): ENGL-080 or ENGL-101 or appropriate placement, PSYC-100  
Corequisite(s): none

**PSYC 230 Sport Psychology 3 cr.**

This course provides an overview of the major areas of research and application in the area of sport psychology. It involves the study and application of psychological principles, which influence behavior, enhance skill acquisition, and maximize sport performance of athletes, coaches, and others involved in sports. Topics may include philosophies of sport, motivation, personality of coaches and athletes, recreational sports for children, training and learning principles, mind/body relationships, and the effects of anxiety, arousal, and relaxation on performance and current research in the field. This course is offered fall semester.

Prerequisite(s): ENGL-080 or ENGL-101 or appropriate placement, PSYC-100  
Corequisite(s): none

**PSYC 235 Psychology of Gender 3 cr.**

This course focuses on the way gender influences behavior and personality. The class will center on how women and men are influenced by social, psychological, and biosocial constructions of gender. The student will use critical thinking skills to develop and evaluate gender, in terms of psychological concepts, empirical studies, and personal knowledge. This course is offered fall semester.

Prerequisite(s): ENGL-080 or ENGL-101 or appropriate placement, PSYC-100  
Corequisite(s): none

**PSYC 240 Theories of Personality 3 cr.**

In this course major personality theorists and their theories will be reviewed, including psychodynamic, humanistic, behavioral, cognitive, biological, trait, and cultural perspectives. In addition, students will explore how culture and social context shape understanding of personality and the development of theories. This course is offered spring semester.

Prerequisite(s): ENGL-080 or ENGL-101 or appropriate placement, PSYC-100  
Corequisite(s): none

## ***Public Safety Courses (PUBS)***

**PUBS 104 Public Safety Telecommunicator 3 cr.**

This course is designed to prepare students for emergency telecommunicator duties, to meet the requirements of the NFPA 1061 Professional Qualification Standard for Public Safety Telecommunicator I, as well as meeting the State of Maine statutory requirement for those employed at public safety dispatch centers in Maine (25 MRSA §2926 2(b)). The course combines instructor presentations, student activities and simulation exercises to develop skills and knowledge in the field. The course will provide the student with the knowledge of roles and responsibilities, current technologies, interpersonal communications skills, telephone communication and call processing skills, radio broadcast procedures, legal aspects of public safety communications and stress management skills. In addition the course will introduce students to the skills necessary to manage requests for police, fire and medical services. This course is cross-listed as CJUS-104, EMST-104, and FIRE-104

Prerequisite(s): none  
Corequisite(s): none

**PUBS 145 Public Safety, Survival and Wellness 3 cr.**

This course will explore the foundations and principles of reducing the number of Firefighter, EMS, and Law Enforcement line-of-duty injuries and deaths. The U.S. Fire Service has been challenged to reduce firefighter line-of-duty deaths and injuries. This course will emphasize that our way of thinking must change by taking action in letting go of thinking that is not effective and begin to adopt accepted practices that will keep fire department members safe. This course will explore those charges through NIOSH reports, case studies, and one of the most important topics, individual fitness. Participants will be required to take part in physical exercise each class through the semester, and minimum requirements for physical strength, flexibility, and cardiovascular fitness will be expected in order to take this course.

Prerequisite(s): none  
Corequisite(s): none

## ***Radiography Courses (RADG)***

**RADG 100 Radiography Patient Care and Radiation Protection 3 cr.**

This course is designed to introduce the student to the fundamental concepts of patient care, including radiation protection and considerations of patient physical and psychosocial conditions. Routine and emergency patient care procedures will be described as well as aspects of patient assessment and assistance, medical-surgical asepsis, infection control, patient communication and death and dying. Radiation protection will include types of interaction of radiation



and matter, as well as radiation safety and protective measures for the patient as well as personnel. (Note: The role of the radiographer in patient education, communication skills, ethical and legal issues will be covered in Introduction to Clinical Practicum I.)

Prerequisite(s): RADG program acceptance

Corequisite(s): none

#### **RADG 105 Radiographic Procedures I 4 cr.**

This lecture/demonstration course is designed to introduce the student to medical and radiological terminology, the basic routine positions of the chest, abdomen, upper and lower extremities, mobile radiography and fluoroscopic/contrast procedures through lecture notes, hands-on experience and competency examinations in the SMCC Radiographic Simulation Laboratory.

Prerequisite(s): RADG program acceptance

Corequisite(s): none

#### **RADG 115 Radiographic Exposure I 3 cr.**

This course deals with the basic scientific principles involved in the production of x-rays, the interactions of x-rays with human anatomy, and the effects that the technical factors involved have on image quality. The essentials of math, physics, and chemistry are reviewed, and the fundamentals of electricity, circuits, and the electrical components of an x-ray system are introduced. These principles are then used to understand the relationships between x-ray equipment, the technical factors of exposure, the accessories that affect image quality, and how our choices affect patient dose. We will concentrate on image formation in modern digital radiography, with historical references to film when appropriate.

Prerequisite(s): RADG program acceptance

Corequisite(s): RADG-130

#### **RADG 130 Clinical Practicum I 5 cr.**

This course correlates the academic concepts into the clinical environment, dealing directly with patients. Under supervision, students will observe and perform radiographic examinations of the chest, abdomen, upper and lower extremities. Clinical Area Specific inventories and competency evaluations are utilized to document clinical performance.

Prerequisite(s): RADG program acceptance

Corequisite(s): none

#### **RADG 155 Radiographic Procedures II 4 cr.**

This lecture/demonstration course is a continuation of Radiographic Procedures I. The student will continue with an in depth study of the routine positions of the pelvic girdle, vertebral column, ribs, sternum, skull,

facial bones and sinuses. Radiographic procedures of the urinary system as well as mobile, surgical and pediatric radiography and Sterile Field management. Demonstrations and competency testing procedures are conducted in the SMCC Radiographic Simulation Laboratory.

Prerequisite(s): RADG-105, RADG-130

Corequisite(s): none

#### **RADG 160 Clinical Practicum II 5 cr.**

Students continue in the clinical setting to perform radiographic examinations of patients under supervision. In addition to those examinations previously performed, students will learn to perform radiographs of the spine, contrast studies and mobile radiography.

Prerequisite(s): RADG-130

Corequisite(s): none

#### **RADG 175 Radiographic Analysis I 1 cr.**

This course provides students with comprehensive and detailed instruction in the evaluation of diagnostic quality radiographs and computer-generated images. Students will assess radiographs based on the fundamentals of exposure, image processing and positioning.

Prerequisite(s): RADG-160

Corequisite(s): RADG-190

#### **RADG 190 Clinical Practicum III 4 cr.**

During this semester, students are able to continue to perform radiographic examinations on increasingly difficult patients. Continuity of procedural area is achieved with this five-day-per-week clinical practice and allows third semester students to achieve competencies appropriate to this semester.

Prerequisite(s): RADG-160

Corequisite(s): none

#### **RADG 205 Radiographic Procedures III 3 cr.**

This course included the study of Trauma Radiography, Sterile Technique, and Venipuncture as well as the basic concepts, related physics and clinical applications in the specialty areas of computerized tomography scanning, cross sectional anatomy, interventional radiography, and magnetic resonance imaging.

Prerequisite(s): RADG-155

Corequisite(s): none

#### **RADG 215 Radiographic Exposures II 3 cr.**

This course explores the exposure factors introduced in Radiographic Exposure 1 at a deeper level, with a focus on how they affect image quality and patient dose. Conditions within the patient, as well as external

equipment considerations will also be discussed. As the course progresses, we will move on to computer systems, and the formation of the digital image. The fundamentals of digital systems in radiography will be explored, as well as departmental exposure systems.

Prerequisite(s): RADG-115

Corequisite(s): RADG-160

#### **RADG 230 Clinical Practicum IV 6 cr.**

This course is designed to study those procedures considered less general to the Radiology Department. Students are introduced to the most common of these procedures, the anatomy demonstrated, the radiographic projections, and use of the equipment. Students are also taught the value of properly analyzing image quality.

Prerequisite(s): RADG-175, RADG-190

Corequisite(s): none

#### **RADG 235 Radiographic Exposure III 3 cr.**

This course begins with a study of the process of image acquisition and the details of image processing, with an emphasis on the technologist's role in optimizing the technical settings for an exposure. The student's understanding of the equipment and computing involved in the creation of the radiographic image will be deepened, as will the potential problems that can arise. Additionally, fluoroscopy and image intensification, mobile radiography, and monitors will be covered.

Prerequisite(s): RADG-215

Corequisite(s): none

#### **RADG 245 Radiographic Pathology 3 cr.**

This course is designed to introduce theories of disease causation and the pathophysiologic disorders that compromise healthy systems. Etiology, pathophysiologic responses will be presented, with a strong focus on the clinical manifestations and appearances of diseases of various imaging modalities.

Prerequisite(s): BIOL-138

Corequisite(s): RADG program acceptance

#### **RADG 255 Principles of Quality Assurance 2 cr.**

This course is designed to familiarize students with the basic concepts of quality assurance as applied to diagnostic radiographic equipment and image processes. As x-ray equipment has become more complex, the need for radiographers to understand detailed workings and limitations of equipment has become more important. This course will provide students with the necessary theoretical background and experimental skills through clinical sites laboratory sessions to permit him/her to function effectively as

part of a team to measure performance parameters and to evaluate quality assurance programs.

Prerequisite(s): RADG-235

Corequisite(s): none

#### **RADG 260 Clinical Practicum V 6 cr.**

This course concentrates on the continuation of perfecting previously acquired skills. In this final semester, students will have opportunity to concentrate on more difficult procedures, perfecting general radiographic skills, critical judgment, and image analysis. All competency requirements of the Radiography Program must be achieved. In addition, students will have the opportunity to rotate through and observe specialty areas such as angiography, CT scanning and MRI.

Prerequisite(s): RADG-230

Corequisite(s): none

#### **RADG 275 Radiographic Analysis II 1 cr.**

In this continuation of RADG-175, students learn to critique images performed by classmates and, in addition, learn how to present case studies relative to procedures. Correlation is made between patient history, radiographic views obtained, and technical factors utilized.

Prerequisite(s): RADG-175, RADG-230

Corequisite(s): none

### ***Respiratory Therapy Courses (RESP)***

#### **RESP 100 Respiratory Therapy Patient Care 3 cr.**

This course is designed to give the entry-level respiratory therapy student an overview of the development of the respiratory care profession including; its role in health care, relationship to other health care services, organizational structure in the hospital environment, and its relationship to supporting professional organizations. Topics affecting the practice of respiratory care such as professionalism, ethics of health care delivery, medical legal responsibilities of patient care, Health Insurance Portability and Accountability Act (HIPAA), practitioner safety, patient safety and ambulation, cultural competence, death and dying, respiratory microbiology, blood borne pathogens, universal precautions, generation of orders, electronic charting, and medical terminology will be reviewed. An introduction to respiratory therapy pharmacology drug classification will be included. Focus throughout the course will be on the patient as an individual and central figure in a complex multi-directional health care environment.

Prerequisite(s): RESP program acceptance

Corequisite(s): RESP-101, RESP-120

**RESP 101 Gas, Humidity, and Aerosol Therapy 4 cr.**

This course will allow students to achieve the technique, skills and understanding necessary to properly and effectively administer medical gas, humidification and aerosol treatment modalities. Common inhaled medications and methods of delivery will be discussed. The physiologic rationale, indications and contraindications will be stressed in addition to practices required for patient safety. An understanding of the physical principles defining equipment function will be required.

Prerequisite(s): RESP program acceptance

Corequisite(s): RESP-100, RESP-120

**RESP 105 Pulmonary Assessment 3 cr.**

This course is designed to provide respiratory care students with entry level assessment skills and apply concepts learned in Cardiopulmonary Anatomy and Physiology. Emphasis will be placed on the clinical application of chest assessment, interpretation of chest radiographs, clinical lab data, pulmonary function testing, and performance of blood gas sampling. The goal of this course is for the student to achieve basic assessment skills required for future clinical rotations, as well as to cultivate critical thinking skills that are essential in the practice of respiratory care. The management of chronic pulmonary diseases will be included. Students will utilize evidence-based practice and Clinical Practice Guidelines to formulate respiratory therapy treatment plans.

Prerequisite(s): BIOL-138, RESP-100, RESP-101, RESP-120

Corequisite(s): RESP-110, RESP-125

**RESP 110 Airway Management 3 cr.**

The course is designed to provide students with the knowledge and skills needed to effectively assess and treat patients with disorders of the upper and lower airway. Knowledge and skills will be confined to the scope of practice of the respiratory-care practitioner.

Prerequisite(s): BIOL-138, RESP-100, RESP-101, RESP-120

Corequisite(s): RESP-105, RESP-125

**RESP 120 Cardiopulmonary-Renal Anatomy and Physiology 4 cr.**

This course serves as an introduction to advanced topics in cardiopulmonary physiology, with the goal of providing a thorough foundation in core concepts that the student can build on. It will provide the respiratory care student with an in-depth knowledge of the structure and functions of the pulmonary, cardiovascular, and renal systems, with a strong focus on the clinical applications of learned principles.

Prerequisite(s): RESP Program Acceptance

Corequisite(s): RESP-100, RESP-101, BIOL-138

**RESP 125 Clinical Practicum I 3 cr.**

This course is designed to be the student's initial clinical experience. The course begins with training in Cardiopulmonary Resuscitation (CPR) to American Heart Association standards. The CPR training is followed by tours and orientation visits to the major clinical sites. Clinical rotations are for observation only or for performing limited clinical tasks at the clinical instructor's discretion and under direct supervision. Students will also attend mandatory clinical meetings.

Prerequisite(s): RESP-100, RESP-101, RESP-120

Corequisite(s): RESP-105, RESP-110

**RESP 170 Introduction to Mechanical Ventilation 3 cr.**

This course is designed to provide students with an understanding of the fundamentals of mechanical ventilation. The focus will be placed on the way mechanical ventilators function, basic terminology, classification, technological and mathematical concepts, graphical displays and the interrelationship between pressure, volume, flow and time as related to mechanical ventilator function. This course will introduce interpretation of ventilator graphics and adaptive targeting schemes. Invasive and non-invasive applications of mechanical ventilation will be included.

Prerequisite(s): RESP-100, RESP-101, RESP-120

Corequisite(s): RESP-105, RESP-110, RESP-125

**RESP 172 Clinical Ethics in Respiratory Care 3 cr.**

This course is designed to provide students with an understanding of the ethical theories and principles encountered in the today's healthcare environment. The principles of beneficence, nonmaleficence, autonomy, justice and fairness will be explored. The focus of this case-based course will be intercultural communication, healthcare literacy, palliative and end of life care.

Prerequisite(s): RESP-105, RESP-110, RESP-170

Corequisite(s): RESP-175

**RESP 175 Clinical Practicum II 4 cr.**

This course is designed to follow Clinical Practicum I (RESP-125) and serve as the students' first extended clinical performance of specific respiratory therapy tasks under the mentorship of a clinical preceptor. Each clinical day the student will be assigned to a clinical preceptor(s) at the specific clinical site. Emphasis will be placed upon understanding and achieving clinical competency of selected non-critical care tasks such as oxygen therapy, aerosol therapy,

administration of chest and airway clearance therapy, incentive spirometry, dry powder inhaler (DPI), metered dose inhaler (MDI), drawing radial artery blood samples as well as patient assessment skills, verifying orders, charting and giving report. Prior to participating in hospital clinical setting students will be required to show competence in the simulation lab.

Prerequisite(s): RESP-125

Corequisite(s): RESP-170

### **RESP 200 Neonatology and Pediatrics 3 cr.**

This course is designed to give Respiratory Therapy students insight into special considerations involved in the respiratory care of the neonatal and pediatric patient. Emphasis will be given to lung embryology and morphology, abnormal cardiopulmonary and congenital anomalies of the newborn and overall respiratory care of the distressed neonate. Also discussed will be respiratory disease of infancy and childhood. Particular attention will be given to the specialized equipment used to maintain, monitor, and treat the neonatal-pediatric patient.

Prerequisite(s): RESP-170, RESP-175

Corequisite(s): none

### **RESP 210 Cardiovascular Assessment 3 cr.**

This course is designed for senior Respiratory Therapy students in order to present an overview of current cardiovascular diagnostic techniques. Emphasis will be placed primarily upon electrocardiography, cardiovascular pharmacology, and Advanced Cardiac Life Support, but the course will also include modules relating to therapeutic aspects of cardiac care and cardiac rehabilitation and disease prevention as well as smoking cessation.

Prerequisite(s): RESP-170, RESP-175

Corequisite(s): RESP-200, RESP-220, RESP-225

### **RESP 220 Clinical Mechanical Ventilation 4 cr.**

This course is designed to be a continuum of Introduction to Mechanical Ventilation (RESP-170). In this course advanced topics covering the management of invasive and noninvasive mechanical ventilation will be studied. Monitoring of the critically ill adult patient will also be presented. This course will focus students on practicing evidence-based lung protective strategies, analyzing and interpreting ventilator graphics, and discussing ventilator weaning strategies. Each of these topics will be studied in detail with an emphasis on the clinical application. Nonconventional ventilator modes will also be explored. Pharmacotherapies used in the care of the critically ill patient will be explored. Laboratory sessions will help the student learn the technical aspects of the role, with topics in equipment management and trouble

shooting. Students will apply principles learned in this course through patient case studies and participating in clinical simulation. The goal of this course is to teach the skills required to become a competent entry level respiratory therapist as well as to cultivate critical thinking skills that are essential in the advanced practice of respiratory care.

Prerequisite(s): RESP-170, RESP-172, RESP-175

Corequisite(s): RESP-200, RESP-210, RESP-225

### **RESP 225 Clinical Practicum III 4 cr.**

This course is designed as a follow-up to Clinical Practicum II (RESP-175). It serves as extended clinical practice of respiratory therapy procedures and the exploration of new roles for the respiratory therapist under the mentorship of clinical preceptors. Each clinical day the student will be assigned to a clinical preceptor(s) at the specific clinical site. The goal is to continue to develop clinical skills in the assessment and care of the adult patient. Students will practice on the floors, special care units, and emergency departments. Students will have an opportunity for observation of surgery and practice airway care in the operating room. In addition, students will be introduced to some non-hospital based aspects of Respiratory Therapy such as diagnostic testing, physician practices, rehabilitation programs, sleep labs and home care.

Prerequisite(s): RESP-170, RESP-175

Corequisite(s): RESP-200, RESP-210, RESP-220

### **RESP 250 Respiratory Care Senior Seminar 3 cr.**

This course is designed as a continuation of the Clinical Mechanical Ventilation course resulting in in-depth study and care of the critically ill patient. The senior seminar course is designed to examine the theoretical aspects of providing respiratory care in high-risk situations to include intensive care units (ICU), cardiopulmonary emergencies, disaster management, rapid response situations, and patient transport (land/air between hospitals and within a hospital). Students will develop patient care plans using evidence-based or clinical practice guidelines. Students will explore current topics related to respiratory care and critical care medicine to include without limitation; ethics, healthy literacy, patient education, patient safety and medical advances.

Prerequisite(s): RESP-220, RESP-225

Corequisite(s): RESP-275

### **RESP 275 Clinical Practicum IV 6 cr.**

This course is designed to complete the student's clinical training with special emphasis on Respiratory Therapy in the critical care setting. Each student will spend a minimum of 4 weeks in the Critical Care

setting, rotating through various specialty care units. Each student will also be responsible to collect data and present one Case Review to fellow students, and faculty of the program. Students will return to other clinical sites which they have visited earlier in the program of study to focus on both critical care and more routine cardio respiratory care as the work load determines. Students will participate in Clinical Review/Seminar which will have the objective of preparing the student for successful completion of the National Board for Respiratory Care (NBRC) Entry Level Exam. Students will participate in clinical meetings.

Prerequisite(s): RESP-225

Corequisite(s): RESP-250

## ***Sociology Courses (SOCI)***

### **SOCI 100 Introduction to Sociology 3 cr.**

Introduction to Sociology presents fundamental concepts and theories covering many areas of contemporary sociology. This course analyzes the influence of social and cultural factors upon human behavior in such areas as culture, socialization, groups, deviance, sexuality, stratification, race, gender, economics, family, religion, and the environment. Social dynamics and social institutions will be explored, coupled with the ever-present issues of social change and the impact of these changes on society and the individual.

Prerequisite(s): none

Corequisite(s): ENGL-080 or ENGL-101 or appropriate placement

### **SOCI 125 Art and Society 3 cr.**

This course will explore the many facets where Art and Society collide through lecture, discussion, film and analyzing various modes of artistic expression. Topics such as culture, inequality, class, race, gender, and public art will be viewed with a global approach through historical and contemporary lenses. Although we do not think of art as social, it is the product of extensive social networks and often reflects or challenges in the social context under which it is produced. Students will develop fundamental art and sociological concepts through writing exercises, observations, and a final independently guided project.

Prerequisite(s): ENGL-100 or ENGL-101

Corequisite(s): none

### **SOCI 160 North American Social Geography 3 cr.**

Social Geography focuses on the interrelationship between sociology and geography. Students will examine how the geography of a region affects population, settlement patterns, urbanization, and

cultural development. Students will participate in an interactive classroom project to explore how geography shaped North American social development. This course is offered occasionally.

Prerequisite(s): ENGL-100 or ENGL-101

Corequisite(s): SOCI-100

### **SOCI 190 Sociology: Service Learning 3 cr.**

Service Learning is an instructional method that integrates community service with academic instruction. This service-training model of instruction used in sociology will focus on critical, reflective thinking, and civic responsibility, and commitment to the community. Students should develop a broader and deeper understanding of social issues through their service to the community.

Prerequisite(s): SOCI-100

Corequisite(s): none

### **SOCI 201 Marriage and Family 3 cr.**

Marriage and Family covers the concepts, structure and diversity of marriage and family from a multigenerational perspective. The focus will be on the modern American family and how it interacts with contemporary society. Each student will be introduced to marriage and family through lectures and practicum. This practicum will be a problem-based learning exercise. The students will participate in a classroom marriage simulation so they can gain real-life knowledge of the personal and social interaction of a family unit in contemporary society. The history of social dynamics and institutions will be explored, coupled with social change and the impact of these changes on the individual, family and society. This course has been designated as a writing-intensive course.

Prerequisite(s): ENGL-100 or ENGL-101

Corequisite(s): SOCI-100

### **SOCI 205 Genocide, Societies' Shame 3 cr.**

Genocide is the systematic destruction of a racial or ethnic group or culture. This course studies acts of genocide perpetrated in the 20th and 21st centuries, for example the Holocaust, Darfur and Bosnia. The course will focus on what happens to a culture experiencing genocide. Students will participate in activities that illustrate the realities of genocide and its impact on the individual and society. Topics covered include prejudice, social movement theory, collective behaviorism and group dynamics. This is a writing intensive course.

Prerequisite(s): ENGL-100 or ENGL-101, PSYC-100 or SOCI-100

Corequisite(s): none

**SOCI 210 Critical Thinking - Social Issues 3 cr.**

This course will introduce students to the concepts and skills associated with critical thinking about social issues. Topics for the semester will include educational reform, energy, and sexual behavior. The course content will include reading and thinking critically; writing concisely and with conceptual clarity; developing convincing, rational arguments to support one's views; and understanding others arguments and perspectives. It is developed with the explicit aim of preparing the student for advanced courses while becoming an active thinker and learner outside of the discipline and college. This course has been designated as a writing-intensive course.

Prerequisite(s): ENGL-100 or ENGL-101, SOCI-100

Corequisite(s): none

**SOCI 250 Social Theory 3 cr.**

This course will provide an introduction to theories in Sociology. We will begin with three theorists who represent the traditional field of Sociology: Karl Marx, Max Weber, and Emile Durkheim. Additionally, the class will read and discuss the work of theorists who made significant contributions to understanding social life from metaphorical margins of society – the life of women, people of color, people living in poverty, and other disenfranchised populations.

Prerequisite(s): ENGL-100 or ENGL-101, SOCI-100

Corequisite(s): none

***Spanish Courses (SPAN)*****SPAN 100 Conversational Spanish 3 cr.**

This course is designed for students of all levels of Spanish. The course focuses on the students' ability to produce the language orally. Content begins with basics and becomes increasingly complex as the semester progresses. The course does not include explanations of grammar and all assessments are done orally. The course is intended for people who plan to use spoken Spanish in some capacity in their lives.

Prerequisite(s): none

Corequisite(s): none

**SPAN 101 Beginning Spanish I 4 cr.**

This beginner's course in Spanish equally emphasizes the four skills of language learning: listening comprehension, speaking, reading and writing. Interactive materials and a laboratory component create a multifaceted and challenging learning environment. This course is appropriate for students with fewer than 2 years of high school Spanish.

Prerequisite(s): none

Corequisite(s): none

**SPAN 102 Beginning Spanish II 4 cr.**

This course in Spanish equally emphasizes the four skills of language learning: listening comprehension, speaking, reading and writing. Interactive materials and a laboratory component create a multifaceted and challenging learning environment. This course follows SPAN-101 in the course sequence and is a continuation of material covered in SPAN-101.

Prerequisite(s): SPAN-101 or instructor approval

Corequisite(s): none

***Sport Management Courses (SPTM)*****SPTM 105 Foundation of Sport 3 cr.**

This course provides an extensive overview of professions within the field of sport. Students will explore different value philosophies of sport and the formulation of personal and professional goals. Current and future issues and trends are examined. Students will examine the field of sport from a career orientation and build upon the observations throughout their course of study.

Prerequisite(s): ENGL-080 or ENGL-101 or appropriate placement

Corequisite(s): none

**SPTM 110 Gender and Sport in Latin America 3 cr.**

This course views sport as a social institution and a microcosm of the longer social processes that stage, reinforce, and perpetuate myriad inequalities in society. In this course we analyze the gendered aspects of sport, and relationship among gender, sexuality, and sport in Latin America. We consider the ways that sport reinforces, and potentially undermines, heteronormality, as well as hegemonic notions of masculinity and femininity. During spring break you will spend time traveling to the Dominican Republic to more closely examine gender and sport in Latin America. You will also engage in a service learning project tied to promoting sport for the women of Latin America.

Prerequisite(s): none

Corequisite(s): none

**SPTM 155 Introduction to Sport Management 3 cr.**

This course will introduce students to the fundamental aspects of sport management, with a concentration on the history of sport, sport organizations and education, and the impact of sport on economics. This course will also explore the influence of sport management and the impact on society.

Prerequisite(s): none

Corequisite(s): SPTM-105

**SPTM 200 Sport Management Internship I 3 cr.**

This course will introduce students to hands on practical experience in the field of sport management. Students will be placed at an on-site location to develop skills learned in the classroom and developed within the professional work setting. All students will have a direct on-site supervisor to assist in the development of the professional experience.

Prerequisite(s): SPTM-155

Corequisite(s): none

**SPTM 205 Sport and Facilities Management 3 cr.**

The course focuses on recreation and sport program management, with emphasis on coordination, development, implementation and evaluation of activities and programming in recreation, fitness and sports in school, community and professional levels. The course also focuses on sport and recreation facility uses, trends, equipment, and physical layout. The areas of program promotion, project planning, market analysis, motivation, and adherence to standards are explored.

Prerequisite(s): SPTM-155

Corequisite(s): none

***Sustainability Courses (SUST)*****SUST 140 Weatherization for the Building Professional 4 cr.**

This course is an introduction to residential weatherization and insulation remediation. Students will learn about building science, energy movement within buildings, ventilation and indoor air quality, surface and air transported heat loss, R and U values, types of building framing, types of insulation used, and proper installation techniques as well as remediation options. The course includes a variety of activities involving the use of the blower door, manometer, infrared imaging camera and other instruments.

Prerequisite(s): none

Corequisite(s): none

**SUST 141 Energy Auditing 3 cr.**

Maine has embarked on an ambitious plan to audit and weatherize every residential structure by the year 2030. This introductory course to building science and energy auditing will prepare students to pass the BPI Building Analyst certification, the energy auditing professional designation recognized by Efficiency Maine and Maine State Housing. After completing this course, students will be able to conduct accurate building analyses and document findings, as well as make recommendations for improvements, including financial benefits and investment payback.

Prerequisites: none

Corequisites: none

***Social Work Courses (SWRK)*****SWRK 201 Introduction to Social Work 3 cr.**

This course will familiarize students with the various roles, functions, and tasks which social workers perform in a variety of settings and acquaint them with the primary skills and practices of generalist social work. Students will be introduced to social work practice as a multi-level and multi-method approach to influencing change in problem situations. Students will also be introduced to the core values and Code of Ethics of social work and be exposed to issues of diversity, oppression, and social justice. The practice of generalist social work will be considered from the perspective of a collaborative, strengths-based model working within complex social service systems.

Prerequisite(s): ENGL-100 or ENGL-101, PSYC-100

Corequisite(s): none

**SWRK 250 Introduction to Social Welfare 3 cr.**

This course provides an introduction to the institution of social welfare through a review of social welfare history; the values and philosophy in America of treating the poor, the ill, and others in need; contemporary approaches to social policy; and possible alternative models of social welfare.

Prerequisite(s): ENGL-100 or ENGL-101, PSYC-100

Corequisite(s): none

***Theater Courses (THEA)*****THEA 105 Introduction to Acting 3 cr.**

This course will introduce students to the basics of acting and scene study. Students will develop an understanding of the art of acting through improvisational exercises, group discussion and performance of scenes. Students will attend local theatrical productions and write performance reviews.

Prerequisite(s): none

Corequisite(s): none

**THEA 106 Theater Performance 1 cr.**

This course offers practical experience in theatrical rehearsal and performance. In this class, students will learn and practice various acting and directing methods, with a focus on both monologues and scene work. Students will gain confidence in performance and execution of theatrical material created and rehearsed in class, with a culminating final public performance. Students may repeat the course up to three times for credit.

Prerequisite(s): none  
Corequisite(s): THEA-105

**THEA 155 Modern Dance 3 cr.**

This course is designed to introduce the beginner to Modern Dance. In this class, students will explore technical and physical concepts as well as improvisation and composition. Students will also be introduced to the historical development of modern dance. Students will gain confidence in performance and execution of the material in the studio. In addition, students will work on building trust and rapport with each other.

Prerequisite(s): none  
Corequisite(s): none

**THEA 156 Dance Performance 1 cr.**

This course offers practical experience in dance rehearsal and performance. In this class, students will develop choreography, rehearse, participate in group critique, and perform. Students will gain confidence in performance and execution of a dance performance created and rehearsed in class, with a culminating final public performance. Students may repeat this course up to three times for credit.

Prerequisite(s): none  
Corequisite(s): THEA-155

## ***Welding Courses (WELD)***

**WELD 100 Introduction to Welding 3 cr.**

This course is designed to provide the fundamentals of welding for the beginner. Students will learn to operate basic equipment pertaining to shielded metal arc welding, oxy-fuel welding and cutting. Students will also be instructed in the choice of proper electrodes. This course will be beneficial to students going into a welding career or any occupation that requires welding skills. It will also be valuable to welders as refresher or to the home hobbyist or a supervision advancement.

Prerequisite(s): none  
Corequisite(s): none



# GOVERNANCE, ADMINISTRATION, FACULTY & STAFF

## Executive Staff

**Tiffanie L. Bentley**  
Interim President  
*B.S., M.S., Oklahoma State University*

**Paul Charpentier**  
Vice President / Academic Dean  
*A.O.S., Culinary Institute of America*  
*B.S., University of Southern Maine*  
*M.S.Ed., University of Southern Maine*  
*Ed.D., University of Maine*

**Julie A. Chase**  
Dean of Advancement  
Business & Community Partnerships  
*B.S., University of Maine - Farmington*

**Robert D. Coombs**  
Dean of Finance  
*B.A., Tufts University;*  
*M.A., University of Southern Maine*

**Barbara Conner**  
Dean of Students, Title IX Coordinator, ADA  
Compliance Officer

*B.S., Texas A & M University*  
*M.S., University of Southern Maine*

**Timothy S. Dunne**  
Dean of Data, Technology and Information  
Security  
*Bachelor of Education, Harlow College (UK)*  
*Masters in Computing & Information Systems,*  
*Greenwich University (UK)*

**Matthew. J Goodman**  
Dean of Academic Excellence & Strategic  
Initiatives  
*A.A. Holy Cross College*  
*B.A. University of Miami*  
*M.A. DePaul University*  
*D.Ed. Texas Tech University*

**James B. Whitten**  
Dean of Midcoast Campus and Satellite Centers  
*B.S., St. Joseph's College*  
*M.S., University of Southern Maine*

# Faculty

## **Daniel H. Abbott**

Professor  
Architectural & Engineering Design  
*B.A., Swarthmore College*  
*B.S., University of Southern Maine*  
*M.S., University of Southern Maine*

## **E. Anne G. Applin**

Professor  
Computer and Information Sciences  
*B.S., Southeastern Louisiana University*  
*M.S., Ph.D., University of Southern Mississippi*

## **Adrian J. Ayotte**

Assistant Professor  
Department Co-Chair  
Mathematics  
*B.A., University of Southern Maine*  
*B.S., M.S., University of Maine, Orono*

## **Donald Bailey**

Instructor  
Plumbing  
*A.A.S., UA Plumbers Local 63*

## **Kayla Baranski**

Instructor  
Nursing  
*A.S., Community College of Rhode Island*  
*B.S.N., Rhode Island College*  
*M.S.N., Chamberlain University*

## **Amanda Bartlett**

Instructor  
Business Administration  
*B.S., M.B.A., Husson University*

## **John H. Bolduc**

Professor  
Department Chair  
Precision Machining and Manufacturing  
*A.A.S., Central Maine Community College*  
*B.S., University of Maine*

## **Michael T. Bove**

Professor  
English  
*B.A., M.A., University of New Hampshire*

## **Ann H. Boyce**

Professor  
English  
*B.A., M.A., Mills College*

## **Sally L. Brewer**

Assistant Professor  
Respiratory Therapy  
*A.A.S., Southern Maine Vocational Technical Institute*  
*B.S., M.S.Ed., St. Joseph's College*

## **Meg H. Broderick**

Associate Professor  
Culinary Arts  
*Certified Working Pastry Chef*  
*B.S., Nasson College*

## **Deborah L. Brooks**

Associate Professor  
Department Chair  
Nutrition and Dietetics  
*B.S., University of Maine*  
*M.S., Northeastern University*

## **Robert A. Brydon**

Associate Professor  
Integrated Manufacturing Technology  
*A.A.S., Southern Maine Community College*  
*B.S., University of Southern Maine*

## **Larry W. Buchanan Jr.**

Assistant Professor  
Radiography  
*A.S., Community College of the Air Force*  
*B.S., Wayland Baptist University*

## **Patricia A. Buchanan**

Assistant Professor  
Department Chair  
Medical Assisting  
*A.A.S. Beal College*  
*B.S., M.A., University of Maine*

## **Robert W. Byrne**

Instructor  
Culinary Arts  
*A.C.F. Certified Executive Chef*  
*A.A.S., Southern Maine Community College*  
*B.S., University of Massachusetts*  
*M.B.A., Southern New Hampshire University*

## **Sarah R. Caldwell**

Assistant Professor  
Nursing  
*B.S.N., Saint Joseph's College*  
*M.S.N., Saint Joseph's College*

**Craig A. Carney**

Professor  
Department Chair  
Heating & Air Conditioning  
*A.A.S., Southern Maine Technical College*  
*B.S.Ed., University of Southern Maine*  
*Master Oil and Solid Fuel Technician*  
*Master Plumber*  
*Certified Propane and Natural Gas Technician*

**Larry K. Chaney**

Professor  
Department Chair  
Physical Sciences  
*B.S., University of Maine Portland*  
*M.S., Ph.D., University of Massachusetts*

**Scott Ciampa**

Instructor  
Department Co-Chair  
Mathematics  
*B.S., University of Massachusetts*  
*M.B.A., Southern New Hampshire University*

**Meridith L. Comeau**

Professor  
Department Chair  
Architectural & Engineering Design  
*A.A.S., Southern Maine Technical College*  
*B.A., University of Maine*

**Jocelyn A. Conley**

Assistant Professor  
Mathematics  
*B.S., Pace University*  
*M.S., Rivier College*

**Rachel C. Cooper**

Assistant Professor  
Nursing  
*B.S.N., M.S.N., Saint Joseph's College*

**William Dingee**

Instructor  
Fire Science  
*A.S., Norwalk State Technical College*  
*B.S., Empire State College*

**Lisa A. Dittrich**

Instructor  
Department Chair  
Cardiovascular Technology  
*B.S., M.S., University of Southern Maine*

**Seth J. Doane**

Associate Professor  
Radiography

*A.S., Southern Maine Community College*  
*B.A., University of Vermont*  
*M.S. Boston University Metropolitan College*

**Jessica L. Dreves**

Assistant Professor  
Department Chair  
Nursing  
*B.S.N., University of Southern Maine*  
*M.S.N., St. Joseph's College*

**Jemma Droppo**

Instructor  
Computer Science  
*B.S., M.S., Western Washington University*

**David A. Eng**

Professor  
Department Chair  
Construction Technology  
*B.S., University of Southern Maine*

**Clifton Finch**

Instructor  
Automotive Technology

**Margaret E. Frigard**

Assistant Professor  
Early Childhood Education  
*B.S., University of New Hampshire*  
*M.S., Wheelock College*

**Paul Froman**

Instructor  
Emergency Medical Services  
*A.A.S., Southern Maine Community College*

**Scott R. Greenleaf**

Associate Professor  
Mathematics  
*B.S., Bates College*  
*Ph.D., State University of New York at Stony Brook*

**Rachel A. Guthrie**

Professor  
Communication & New Media  
*B.F.A., University of Southern Maine*  
*H.E.S. Institute for American Universities*  
*M.Ed., Goddard College*

**Kendall Harnett**

Instructor  
Communication & New Media  
*B.A., Indiana University*  
*M.F.A, Columbia University*

**Keenan W. Hatch**

Instructor

Nursing

*A.S., Nashua Community College*

*B.A., Rivier College*

*B.S.N., Rivier University*

*M.S., Capella University*

**Amy L. Havel**

Professor

English

*B.A., Colby College*

*M.A., Illinois State University*

**Heather L. Higgins**

Associate Professor

Department Chair

Respiratory Therapy

*B.S., Northeastern University*

*M.S., University of New England*

**Karlee S. Hoecker**

Professor

Department Chair

Social Sciences

*B.A., University of Southern Maine*

*Ph.D., University of North Carolina at Greensboro*

**Christopher D. Hoffmann**

Professor

Biological Sciences

*B.A., Boston College*

*M.S., Antioch - New England*

*M.A., University of Birmingham*

**Glenn W. Hussey**

Associate Professor

Department Co-Chair

Computer and Information Sciences

*A.S., Community College of the Air Force*

*B.S., M.S., University of Maryland*

**Thomas P. Joyce**

Professor

Department Chair

Criminal Justice

*A.A.S., Southern Maine Technical College*

*B.S., University of Southern Maine*

*M.S., University of New England*

**Anthony S. Kadnar**

Associate Professor

Heating & Air Conditioning

*Master Oil and Solid Fuel Technician*

*Certified Propane and Natural Gas Technician*

*Certified Master HVACR Educator*

*A.S., Eastern Maine Community College*

*B.S., Ferris State University*

*M.Ed., University of New England*

**Lisa D. Keenan**

Professor

Nursing

*B.S., M.S., University of Southern Maine*

*M.S., University of Southern Alabama*

**Kevin D. Kimball**

Professor

Mathematics/Physics

*B.S., University of New York-Regent's College*

**Jennifer A. Laflamme**

Instructor

Nursing

*A.D.N., University of New England*

*B.S.N., University of Southern Maine*

*M.S.N., St. Joseph's College*

**Earl B. Lamoreau, Jr.**

Professor

Mathematics/Physics

*B.S., University of Maine*

**Rebecca A. Lapata**

Instructor

Nursing

*A.S., A.A.S., New Mexico Junior College*

*B.S.N., University of Southern Maine*

**Maureen A. LaSalle**

Assistant Professor

Department Chair

Hospitality Management & Culinary Arts

*B.S., University of Southern Maine*

*M.B.A., St. Joseph's College*

**Maurice S. Leavitt**

Professor

Culinary Arts

*A.O.S., Culinary Institute of America*

*B.S., University of Illinois-Urbana/Champaign*

**Paula S. Levesque**

Instructor

Nursing

*B.S.N., University of Maine, Augusta*

*M.S.N., University of West Georgia*

**Robert A. Lindstedt**

Professor

Department Chair

Fire Science

*B.S., University of Southern Maine*

*M.S.Ed., St. Joseph's College*

**Kevin MacDonald**

Associate Professor  
Criminal Justice  
*B.S., University of Massachusetts, Lowell*  
*M.S., University of Southern Maine*

**James E. McGhee**

Professor  
Engineering & Electrical Technology  
*A.A.S., Hocking Technical College*  
*B.S., Ohio University*

**Eben S. Miller**

Professor  
Social Sciences  
*B.A., Bates College*  
*Ph.D., Brandeis University*

**Linda F. Misener**

Professor  
Mathematics  
*B.A., University of Virginia*  
*M.S., University of Virginia*

**Leah K.A. Mitchell**

Assistant Professor  
Emergency Medical Services/Paramedicine  
*A.A.S., Southern Maine Community College*  
*B.S., University of New England*

**Daniel P. Moore**

Professor  
Department Chair  
Biological Sciences  
*B.A., University of Oregon*  
*M.A., Graduate Institute of St. John's College*  
*Ph.D., Massachusetts Institute of Technology*

**Joseph D. Moore**

Professor  
Automotive Technology  
*A.S., Harrisburg Area Community College*  
*B.S., Pennsylvania College of Technology*  
*M.S.Ed., Purdue University*

**Ruth Morrison**

Professor  
Department Chair  
Automotive Technology  
*A.A.S., Central Maine Community College*  
*B.S., M.S., University of Southern Maine*

**Julie L. Mueller**

Professor  
Social Sciences  
*B.A., Bucknell University*  
*M.A., Ph.D., University of Delaware*

**Thomas P. Narciso**

Associate Professor  
Integrated Manufacturing Technology  
*A.A.S., Southern Maine Technical College*  
*B.S.A., M.S., University of Southern Maine*

**Michelle J. Neujahr**

Associate Professor  
Business Administration  
*B.A., University of Minnesota*  
*M.B.A., University of Southern Maine*

**Corey M. Norman**

Associate Professor  
Communications and New Media  
*A.A.S., Southern Maine Technical College*  
*B.A., University of Southern Maine*  
*M.Ed., Lesley University*

**Louise C. Ouellette**

Professor  
Department Chair  
Radiography  
*R.T.R., Maine Medical Center*  
*A.A.S., Southern Maine Technical College*  
*B.S., M.S., University of Southern Maine*

**David L. Palm**

Associate Professor  
Horticulture  
*B.S., Iowa State University*  
*M.Ed., University of Wisconsin-LaCrosse*

**Rachel Parse**

Associate Professor  
Department Chair  
Early Childhood Education  
*B.A., Rutgers College*  
*M.S., Old Dominion University*  
*Ph.D., University of New Hampshire*

**Abby J. Pierce**

Instructor  
Nursing  
*B.A., Auburn University*  
*B.S.N., University of New England*  
*M.S.N., M.B.A., Western Governors University*

**Crystal I. Pietrowicz**

Professor  
Biological Sciences  
*A.A., Community College of the Air Force, Maxwell AFB, AL*  
*A.A., A.A.S., Arkansas NE College*  
*B.A., M.S., University of Southern Maine*

**Richard P. Pitre**

Professor

Department Chair

Music

English/Fine Arts

*B.A., Fairfield University*

*B. Mus., University of Southern Maine*

*M.A., Fordham University*

*M.Div., Weston School of Theology*

*Th.M., Graduate Theological Union*

*Ph.D. (cand.) Boston College*

**Wendy M. Plourde**

Professor

Department Co-Chair

Computer and Information Sciences

*A.A.S., Southern Maine Technical College*

*B.S., University of Southern Maine*

*M.S.Ed., University of New England*

**Anthony A. Poulin**

Professor

Department Chair

Culinary Arts

*A.A.S., B.S., New Hampshire College*

*M.S. Ed., St. Joseph's College*

**Sonali Reese**

Instructor

Department Chair

Developmental English & Global Languages

*B.A., Bates College*

*M.A., Brandeis University*

**Mark R. Reuscher**

Professor

Department Chair

Business Administration and Sport Management

*B.B.A., St. Bonaventure University*

*M.B.A., Syracuse University*

**Cheryl E. Rich**

Professor

Department Chair

Horticulture

*A.A.S., Southern Maine Technical College*

*B.S., University of Vermont*

*M.S., University of Illinois*

**Paul R. Richardson**

Associate Professor

Architectural Engineering & Design

*A.A.S., Southern Maine Community College*

*B.S., University of Southern Maine*

**Tom Richardson**

Professor

Department Chair

Human Services

*Extended Teacher Education Program, University of Southern Maine*

*B.A., Boston University*

*M.A., Edmund S. Muskie School of Public Service - University of Southern Maine*

**Virginia A. Rose**

Associate Professor

Department Co-Chair

Fine Arts

*B.F.A., University of New Hampshire*

*M.A., Queens College*

**Katharine H. Roy-Gosselin**

Professor

Respiratory Therapy

*A.S. Midlands Technical College*

*B.A., M.A., University of Southern Maine*

**Anne Russo-Ladd**

Instructor

Medical Assisting

*A.A.S., Andover College*

*B.A., University of New England*

*M.S., University of Southern Maine*

**Donald C. Sheets**

Assistant Professor

Emergency Medical Services

*A.A.S., Southern Maine Community College*

*B.S., Southern New Hampshire University*

**Kate Q. Sibole**

Professor

Department Chair

Communications & New Media

*B.A., University of Delaware*

*B.F.A., University of Delaware*

*M.F.A. School of Visual Arts*

**Andrew E. Silsby**

Assistant Professor

Department Chair

Electrical Engineering Technologies

*B.S., University of Southern Maine*

**Lareen M. Smith**

Assistant Professor

Marine Science

*A.S., Chaffey Community College*

*B.S., California State University, Long Beach*

*M.S., California State University, Northridge*

**Andrew Soule**

Instructor

Department Chair  
Construction Technology  
*B.S., University of Maine Farmington*

**David R. Stankiewicz**

Professor  
English  
*B.A., Gordon College*  
*M.A., Andover Newton Theological Seminary*  
*M.F.A., University of Southern Maine*

**Kathryn A. Stannard**

Associate Professor  
Human Services  
*B.A., Duke University*  
*Teacher Certification Graduate Program,*  
*University of Rhode Island*  
*M.S.W., Rutgers University*

**Stephen A. Strand**

Professor  
Business Administration  
*B.A., University of Maine,*  
*M.B.A., Suffolk University, C.P.A.*

**Kevin F. Sweeney**

Professor  
Department Chair  
English  
*B.A., California State College*  
*M.F.A., University of Massachusetts*

**Adam P. Tambone**

Assistant Professor  
Department Chair  
Engineering  
*B.S., University of Southern Maine*

**Brian P. Tarbox**

Professor  
Biological Sciences (Marine)  
*A.S., Southern Maine Vocational Technical Institute*  
*B.S., Nasson College*  
*M.S., University of Maine*

**Christopher Teret**

Instructor  
Electrical Engineering Technologies  
*B.A., Bard College*

**Rebecca L. Test**

Instructor  
Information Technology  
*B.A., Maryland Institute of Art*

**Karen E. Twidwell**

Assistant Professor

Nursing  
*A.A.S., Central Maine Medical Center College of*  
*Nursing & Health Professions*  
*B.S.N., University of Maine, Augusta*  
*M.S.N., American Sentinel University*

**Jan E. Veinot**

Professor  
Social Sciences  
*B.A., University of Southern Maine*  
*M.S., University of Southern Maine*

**Robert C. Vettese**

Professor  
English  
*B.A., University of Michigan*  
*M.A., City College, CUNY*

**Peter Volk, Jr.**

Instructor  
Emergency Medical Services/Paramedicine  
*A.S., Southern Maine Vocational Technical Institute*  
*B.S., University of Southern Maine*  
*M.S., University of New England*

**Martha M. Vrana-Bossart**

Assistant Professor  
Nursing  
*B.S., University of California, San Francisco*  
*M.S., Walden University*

**Caroline E. Warren**

Instructor  
Nursing  
*B.S.N., Johns Hopkins University*  
*M.S.N., University of South Carolina*

**Samuel L. Widdowson**

Instructor  
Nursing  
*B.S.N., University of Scranton*  
*M.S.N. DeSales University*

**Patrick E. Wiley**

Assistant Professor  
Water Treatment Technology  
*B.S., University of Maine, Orono*  
*M.S., Humboldt State University*  
*Ph.D., University of California*

**Norma L. Willis**

Professor  
Department Chair  
Health Science  
*A.S., Southern Maine Technical College*

*RDCS registration American Registry Diagnostic  
Medical Sonographers  
B.S., University of Southern Maine*

**Gerard V. Zarrilli**  
Professor  
English

## Administrative Staff

**Candace L. Anderson-Ek**  
Business Relations Manager & Training  
Coordinator  
*B.A., Wheaton College*

**Christopher D. Anderson**  
Student Success Coach  
*B.A., Grove City College  
M.A., Gordon-Conwell Theological Seminary  
M.A., Brandeis University*

**Ares E. Bourque**  
Information Systems Specialist I  
*A.A.S., Southern Maine Community College*

**Eric E. Bourque**  
Help Desk Manager  
*A.A.S., York County Community College  
B.S., University of Phoenix  
M.B.A., North Central University*

**Kalena K. Brady**  
Pathway Advisor  
*A.A., A.S., Southern Maine Community College  
B.S., Purdue University Global*

**Anthony J. Burton**  
Student Success Coach  
*A.S., Brown City Community College  
B.S., Rochester University  
M.A., University of Detroit*

**Andrew D. Campos**  
TRIO Student Success Services Coach  
*A.A., Broome Community College  
B.S., Stonybrook University  
M.A., University of Arizona*

**Molly F. Caso**  
Dual Enrollment Success Coach  
*B.S., St. Bonaventure University*

**John P. Churchill**  
Curriculum Certificate Program Assistant Manager  
*A.S., Southern Maine Community College  
B.S., University of Maine*

*B.A., University of Massachusetts-Amherst  
M.A., Brown University*

**Kyle M. Colburn**  
Athletic Facilities Specialist

**Marti Cox**  
Continuing Studies Coordinator  
*B.S., Boise State University*

**Jeremy J. Dill**  
Associate Dean of Institutional Research and  
Registration/Registrar  
*B.A., M.A., University of Maine*

**Kathleen E. Doan**  
Associate Dean of Student Success  
*B.A., University of Southern Maine  
M.S., University of Southern Maine*

**Phoebe E. Dodge**  
EMS Clinical Coordinator  
*A.S., University of Maine*

**Lisa C. Dolan**  
Senior Data Manager  
*A.A.S., A.A., Southern Maine Technical College*

**Brenda D. Downey**  
Associate Dean of Workforce Development  
*B.S., University of Maine  
M.B.A., Butler University*

**Carin E. Dunay**  
Head, Access & Collection Services  
*B.A., SUNY Purchase  
MLIS, Univ. of South Carolina*

**Margie Fahey**  
Associate Dean for Curriculum Design &  
Articulation  
*B.A., Boston College  
M.Ed., Tufts University*

**Aidan Fennessy**  
Nursing Administrative Coordinator  
*B.S., Ithaca College*

**Amanda L. Gagnon**  
Student Success Coach  
*B.F.A., Colby-Sawyer College*



*B.S., University of Maine, Augusta*  
*M.Ed., University of Southern Maine*

**Katharine R. Gergosian**

Assistant Director, TRIO SSS/Special Population  
*B.S., University of Maine, Farmington*  
*M.S., State University of New York*

**Connie Goldberg**

Foundation Associate  
*B.A., Bowdoin College*  
*M.B.A., University of New Hampshire*

**Jody B. Goodman**

Marketing Assistant  
*A.A.S., Southern Maine Community College*  
*B.A., Texas Tech University*

**Joseph D. Gorsun**

TRIO Student Success Services Coach  
*B.A., University of Southern Maine*

**James A. Graves**

Director of Fire Training, Maine Fire Service  
Institute  
*A.A.S., NH Technical College Laconia*  
*B.S., University of Maine*

**Elizabeth Gresley**

Student Success Coach  
*B.A., B.S., University of Maine, Farmington*  
*M.A., University of Florida*

**Holly L. Gurney**

Associate Dean of Academics & Learning  
Commons  
*B.A., Millikin University*  
*M.A., M.Ed., Ph.D., Indiana University*

**Lori A. Hall**

Executive Assistant to the President  
*A.A., Southern Maine Community College*  
*B.A., St. Joseph's College*

**Frank H. Hammond, Jr.**

Fire Training Program Manager  
Maine Fire Service Institute  
*A.S., Southern Maine Community College*

**Meghan E. Hardison**

Instructional Learning Commons Outreach and  
Digital Integration Librarian  
*B.A., Barnard College of Columbia University*  
*M.L.I.S., Simmons College*

**Michael R. Hart**

Director of Online Learning

*B.S., M.Ed., University of Maine*

**Heather Heath**

Coordinator of Student Disability Services  
*B.S., University of Maine*  
*C.A.S., M.Ed., University of Southern Maine*

**Melissa A. Hoffman**

Student Success Coach  
*B.A., Smith College*

**Jane E. Howard**

Child Care Teacher  
*A.A.S., Southern Maine Community College*

**Christopher K. Ike**

Director of Early College  
*A.A.S., York County Community College*  
*B.A., University of Southern Maine*  
*M.B.A., Husson University*

**Heather Jackson**

Director of Disability Services  
*B.S.W., University of Southern Maine*  
*M.S.W., Capella University*

**Stacey M. Kardash**

Assistant Director of Advising Services  
*B.F.A., M.S., University of Southern Maine*

**Maxwell Kodis-Beach**

Data Analyst  
*A.S., Southern Maine Community College*  
*B.S., College of the Atlantic*

**Amy Lainoff**

Director of Veteran and Military Student Services  
*B.A., SUNY at Cortland*  
*M.A., George Washington University*

**Rupa R. Lall Pakash**

Director of Human Resources  
*B.A., University of Portsmouth (UK)*  
*Postgraduate Diploma, University of Portsmouth (UK)*

**Jodie E. Lane**

Advisor and Director of International Student  
Services  
*B.A., SUNY at New Platz*

**Joanne E. Langerman**

Interlibrary Loan, Patron Services & Archives  
Librarian  
*B.F.A., Fashion Institute of Technology*  
*M.L.S., Southern Connecticut State University*

**Adrienne M. LaRoche**

Director of Career and Transfer Services  
*B.S., Ed.M., Boston University*

**Wendy L. Laverdiere**

Associate Director, Financial Aid  
*A.A.S., Southern Maine Technical College*

**Savannah N. Leighton**

Student Navigator  
*A.A., A.S., Southern Maine Community College*

**James Liebowitz**

Assistant Director of Admissions  
*B.S., Thomas College*  
*M.S., Old Dominion University*

**Katharine J. Lualdi**

Director, TRIO Student Success Services  
*B.A., Ph.D., University of Pennsylvania*

**Michel F. Lussier**

Director of Financial Aid Systems  
*B.A., Anna Maria College*

**Sandra E. Lynham**

Advisor  
*B.A., Colby College*  
*M.S.Ed., University of Southern Maine*

**Joseph P. Manhardt**

Director of Public Safety & Contract Services  
*A.A.S., Southern Maine Community College*  
*B.A.S., University of Southern Maine*

**Maria Del Carmen Moreno-Diaz**

Director of the Intercultural Student Center  
*B.A., Facultad de Filosofía*  
*Ph.D., University of Virginia*

**Walter A. Morris**

Fire Training Program Manager  
*A.A.S., Rockland Community College*  
*B.S., Mercy College*  
*M.S., John Jay College of Criminal Justice*

**Amy L. Mullen**

Assistant Dean of Communications & Marketing  
*B.A., Keene State College*

**Kelsey R. Munksgaard**

Web and Digital Marketing Specialist  
*B.S., University of Southern Maine*

**Jennifer A. Otenti**

Environmental Health and Safety Coordinator  
*B.A., Alfred University*

**Anna S. Patkus**

Associate Director of the Learning Commons  
*A.A., B.A., University of Southern Maine*  
*M.A., School for International Training*

**Michele C. Pavitt**

Student Success Coach  
*B.A., Brown University*  
*M. A., University of Michigan*  
*Ph.D., University of Southern Maine*

**Victoria Penney**

Assistant Director of Student Life  
*B.A., University of Maine*  
*M.A., Plymouth State University*

**Glaisma Perez-Silva**

Coordinator of Student Disability Services  
*B.A., Catholic University of Puerto Rico*  
*M.S., InterAmerican University of Puerto Rico*

**Ashley M. Pomelow**

Financial Aid Counselor  
*B.A., University of Maine*  
*M.S., University of Southern Maine*

**Vicki-Rose Porter**

Midcoast Coordinator of Student Success  
*B.A., University of Southern Maine*  
*M.B.A., Franklin Pierce University*

**Matthew N. Richards**

Associate Dean of Athletics and Alumni Affairs  
*B.S., Colby-Sawyer College*  
*M.A., University of Northern Colorado*

**James E. Roy**

Deputy Director - Operations,  
Maine Fire Service Institute  
*A.A.S. Southern Maine Community College*  
*B.S. University of Maine*

**Nancy J. Russell**

Maine Fire Service Institute Administrative  
Financial Coordinator  
*A.S., B.S., Southern New Hampshire University*

**Jason R. Saucier**

Associate Dean of Students  
*B.A., M.S., University of Southern Maine*

**Jeffrey D. Schools**

Director of Communications  
*A.S., B.S., Kaplan University*

**Darby Simpson**

Pathway Advisor

*B.S., Emporia State University*  
*M.A., Arizona State University*

**Bryan C. Strniste**

Reference & Information Literacy Librarian  
*B.S., Southern Connecticut State University*  
*M.L.S., Long Island University*

**Elizabeth N. Tharpe**

Assistant Director of Residential Life  
*B.A., M.S., University of Southern Maine*

**Suzanne I. Turner**

Associate Registrar  
*A.A., Southern Maine Community College*  
*B.A., M.S., University of Southern Maine*

**Marc A. Vitagliano**

Instructional Design Coordinator  
*A.A.S., Cohise College*  
*B.S., University of New England*  
*M.ED, Northeastern University*

**Joshua D. Walker**

Assistant Director of Admissions  
*B.S., St. Joseph's College*

**Ethan G. Wells**

Associate Director of Athletics and Recreation  
*B.S., University of New England*  
*M.S.Ed., Endicott College*

**Tanya L. West**

Academic Coordinator of the Testing Center  
*B.A., Syracuse University*

**Erin J. Wheaton**

TRIO Student Success Services Coach  
*B.A., Emmanuel College*

**Randi M. Wilde**

Financial Aid Counselor  
*A.A., Southern Maine Community College*

**Brittany A. Williams**

TRIO Student Success Services Coach  
*A.A.S., Southern Maine Community College*  
*B.A., Southern New Hampshire University*

**Rebecca L. Woods**

Associate Director of Financial Aid  
*B.A., M.Ed., University of Maine*

**Shona C. Workman**

Intercultural Student Center Advisor  
*B.S., University of Maine*  
*M.A., Lesley University*

# Supervisory Staff

**Shaun M. Gray**

Director of Financial Services and Compliance  
*B.B.A., University of Notre Dame*

**Coleen E. Laprise**

Business Manager II/College Bursar  
*M.B.A., Babson College*

**Susan J. Hannaford**

Executive Chef and Manager  
McKernan Center  
*B.A., Trinity College*

**Robert Morrissey**

Grounds & Equipment Supervisor (South Portland)  
*A.A. Southern Maine Community College*

**Andrew T. Napoli**

Facilities Daily Operations Supervisor - Midcoast  
*A.A.S., Southern Maine Community College*

**Kenneth L. Reno, Jr.**

Director of Enterprise Applications  
*A.A.S., Southern Maine Technical College*

**Timothy J. Slane**

Facilities Maintenance Supervisor (Custodial)

## Support Staff

**El-hadi Adam**

Custodian II

**Matthew Allaire**

Network Infrastructure Manager

*A.A.S., Southern Maine Community College*

**Elizabeth C. Arsenault**

Academic Coordinator

*A.A.S., Southern Maine Technical College*

*B.A., University of Maine*

**Rachel Ashman**

Administrative Specialist IV

*A.A.S., Southern Maine Technical College*

**Tammy L. Bailey**

Accounting Assistant II

*A.A., Illinois Central College*

**Kristen G. Baker**

Administrative Specialist IV

*A.A.S., Thomas College*

**Laura G. Barclay**

Accountant II/Assistant Bursar

*B.A., Rowan University*

**Timothy E. Barnes**

Information Systems Specialist III

**Dianne C. Berube**

Information Systems Specialist III

*B.A., University of Maine, Orono*

**Jay R. Bickford**

Facilities Maintenance Specialist I – Midcoast

*A.S., Southern Maine Community College*

**Raymond D. Bishop**

MFSI Fire Training Support Services Supervisor

*B.S., Franklin Pierce University*

**Ares Bourque**

Information Systems Specialist I

*A.A.S., Southern Maine Technical College*

**D. Michael Cheney**

Central Services Supervisor

*B.S., Southern New Hampshire University*

**Chad A. Cichon**

HVAC Technician

*Licensed Master Oil Burner Technician*

*Licensed Maine Propane/Natural Gas Technician*

**Kyle Colburn**

Athletics Facilities Specialist I

**Allyson B. Conley**

Children's Center Director

*A.A.S., Southern Maine Community College*

*B.S., University of Maine, Farmington*

**Britt Couturier**

Facilities Maintenance Specialist I

*B.A., University of Maine, Farmington*

**Timothy M. Coyne**

Custodian II

**Michael A. Cyr**

Senior Information Systems Support Specialist

*A.S., Northern Maine Vocational Technical Institute*

*B.S., Thomas College*

**Todd Dadaleares**

Sim Lab Coordinator

*A.A.S., Southern Maine Technical College*

**Peter Dow**

Facilities Maintenance Specialist I

**James D. Duddy**

Administrative Specialist IV

*A.S., Casco Bay College*

**Kimberly A. Farnham**

Administrative Specialist IV

*A.A.S., Southern Maine Community College*

**Shamar Flowers**

Custodian II

**Haley Fournier**

Administrative Specialist IV

*A.A., A.S., Southern Maine Community College*

**Gwenyth C. Fraser**

Administrative Specialist IV

*B.A., Brandeis University*

*M.A., Boston University*

**Dianne C. Fredette**

Accountant I/Purchasing Assistant

*A.S., Southern Maine Community College*

<b>Bruce S. Garland</b> Master Carpenter	Payroll Coordinator <i>B.A., Baldwin-Wallace College</i>
<b>Karen L. Gordon</b> Administrative Coordinator <i>A.A.S., Southern Maine Technical College</i>	<b>Sarah E. Metcalf</b> Administrative Specialist IV <i>A.S., A.A.S., Southern Maine Community College</i>
<b>Brian P. Hamel</b> Administrative Specialist IV <i>A.A.S., Andover College</i>	<b>Frank H. Moreau</b> Facilities Maintenance Specialist I
<b>Courtney D. Hannus</b> Child Care Teacher <i>A.A.S., Southern Maine Community College</i>	<b>Michael Ney</b> Custodian II
<b>Patrick R. Haviland</b> Administrative Specialist IV	<b>Deirdre M. O'Brien-Kidney</b> Administrative Coordinator <i>B.A., University College Cork</i>
<b>John T. Hebert</b> Carpenter/Painter	<b>Jason R. Osborne</b> Fire Training Support Services Specialist
<b>Anne L. Heinig</b> Administrative Specialist IV <i>B.A., University of New Hampshire</i> <i>M.B.A., Southern New Hampshire University</i>	<b>Donna M. Queen</b> Administrative Specialist IV
<b>Michael A. Hobbs</b> Campus Safety and Security Officer <i>A.A.S., Southern Maine Technical College</i>	<b>Stephen A. Reed</b> Call Center Coordinator <i>B.F.A, University of Southern Maine</i>
<b>Chase Holak</b> Accounting Assistant II <i>B.A., University of Maine at Farmington</i>	<b>Caleb Richard</b> Custodian II <i>A.A.S., Southern Maine Community College</i>
<b>Jane Howard</b> Child Care Teacher <i>A.A.S., Southern Maine Technical College</i>	<b>Carrie G. Rose</b> Academic Coordinator <i>B.A., University of Southern Maine</i>
<b>Floydzell E. Johnson</b> Custodian II	<b>Evan M. Sanborn</b> Campus Safety and Security Officer <i>A.S., Southern Maine Community College</i>
<b>Joseph R. Jones</b> Custodian II	<b>Emily Savage</b> Laboratory Manager
<b>Matthew E. Jones</b> Custodian II	<b>Terrence A. Smith</b> Maintenance Mechanic
<b>Jeffrey K. Kelley</b> Grounds and Equipment Supervisor	<b>Derek V. Sondergaard</b> Custodian II <i>A.A., Southern Maine Community College</i>
<b>Diane M. Leo</b> Administrative Specialist III	<b>Shawn K. Staples</b> Accountant II <i>B.S., University of Southern Maine</i>
<b>Kenneth Lunt</b> Custodian II	<b>Peter J. Therrien</b> Custodian II
<b>Lise A. McMillan</b>	

**Stephen E. Thibeault**  
Grounds and Equipment Laborer II

**Scott R. Thibodeau**  
Accountant II  
*A.A.S., Andover College*  
*B.S., Husson College*

**Renford R. Thomas**  
Custodian II

**Gabriel H. Wilde**  
Administrative Specialist IV  
*A.A., Southern Maine Community College*  
*B.A., University of Southern Maine*

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Becker Engineering

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**Jerry Cashman**

VP Engineering  
Bath Iron Works

**Adam Couture**

Engineering Technician  
Wright-Pierce

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Senior Mechanical Designer  
SMRT, Inc.

**Whitney Huse**

Engineering Technician  
Becker Engineering

**Dennis Morin**

AIA Architect  
SMRT, Inc.

**Tim Parks**

Water District Civil Engineering Project Manager  
South Portland Water District

**Vince Quintana**

Principal Engineer  
BIW

**Gregory Shambarger**

Project Engineer, Building Manager CROF, Safety  
Coordinator CROF  
Bath Iron Works

**Eric Stark**

Assistant Professor of Architecture  
Curriculum Coordinator  
University of Maine Augusta

**Brad Weeks**

Water District Project Department Manager  
South Portland Water District

**Dan White**

Technical Supervisor  
Stantec Consulting Services

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PE Civil Engineering  
Terradyn Consultants, LLC

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TRC



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Duval's Service Center

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Goodwin Motor Group

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Artel Inc.

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Marine Biotechnology Services

**Joe Crabb, Ph.D.**

Chief Scientific Officer and Vice President  
ImmuCell Corp.

**Elizabeth Ehrenfeld, Ph.D.**

Adjunct Professor  
Southern Maine Community College

**Cem Giray, Ph.D.**

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Business Unit Manager  
Bio-Rad Laboratories, Inc.

**David E. Kelsey, Ph.D.**

Chief Scientific Officer  
Maine Standards Company

**Lucy Liaw, Ph.D.**

Research Scientist  
Maine Medical Center Research Institute

**Bill Palin, Ph.D.**

Scientist at large

**Breck Parker, Ph.D.**

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EnviroLogix Inc.

**Daniel Moore, Ph.D.**

Associate Professor  
Southern Maine Community College

**Jeffrey Walker, Ph.D.**

Professor of Biology and Department Chair  
University of Southern Maine

## *Cardiovascular Technology Advisory Committee*

**Crystal Blake-Parlin, RDCS, RVT**  
Maine General Medical Center

**Dennis Atherton, RDCS, RRT, RCVT, FASE**  
Maine Medical Center

**Bill Epperly, RDCS**

**Robert Groom, CCP**  
Department of Cardiac Surgery  
Maine Medical Center

**Ann Hall**  
Director of Invasive Cardiology  
Maine Medical Center

**Michael Harriman, RCIS**  
Cardiac Cath Lab  
Maine Medical Center

**Gary Harmon**  
Manager Clinical Engineering  
Maine Medical Center

**Mirle Kellett, MD, FACC**  
Chief of Cardiology  
Maine Medical Center

**Kevin McGovern**  
AVP Cardiac Services  
Maine Medical Center

**Norma Meehan**  
Department of Cardiac Surgery  
Maine Medical Center

**Stephen Moon, BS Ed**

**Chris Nhonh, RCIS**  
Cardiac Cath Lab  
Maine Medical Center

**Ann Paquet, RDCS**  
Lead Echo Tech  
Southern Maine Medical Center

**Anthony Rampersaud, PhD**  
Pharmacy  
Maine Medical Center

**Michelle Wade, RRT, RDCS, RDMS**

**Louise Wheeler, RDCS**  
Lead Echo Tech  
Frisbee Memorial Hospital

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### **Dave Beane**

Video Tech Dept.  
Portland Arts & Technology High School

### **Huey Coleman**

CNMS Adjunct Instructor/Filmmaker  
Southern Maine Community College

### **Jesica Garrou**

Instructional Designer & Developer  
E-Learning

### **Jeff Pierce**

Portland Radio Group

### **Tim Plumer**

Senior Manager Digital Media Value Consulting  
Adobe

### **Amsel Ponti**

Content Producer  
Maine Today Media

### **Matt Smith**

Design Lead  
iBec Creative

### **Jen Woodruff**

Director of Marketing  
Newscenter Maine Channel 6

*Criminal Justice Advisory Committee*

**George Connick**  
Field Service Manager  
Securitas Security Services-USA, Inc.

**Edward Googins**  
Chief  
South Portland Police Department

**Christine Thibeault**  
Assistant District Attorney  
Cumberland County District Attorney’s Office

**Anthony Ward**  
Town Manager  
Sabattus

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**Jim Amaral**

Owner, Borealis Bread

**Troy Andrews**

Sales Manager, Native Maine Produce

**Wilfred Beriau**

Culinary Arts Professor (Retired)

**Josh Berry**

Executive Chef, Union

**Dan Caron**

Executive Chef, Green Ladle

**Greg Dugal**

Director of Government Affairs, MIA-MRA

**Jean Ginn Marvin**

Owner, Nonantum Resort

**Jill Hannaford**

Executive Chef, SMCC, Peter A. McKernan Center

**Mark Hannibal**

Culinary Arts Instructor, PATHS

**Steve Hewins**

President, MIA-MRA

**Mike Jubinsky**

Owner, Stone Turtle Baking & Cooking Schools

**Gerard Kiladjian**

General Manager, Portland Harbor Hotel

**Mark Kurkij**

Executive Chef, 33 Elmwood

**Kimberly Mayone**

Food Writer

**Chris Merriam**

Executive Chef, Portland Marriott at Sable Oaks

**Ed Palmer**

General Manager, Marriott Sable Oaks

**Steve Sicinski**

Executive Chef, The Nonantum Resort

**Arlin Smith**

Owner, Big Tree Hospitality

**Tim Sweeton**

Operations & Beverage Manager,  
State Theater/Port City Music Hall

**Tom Taliento**

District Sales Manager, PFG-Northcenter

**Peter Twachtman**

Chief Operations Officer, Migis Hotel Group

## ***Nutrition and Dietetics Advisory Committee***

### **Jennifer Wilson, MS, RD, LD**

Brighton Medical/MMC Campus  
Clinical Nutrition Manager  
SMCC Adjunct Faculty

### **Karen Mueller, DTR**

Hawthorne House  
Food Service Director  
Clinical Nutrition Manager

### **Sue Cobb, DTR**

Maine Medical Center  
Preceptor, Acute Clinical Care  
SMCC DT Program Graduate

### **Kathy Halpin, MS, RD, LD**

Maine Medical Center  
Clinical Nutrition Manager

### **Jean Elie, RD, LD**

Central Maine Medical Center  
Clinical Nutrition Manager

### **Lorraine McKelvie, RD**

Eastern Maine Medical Center  
Clinical Nutrition Manager

### **Mary Emerson, MS, RD, LD**

Preceptor, School Nutrition Director  
Sacopec Valley School Nutrition Program

### **Kathy Savoie, MS, RD**

Preceptor, Cooperative Extension  
University of Maine Cooperative Extension  
Program Adjunct Faculty

### **Anthony Forgionne**

Seventy Five State Street

### **Jill McPhail**

Preceptor, WIC  
Peoples Regional Opportunity Program

### **David Kessler, CDM**

Cedars Nursing Care Center  
Food Service Director

### **Susan Sullivan, PhD, RD**

DPD Director, Educator  
University of Maine  
Dept. of Food Science/Human Nutrition

### **Adrienne White, PhD, RD**

Dietetic Internship Director  
University of Maine  
Dept. of Food Science/Human Nutrition

### **Collette Jansen-Sand, PhD, RD**

DPD Director, Educator  
University of New Hampshire  
Dept. of Animal and Nutritional Science  
Human Nutrition Center

### **Amy Bacon, DTR**

School Nutrition Director  
MSAD 15 – Nutrition Program  
SMCC DT Program Graduate

### **Jennifer Francis, MPH, RD, LD**

SMCC Adjunct Faculty

### **Debbie Brooks, MS, RD, LD**

SMCC Adjunct Faculty

## *Early Childhood Education Advisory Committee*

### **Maggie Frigard**

Director

SMCC, Spring Point Children's Center

### **Margaret Hawkins (2005-present)**

Principal

Brown Elementary School

### **Jeanne Najemy**

Adjunct

Southern Maine Community College

### **Rachel Parse**

Faculty

Southern Maine Community College

### **Karen Peters (2011-present)**

Curriculum Coordinator

Catherine Morrill Day Nursery

### **Terri Petnov**

Department Chair, Faculty

Southern Maine Community College

### **Susan Reed**

Early Childhood Consultant for the Department of Education

### **Eva Rodd (2010-present)**

Early Childhood Occupations Instructor

Portland Arts and Technology High School

### **Debora Schofield (2011-present)**

Education Coordinator, Maine Roads to Quality

Muskie School of Public Service, USM



## *Electrical Advisory Committee*

### **Matt Auger**

Innovique

### **Neil Berry**

Electrical Sales and Support  
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### **Mark Brown**

Sappi Paper

### **Walter Cary**

Business Manager  
Gilman Electric Supply

### **Thomas N. Clukey**

Hardware Support Manager  
Network Systems, Inc (NSi)

### **John Devlin**

Texas Instruments

### **Phil Dube**

Electrical Project Manager  
Cianbro Corporation

### **Anthony Emory**

Barber Foods

### **Cathy Faucher**

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Senior Electrical Engineer  
Allied Engineering, Inc.

### **Robert Ferrara**

Manager of Electrical Design  
Bath Iron Works (B.I.W.)

### **Marc Geaumont**

Power Line Supervisor  
Central Maine Power (CMP)

### **Michael Gervais**

Owner / Energy consultant  
Electrical Controls of Maine

### **Steve Graffam**

Southworth Products

### **Timothy Johnson**

Electrical Division Manager  
Maine Hardware Stores

### **Dan Labbe**

Systems Integration Electrical Engineer  
IDEXX Laboratories, Inc.

### **Gerald Lizotte**

Manager of Substation Operations  
Central Maine Power (CMP)

### **Mark Lowell**

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SGC Engineering

### **Dr. John A. Marshall**

Associate Professor  
Department of Technology  
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Buildings Engineer NE  
Stantec

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Department of Electrical Engineering  
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Lanco Assembly Systems

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## *Emergency Medical Services Department Advisory Committee*

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Education Coordinator  
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**Steve Willis, M.P.A.**

Public Safety Division Chair  
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Southern Maine Community College

**Sarah Beliveau, B.A., N.R.P.**

Adjunct Faculty  
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**Michael Drew, A.A.S., N.R.P.**

Adjunct Faculty  
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**Nicholas Jackson, A.A.S., N.R.P.**

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**Jeff Hammersmith, B.S., N.R.P.**

Paramedic Student Graduate  
Stuarts Ambulance Service

**Jason Johnson, A.A.S., N.R.P.**

Paramedic Student Graduate  
Limington Fire Department

**Nathaniel Contreras, B.S., N.R.P., R.N.**

Flight Nurse/Paramedic  
LifeFlight of Maine

**Jill Meek, R.N.**

Emergency Department  
Southern Maine Healthcare

**Michael Schmitz, D.O., M.S.**

Emergency Department  
South Portland Fire Department

**Chris Paré, N.R.P.**

Emergency Department  
Southern Maine Healthcare

**John Brady, A.A.S., N.R.P.**

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Kennebunk Fire-Rescue Department

**Andrew Turcotte, B.S., N.R.P.**

Fire Chief  
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Rockland Fire Department

**Brad Chicoine, B.S, N.R.P**  
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Auburn Fire Departmetn

**John Duross**  
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Saco Fire Department

**Erin Sandler, A.A.S., N.R.P.**  
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Scarborough Fire Department

**Jeff Toorish, B.A., N.R.P.**  
Paramedic  
Old Orchard Beach Fire Department

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Admiral’s Fire-Rescue Supply

**Philip D. McGouldrick, B.S.**  
Retired

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### **Mark Wethli**

A. LeRoy Greason Professor of Art  
Chair of Art Department  
Director, Visual Arts Division  
Bowdoin College

### **Daniel Fuller**

Director  
Institute of Contemporary Art  
Maine College of Art

### **Scott Fuller**

Assistant Professor of Fine Arts  
Chair  
St. Joseph's College

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Fire Science Student Representative  
Southern Maine Community College

### **Terry Bell**

Chief  
Farmington Fire Department

### **John Brooks**

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Portland Fire Department Local 740

### **Scott Cook**

Emergency Medical Services Department Chair  
Southern Maine Community College

### **Shane Enright**

Fire Science Student Representative  
Southern Maine Community College

### **Josh Frances**

Director of Emergency Preparedness  
Maine Medical Center

### **Kevin Guimond**

Chief  
South Portland Fire Department

### **Nate Gromek**

Fire Science Student Representative  
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### **Alan Hammond**

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Maine Forest Service

### **Mike Hooker**

Chief  
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### **Scott Lake**

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Northeast Emergency Apparatus

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Portland Fire Department

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Hartford, CT Fire Department

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Coastal Counties Workforce, Inc.

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Southern Maine Health Care

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Clinical Services Manager – Anesthesia  
Spacelabs Healthcare

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Maine College of Health Professions

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Gorham Sand and Gravel

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**Jennifer Moore**

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**Kevin Murphy**

RJ Grondin Construction

**John Paradis**

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**Julian Steer**

Pike Industries Inc.

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Maine Medical Center

**Jay Collier**

Director of Computational and Digital Programs  
University of New England  
Previous Educate Maine – Project Login

**Caroline Dennis**

STEM Career Catalyst

**Christopher Dumias**

City of South Portland

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Founder of Sage Data Security

**Rob Herman**

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**Eugene Slobodzian**

Vice President of Security  
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Dry Mills Hatchery

### **Mike Doan**

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### **John Grabowski**

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### **Joe Payne**

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### **Graham Sherwood**

Gulf of Maine Research Institute

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Maine Geological Survey

### **Kristen Grant**

Marine Extension Associate

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Casco Bay Estuary Project

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### **Ericka Arsenault**

Practice Manager  
Concentra

### **Tannis Binette**

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Southern Maine Health Center

### **Patricia Buchanan**

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Practice Manager  
Greater Portland Health

### **Angela Doughty, R.N.**

Clinical Staff Educator  
Maine Medical Partners

### **Aisha Errington**

Certified Medical Assistant  
Martins Point Healthcare-Gorham

### **Margie Fahey**

Associate Dean, Curriculum Design & Articulation  
Southern Maine Community College

### **Nina Huntington**

Chair, Medical Assisting  
Southern Maine Community College

### **Kelly Lemery, R.N.**

Clinical Nurse Manager, Family Medicine  
Maine Medical Partners – Portland

### **Anna Moskey**

Certified Medical Assistant  
USM Student Health Services

### **Dr. Roy Nakamura**

Medical Director  
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Academic Coordinator  
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### **Heather Toizer**

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### **Norma Willis**

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Maine Medical Center

**John Boyne**

SMCC Foundation Board Member  
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Hospice of Southern Maine

**Ted Dalton**

Morrison Center

**Susan Dionne-Jones**

Director of Nursing  
The Cedars

**Emily Gerardo**

SMCC Nursing Graduate

**Tracy Graham**

Director of Nursing Education and Practice  
Midcoast Hospital

**Maranda Hebert**

Education Coordinator  
Southern Maine Healthcare

**Kathy McManus**

CMCC Nursing Program

**MaryAnn Meirs**

Hospital Educator  
New England Rehab

**Sarah Miller**

Assistant Director of Nursing  
Maine Veterans' Home

**Brenda Peterson**

Associate Dean  
School of Nursing  
University of Southern Maine

**Maranda Hebert**

Education Coordinator  
Southern Maine Healthcare

**Paula White**

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Center for Clinical and Prof. Development  
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**Vanessa White**

Educator Training and Development Center  
Spring Harbor Hospital

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<b>John Brawn</b> Titan Machine Products Inc.	<b>Tom Narcisso</b> Sanford Regional Vocational Center
<b>Patrick Shrader</b> Arundel Machine	<b>Eric Nelson</b> Consolidated Industries
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<b>Stephen Finnigan</b> Irwin Industrial Tools	<b>Christopher Reimer</b> Nichols Portland
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<b>Chuck Keller</b> Portland Valve	<b>Chuck Tarling</b> D&G Machine Products Inc.
<b>Norm MacIntire</b> MacIntyre Consulting	<b>Tom Zack</b> Lanco Assembly Systems

## ***Radiography Advisory Committee***

### **Jessica Allen, BS RT (R)**

Radiographer  
MaineOrtho

### **Joel Bennett, BS RT (R)**

Diagnostic Radiology Supervisor  
Southern Maine Health Care

### **Lindsey Berkovitz, PhD**

Radiation Safety Officer  
Manager Imaging Physics  
Maine Medical Center

### **Theresa Bolduc, RT (R)**

PACS Coordinator  
York Hospital

### **David Broussard, RT (R)**

DI/IT Specialist  
Staff Radiographer  
Mid Coast Hospital

### **Larry Buchanan, BS RT (R)**

Radiography Clinical Coordinator  
Southern Maine Community College

### **Kim McCallum, RT (R)**

Radiology Coordinator  
OA Centers for Orthopedics

### **Seth Doane, BS RT (R)**

Radiography Instructor  
Southern Maine Community College

### **Elaine Flagg, RT (R)**

Radiography Manager  
Maine Ortho

### **Jason Gaudet, RT (R)**

Manager, Diagnostic Radiology  
Maine Medical Center

### **Kristin Kuhn, RT (R)**

Lead Radiographer  
York Hospital

### **Arlene W. Lathan, RT (R)**

Lead Imaging Technologist  
Mid Coast Hospital

### **Louise Ouellette, MS RT (R)**

Radiography Department Chair  
Southern Maine Community College

### **Dan Remsen, RT (R)**

Manager – Diagnostic Imaging  
InterMed

### **Carrie Rose**

Academic Coordinator, Health Science Division  
Southern Maine Community College

### **Craig Sellick, RT (R)**

Radiology Supervisor  
Southern Maine Health Care -- Sanford

### **Chad Welton, RT (R)**

Senior Radiographer  
Maine Medical Center

### **Norma Willis, CVT**

Health Science Division Chair  
Health Science Department Co-Chair  
Cardiovascular Technology Chair  
Southern Maine Community College

### **Michelle Vennard, RT (R)**

Diagnostic Care Leader  
York Hospital

## *Respiratory Therapy Advisory Committee*

**Kendra Cummings, R.R.T.**

Respiratory Therapist  
Program Graduate  
Central Maine Medical Center

**Jeffrey Eckert, R.R.T.**

Clinical Coordinator  
Central Maine Pulmonary and Sleep Medicine

**Lee Gilman, MS, CHES**

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American Lung Association of Maine

**Rebecca Hawkes, R.R.T.**

Respiratory Therapist  
St. Mary's Hospital

**Deb Igo, R.R.T.**

Assistant Manager  
Pulmonary Medicine Department  
Maine Medical Center

**Patrick Lerwick, M.D.**

Program Medical Director  
Maine Medical Center

**Morgan MacMahan, R.N., B.S.N., C.C.R.N.**

Nurse Director  
Mid Coast Hospital

**Kim Michaud, R.R.T.**

Manager  
Respiratory Therapy Department  
St. Mary's Hospital

**Garry Michaud, R.R.T.**

Manager  
Respiratory Care Department  
Central Maine Medical Center

**Audra Miville, R.R.T.**

Respiratory Therapist  
Maine General Hospital

**Michael Provencher, R.R.T.**

Manager  
Respiratory Care Department  
Wentworth-Douglas Health System

**Karen Roberts, R.R.T.**

Sleep Lab Manager  
Southern Maine Health Care

**Brian Sadowski, R.R.T.**

Manager  
Respiratory Care Department  
Mercy Hospital

**Rhonda Vosmus, R.R.T., NPS, AE-C,**

Asthma/COPD Resource  
Specialist InterMed  
Portland, ME

**David Wall, R.R.T.**

Respiratory Therapist  
Maine Medical Center

**Margaret Weed, R.R.T.**

Manager  
Southern Maine Health Care

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The Southern Maine Community College Foundation is an independent non-profit organization comprised of business and community leaders dedicated to advancing the mission of SMCC. Each year the SMCC Foundation raises vital funds that enable the College to enhance key academic programs, revitalize classrooms and equipment, and provide scholarship support for our most deserving and needy students.

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