

A blurred photograph of a classroom. In the foreground on the right, a person with dark curly hair, wearing a red patterned sweater, is seen from the side, holding a stack of papers. In the background, several students are seated at desks, some looking towards the camera and others looking away. The overall scene is dimly lit and has a soft, out-of-focus quality.

# 2023-2024 CATALOG

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Welcome to Great Bay Community College!

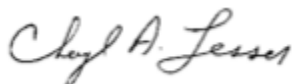
I am always excited about each new year, greeting continuing students and welcoming new students. Great Bay's faculty and staff are passionate about supporting you in fulfilling your educational and professional goals. By choosing GBCC, you can be assured that your investment in education will provide benefits throughout your lifetime.

Great Bay Community College has been proudly serving the Seacoast region educating and enhancing the career skills of individuals in the communities we serve since 1945. Through our connections with industry and community partners, we continue to offer relevant training to ensure workforce preparedness upon graduation. Our alliances with four-year colleges and universities have opened further academic options for students seeking seamless pathways to a baccalaureate degree.

Our community of dedicated faculty have both high-level experience in industry and teaching at other colleges and universities. Our Advisors and support staff work one-on-one to provide students with support and to guide them throughout their degree. Our rich student life program allows for opportunities to socialize, develop, and learn.

Embrace your opportunities at GBCC and I hope we have a chance to meet and work together to accomplish your goals.

Warmly,



Cheryl Lesser, Ph.D. University of Nebraska-Lincoln  
Education Studies with specialization in Educational Leadership in Higher Education, 2007  
President

## College Mission and Vision

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### Mission

Great Bay Community College expands intellectual and economic opportunity by providing affordable higher education in an environment that embodies excellence, innovation, and collaboration.

### Vision

Great Bay Community College will emphasize student learning and support and nurture an innovative spirit to be a leading academic institution in New England.

### Core Values

**Success for Our Students** – We are committed to the success of our students by adhering to the highest levels of academic and professional standards.

**Teaching Excellence** – We are committed to academic rigor and integrity that assures students a high-quality education that fosters personal and intellectual growth for productive careers and meaningful lives.

**Workplace Culture** – We create an environment that continually builds an exceptional community college through shared governance, cross-divisional collaboration, and a commitment to stand together as one college in delivery of our mission.

**Creativity and Inquisitiveness** – We strive to be a creative and inquisitive community based on the pursuit of knowledge, wisdom, and discovery.

**Community Engagement** – We meet our mission and improve as an organization through engagement with others in our broader community.

**Civic Engagement** – We promote volunteerism and service learning to foster engaged citizenship by integrating classroom learning with community involvement.

**Diversity** – We recognize and value diversity in its many forms as a representation of the richness of the human experience.

**Citizenship and Sustainability** – We pledge to be socially responsible citizens by adopting best practices that lessen our environmental footprint and lead to a healthier environment for all.

## Code of Ethics

Our college policies, procedures, decisions and actions are based on the following ethical principles:

Responsibility – We accept responsibility for our actions.

Fairness – We maintain balance and fairness and ensure equitable treatment.

Honesty – We build trusting relationships by being honest and truthful.

Mutual Respect – We accept each other regardless of our differences.

Integrity – We maintain integrity by being incorruptible.

## Core Attributes

**Institutional Objective:** This institution holds the belief that the academic program of each student (in completion of the requirements of the major and the general education requirements) provides the opportunity to develop core attributes that support both personal and professional growth and goal achievement.

- **Communication Skills:** The ability to express ideas, collaborate, and articulate knowledge in a clear, focused, and organized manner.
- **Creativity:** The ability to conceive and express original ideas, perspectives, and solutions.
- **Critical Thinking:** The ability to analyze, synthesize, and evaluate information in a logical manner.
- **Diverse Perspectives:** The ability to examine a concept in contexts and from historical and diverse perspectives other than one's own, and appreciate diversity required for personal and professional interaction.
- **Information Literacy:** The ability to recognize when information is needed and have the ability to locate, evaluate, and use the needed information in an ethical, effective manner (ALA).
- **Quantitative Reasoning:** The application of computational methods and numerical data interpretation to solve problems.
- **Scientific Processes:** The application of scientific methods to gain knowledge and examine the laws, theories, and processes of physical, biological, or social phenomena.
- **Specialized Skills:** The theoretical, ethical, technological, and applied knowledge for career entry and continued professional development.

## Disclaimer

Great Bay Community College provides its website, catalog, handbooks, and other printed materials or electronic media for your general guidance. The College does not guarantee that the information contained

within them, including, but not limited to, the contents of any page that resides under the Domain Name System (DNS) registration of [greatbay.edu](http://greatbay.edu) is up-to-date, complete and accurate. Individuals assume any risks associated with relying upon information without checking other with credible sources, such as a student's academic advisor. In addition, a student's or prospective student's reliance upon information contained on the College's website, or within catalogs or handbooks, when making academic decisions does not constitute, and should not be construed as, a contract with the College. Furthermore, the College reserves the right to make changes to any provision or requirement within these sources, as well as changes to any curriculum or program, whether during a student's enrollment or otherwise.

## Notice of Nondiscrimination

The Community College System of NH and Great Bay Community College do not discriminate in the administration of its admissions and educational programs, activities, or employment practices based on race, creed, color, religion, ancestry or national origin, age, sex, sexual orientation, gender identity and expression, physical or mental disability, genetic information, political affiliation, or law enforcement, military, veteran status, marital status. This statement reflects the mission of the Community College System and Great Bay Community College and refers to, but is not limited to, the provisions of the following laws:

1. Title VI and VII of the Civil Rights Act of 1964
2. The Age of Discrimination Act of 1967 (ADEA)
3. Title IX of the Education Amendment of 1972
4. Section 504 of the Rehabilitation Act of 1973
5. The Americans with Disabilities Act of 1990 (ADA)
6. Section 402 of the Vietnam Era Veteran's Readjustment Assistance Act of 1974
7. NH Law Against Discrimination (RSA 354-A)
8. NH Law RSA 188-F:3-a
9. Genetic Information Nondiscrimination Act of 2008

### Inquiries regarding discrimination may be directed to:

<p><b>Eric Kulberg</b>          Professor / Department Chair Education, Criminal Justice &amp; Emergency Management          Title IX Coordinator          Great Bay Community College          320 Corporate Drive          Portsmouth, NH 03801          Phone: 603-427- 7667          Email: <a href="mailto:ekulberg@ccsnh.edu">ekulberg@ccsnh.edu</a></p>	<p><b>Jenna Anand</b>          Director, Center for Academic Planning and Support          504/Title II Coordinator          Great Bay Community College          320 Corporate Drive          Portsmouth, NH 03801          Phone: 603-427- 7771          Email: <a href="mailto:janand@ccsnh.edu">janand@ccsnh.edu</a></p>	<p><b>Ann-Marie Hartshorn</b>          Director of Internal Audit &amp; Title IX Coordinator          Community College System of New Hampshire          26 College Drive          Concord, NH 03301          (603) 230-3595          Email: <a href="mailto:ahartshorn@ccsnh.edu">ahartshorn@ccsnh.edu</a></p>
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### Inquiries may also be directed to:

<p><b>US Department of Education Office of Civil Rights          Boston Office</b>          U.S. Department of Education          5 Post Office Square, 8th Floor          Boston, MA 02109-3921          Phone: (617) 289-0111          Fax: (617) 289-0150          Email: <a href="mailto:OCR.Boston@ed.gov">OCR.Boston@ed.gov</a></p>	<p><b>NH Commission for Human Rights</b>          2 Industrial Park Drive, Bldg. One Concord, NH 03301          (603) 271-2767          Fax: (603) 271-6339          Email: <a href="mailto:humanrights@hrc.nh.gov">humanrights@hrc.nh.gov</a></p>	<p><b>The Equal Employment Opportunity Commission</b>          John F. Kennedy Federal Building          15 New Sudbury Street, Room 475          Boston, MA 02203-0506          Phone: (800) 669-4000          Fax: (617) 565-3196 TTY: 1-800-669-6820          ASL Video Phone: 1-844-234-5122  <b>For automatic connection to the nearest EEOC field office:</b>          Phone: (202) 921-3191          TTY: 1-800-669-6820          ASL Video Phone: 1-844-234-5122</p>
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Visit [Statement of Non-Discrimination](#).

# Accreditation Statement

Great Bay Community College is accredited by the New England Commission of Higher Education (formerly the Commission on Institutions of Higher Education of the New England Association of Schools and Colleges, Inc.).

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 applies 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.

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

301 Edgewater Place, Suite 210

Wakefield, MA 01880

(781) 425 7785

E-Mail: [info@neche.org](mailto:info@neche.org)

# Academic Calendar

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## Fall Semester 2023

### Fall Semester 2023

Part of Term	
11 Full Term (16-wks)	8/28-12/16
12 1st Half (8-wks)	8/28-10/21
1L Late Start (12-wks)	9/25-12/16
13 2nd Half (8-wks)	10/23-12/16
August	
<b>11 Fri</b> 180 Day Staff Return for Fall Semester	
<b>15 Tues</b> 10 Month and 11 Month Faculty Return for Fall Semester	
<b>28 Mon</b> Fall Semester Classes Begin: 11 Full Term (16-wks) 12 1st Half (8-wks)	
<b>31 Thu</b> Last Day to Add a Course Without Instructor Permission: 12 1 <sup>st</sup> Half Semester	
<b>September</b>	
<b>4 Mon</b> Labor Day Holiday – No Classes and CCSNH Institutions Closed	
<b>5 Tue</b> Last Day to Add a Course Without Instructor Permission: 11 Full Term (16-wks)	
Last Day to Drop with 100% Refund: 12 1st Half (8-wks)	
<b>8 Fri</b> Last Day to Add a Course with Instructor Permission: 12 1st Half (8-wks)	

<b>11 Mon</b> Last Day to Drop a Full Semester Course with Full Refund
<b>15 Fri</b> Last Day to Resolve "I" Grades from Summer 2023, Last Day to Add a Course with Instructor Permission: 11 Full Term (16-wks)
<b>25 Mon</b> Fall Semester Classes Begin: 1L Late Start (12-wks)
<b>29 Fri</b> Last Day to Add a Course without Instructor Permission: 1L Late Start (12-wks)
<b>30 Sat</b> Last Day to Withdraw with "W" Grade (60% point): 12 1st Half (8-wks)
October
<b>2 Mon</b> Last Day to Drop with 100% Refund: 1L Late Start (12-wks)
<b>6 Fri</b> Last Day to Add a Course with Instructor Permission: 1L Late Start (12-wks)
<b>9 Mon</b> Columbus Day – Classes Still Running and Offices Open
<b>21 Sat</b> Portsmouth Open House, 9am-11am
<b>23 Mon</b> Fall Semester Classes Begin: 13 2nd Half (8-wks)
<b>26 Thu</b> Last Day to Add a Course without Instructor Permission: 13 2nd Half (8-wks)
<b>28 Sat</b> Rochester Open House, 9am-11am
<b>30 Oct</b> Last Day to Drop with 100% Refund: 13 2nd Half (8-wks)
<b>November</b>
<b>2 Thu</b> Last Day to Withdraw with "W" Grade from a Full Semester Course (60% point)
<b>3 Fri</b> Last Day to Add a Course with Instructor Permission: 13 2nd Half (8-wks)
<b>10 Fri</b> Veterans' Day Holiday Observed– No Classes and CCSNH Institutions Closed
<b>13 Mon</b> Fee Assessment Begins for 2024 Spring Semester Registrations
<b>13 Mon</b> Last Day to Withdraw with "W" Grade (60% point): 1L Late Start (12-wks)
<b>20 Mon</b> Spring 2024 Course Shells Begin Being Uploaded to Canvas
<b>23-26 Thu-Sat</b> Thanksgiving Holidays – No Classes and CCSNH Institutions Closed
<b>25 Sat</b> Last Day to Withdraw with "W" Grade (60% point): 13 2nd Half (8-wks)
<b>December</b>
<b>16 Sat</b> Last Day of Classes for Fall Semester
<b>18 Mon</b> Grades Due 12:00 noon
Last Day of Faculty Responsibility for 10 Month & 11 Month Faculty for Fall Semester
<b>20 Wed</b> Last Day of Responsibility for 180 Day Staff for Fall Semester
<b>25 Mon</b> Christmas Day Holiday – CCSNH Institutions Closed
<b>26 Tue</b> Chancellor's Holiday/Winter Recess Day – CCSNH Institutions Closed
<b>27-29 Wed-Fri</b> Winter Recess Days – CCSNH Institutions Closed

## Spring Semester 2024

### Spring Semester 2024

Parts of Term	
1P2 Pre semester (2-wks) Winterim	1/2-1/1311111
11 Full Term (15-wks)	1/16-5/4
12 1st Half (8-wks)	1/16-3/9
1L Late Start (11-wks)	2/12-5/4
13 2nd Half (7-wks)	3/18-5/4
12H Motorcycle (12-wks)	1/2-3/23 /2-3/23
January	
<b>1 Mon</b> New Year's Day Holiday – CCSNH Institutions Closed	



<b>2 Tues</b> Spring Semester Classes Begin: Last Day to Add a Course without Instructor Permission: Last Day to Drop with 100% Refund: 1P2 Pre semester (2-wks)
<b>3 Wed</b> 180 Day Staff Return for Spring Semester, Last Day to Add a Course with Instructor Permission: 1P2 Pre semester (2-wks)
<b>4 Thu</b> 10 Month and 11 Month Faculty Return for Spring Semester
<b>5 Fri</b> Last Day to Add a Course without Instructor Permission: 12H Motorcycle (12-wks)
<b>8 Mon</b> Last Day to Drop with 100% Refund:12H Motorcycle (12-wks)
<b>9 Tues</b> Last Day to Withdraw with "W" Grade (60% point):1P2 Pre semester (2-wks)
<b>11 Thu</b> CCSNH Winter Convening – Winterim & Motorcycle classes still running and College open, Portsmouth Open House 4pm-6pm
<b>12 Fri</b> Last Day to Add a Course with Instructor Permission:12H Motorcycle (12-wks)
<b>15 Mon</b> Martin Luther King Jr./Civil Rights Day Holiday – CCSNH Institutions Closed
<b>16 Tue</b> Spring Semester Classes Begin:11 Full Term (15-wks) 12 1st Half (8-wks)
<b>18 Jan</b> Rochester Open House, 4pm-6pm
<b>19 Jan</b> Last Day to Add a Course without Instructor Permission: 12 1st Half (8-wks)
<b>22 Jan</b> Last Day to Add a Course without Instructor Permission: 11 Full Term (15-wks)
Last Day to Drop with 100% Refund: 12 1st Half (8-wks)
<b>26 Jan</b> Last Day to Add a Course with Instructor Permission: 12 1st Half (8-wks)
<b>29 Mon</b> Last Day to Drop a Full Semester Course with Full Refund
February
<b>2 Fri</b> Last Day to Resolve "I" Grades from Fall 2023, Last Day to Add a Course with Instructor Permission: 11 Full Term (15-wks)
<b>12 Mon</b> Spring Semester Classes Begin: 1L Late Start (11-wks)
<b>16 Feb</b> Last Day to Add a Course without Instructor Permission: 1L Late Start (11-wks): Last Day to Withdraw with "W" Grade (60% point): 12 1st Half (8-wks)
<b>19 Mon</b> Presidents' Day Holiday – No Classes and CCSNH Institutions Closed
<b>20 Tues</b> Last Day to Drop with 100% Refund: 1L Late Start (11-wks)
Last Day to Withdraw with "W" Grade (60% point): 12H Motorcycle (12-wks)
<b>23 Fri</b> Last Day to Add a Course with Instructor Permission:1L Late Start (11-wks)
March
<b>11-16 Mon-Sat</b> Spring Break – No Classes (except for Motorcycle) and Offices Open Mon-Fri
<b>18 Mon</b> Fee Assessment Begins for 2024 Summer and Fall Semesters Registrations
<b>21 Thu</b> Last Day to Add a Course without Instructor Permission: 13 2nd Half (7-wks)
<b>25 Mon</b> Last Day to Withdraw with "W" Grade from a Full Semester Course (60% point) Summer 2024 Course Shells Begin Being Uploaded to Canvas: Last Day to Drop with 100% Refund: 13 2nd Half (7-wks)
<b>29 Fri</b> Last Day to Add a Course with Instructor Permission: 13 2nd Half (7-wks)
April
<b>4 Thu</b> Portsmouth Open House, 4pm-6pm
<b>5 Fri</b> Last Day to Withdraw with "W" Grade (60% point): 1L Late Start (11-wks)
<b>11 Thu</b> Rochester Open House, 4pm-6pm
<b>15 Mon</b> Last Day to Withdraw with "W" Grade (60% point): 13 2nd Half (7-wks)
May
<b>4 Sat</b> Last Day of Classes for Spring Semester
<b>6 Mon</b> Grades Due 12:00 noon
<b>8 Wed</b> System Symposium
<b>11 Sat</b> Commencement
<b>13 Mon</b> Last Day of Responsibility for 10 Month Faculty for Spring Semester (except for commencement and commencement activities), as determined by assigned Commencement duties
<b>16 Thu</b> Last Day of Responsibility for 180 Day Staff for Spring Semester, as determined by assigned Commencement duties

# Summer Semester 2024

Parts of Term	
1P2 SURG Pre semester (2-wks)	5/6-5/18
11 Full Term (11-wks)	5/20-8/3
12 1st Half (6-wks)	5/20-6/29
1F Front Part (8-wks)	5/20-7/13
1U6 Six Weeks June Start (6-wks)	6/10-7/20
13 2nd Half (6-wks)	7/1-8/10
15Y May start (15-wks) for Welding	5/6-8/17
<b>May</b>	
<b>6 Mon</b> Summer Semester Classes Begin: 1P2 SURG Pre semester (2-wks) 15Y May start (15-wks) for Welding: Last Day to Add a Course without Instructor Permission: 1P2 SURG Pre semester (2-wks)	
Last Day to Drop with 100% Refund: 1P2 SURG Pre semester (2-wks)	
<b>7 Tue</b> Last Day to Add a Course with Instructor Permission: 1P2 SURG Pre semester (2-wks)	
<b>13 Mon</b> Last Day to Withdraw with "W" Grade (60% point):1P2 SURG Pre semester (2-wks)	
Last Day to Add a Course with Instructor Permission: 15Y May start (15-wks) for Welding	
<b>20 Mon</b> Summer Semester Classes Begin: 11 Full Term (11-wks)12 1st Half (6-wks) 1F Front Part (8-wks) Last Day to Drop with 100% Refund: 15Y May start (15-wks) for Welding	
<b>22 Wed</b> Last Day to Add a Course without Instructor Permission: 12 1st Half (6-wks)	
<b>23 Thu</b> Last Day to Add a Course without Instructor Permission: 1F Front Part (8-wks)	
<b>24 Fri</b> Last Day to Add a Course with Instructor Permission: 15Y May start (15-wks) for Welding Last Day to Add a Course with Instructor Permission: 11 Full Term (11-wks)	
<b>27 Mon</b> Memorial Day Holiday – CCSNH Institutions Closed	
<b>28 Tue</b> Last Day to Drop with 100% Refund: 11 Full Term (11-wks) 12 1st Half (6-wks)1F Front Part (8-wks)	
<b>31 Fri</b> Last Day to Add a Course with Instructor Permission: 11 Full Term (11-wks) 12 1st Half (6-wks)	
1F Front Part (8-wks)	
<b>June</b>	
<b>7 Fri</b> Last Day to resolve "I" Grades from Spring 2024	
<b>10 Mon</b> Summer Semester Classes Begin: 1U6 Six weeks June Start	
<b>12 Wed</b> Last Day to Add a Course without Instructor Permission: 1U6 Six weeks June Start	
<b>13 Thu</b> Last Day to Withdraw with "W" Grade (60% point):12 1st Half (6-wks)	
<b>17 Mon</b> Last Day to Drop with 100% Refund: 1U6 Six weeks June Start	
<b>19 Wed</b> Juneteenth Day Holiday – No Classes and CCSNH Institutions Closed	
<b>21 Fri</b> Last Day to Add a Course with Instructor Permission: 1U6 Six weeks June Start	
<b>22 Sat</b> Last Day to Withdraw with "W" Grade (60% point): 1F Front Part (8-wks)	
<b>July</b>	
<b>1 Mon</b> Summer Semester Classes Begin: 13 2nd Half (6-wks)	
<b>3 Wed</b> Last Day of Responsibility for 11 Month Faculty for the 2023-2024 Academic Year: Last Day to Add a Course without Instructor Permission:13 2nd Half (6-wks)	
<b>4 Thu</b> Independence Day Holiday – No Classes and CCSNH Institutions Closed: Last Day to Withdraw with "W" Grade (60% point): 11 Full Term (11-wks): Last Day to Withdraw with "W" Grade (60% point): 1U6 Six weeks June Start	
<b>7 Sun</b> Last Day to Withdraw with "W" Grade (60% point):15Y May start (15-wks) for Welding	
<b>8 Mon</b> Last Day to Drop with 100% Refund: 13 2nd Half (6-wks)	
<b>12 Fri</b> Last Day to Add a Course with Instructor Permission: 13 2nd Half (6-wks)	

<b>15 Mon</b> Fall 2024 Course Shells begin Being Uploaded to Canvas
<b>25 Thu</b> Last Day to Withdraw with "W" Grade (60% point): 13 2nd Half (6-wks)
<b>August</b>
<b>17 Sat</b> Last Day of 2023-2024 Academic Year

# Admissions Requirements

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## Admissions Policy

Great Bay Community College has an open admissions policy for graduates of approved accredited high schools, homeschool programs, or those individuals that possess a high school equivalency diploma (HiSET or GED). **Admission to the college does not necessarily mean admission to all courses or programs.**

Students applying for a degree or certificate program must complete the Admissions Application. We highly recommend students submit a copy of their high school transcript or equivalent (GED or HiSET), as they may be used for advising and/or to waive placement testing. Some programs require submittal of a high school transcript as an admissions and/or advising requirement to verify high school-level course pre-requisites. Students are also encouraged to submit official college transcripts for previous courses completed at accredited colleges and universities to be evaluated for placement testing waivers and/or transfer credit. Students who completed college coursework at any of the seven Community College System of NH colleges do not require a transcript to be submitted.

Great Bay Community College does not discriminate in the administration of its admissions and educational programs, activities, or employment practices on the basis of race; color; religious creed; age; gender; gender identity or expression; national origin; marital status; ancestry; present or past history of intellectual disability, learning disability or physical disability; veteran status; sexual orientation; genetic information or criminal record.

## Application Process

The following process is to be followed by each applicant for all degree and certificate programs. It is the applicant's responsibility to ensure that all required documents, including official transcripts, are received by the Office of Admissions on or before the established deadline (when applicable). Incomplete files will not be reviewed for admission. Documents should be mailed to: Great Bay Community College, College Services One Stop, 320 Corporate Drive, Portsmouth, NH 03801 or emailed to [gbadmissions@ccsnh.edu](mailto:gbadmissions@ccsnh.edu).

In most cases, applicants will be notified of their admission status by email shortly after the college receives all necessary admissions documents. Certain programs, however, have specific admissions processing deadlines and requirements. Please refer to the Programs of Study section for further information.

Program	Deadline
Nursing	February 28th
Surgical Technology	April 1st
Veterinary Technology	April 30th

### General Application Process

Students seeking matriculation into a degree or certificate program at Great Bay Community College must complete the following:

1. An application for admission, which can be submitted in person, via mail, or online at [www.greatbay.edu](http://www.greatbay.edu).
2. Provide documentation of High School graduation or equivalent. Completion of high school, or equivalent, may be documented by one of the following methods:
  - Self-certification of high school (or equivalent) graduation using the self-certification statement on the online or paper admissions application to certify that the applicant has received (or will receive) a high school diploma, GED, or HiSET by the start of the applicant's first semester.
  - Self-certification of high school (or equivalent) graduation using the [Self-Certification form](#).
  - Submittal of official High School diploma/transcript with a date of graduation.
  - Submittal of original Foreign High School diploma/transcript with a date of graduation translated, if not in English.
  - Submittal of official High School equivalency certificate, HiSet or GED, including scores.
3. Documentation of satisfactory completion of high school course requirements as noted under Admissions Requirements for a specific program of study.
4. For certain programs, applicants must perform satisfactorily on entrance or placement exams, or provide evidence of transfer credit equivalence, or documentation of waivers, as required by academic programs to which admission is desired.
5. For certain academic programs, applicants must arrange for a personal interview.
6. For certain academic programs, applicants must submit recommendations from school personnel, employers, or other professionals.

### **Homeschooled Applicants**

Homeschooled applicants are expected to meet the same general and specific admission requirements (or their equivalent) as other applicants. Documentation of academic work completed must be submitted and may include the following:

- A letter, or other documentation, from the student's local school district stating that the student has completed a homeschool program at the high school level.
- A list of courses completed and grades earned, and/or portfolio of work accomplished with completion/graduation date indicated.
- GED or other testing, if applicable.

Contact the Office of Admissions with any questions via email at [gbadmissions@ccsnh.edu](mailto:gbadmissions@ccsnh.edu).

### **Transfer Students**

Applicants who wish to have prior college coursework evaluated for transferability should provide official transcripts from post-secondary institutions previously attended. Course descriptions may be requested if necessary, for the determination of transfer credit; please see the Academic Policies section of this catalog, under XI. Transfer to Other Institutions.

### **Readmission to the College**

A student who has withdrawn from the College, has been suspended, or has not registered for three consecutive semesters must reapply through the Office of Admissions. Students are advised that they will have to abide by any new admission requirements for specific programs. Students should also note that there is no guarantee of readmission, as courses or programs with limited enrollments may not be available.

### **Change of Major**

A currently enrolled student who wishes to change their major is not required to complete a new application for admission but does need to complete a Change of Major form. Students wishing to change their major will be evaluated for all admissions requirements for the requested program prior to approval by the College Services One Stop. Students currently enrolled who wish to be considered for admission for Nursing, Surgical Technology, or Veterinary Technology Associate Degree Programs or Massage Therapy, Welding Technologies, or Veterinary Practice Management Certificate Programs are required to submit a new application for admission.

### **Non-Matriculated Students**

Non-matriculating students are individuals interested in taking credit or non-credit courses without pursuing a degree or certificate program. Students who do not plan to matriculate into the institution do not need to submit an application for admission. Non-matriculated students are not eligible for financial aid. Those interested in registering for coursework as a non-matriculating student must:

- Complete a registration form.
- Meet with an advisor in the Advising and Transfer Center to provide proof of successful prerequisite completion as determined by college catalog course descriptions which may be satisfied by submitting high school transcripts, performing satisfactorily on entrance or placement exams, or providing evidence of transfer credit equivalence, or documentation of waivers.
- Turn in form with appropriate signatures at College Services One Stop.

### **INTERNATIONAL STUDENT APPLICANTS**

Great Bay Community College is authorized under Federal law to enroll non-immigrant students. High demand programs with limited enrollment may not be available to international students. We recommend confirming that the program is open to international students prior to applying. International Students may be accepted for Fall or Spring semesters only (not Summer). In addition to the regular admission application process, international applicants seeking a Certificate of Eligibility (I-20) for F-1 status must submit the following documentation at least thirty days in advance of the beginning of the semester.

1. International students pay a non-refundable International Admission Fee of \$100.00.
2. Applicants must submit official secondary and post-secondary school transcripts, translated into English, listing all courses taken, grading system, and grades earned.
3. Applicants whose native language is not English must take the Test of English as a Foreign Language (TOEFL) iBT and earn a paper-based score of 520 or better, a computerized test score of 190, or an Internet based score of 68 or better. If the student is currently in the United States, Accuplacer scores that are comparable to the TOEFL iBT may be used to determine English proficiency. A student must place on the Accuplacer into the developmental English level or higher. For information regarding the test contact: TOEFL, Educational Testing Service, Rosedale Road, Princeton, NJ 08541 USA, (609) 921-9000, [www.toefl.org](http://www.toefl.org).
4. Letter from the financial institution that holds the funds of the person financially responsible for the student's educational and living expenses. The statement must be on official letterhead, listing the sponsor's name and the amount of money available for the student. Students attending Great Bay are required to demonstrate at least \$27,000 available for their studies. The document must be in English, and if the currency held is not in US dollars, the exchange rate must be listed.
5. Affidavit or letter of support from the person who will be financially responsible for the student. This letter should include the student's name and his/her intent to attend Great Bay Community College, as well as the amount of money available for the student's education and living expenses. The letter must be signed by the sponsor and must be in English.
6. The student must submit copies of current passport and immigration documents including Visa and Duration of Status (D/S) stamp on I-20. We will also need his/her address in the country that s/he plans to return to once s/he graduates from this College.
7. Applicants (or their spouses) must have enough money available in an account to cover a minimum of one year of expenses that include: out-of-state tuition, fees, living expenses, and books. All the above

documentation must be submitted, and the student offered admission before a Certificate of Eligibility (I-20) for an F-1 Visa will be issued. All F-1 students must be full-time (12 credit hours or more) each semester (except summer) in order to maintain their visa status. International students must meet with the International Academic Support Coordinator in the Center for Academic Planning and Support (CAPS) before or during the first week of class.

8. F-1 students are not eligible for in-state or New England Regional tuition rates for day courses at any time while enrolled.
9. Health care in the United States is expensive; international students are required to obtain health insurance coverage prior to the first week of classes and maintain it during their studies. Information on health insurance is available through the International Academic Support Coordinator.

## **FOREIGN TRANSCRIPTS**

Students with foreign transcripts seeking transfer credits must provide both of the following for transfer credit review: Original College Transcript (not Diploma), translated if not in English, which lists all courses taken, grading system, and grades earned;

Official Course-by-Course Evaluation by a third-party agency. Example agencies include, but are not limited to:

- SpanTran (offers discounts to GBCC students) <https://spanside.secure.force.com/SpantranApplication?Id=77fb5ff2-dbe7-40809f1f-98574c792466>
- World Education Services (WES) [www.wes.org](http://www.wes.org)
- Center for Educational Documentation (CED) [www.cedevaluations.com](http://www.cedevaluations.com)
- Educational Credential Evaluators (ECE) [www.ece.org](http://www.ece.org)

## **STUDENTS WITH DISABILITIES ADMISSIONS POLICY**

The college shall not discriminate against any otherwise qualified person with disabilities solely by reason of his/her disability. This policy extends to persons with identified specific learning disabilities and other disabilities under provision of Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990. An “otherwise qualified” person is one who is able to meet all program requirements despite his/her disabilities. Students with diagnosed disabilities are encouraged to self-disclose their disability to be eligible for reasonable classroom accommodations. These students should provide the Coordinator of Disability Services with documentation of their disability, including the most recent psychological, medical, and/or academic testing within three years. The Center for Academic Planning and Support provides training and access to a variety of assistive technology, as well as tutors and academic coaching for learning and study strategies, notetaking and organizational skills. For more information, contact Amanda Voce at 603-427-7625 or [avoce@ccsnh.edu](mailto:avoce@ccsnh.edu).

## **RESIDENCY**

A student’s permanent home of record determines residency for tuition purposes. This is the location (town, city, state) at which the student resides at the time of application. The determining factor is the official address listed on federal tax forms.

The following rules will guide the admission to the college:

- First priority for admission shall be given to residents of New Hampshire.
- Second priority shall be given to students qualifying under the New England Regional Student Program and those out of state students who reside within 50 miles of either Great Bay Community College campus.
- Third priority shall be given to students not qualifying under the New England Regional Student Program or those not domiciled in the state.

However, in highly competitive programs with limited enrollment, the Office of Admissions, while working as much as possible within the above parameters, may exercise discretion in admitting those applicants who best fit the needs and expectations of the department, the college, and the local community.

## **IN STATE STUDENTS**

Students qualify for in-state tuition rate for day courses if domiciled in New Hampshire, i.e. purchasing/renting property, obtaining a NH driver's license, vehicle registration and/or voter registration. In addition, students living within a 50-mile radius of GBCC will be charged in-state tuition rates for day courses. Students requesting a change of residency status must complete the college form. This form must be received in the Office of Admissions prior to September 1 for the Fall semester, January 1 for the Spring semester, or June 1 for the Summer semester.

A member of the Armed forces of the United States stationed in this state under military orders, or stationed in a contiguous state but temporarily living in New Hampshire, shall be entitled to classification for himself/herself, spouse and dependent children as in-state for tuition purposes, so long as said orders remain in effect and residence in New Hampshire is continued. Furthermore, military personnel who are residents of another state but choose New Hampshire as their residence within 90 days of being discharged from the military will be considered New Hampshire residents and charged in-state tuition. See Tuition and Fees for more information.

**\*ALL students will be charged in-state tuition rates for evening, weekend, and online courses.**

## **Out-of-State Status**

The determination of residency is made by the Office of Admissions at the time of admission.

Students who wish to appeal residency may request detailed information from the Admissions Office.

## **New England Regional Student Program**

The New England Regional Student Program (NERSP) enables residents of Connecticut, New Hampshire, Maine, Massachusetts, Rhode Island, and Vermont to enroll in out-of-state public colleges and universities in the six-state region at reduced tuition rates (50 percent above in-state tuition, rather than full out-of-state tuition). Students from these states (who are not within 50 miles of the GBCC campus) are automatically assigned this rate upon acceptance into a degree program.

# **Placement Assessment and Advising**

Prior to registering for courses, students matriculating into an associate degree or certain certificate programs must complete an Accuplacer placement assessment in required areas, which may include Reading, Math, Writing, and Computer Skills. This assessment will be used to place the student in the appropriate college or foundation course(s). Placement assessments are also required for admittance to certain courses and programs. Please see the Academic Policies section of this catalog, under VIII. Academic Placement Policy.

After completing the placement assessments, students will schedule an advising session to develop an academic plan for the semester. Students who have been waived from all placement assessment requirements should contact the Advising and Transfer Center to schedule an appointment. Included in this advising session are instructions on how to use the Student Information System (SIS) and Navigate to look up courses, how to fill out a registration form, and information on college programs and services.

## Waiving Placement Assessment

Great Bay Community College's placement assessment sections may be waived, in full or part, for those individuals who have the minimum scores identified in the Academic Placement Policy; please see the Academic Policies section of this catalog, under VIII. Academic Placement Policy. Contact the Office of Admissions or the Center for Academic Planning and Support (CAPS) for more information.

## Tuition Deposit

Students admitted into the Nursing, Surgical Technology, or Veterinary Technology degree programs are required to submit a non-refundable advanced tuition deposit of \$100 within thirty days of acceptance or prior to term start. This deposit is applied toward tuition charges. The deposit confirms that the student has accepted the college's offer of enrollment in the chosen program. Registrations are processed in the order in which they are received until seats are filled. Your deposit is not a guarantee of enrollment in specific courses.

## Class Schedules

Class schedules noting specific times and days, are developed on a semester-by-semester basis and are published in the Semester Course Schedule. Classes are held during the day, evening, weekend, and online. Students completing program requirements may need to take classes at any of those times.

## Financial Aid

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The Financial Aid Office at Great Bay Community College (GBCC) is on the first floor of the Portsmouth campus in the College Services One Stop suite. The mailing address is: Financial Aid Office - Great Bay Community College - 320 Corporate Drive - Portsmouth NH 03801. Phone: (603) 427-7600 x7501. Fax: (603) 334-6308. Email: [gbfinaid@ccsnh.edu](mailto:gbfinaid@ccsnh.edu). Website: [Financial Aid](#).

### DISCLAIMER

All financial aid information and policies are subject to change at any time.

## Overview

Financial aid provides funds to eligible students for their direct college expenses (tuition and fees) and indirect college expenses (books, supplies, equipment, and a reasonable allowance for living expenses and transportation.) The funds come in three forms: grants, which do not have to be repaid; loans, which must be repaid; and part-time jobs from which the student earns an hourly wage. Students awarded financial aid may receive some or all forms of aid.

A student starts the financial aid application process by completing the **Free Application for Federal Student Aid (FAFSA)** online at <https://studentaid.gov/>. The Great Bay Community College school code is **002583**.

The 2023-2024 FAFSA is the application for aid for Summer 2023, Fall 2023, and Spring 2024.

The 2024-2025 FAFSA is the application for aid for Summer 2024, Fall 2024, and Spring 2025.

A new FAFSA must be filed each year. The financial aid year begins with the summer term at GBCC. The preferred filing date is April 1 for the upcoming financial aid year. Students who meet this filing date will be



considered for all institutional funds. Students who file after this date will be considered on a funds-available basis. If you are unable to meet the preferred deadline, filing by these dates will help to have your financial aid in place before you begin classes:

Begin Enrollment	FAFSA	Best to File By
Summer 2023	2023-2024	April 1, 2023
Fall 2023	2023-2024	June 1, 2023
Spring 2024	2023-2024	October 1, 2023
Summer 2024	2024-2025	April 1, 2024
Fall 2024	2024-2025	June 1, 2024
Spring 2025	2024-2025	October 1, 2024

## Eligibility Requirements

To receive federal, state, or institutional financial aid funds administered by the Great Bay Community College, a student must:

- Be admitted to a degree-granting or an eligible certificate-granting program (16 credit hours or more) at GBCC.
- Be a U.S. citizen or an eligible non-citizen.
- Be enrolled in a minimum of six eligible credits for federal student loans, SEOG (Supplemental Educational Opportunity Grants), and Federal Work-Study employment.
- Be enrolled in a minimum of one eligible credit for Pell Grants.
- Be meeting the Satisfactory Academic Progress for Financial Aid standards, as defined by the Financial Aid Office (see below).
- Not be in default on a student loan.
- Not owe a refund on any federal (Title IV) financial aid.
- Not be receiving federal or state financial aid from another institution for the same enrollment period.
- Not have a prior baccalaureate degree for Pell Grants and Supplemental Educational Opportunity Grants.

All students who meet the eligibility requirements listed above, and who complete and file a valid FAFSA, qualify for federal Direct Student loans, regardless of financial need. For grant programs, Federal Work-Study, and subsidized Direct Loans, a student must have financial need, as determined by the federal need analysis calculation, based on the information provided on the FAFSA.

Students who accept federal loans must complete Entrance Counseling and sign a Loan Agreement (MPN-Master Promissory Note) at <https://studentaid.gov/>.

To receive aid in future semesters, a student must meet three qualitative and quantitative standards for Satisfactory Academic Progress for Financial Aid (SAPFA). These standards are described below and in the College's Financial Aid policy page, available online: [Financial Aid Policies](#).

## Sources of Financial Aid

The **Pell Grant** is a federal grant for students who demonstrate exceptional financial need. The Pell Grant does not have to be paid back. Annual Pell awards range from \$767 to \$7,395 in 2023-2024, for full time enrollment. A student may be eligible to receive Pell Grant funds for up to 150 percent of the student's Pell Grant scheduled award for the award year if attending summer, fall and spring semesters. To be eligible for the additional Pell Grant funds, the student must be otherwise eligible to receive Pell Grant funds for the semester and be enrolled in 6 or more credits. **At GBCC, any eligible additional funds would be awarded in the Spring semester.**

To receive a Pell Grant, the student must meet all the eligibility requirements listed above and must be an undergraduate who has not earned a bachelor's degree. If a student receiving a Pell Grant withdraws from college before completing the semester, the student may be responsible for repaying funds to the College and/or the Federal Government. **Pell Grants are prorated, based on a student's actual enrollment each semester.** Pell Grants are subject to a Lifetime Eligibility limit of the equivalent of twelve (12) full-time semesters. Students who have met or exceeded this limit are not eligible for additional Pell Grants.

**The Supplemental Educational Opportunity Grant (SEOG)** is for students who demonstrate exceptional financial need. The SEOG does not have to be paid back. To receive SEOG, a student must meet all the eligibility requirements listed above and be an undergraduate who has not earned a bachelor's degree. Limited funds are available and are awarded on a first-come, first-served basis to students enrolled at least half-time (6 credits). Full time awards are \$500 per year, prorated based on student's actual enrollment per semester. If a student receiving a SEOG withdraws from college before completing the semester, the student may be responsible for repaying monies to The College and/or the Federal Government.

**The Unique Scholarship** is a State of New Hampshire grant for students who are New Hampshire residents and who demonstrate exceptional financial need. To receive a Unique Scholarship, a student must meet all the requirements listed above, must be a New Hampshire resident for at least one year, and must file the FAFSA by January 31 of the current award year. In 2023-2024, Unique Scholarships are \$1,500 annually (fall and spring semesters) for full-time students (12 or more credits), and \$750 for part-time students (6 to 11 credits) for students who have a maximum Expected Family Contribution (EFC) of 8,000.

**Federal Work-Study Program (FWS)** provides an opportunity for students to earn money for educational expenses by working at a part-time job at the College. Students typically work as lab, library, and office aides, under the supervision of a faculty or staff member. Off-campus positions in community service agencies may also be available. Students are paid at least the current federal minimum wage and are required to sign a confidentiality agreement and to perform assigned work in a responsible and professional manner. Students must meet their course requirements prior to working a work-study job. In most cases, work-study hours are limited to 8-10 hours per week. Work-study recipients must meet all the eligibility requirements listed above, demonstrate financial need, and be enrolled at least half-time (6 eligible credits per semester).

**William D. Ford Federal Direct Student Loans**, also known as Stafford Loans, are low-interest loans (4.99% for 2022-2023) made to students by the United States Department of Education. First year students (30 or fewer credits earned) may borrow up to \$5,500 (\$9500 for independent students) per financial aid year. Second year students (31 or more credits earned) may borrow up to \$6,500 (\$10,500 for independent students) per financial aid year. Repayment begins six months after a student borrower is no longer registered for at least 6 credits.

- **Direct Subsidized Loans** do not accrue interest while the student attends college. Interest (4.99% for loans disbursed in the 2022-2023 financial aid year) begins to accrue after the borrower is no longer at least a half-time student.
- **Direct Unsubsidized Loans** accrue interest (4.99% for loans disbursed in the 2021-2022 financial aid year) while the student attends college, and until the loan is fully repaid.

All Direct Loan borrowers must meet all the eligibility requirements listed above, be enrolled at least half-time (6 eligible credits per semester), complete Loan Entrance Counseling, and sign a Master Promissory Note. Subsidized Direct Loans are only awarded to students demonstrating financial need on the FAFSA. Unsubsidized Direct Loans are offered regardless of financial need. If a student receiving a Direct Loan withdraws from school before the semester is completed, the student may be required to repay funds to the school, or to the Department of Education.

Additional information, including current interest rates, Master Promissory Notes and Loan Entrance Counseling, is available at <https://studentaid.gov/>.

**The Federal Parent Loans for Undergraduate Students (PLUS)** program provides funds for educational purposes to the parents of dependent students. The PLUS loan is available to the parents of dependent

students with and without financial need; however, the student is required to file a FAFSA. Parents may borrow up to the student's cost of attendance, less any financial aid. The student who is a dependent of the borrower must meet all the eligibility requirements listed above and must be enrolled at least half-time (6 credits per semester). The parent borrower is required to sign a Promissory Note. The 2022-2023 interest rate for PLUS loans is 7.54%.

Additional information, including applications, current interest rates, and Master Promissory Notes, is available at <https://studentaid.gov/>.

**Alternative Loans** are student loans made by private lending institutions. Alternative loans are made to the student, but a cosigner is frequently required. The student applies directly to a lender. The lender performs a credit check and informs the student if the loan is approved, if a cosigner is required, the interest rate of the loan, and any origination fees. Like other student loans, alternative loans must be repaid. A list of alternative lenders is available at [www.Elmsselect.com](http://www.Elmsselect.com).

For a complete list of financial aid policies, as well as information about scholarships and other funding sources, visit the financial aid section of our website at [Financial Aid](#).

## Important Financial Aid Policies

- **Returns of Federal Title IV Funds:** Returns of Federal Title IV Funds for financial aid students who withdraw, officially or unofficially, from all courses in a semester prior to the end of the semester, are guided by special return policies formulated by the United States Department of Education. The exact amount required to be returned varies depending on the amount of grant and loan funds the student received and at what point in the semester the student withdrew. If federal funds are returned, the student is liable for the balance owed the College for tuition and fees.
- **Courses Covered:** Financial aid is only available for courses within a student's current program of study.
- **Repeating Courses:** For one time only, financial aid will cover a repeated course that has been previously passed and paid for with Title IV financial aid. For this purpose, passed means any grade higher than an "F," regardless of any school or program requiring a higher qualitative grade or measure to have been considered to have passed the course. A student may be repeatedly paid for failing/withdrawing from a course. However, if a student passed a course once (covered by Title IV financial aid), then is repaid for taking it, and fails or withdraws the second time, that failure counts as their paid retake, and the student may not be paid for retaking the course a third time. If a program of study requires students to retake all of the coursework for a term in which a student fails a course, any courses retaken that were previously passed in this case are not eligible for Title IV aid.
- **Satisfactory Academic Progress for Financial Aid (SAPFA):** Financial Aid recipients must make Satisfactory Academic Progress for Financial Aid to retain financial aid eligibility. The standards for Satisfactory Academic Progress for Financial Aid are specific to the financial aid program and are both qualitative and quantitative. The standards measure a student's cumulative grade point average (CGPA) and his/her "incremental" progress in terms of completing a minimum amount of work at stated intervals. When a student is reviewed for SAPFA, all credits in all the student's enrollment periods at Great Bay Community College are included in the review. Approval under the college's academic amnesty policy does not remove that academic history from the SAPFA review. SAPFA is reviewed by the Financial Aid Office after each semester.

### Qualitative Standard:

#### Cumulative Grade Point Average (CGPA) Component

A student must maintain a minimum cumulative grade point average as noted below to be considered making Satisfactory Academic Progress for Financial Aid (SAPFA):

Total Credits Passed at Institution	Certificate or Diploma Program Minimum CGPA	Associate Degree Program Minimum CGPA
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0-13	1.50	1.50
14-27	2.0	1.70
28-40	2.0	1.80
41+	2.0	2.0

**Quantitative Standard:**

**A student must successfully complete at least two-thirds (67%) of the total credits he or she attempts throughout his/her academic career at The College.** All attempted credits resulting in either an academic grade or administrative transcript notation will be included in the quantitative calculation. For example, a student who has attempted 36 credits throughout his or her academic career at The College must earn at least 24 credits to be making Satisfactory Academic Progress for Financial Aid.

**Maximum Timeframe Component:**

**A student may receive student federal aid for any attempted credits towards his or her program of study if total attempted credits do not exceed 150% of the published length of the student’s program of study.**

For example, a student enrolled in an eligible 24-credit certificate program may receive financial aid if attempted credits are less than 36 credits. A student enrolled in a degree program that requires 64 credits may receive financial aid if attempted credits are less than 96 credits.

**Review Schedule:**

All three components of the SAPFA policy are reviewed after each semester of the student’s program of study.

**Academic Periods Included in the Review:**

In general, all coursework at Great Bay Community College is considered when reviewing an academic record for Satisfactory Academic Progress for Financial Aid. This includes periods when the student did not receive financial aid funds, periods for which the student has received academic amnesty, and periods in which the student is taking courses as a non-matriculated student.

*There are some exceptions. Please refer to the table below for a breakdown of how each type of course or credit is treated in the review.*

<b>Course or Credit</b>	<b>Cumulative GPA Component</b>	<b>Completion Rate Component</b>	<b>Maximum Timeframe Component</b>
Regular courses in your program of study	Yes	Yes	Yes
Running Start/ eStart Courses	Yes	Yes	Yes
Repeat Courses **	Yes	Yes	Yes
Transfer Credits	No	Yes	Yes
Consortium Credits	No	Yes	Yes
Developmental/Remedial/ESL	Yes	Yes	Yes
Incompletes	Yes	Yes	Yes
Audit Courses	No	No	No
Credit by Examination/Credit for Prior Learning	No	No	Yes
Nonpunitive Grades	No	Yes	Yes
Pass/Fail Grades	No	Yes	Yes

Withdrawals	No	Yes	Yes
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**\*\* Only the most recent attempt of the repeated course is counted in the Cumulative GPA, and in the numerator of the Completion Rate Component. All attempts are counted in the attempted credits (denominator) of the Completion Rate Component. Credit for a course can only be earned one time.**

**Students Making Satisfactory Academic Progress for Financial Aid:**

Students who meet SAPFA standards are making Satisfactory Academic Progress for Financial Aid and retain eligibility for student financial aid for the following semester.

**Students on SAPFA warning:**

**Students who do not meet SAPFA standards will be placed on SAPFA warning for one semester. Students on SAPFA warning will retain their eligibility for student financial aid for one warning semester.**

At the end of the warning semester, the student’s record is reviewed. If the student meets SAPFA standards, the student status returns to Satisfactory and financial aid eligibility is restored.

If the student is unable to meet SAPFA standards during the warning semester, he or she is ineligible to receive financial aid.

**Appeals**

A student may be considered for additional aid eligibility by submitting a SAPFA Appeal and Academic Plan form located [HERE](#) on the college website.

If an appeal is granted, the student is eligible for student financial aid for the following semester in a SAPFA probation status

**Students on SAPFA Probation:**

At the end of a probationary semester, the student’s record is reviewed. Students meeting SAPFA standards will be eligible for student financial aid for the following semester.

Students meeting the conditions of the appeal will remain on probationary status (aid eligible) for the next semester.

**Students not meeting the SAPFA Appeal conditions will be ineligible for student financial aid at Great Bay Community College.** Financial aid eligibility may be regained by meeting the published SAPFA standards.

# Tuition Rates and Fees

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## Tuition and Fees

**IN-STATE STUDENTS** (New Hampshire Residents)

\*\$215 per credit

New Hampshire residents qualify for in-state tuition rates for day courses. In addition, students living within a 50-mile radius of a GBCC campus will be charged in-state tuition rates for day courses.

A member of the Armed forces of the United States stationed in this state under military orders, or stationed in a contiguous state but temporarily living in New Hampshire, shall be entitled to classification for himself/herself, spouse, and dependent children, as in-state for tuition purposes, so long as said orders remain in

effect and residence in New Hampshire is continued. Furthermore, military personnel who are residents of another state but choose New Hampshire as their residence within 90 days of being discharged from the military will be considered New Hampshire residents and charged in-state tuition.

VA beneficiaries enrolled under the Veterans Educational Assistant Improvement Acts of 2010 will be charged in-state tuition.

- A veteran, as defined under RSA 21:50, I, or a covered individual, as defined under Chapter 30 or 33 of Title 38 of the United States Code using educational assistance benefits provided under federal law, shall be charged in-state tuition while living in New Hampshire and enrolled.
- A spouse or child using educational assistance benefits provided pursuant to Chapter 30 or 33 of Title 38 of the United States Code shall be charged in-state tuition while living in New Hampshire and enrolled.

**ALL students will be charged in-state tuition rates for evening, weekend, and online courses.**

#### **NEW ENGLAND REGIONAL STUDENTS (CT, MA, ME, RI, VT)**

- \$323 per credit

Students must be matriculated in a program and must indicate eligibility on the application for admission to the College.

#### **OUT OF STATE STUDENTS**

- \$490 per credit

*\*The tuition rate is subject to the approval of the Board of Trustees and is subject to change without notice.*

#### **CHANGE OF STATUS**

Any student who has been classified as Out-of-State or New England Regional for tuition purposes, may apply to the college Admissions Office for a change of residency status by the following deadlines: September 1 for the Fall semester, January 1 for the Spring semester, and June 1 for the Summer term.

**CREDIT BY EXAMINATION:** A fee of \$25.00 per credit, plus all direct costs associated with providing a laboratory portion of an exam, will be charged to a student wishing to receive credit by examination.

**CREDIT FOR PRIOR LEARNING/EXPERIENTIAL LEARNING:** Students will be assessed a fee based on 50% of the current tuition rate on the total credits awarded (e.g., for 12 credits awarded:  $0.50 \times \text{current tuition rate} \times 12$  credits).

**CLINICAL SURCHARGE:** All students taking clinical courses will be charged a clinical surcharge of \$500 per semester. This surcharge is designed to assist in covering the expenses associated with clinical classes. This fee is in addition to the academic instruction fee.

**PROTESTED CHECKS:** A fee of \$35.00 may be charged for any check protested or returned for nonsufficient funds.

**LIBRARY FINES:** Students will be assessed a fine of \$.25 per item/per day for all overdue library materials. The cost of replacement is charged for unreturned materials.

**ACADEMIC INSTRUCTION FEE** An additional fee will be charged for all Laboratory/Clinical/Practicum or other similar experiences. This fee is calculated by subtracting the number of lecture hours from the number of credit hours and multiplying the remainder by \$110. This fee will be added to the normal tuition charge for that course (see example). Fee will be charged to all students with no exceptions.

<b>EXAMPLE</b>	<b>Lec</b>	<b>Lab</b>	<b>Credit</b>
BIOL110G A&P I (4 credits - 3 lecture hours = 1 x 110 = \$110)	3	3	4

### **DIRECTED / INDEPENDENT STUDY**

Directed/Independent Study courses follow the same registration and credit fees charges as other courses and will be charged the day rate and based on residency. Lab fees will also be charged, if appropriate.

### **COMPREHENSIVE FEE**

\$25 per credit - This fee is charged for every credit in each credit-bearing course regardless of the number of credits taken.

<b>COLLEGE COSTS/EXPENSES 2023-2024</b>	
<b>Day Tuition Rates</b>	
New Hampshire Resident	\$215.00 per credit
New England Regional Student Program (NERSP)	\$323.00 per credit
Out-of-State or International Students	\$490.00 per credit
<b>Evening/Weekend/100% Online Tuition Rate</b>	
Evening Courses (classes beginning 5pm or later)	\$215.00 per credit
Weekend Courses	\$215.00 per credit
100% Online Courses (does not include Hybrid courses)	\$215.00 per credit
<b>Fees (required)</b>	
Placement Testing (Accuplacer)	NO CHARGE
Placement Testing (Accuplacer for anyone sending results outside of the CCSNH system)	\$30.00
International Admissions Fee	\$100.00
Clinical Surcharge (per semester)	\$500.00
Clinical Makeup Fee (for missed clinical obligation)	\$40.00
Academic Instruction Fee	See formula above
Student Comprehensive Fee (per credit)	\$25.00
Transcript Fee	\$5.00
Deferred Payment Fee – Payment Plans (per semester)	\$30.00
Late Payment Fee – Students dropped for non-payment who are re-registered	\$50.00
Payment Plan – Missed Scheduled Payment Fee (per semester)	\$50.00
<b>Other Fees</b>	
Diploma Replacement Fee	\$20.00
Replacement College ID Card Fee (First card is free)	\$10.00
College Level Examination Program Administrative Fee	\$25.00
Proctor Exam Fee (non-CCSNH students)	\$50.00
<b>Other Costs (These required costs are estimated and vary depending on program.)</b>	
Textbooks and other Materials – estimated per semester	\$600.00
Quality Inspection and CMM Operator (MANF254G) Materials/Equipment Fee	\$500.00
CNC Milling and Set-up Operator (MANF255G) Materials/Equipment Fee	\$500.00

<b>COLLEGE COSTS/EXPENSES 2023-2024</b>	
Intro to Nondestructive Testing (NDT110G) Materials/Equipment Fee	\$500.00
Visual Testing (NDT205G) Materials/Equipment Fee	\$500.00
Liquid Penetrant Testing (NDT210G) Materials/Equipment Fee	\$500.00
Magnetic Particle Testing (NDT211G) Materials/Equipment Fee	\$500.00
Ultrasonic Inspection (NDT212G) Materials/Equipment Fee	\$500.00
Radiographic Testing (NDT214G) Materials/Equipment Fee	\$500.00
Digital Radiographic Testing (NDT215G) Materials/Equipment Fee	\$500.00
Eddy Current Testing (NDT220G) Material/Equipment Fee	\$500.00
Topics in Manufacturing (MANF112G) Materials/Equipment Fee	\$500.00
Solid Modeling (MANF225G) Materials/Equipment Fee	\$500.00
Automotive Maintenance & Light Repair (AUTO110G) Materials/Equipment Fee	\$300.00
Automotive Engine Mechanical (AUTO120G) Materials/Equipment Fee	\$300.00
Automotive Electronics I (AUTO125G) Materials/Equipment Fee	\$300.00
Automotive Suspension & Steering (AUTO150G) Materials/Equipment Fee	\$300.00
Automotive Electronics II (AUTO130G) Materials/Equipment Fee	\$300.00
Automotive Braking Systems (AUTO140G) Materials/Equipment Fee	\$300.00
MOTR110G Motorcycle Program Materials Fee	\$750.00
MOTR120G Motorcycle Program Materials Fee	\$750.00
MOTR130G Motorcycle Program Materials Fee	\$750.00
MOTR140G Motorcycle Program Materials Fee	\$750.00
MOTR150G Motorcycle Program Materials Fee	\$1,500.00
Hospitality - Intro to Hospitality (HOSP110G) Travel Fee)	\$60.00
Hospitality – Restaurant Week Fee (HOSP230G)	\$50.00
Hospitality- Travel & Tourism - Tourism & Sustainable Practices	\$75.00
Massage Therapy - Student Liability Insurance	\$20.00
Massage Therapy - Supplies - Portable Table, Uniform, Sheets, Lotions, etc.	\$800.00
Massage Therapy - Massage Therapy State Licensing Fee	\$110.00
Massage Therapy - Massage and Bodywork Licensing Exam	\$265.00
Nursing - Nursing Lab Pack (NURS111G Only)	\$101.35
Nursing – Student Liability Insurance (per academic year)	\$20.00
Nursing – ATI Complete Partner (per semester- Class of 2025 only)	\$371.25
Nursing-ATI Complete Partner (per semester - Class of 2024 only)	\$612.50
Surgical Technology - Student Liability Insurance (per academic year)	\$20.00
Surgical Technology - Surgical Technology Tool Kit for SURG119G	\$125.00
Surgical Technology - National Board of Surgical Technologist and Surgical Assisting - CST Examination with AST membership (AST Membership costs \$45 annually)	\$190.00
Surgical Technology - National Board of Surgical Technologist and Surgical Assisting - CST Examination without AST membership	\$290.00
Surgical Technology Clinical Surcharge SURG123G, SURG215G, SURG225G	\$500.00
Veterinary Technology - Radiation Badge Fee	\$50.00
Veterinary Technology - Lost Radiation Badge Fee	\$25.00
Veterinary Technology - Student Liability Insurance	\$20.00
Veterinary Technology – Rabies Vaccine (estimate – based on actual cost to administer)	\$800.00
Veterinary Technology - Tech Clinical Affiliation II (VTNE Prep Course – online)	\$170.00
Welding - WELD100G Materials/Equipment Fee	\$1,200.00



<b>COLLEGE COSTS/EXPENSES 2023-2024</b>	
Welding - WELD150G Materials/Equipment Fee	\$1,200.00
Welding - WELD200G Materials/Equipment Fee	\$1,200.00

### **Payment of Tuition Deposit**

Applicants accepted as students in Nursing, Surgical Technology, Welding and Veterinary Technology only must pay a non-refundable tuition deposit of \$100 within thirty days of notification of acceptance or prior to term start. The deposit reserves a place for the student and is applied toward the first semester's tuition.

### **Senior Citizens**

NH residents aged 65 and over may enroll in credit courses at a tuition cost of 50% at Great Bay Community College two days prior to the start of classes if space is available. The Academic Instruction Fee and other fees must be paid by the student. Full tuition and other fees will be charged for all noncredit, enrichment, professional development, and recertification classes.

### **Payment of Tuition and Fees**

Billing for tuition and fees is coordinated through the College's Business Office. Electronic billing reminders are periodically emailed to the student's Great Bay Community College email account. Payment arrangements must be made prior to the published deadlines for each part of term. Discover, Visa, MasterCard, check, or cash are accepted as payment. Payment plans are available at the College Services One Stop through Nelnet/Enterprise Tuition Management. If payment arrangement is not made by the established payment deadline, students may be administratively withdrawn from classes. Students who register after the established payment deadline must make payment or adequate payment arrangements at the time of registration and will remain responsible for tuition and fees.

### **Collection Clause**

The following clause is included on college forms, with areas for student signature, signifying their understanding of their financial obligations.

*"I agree that by registering for courses within the Community College System of New Hampshire (CCSNH), I am financially obligated for ALL costs related to the registered course(s). Upon a drop or withdrawal, I agree that I will be responsible for all charges as noted in the student catalog and handbook. I further understand that if I do not make payment in full, my account may be reported to the credit bureau and/or turned over to an outside collection agency. I also agree to pay for the fees of any collection agency, which may be based on a percentage of the debt up to a maximum of 35%, and all additional costs and expenses, including any protested check fees, court filing costs and reasonable attorney's fees, which will add significant costs to my account balance."*

### **VA Beneficiaries**

The Registrar's Office verifies VA beneficiaries' registrations after the Add/Drop period of the semester.

*Veterans Benefits and Transition Act of 2018 (Section 103)*

Effective August 1, 2019, 'covered individuals' using Chapter 31 Vocational Rehabilitation and Employment Program or Chapter 33 Post 9/11 GI Bill ® will not be penalized while awaiting VA tuition and fee payments:

- The college cannot deny a student access to classrooms, libraries, or other institutional facilities.
- The college cannot make the student borrow money to cover the cost while waiting for payment.
- The college cannot charge a student a late fee or penalty.

The covered period:

- Protection begins when the student provides the college with a Certificate of Eligibility 'COE' or a Statement of Benefit.
- Students should submit the COE or Statement of Benefits no later than the first day of the program.
- Each semester, students should submit the 'VA Certification Request Form' to the Registrar's Office.
- The covered period ends when VA makes payment or 90 days after the date the college certifies tuition and fees.

GI Bill ® is a registered trademark of the U.S. Department of Veterans Affairs (VA). More information about education benefits offered by VA is available at the official U.S. government Web site at <https://www.benefits.va.gov/gibill>.

## Tuition Refund Policy

### Credit and Non-Credit Courses

All refunds require that the student complete an official withdrawal form. Students who officially withdraw from the college or an individual course by the end of the fourteenth (14th) calendar day of the semester will receive a 100% refund of tuition, less nonrefundable fees. Students in classes that meet in a format shorter than the traditional semester (15-16 weeks) will have seven (7) calendar days from the designated start of the class to withdraw for a full refund. If the seventh (7th) or fourteenth (14th) calendar day falls on a weekend or holiday, the drop refund date will be the first business day following the weekend or holiday. Students in courses that meet for two weeks or less must drop by the end of the first day of the class in order to get a 100% refund. All Students registered for non-credit workshops, tests, professional training, or seminars must withdraw in writing at least three business days prior to the first session. Payments by cash or check will receive a full refund of tuition and fees. Exception: non-credit workshops, tests, professional training, or seminars registered online with a credit/debit card incur a non-refundable 7.0% transaction fee and a non-refundable \$1.99 administration fee. Refunds take approximately four to six weeks to be processed. If the college cancels a class, tuition and Academic Instruction fees will be refunded.

The College President or designee may grant a tuition refund or tuition credit under extenuating circumstances on a case-by-case basis, such as military activation, administrative error or documented long term illness. In order to receive a tuition adjustment, supporting information such as physician's note, hospital confirmation, military assignment, etc., must be provided. Students wishing to be considered for an exception must fill out an application, submit all supporting documentation, and complete the add/drop form. The complete procedures for students to request a tuition and fee adjustment can be obtained in the Office of the Vice President of Student Affairs and the One Stop Office.

### Return of Title IV Funds: Mandated by Law

Students who withdraw from school before the 60% point in a semester will have to repay a portion or all of their Federal Pell Grant, Federal SEOG grant, Federal Perkins Loan funds, and Federal Direct loans to the United States Department of Education. The exact amount required to be returned will vary depending on the amount of grant and loan money the student received and at what point in time the student withdraws from the College.

In addition, the student will be liable for the balance owed the College for tuition and fees. The student will receive a revised statement of account for the expenses incurred which will include the reduction and or loss of Federal Title IV funds.

Students who choose to withdraw from the College must complete a College Withdrawal Form. This form must be signed by the student and various campus offices and then be returned to the Registrar's office.

# Academic Policies

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## Student Academic Classifications

**Matriculated student:** A student who has been formally accepted to a certificate or degree program on a full-time or part-time basis. Matriculated status is maintained by taking at least one course per academic year; otherwise, a candidate will be required to reapply for admission and abide by any new academic requirements in effect at that date. Each student is expected to demonstrate orderly progress in completing his or her educational objective at Great Bay.

To help clarify each student's enrollment status at the College, students are assigned to one of the following categories:

1. Full-time student - a person who is enrolled in 12 or more semester credit hours
2. Part-time student - a person who is enrolled in fewer than 12 semester credit hours

**Non-matriculated student:** A student who is taking either credit or noncredit courses but has not been formally accepted to a certificate or degree program. Non-matriculated students are subject to the same course pre-requisites and co-requisites as matriculated students.

**Requirements for graduation are defined by the program of study to which the student has been admitted at the time of matriculation.**

## Degree Requirements

The College offers Associate in Arts and Associate in Science Degrees. All Associate degree programs require a minimum of 60 credits.

### Associate Degrees

1. To earn an Associate Degree from the College, a student must:
  - successfully complete at least sixty (60) credits in college-level coursework (*excluding* remedial or developmental coursework/credits – i.e., those identified as being “for institutional credit only”)
  - earn at least fifteen (15) credits in coursework offered by and under the direct control of the college awarding the degree with at least eight (8) of those credits earned in advanced-level courses in the student's major field
  - achieve a Cumulative Grade Point Average (cGPA) of 2.0 or higher in all courses taken at the college awarding the degree (*including* remedial or developmental coursework/credits)
  - meet all course distribution requirements for the specific type of Associate Degree as described below
2. Associate in Science

In addition to meeting the requirements set forth in Section 1, above, a student must meet the following course distribution requirements to earn an Associate in Science or Associate in Applied Science Degree:

- earn at least 30 credits in program-specific courses in a defined major field
- earn at least 20 credits in general education courses, including one course of three (3) credits or more in:
  - English Composition (required)
  - Humanities/Fine Arts/Foreign Language (required)
  - Quantitative Reasoning/Mathematics (required)
  - Science (required)
  - Social Sciences (required)

- The remaining general education credits to reach the required total of 20 general education credits may be taken in English, Humanities/Fine Arts/Foreign Language, Quantitative Reasoning, Science, or Social Sciences.
- The remaining 10 credits to reach the required minimum total of 60 credits may be assigned in any subject area, as deemed by the faculty to be appropriate to the curriculum.

### 3. Associate in Arts

Students may earn an Associate in Arts degree in Liberal Arts or in a specified major field. In addition to meeting the requirements set forth in Section 1 above, a student must meet the following course distribution requirements to earn an Associate in Arts degree. Each category below must include at least one course worth at least three (3) credits:

English Composition	3-4 credits
English Literature, Composition (requiring English Composition as a prerequisite), or Communications	3 credits
Quantitative Reasoning/Mathematics	6-8 credits
Natural or Physical Sciences (including at least one lab science)	7-8 credits
Social Sciences	9 credits
Humanities/Fine Arts/Foreign Language	9 credits
<b>AND EITHER</b>	
Electives in Specialized Field	20-24 credits
<b>Minimum 60 credits</b>	
<b>OR (for generic AA in Liberal Arts)</b>	
Liberal Arts Electives (from above list) AND	12-15 credits
Open Electives	9 credits
<b>Minimum 60 credits</b>	

### Additional Associate Degrees

Students may earn additional Associate degrees or certificates within programs through concurrent completion of requirements for two or more degrees, or by continuing study after the first degree has been completed. The requirements for earning additional degrees are as follows:

1. Complete all requirements of each program of study, including general education requirements; and
2. Earn a minimum of fifteen (15) additional credits at the College, beyond credits required for the first and subsequent degrees, excluding Credit by Examination, Credit for Experiential Learning, College Level Examination Program (CLEP), and Transfer Credit.

Students must be matriculated into both degree programs or degree/certificate programs.

### Mathematics and English Requirements for Graduation

To earn an Associate degree, students are required to successfully complete one or more college-level Quantitative Reasoning/Mathematics classes and one or more college-level English courses, as specified by the particular program and curriculum to which the student was accepted. Students lacking basic skills, including arithmetic, algebra, writing, and reading skills, may achieve the competencies through developmental courses offered at the College or Adult Basic Education Centers. See [Academic Placement Policy, section VIII](#) of this catalog for placement testing information.

### Elective Course Information

In addition to the required courses in a student's program, there may be elective options. Each program/discipline offers a different set of electives, so please refer to each individual program for specific options. Please see the General Degree Information section of this catalog for Elective Course Information.

## Certificate Requirements

To earn a Certificate from Great Bay Community College, a student must:

- successfully complete all program credits in college-level coursework designed to meet defined competencies in an occupational field (*excluding* remedial or developmental coursework/credits – i.e., those identified as being “for institutional credit only”)
- earn at least six (6) credits or 25% of total program credits, whichever is larger, in coursework offered by and under the direct control of the college awarding the degree
- achieve a Cumulative Grade Point Average (cGPA) of 2.0 or higher in all courses in the Certificate program (only) taken at Great Bay Community College

Colleges reserve the right to automatic conferral of certificate programs.

## Graduation/Commencement

Matriculated students can submit the Intent to Graduate web form on the GBCC website. If they are participating in the Commencement ceremony held each year in May, they must have met all program requirements. Exceptions may be made at the discretion of the college for students whose program is scheduled to be completed in the summer semester directly following the Commencement ceremony. Exceptions may also be made for students who have eight (8) or fewer credits in not more than two courses remaining for program completion.

All outstanding monies owed to the College must be paid before the degree or certificate is released. Students are urged to work closely with their academic advisors to ensure they are making satisfactory progress toward fulfillment of graduation requirements.

Automatic Award – Upon completion of the program for which students applied, the College may automatically award the credential earned (i.e. Certificate or Degree). It is still strongly recommended that students submit their Intent to Graduate web form for processing.

## Student Rights

The classroom environment should encourage free discussion, inquiry, and expression. Student performance must be evaluated on the basis of academic performance. At the same time, students are responsible for maintaining standards of academic performance established for each course in which they are enrolled. Students are responsible for learning the content and maintaining academic standards for any course of study, but in so doing, they have the right to take substantiated exception to the data or views presented in class, and they are responsible for learning the content of any course of study for which they are enrolled. Students will be graded not on the basis of their political, religious or ideological beliefs, but on the basis of their reasoned answers and appropriate knowledge of the subjects and disciplines they study, and in accordance with the academic standards set forth in course syllabi. Information about the personal views, beliefs, and political associations of students which instructors, advisors and counselors learn in their course of work should be considered confidential.

## Academic Records

### Attendance

Students at Great Bay Community College are responsible for attending all classes, laboratory sessions, internships and clinical/co-op affiliations. Students must recognize that absences interfere with academic success. The instructor is responsible for informing students of the class attendance policy at the beginning of each course.

### **Auditing Courses**

A student may enroll on an audit basis, subject to individual course attendance requirements and tuition. The student must receive permission from the Vice President of Academic Affairs and department chair or instructor prior to registration. The decision to audit must be made at the time of registration and cannot be reversed. Audit courses carry no credit toward graduation requirements.

Under the audit policy, students may enroll in courses to learn more about the challenges of college work, explore disciplines of interest, refresh prior learning, or supplement existing knowledge. Typically, the student attends lectures, seminars, and labs, but does not complete graded assignments. When enrolled as an audit, the student will not receive a final grade, nor will credit towards graduation be given for the course. The student's academic transcript will reflect an AU for the course. Students must pay the full tuition for audited courses. Federal Financial Aid does not cover costs of an audited course.

Not all courses may be taken for audit. A student must complete the course registration as an audit during the first week of classes. Once admitted as an audit, the student may not change to credit status after the designated add period. A student registered for credit may not change to audit status after the designated add period.

The Vice President of Academic Affairs may make exceptions to the above.

### **Change of Program**

Matriculated students can submit the Change of Major web form on the GBCC website. This form cannot be used for the following selective and limited enrollment programs: Automotive, Massage Therapy, Nursing, Surgical Technology, Veterinary Technology or Welding. A new application must be submitted for these programs.

Students can change into the following criteria programs with the understanding that additional admissions requirements may need to be met: Biotechnology Certificates, Computer Numeric Control, Linux, Nondestructive Testing, Programming, Software Development, Technical Studies, Veterinary Practice Management.

Change of majors approved after the Add/Drop period of the semester are effective the next semester.

### **Changing Course Content and Prerequisites**

Students are subject to the program requirements in the Catalog for the year of matriculation into the program. The College reviews and upgrades the content of programs regularly to assure that each graduate receives current knowledge and training to perform competently in a chosen field. To accomplish this, the College reserves the right to modify course content and prerequisites based on established educational and professional objectives and the needs of students. Please note that students must follow subsequent changes to course prerequisites independent of year of matriculation.

### **Course Prerequisite Waiver**

Students may not waive courses within their programs of study. A course prerequisite may be waived only by the chair of the department in which the course resides.

### **Course Repeat Policy**

For purposes of calculating the cumulative GPA (CGPA), when a student repeats a course at the same CCSNH institution, the grade achieved in the most recent course will be the grade used in the CGPA calculation. All previous grades will remain on the transcript but not used in the calculation. Therefore, courses repeated at a CCSNH college or at any college other than where the original course was taken will NOT be used in the calculation of the CGPA but may be used for transfer as appropriate.

Third and subsequent attempts to repeat courses will require the approval of the department chair of the program or discipline in which the course resides, in consultation with the instructor. An attempt is defined as any course in which a final grade is issued excluding “W”, “WP”, “AU”, and “CS”.

**IMPORTANT NOTE:** Financial aid will cover only one repeat of a course for which the student has earned a passing grade.

## Grading

Students are assigned grades based upon evaluations of assigned coursework. Grades are given at the end of each semester and based on criteria listed on an individual instructor’s syllabus, and generally include quizzes, tests, and projects, and participation. Standards for grades are listed below. Clinical grades are recorded on a pass/fail basis.

Letter	Numerical Grade	Quality
A	93.33-100.00	4.0
A-	90.00-93.32	3.7
B+	86.67-89.99	3.3
B	83.33-86.66	3.0
B-	80.00-83.32	2.7
C+	76.67-79.99	2.3
C	73.33-76.66	2.0
C-	70.00-73.32	1.7
D+	66.67-69.99	1.3
D	63.33-66.66	1.0
D-	60.00-63.32	0.7
F	Below 60.00	0.0

Letter	Numerical Grade	Quality
P	Passing	0.0
AF	Administrative Failure	0.0
AU	Audit	0.0
CS	Continuing Study	0.0
I	Incomplete	0.0
W	Withdraw	0.0
WP	Withdraw Passing	0.0
WF	Withdraw Failing	0.0

### Explanation of Grades: P, AF, AU, CS, I, W, WP, WF

**P:** Pass (not calculated into GPA)

**AF:** Instructor or administrator-initiated withdrawal at any time for reasons other than poor grade performance—e.g., failure to meet attendance requirements, as published in the instructor’s syllabus, academic violation of the Student Code of Conduct, etc. The grade may also be issued if a student registered in a clinic,

practicum, internship or lab is deemed unsafe or performing in an unsatisfactory manner as determined by an evaluation by a faculty member/agency supervisor in accordance with department criteria and procedure. Calculated in GPA as an "F."

**AU:** A course taken as an audit does not earn credit and cannot be used to meet graduation requirements. Not all courses can be taken for audit. Students must enroll in courses as auditing at the time of registration.

**CS:** Continuing Study. Instructor-initiated grade that is intended for students who have demonstrated progress and a commitment to succeeding in the course, but who need more time to achieve competencies. "CS" grades can be applied to courses below the 100 level only. Does not affect GPA and does not fulfill prerequisites for college-level courses. Students must reregister and subsequent tuition costs apply.

**I:** Incomplete grade. Indicates that a student has not completed a major course assignment due to extraordinary circumstances. The "I" grade is not used to give an extension of time for a student delinquent in meeting course responsibilities. The "I" grade is not calculated into the GPA. However, all work must be completed by the end of the third week of the following semester or the grade defaults to an "F." See the full Incomplete Grade Policy at the end of this section.

**W:** Student-initiated withdrawal from a course at any time through the 60 percent point of the course. Does not affect GPA. Can be initiated by the instructor if notified by the student of extenuating circumstances in which the student is unable to initiate the process (e.g., catastrophic illness or injury, job transfer to another state).

**WP:** Student-initiated withdrawal from a course after the 60 percent point of the course; student has a passing grade at time of withdrawal, as determined by the instructor. Does not affect GPA. Can be initiated by the instructor if notified by the student of extenuating circumstances in which the student is unable to initiate the process (e.g. catastrophic illness or injury, job transfer to another state).

**WF:** Student-initiated withdrawal from a course after the 60 percent point of the course; student has a failing grade at time of withdrawal, as determined by the instructor. Calculates in GPA as an "F." Can be initiated by the instructor if notified by the student of extenuating circumstances in which the student is unable to initiate the process (e.g. catastrophic illness or injury, job transfer to another state).

### **Grade Point Averages**

Scholastic standing at the end of each semester is determined by the grade point average (GPA) that is computed by dividing total quality points (grade equivalent multiplied by credit hours) by total number credit hours attempted. The cumulative grade point average (CGPA) is determined at the end of the second and subsequent semesters by dividing cumulative points by the total credit hours attempted, taking into account all previous work completed. Only courses taken at the College will be used to calculate the CGPA.

### **Incomplete Grades**

An Incomplete ("I") grade indicates that a student has not completed a major course assignment (usually a final exam or culminating final assessment) due to extraordinary circumstances, such as serious illness, death in the family, etc. The grade is applied only in those instances where the student has a reasonable chance of passing. It is not used to give extensions of time for students delinquent in meeting course responsibilities.

Course assignments for a grade of Incomplete must be completed by the student through formal arrangement with the instructor no later than:

- The end of the third week in the spring semester for a grade issued in the fall semester
- The end of the third week in the fall semester for a grade issued in the summer term
- Three weeks from the earliest start date of the summer term for a grade issued in the spring semester



The Incomplete Grade Contract must be approved and signed by the instructor, Department Chair and student.

Should the student fail to complete assignments within the designated period, the final grade will be changed to “F.” Exceptions to the above deadlines may be made by the Vice President of Academic Affairs.

“I” grades will not be included in the computation of grade point average. An “I” grade may affect a student’s financial aid. Students should contact the Financial Aid Office on their campus for further information.

## Adding/Dropping Courses

Before adding or dropping a class or classes, students should consult their Academic Advisor.

### “Never Attended” Policy

Refunds are given only when students complete and submit Add/Drop forms (or when eligible students drop via the Student Information System) in accordance with the refund policy, and within established dates for each semester. As a result, students who are reported by instructors as having “Never Attended,” for a class during the first two weeks of a semester (or during a prorated time frame for alternative semesters) are administratively withdrawn. Those students may remain financially responsible for the classes in which they were enrolled but receive no grades.

### Academic attendance and academically-related activity includes but is not limited to:

- Physically attending a class where there is an opportunity for direct interaction between the instructor and students;
- Submitting an academic assignment or working draft;
- Taking a quiz or exam or completing an interactive tutorial;
- Attending a study group assigned by the school;
- Participating in an online discussion or text chat session about the academic subject; and
- Initiating contact with a faculty member to ask a question about the course’s academic subject.

The definition of academic attendance and academically-related activity **does not include activities where a student may be present, but not academically engaged**, such as:

- Submitting a self-introduction;
- Logging into Canvas or a website without active participation; or
- Participating in academic counseling or advising.

### Add Policy

Students are allowed to add classes up to and including the seventh (7th) calendar day of the semester (prorated for alternative semester lengths - see chart below), if space is available. Students who add classes are subject to the full attendance policy and held responsible for all course materials and assignments. Before adding a class, the student should consult with the instructor to determine the extent of make-up work necessary for success in the course. A course may be added after the seventh calendar day of the semester with the permission of the instructor\*.

Alternative Semester Chart (If Day 2, 3, 4, 5, or 7 falls on a weekend or holiday, that day will be the first business day following the weekend or holiday.)	
Semester Length	Add Period
15-16 weeks	Day 1-7
9-14 weeks	Day 1-5
7-8 weeks	Day 1-4
5-6 weeks	Day 1-3

3-4 weeks	Day 1-2
2 weeks or less	Day 1 only

Example: If class started on Thursday, but the semester started on Monday, Day 1 would be that Monday, not Thursday.

### Exceptions to Add Policy

1. 100 percent online classes: If the semester or course has started, a student may add a 100 percent online class with the permission of the instructor\* (and advisor if matriculated).
2. Lab Classes: If the semester has started, a student may add a class with a lab component if the first class has not been missed. Once the first class has been missed, the student may add the course with the permission of the instructor\* (and advisor if matriculated). Examples of lab classes include lab sciences, computer technology, information systems technology, and drawing. Final decisions regarding what is considered a lab class rest with Academic Affairs.

*\*The program chair or program coordinator may sign the add form if the instructor is unavailable.*

### Drop Policy

A student who officially withdraws from the College or an individual course by the end of the fourteenth (14th) calendar day of the semester will receive a 100 percent refund of tuition, less nonrefundable fees. Non-refundable fees include the advanced tuition deposit. Students in classes that meet in a format different than the traditional, 15-16 week semester may have seven (7) calendar days from the start of the different semester (not class) to withdraw for a full refund. If the seventh (7th) or fourteenth (14th) calendar day falls on a weekend or holiday, the drop refund date will be the first business day following the weekend or holiday. All refunds require the student to complete an official withdrawal form, unless dropping via SIS within the established due date.

Example: A student in a late-start, 12-week class has seven (7) calendar days from Monday (start of the 12-week semester) to drop with 100 percent refund. Because the seventh (7th) day falls on Sunday, the students may drop with 100 percent refund by the next business day after Sunday.

### Exception to Drop Policy

Students in courses that meet for two weeks or fewer must drop by the end of the first day of the course to receive a 100 percent refund.

### When a student officially drops a class:

1. Up through the 60 percent point of the course, the student will receive a “W” Withdraw grade on his or her transcript.
2. After the 60 percent point of the course, the student will receive “WP” Withdraw Pass or “WF” Withdraw Fail on his or her transcript. The “WP” is not calculated in the GPA. The “WF” is calculated in the GPA as an “F”.

### Academic Amnesty

A student who attended Great Bay Community College previously and is admitted at a later time may be eligible for Academic Amnesty, which provides for the following:

1. All grades taken during the student’s previous time at the College will no longer be used to calculate the student’s new, cumulative GPA. However, grades of C- and above taken during the student’s previous time at college will be used to meet course requirements where appropriate, subject to the approval of the Vice President of Academic Affairs.

2. Even though previous grades will not be used to calculate the new, cumulative GPA, all previous grades will remain on the student's transcript. To be eligible for Academic Amnesty, a student must meet all of the following conditions:
  1. The student has not taken any courses at the College for a period of at least 3 years from last semester of attendance.
  2. The student applies for Academic Amnesty before the start of his or her second semester after readmission.
  3. The student has never before received Academic Amnesty.
  4. The student achieved a cumulative GPA below 1.7 during previous attendance.

### **Withdrawal from the College**

Any student needing to withdraw from the College should fill out a College Withdrawal form from the Registrar's Office or the Drop Form from the College Services One Stop and check the box "This is a College Withdrawal." Withdrawing students are required to see the Business Office to settle any unpaid balances or arrange for any refunds.

### **Medical Leave Policy**

A matriculated student who, due to a serious medical condition requiring extended, in-patient treatment in a medical facility or ongoing outpatient medical treatment, becomes unable to complete established, academic requirements, or who becomes unable to meet a program's technical standards, or the requirements of the Student Code of Conduct, may apply for a formal Medical Leave of Absence for up to two consecutive semesters.

Students considering a medical leave of absence should be aware that approval of a medical leave does not release a student from financial responsibility to the College. Any student seeking a medical leave of absence as a financial aid recipient should contact the Financial Aid Office to discuss the leave and any consequences that may result in a change in financial aid eligibility.

Students requesting Medical Leave of Absence must:

1. Provide a letter to the Vice President of Academic Affairs indicating program of study, the medical reason for the request, a proposed date on which the medical leave will begin, and a proposed date for readmission. AND
2. Provide the Vice President of Academic Affairs with documentation of the medical condition from a licensed health care professional directly involved in the treatment of the student's condition. The documentation should be substantial to facilitate the decision-making process.

The Vice President of Academic Affairs will notify the student in writing to approve or deny the request and state the conditions for readmission. Students whose medical leave requests are granted will not be required to reapply for admission at the end of the leave period, provided that all conditions for readmission are met.

## **Academic Placement Policy**

Any student admitted into a degree program at Great Bay Community College will be required to take placement tests in reading, writing, and mathematics unless waived through multiple measures. Computer skills testing will also be required as appropriate to the degree. The goal of placement testing is to identify areas of strength and weakness so that students are appropriately placed into math, English, and computer courses. Placement testing may also be required for other courses that are impacted by math, writing, reading, and technology competencies. In some cases, placement testing may determine acceptance into a program. Students who are applying to a certificate program may have testing requirements specific to that certificate. Certificate testing requirements are located in Admissions, Academic Affairs, and the Center for Academic Planning and Support (CAPS) as well as online at [Placement Testing](#).

Great Bay Community College's placement policy may be waived, in full or part, for those individuals who have met one or more of the following conditions. Placements can also be made directly from recent SAT scores but may include developmental coursework. Students who are accepted into the Nursing program are not required to take the accuplacer exam because they have already completed pre-entrance testing with the ATI TEAS exam. If you have questions about what tests you need for your program, contact Admissions at [gbadmissions@ccsnh.edu](mailto:gbadmissions@ccsnh.edu).

### Placement Testing Waivers

<b>Math</b>	SAT/ACT scores within 7 years	Prior Accuplacer scores within 3 years	Algebra II or higher in HS with appropriate grade	College equivalency through AP, Running Start, Early College, CLEP, or other credits	Appropriate level of developmental coursework
<b>Reading</b>	SAT/ACT scores within 7 years	Prior Accuplacer scores within 3 years	College Prep class in Sr year or Honors level class in Jr/Sr year of HS with appropriate grade	College equivalency through AP, Running Start, Early College, CLEP, or other credits	Appropriate level of developmental coursework
<b>Writing</b>	SAT/ACT scores within 7 years	Prior Accuplacer scores within 3 years	College Prep class in Sr year or Honors level class in Jr/Sr year of HS with appropriate grade	College equivalency through AP, Running Start, Early College, CLEP, or other credits	Appropriate level of developmental coursework
<b>Computer</b>		Prior CSP/ Northstar scores within 3 years	Appropriate level HS computer applications or programming class	College equivalency through Running Start, Early College, or other credits	Appropriate developmental coursework

ACCUPLACER\*\* is a computer-based assessment that is adaptive in nature, selecting questions based on prior responses to get the most information in the least amount of time. College advisors will use placement scores along with other important information to develop an academic schedule that is right for each student. The Northstar Digital Literacy test is used for placement in computer and digital media courses.

Any student with a documented disability may request appropriate testing accommodations from the Accessibility Services Coordinator. Students who are non-native speakers of the English language may access a variation of the placement test that will determine course placement based on assessed levels of English proficiency. For more information, contact CAPS at 603-427-7621 or [greatbaycaps@ccsnh.edu](mailto:greatbaycaps@ccsnh.edu).

*\*\*ACCUPLACER is a product of The College Board, a division of the Educational Testing Service (ETS). Please note, changes to Accuplacer and SAT tests or GBCC placement research may result in changes to the above at any time*

## Completion of Course Credits

Only courses taken at the College will be used to calculate the cGPA. A matriculated student who presents evidence supporting education in one or more courses applicable to the student's program of study may request that the credits and experiences be evaluated and applied to graduation requirements. Final determination of transferability rests with the Vice President of Academic Affairs. Methods of gaining advanced standing are as follows:

1. Transfer Credit Policy
2. Awarding college credit for military training, experience and course work
3. College Level Examination Program (CLEP)
4. Credit by Examination (Challenge)
5. Credit for Prior Learning Experience (PLA)
6. Advanced Placement (AP) Credit
7. NOCTI (National Occupational Competency Testing Institute)
8. First Year Seminar Equivalency

## 1. Transfer of Credit from Another Institution

Students may transfer credits earned at other accredited institutions, including various colleges and universities, the Community College of the Air Force, Armed Services Education Experiences as outlined in the Armed Services Evaluation Guide, and USAFI courses, for major coursework required by programs at Great Bay Community College. It is the student's responsibility to furnish the College with official transcripts of academic courses from any institution attended, and a catalog from each institution attended with course descriptions for which transfer credit is sought. Grades of "C" or better in courses judged by the College to be equivalent in nature and content to Great Bay Community College offerings will be accepted. Final determination of transferability rests with the Vice President of Academic Affairs. Students seeking degrees or certificates at Great Bay Community College must fulfill residency requirements. The student must have a minimum of 60 credits to complete a degree and must complete all required courses for his or her academic program. A student who transfers in three credit math or science courses or ENGL110 College Composition I may need to take additional elective courses to meet the degree credit minimum.

Students with foreign transcripts must submit the following for transfer credit review:

1. Original College Transcript (not Diploma), translated (if not in English), that lists all courses taken, grading system, and grades earned.

AND

2. Official Course-by-Course Evaluation by a third-party agency. Example agencies include, but are not limited to:
  - SpanTran (offers discounts to GBCC students) <https://spanside.secure.force.com/SpantranApplication?Id=77fb5ff2-dbe7-40809f1f-98574c792466>
  - World Education Services (WES) [www.wes.org](http://www.wes.org)
  - Center for Educational Documentation (CED) [www.cedevaluations.com](http://www.cedevaluations.com)
  - Educational Credential Evaluators (ECE) [www.ece.org](http://www.ece.org)

## 2. Awarding College Credit for Military Training, Experience and Course Work

Great Bay Community College values and respects the contributions and sacrifice made by our service men and women. This policy recognizes their service and the knowledge, skills, and experience gained while in service to the nation. This policy outlines the process by which military education and training shall be recognized and appropriate credit awarded:

- College credit will be granted to students with military training, experience, or coursework that is recognized by the American Council on Education (ACE).
- Any student seeking credit for military experience will submit a hardcopy of his or her military transcript as soon as possible to the Admission Office for review and evaluation.
- Great Bay Community College will use the American Council on Education (ACE) Guide to the Evaluation of Educational Experiences in the Armed Services to evaluate and award academic credit for military training, experience, and coursework.
- If the course to which the military training, experience, or coursework is equivalent and fulfills a general education or major course or degree program requirement at the receiving institution, the credit should count towards graduation and meet a requirement accordingly. Otherwise, appropriate course credit, including open elective course credit, will be granted.
- Credits earned via military training, experience, and coursework are transferable among the colleges of CCSNH if they meet the degree requirements of programs at the receiving institutions.

## 3. College Level Examination Program (CLEP)

Students with previous academic experiences in specific subject areas may choose to earn credits by taking the nationally standardized exam known as CLEP. Great Bay Community College is an approved testing site for CLEP, providing examinations in the areas of Composition and Literature, Foreign Languages, Social Sciences,

History, Science, and Mathematics. A complete list of the CLEP exams accepted for credit by the College, along with corresponding course names and credits, is available in CAPS (Center for Academic Planning and Support) and at [CLEP Testing](#).

Successful completion of a CLEP exam is treated as a transfer credit. Any student completing a CLEP exam must request that CLEP scores be sent to the College for review. The request is made to the College Board and can be done during or after the exam. Acceptance of CLEP exams for transfer credits will be based on the following criteria:

- The student has earned a passing score as defined by the College Board and Great Bay Community College.
- The student has been accepted into a program at the College.
- There is a course within the student's program of study that is equivalent to the CLEP exam.

Although CLEP credits count towards graduation, CLEP scores are not calculated into a student's GPA or in any way interpreted as a grade. Additionally, CLEP credits may not be applied towards GBCC's twenty-five percent residency requirement. Students may not transfer CLEP credits for a course they have successfully completed or for a course that is more advanced than the subject of the exam. Any student who fails a GBCC course and wishes to take a CLEP exam for credit in lieu of retaking the course must realize that the original grade received will remain on his/her transcript and will be counted in the GPA. The CLEP exam score does not replace a grade for a GBCC course. Students should speak with their academic advisor if they have questions regarding this process. CLEP exams are administered on the computer (CLEP CBT) through the Center for Academic Planning and Support. For further information, contact the CAPS Liaison at (603) 427-7621.

#### **4. Credit by Examination (Challenge Exam)**

Not all courses are appropriate for credit by examination. Individual departments will be responsible for determining if a course is eligible for credit by examination. Credit by examination may be earned only by a matriculated student who, by study, training or experience outside the CCSNH College has acquired skill or knowledge equivalent to that acquired by a student enrolled in The College. A student is eligible for a maximum of sixteen (16) credits through credit by examination. Students shall pay an examination fee as set by the Board.

If the student passes the exam, using criteria developed by the respective department, appropriate credits shall be applied to the student's academic record, and a notation will be entered on the student's transcript indicating successful completion. Since a traditional grade (A-F) is not entered, the Credit by Exam is not calculated into the student's GPA. If the student fails to pass the exam, no entry is made on the academic transcript, but a record of the unsuccessful completion will be maintained in the student's file. A student who does not pass the Credit by Exam will be ineligible for another Credit by Exam in that course.

The student should complete the form available in Academic Affairs and meet with the chair or coordinator of the program to discuss obtaining credit by examination. Final approval must be provided by the Vice President of Academic Affairs. No exam will be issued until all fees are paid and all approvals have been obtained. The date for the exam will be determined by the instructor administering the exam and will take place within 30 days after the date of the instructor's approval

#### **5. Credit for Prior Learning - Experiential Learning**

Credit for Prior Learning offers students an opportunity to demonstrate knowledge gained through life experiences and apply the knowledge towards credit in a degree or certificate program. To prepare for this option, the student must develop a portfolio to be assessed by appropriate college personnel. A student must be matriculated to be eligible to apply for experiential credit. Not all programs provide the experiential credit option, and students should consult with their program chairs. Students may be awarded a maximum of 24 credits for experiential learning.

A request for Credit by Prior Learning should initiate with the chair or coordinator for program in which the student wishes to receive course credit. After initial discussion, the student should submit the appropriate approval form available in the Academic Affairs Office. Upon approval, the student must develop a portfolio that demonstrates achievement of the course objectives and competencies. The portfolio must contain at minimum a cover letter and resume, extensive work experience explanations, letters from employers, certificates of accomplishment, samples of work, and other information deemed appropriate. The responsibility of proof will be on the student requesting evaluation. The completed portfolio is reviewed by an appropriate faculty member, the department chairperson, and the Vice President of Academic Affairs.

## **6. Advanced Placement (AP) Credit**

Transfer credit may be awarded for appropriate, outstanding secondary school work as demonstrated through Advanced Placement (AP) exams. Any student seeking to receive AP credit must request an official AP grade report be sent to Great Bay Community College for evaluation.

## **7. NOCTI**

Course credits may be completed through National Occupational Competency Testing Institute (NOCTI) Assessments, or certain Licensure or Certification Exams recognized by industry. Industries include fields such as business, health, automotive, etc. Final determination of transferability rests with the Vice President of Academic Affairs.

## **8. First Year Seminar Equivalency**

The College offers a course called the First-Year Seminar that is designed to provide specific skills to students to maximize academic performance. The course is required by several programs of study. Credit for this course may be awarded if:

- The student has previously completed an Associate or Bachelor's degree from an accredited college or university, including Great Bay Community College.
- The student attended an accredited college or university other than Great Bay Community College and completed a minimum of 12 credits (excluding developmental and Pass grades) with at least a 2.7 cumulative grade point average.
- The student has eligible transfer credit.

## **9. Independent Study for Matriculated Students**

Opportunities for credit-bearing independent study are available to matriculated students wishing to explore areas of a discipline not covered in the normal curriculum but related to the student's program. Independent study is not available to non-matriculated students. Matriculated students must have a minimum cGPA of 2.0 to be eligible for independent study. Typically undertaken for 1-2 credits, an independent study may not be done in lieu of any course existing in Great Bay Community College's catalog. The final approval rests with the Vice President of Academic Affairs.

## **10. Directed Study for Matriculated Students**

Under certain circumstances, a matriculated student may take a course in a semester during which the course is not offered. A directed study allows a matriculated student to pursue the published learning objectives and outcomes for a course independently under the guidance of a qualified faculty member. A matriculated student must have a minimum GPA of 2.0 to be eligible for a directed study. The student must demonstrate compelling reasons why the course could not be taken in a subsequent semester or was not taken in the semester when it was originally offered. Barring exceptional circumstances, a directed study will not be granted for a course currently being offered. The final approval rests with the Vice President of Academic Affairs.

Any student who pursues advanced standing in a program via transfer credit, CLEP, AP, Credit by Examination or Credit for Prior Learning, or a combination thereof, must meet the College's residency requirement.

## Residency Requirement

To establish residency in an institution, the following is required:

1. For an Associate Degree, a minimum of fifteen (15) semester credits must be completed either as a full-time student, a continuing education division student, or a combination of each from credit courses offered directly by and under the full control of the institution concerned. At least eight (8) credits must be taken in advanced level courses in the student's major.
2. For a Certificate, a student must complete at least 6 credits or 25 percent of the credits, whichever is larger, required for the Certificate at the institution from which it is awarded.

## Transfer to Other Institutions

Transfer policies vary from institution to institution. When transfer to another institution is sought, the number of transfer credits granted for courses completed at Great Bay Community College is determined by the institution to which the student transfers.

### Transcripts

Effective March 1, 2022, colleges within the Community College System of NH charge \$5.00 per transcript. E-Transcripts can be requested from the "E-Transcript Request" link on the GBCC website.

Students looking for GBCC transcripts for coursework completed prior to 1992, transcripts for noncredit coursework, unofficial transcripts (no charge), or students who need to send an attachment along with transcript must use the "Paper Transcript Request Form" link on the GBCC website.

All seven colleges within the Community College System of NH (Great Bay, Lakes Region, Manchester, Nashua, NHTI, River Valley, White Mountains) can view all grades from within the System. Transcripts do not need to be sent to other CCSNH colleges. Please contact your campus to let them know you have grades from another CCSNH college or colleges.

No official transcript will be furnished until financial obligations to the appropriate CCSNH College(s) have been satisfied. Students in default of any CCSNH-managed student loan payments or students that have a past due balance at any CCSNH College may request an unofficial transcript.

## Academic Honor

**President's List:** Any student enrolled in a degree program carrying a minimum of 12 semester credits and earning a grade point average of 3.70 or higher for a given semester will be placed on the President's List for that semester.

**Vice President's List:** Any student enrolled in a degree program carrying a minimum of 12 semester credits and earning a grade point average of 3.30 – 3.69 for a given semester will be placed on the Vice President's List for that semester.

**Graduation Honor:** Degree students who graduate within the appropriate range of cumulative grade point averages are designated with the honor list.

3.30 – 3.59	Cum Laude (with Honors)
3.60 – 3.89	Magna Cum Laude (with High Honors)
3.90 – 4.00	Summa Cum Laude (with Highest Honors)



# Academic Standing

**Academic Standards:** Students falling below the following standards will be designated as not meeting satisfactory academic progress. Failure to meet satisfactory progress will result in either Academic Probation or Academic Suspension. Calculation of Cumulative Grade Point Average (CGPA) will be based on all courses taken at the institution, including developmental or remedial courses.

Grade	Counts as Accumulated for Academic Standing (Counted in GPA):
Letter Grades A-F	Yes
WF	Yes
AF	Yes

**Academic Probation Definition:** Academic probation is a warning that indicates the student may not be on track to graduate due to poor academic performance. The student may remain in the program, and the student's academic progress will be monitored. Students not meeting the criteria below will be placed on Academic Probation:

0-13 Accumulated GPA credit hours:	1.50 CGPA
14-27 Accumulated GPA credit hours:	1.70 CGPA
28-40 Accumulated GPA credit hours:	1.80 CGPA
41+ Accumulated GPA credit hours:	2.00 CGPA

**Note: Financial Aid may be in jeopardy if a student fails to achieve satisfactory academic progress as defined above.**

**Academic Suspension Definition:** Students who remain on Academic Probation for three consecutive semesters will be placed on Academic Suspension.

**or**

Students not meeting the criteria below will be put on Academic Suspension:

0-13 Accumulated GPA credit hours:	0.50 CGPA
14-27 Accumulated GPA credit hours:	1.10 CGPA
28-40 Accumulated GPA credit hours:	1.25 CGPA
41+ Accumulated GPA credit hours:	1.50 CGPA

A student who is placed on Academic Suspension may no longer remain in the program and may not apply for readmission for a minimum of one semester, unless approved through the College Suspension Recovery Program.

## Suspension Recovery Program

Any student who receives a letter of Academic Suspension has three options.

1. The student may stop-out (stop attending) the College for one or more semesters and reapply after a minimum of one semester.
2. The student may take Liberal Arts classes as a non-matriculated student (not admitted to a degree or certificate program) and reapply to a program after a minimum of one semester.
3. Students may enroll in the College's Suspension Recovery Program through a Continued Participation Agreement (CPA). The CPA option allows the student to continue matriculation in a degree program on a contractual basis. Enrollment in CPA has no bearing on a student's eligibility for Financial Aid. The process for enrolling in CPA will be outlined in the Academic Suspension letter to the student.

## **Program Suspension**

Some programs have program and grade requirements that supersede academic standing classifications. These programs include Nursing, Massage Therapy, Surgical Technology, and Veterinary Technology. Failure to achieve program and grade requirements may result in Program Suspension. Each program provides an individual appeal process and has specific policies and procedures for readmission. For more information, please see individual programs. Students suspended from these programs are ineligible for the Suspension Recovery Program.

## **Grade Appeal Policy**

Any appeal of a grade must be initiated by the student with the instructor before an ensuing semester has elapsed. In most instances, a grade may be changed only by the instructor of a course. The Vice President for Academic Affairs may alter a student's grade in a case of obvious computational error or blatant abuse of the grading prerogative. \*

Any student who believes he or she has reasonable grounds for a grade appeal must use the following process to submit the appeal:

1. Meet with the instructor. The student shall contact the faculty member and schedule a meeting to discuss the grade appeal and attempt to resolve the conflict. The faculty member and student will meet within the next five (5) workdays. \*\*
2. Meet with the program director or department chair. If the issue was not resolved in Step 1, the student has three (3) work days from the date of the faculty member's decision to file a written appeal with the faculty member's program or department chair, or with the Vice President of Academic Affairs (VPAA) if the faculty member is also the department chair or program director. Within three (3) workdays the department chair (or VPAA) will mediate the dispute through discussion with the instructor, or with the student in the company of the instructor. If no resolution is reached, proceed to step 3.
3. File a written appeal with the Vice President of Academic Affairs (VPAA). If the issue is not resolved in Step 2, the student has three (3) workdays to file a written appeal with the VPAA. The letter of appeal must include the student's name and contact information, the course name and number, the semester in which the course was taken, the student's grade, the name of the instructor issuing the grade, and specific evidence of obvious computational error or blatant abuse of the grading prerogative.\* The VPAA will have ten (10) work days from receipt of the written appeal to render a decision. The decision of the VPAA is final.

*\*Note that "blatant abuse of the grading prerogative" refers to situations in which an instructor has willfully ignored published grading and assessment criteria and/or has exhibited bad faith by acting in violation of published performance/behavior standards for faculty.*

*\*\*There are times, especially during the summer, that the schedules of the faculty member, the department chair, and Vice President are incompatible with the timeframes specified above. A student who has been unsuccessful in attempting to reach the faculty member may contact the Academic Affairs office directly. A representative of the Academic Affairs office will make every attempt to arrange the required meeting with the instructor and department chair within the five (5) days indicated in Step 1. Students are advised, however, that arrangement may not be possible in all cases.*

## **Academic Warning**

The instructor may give a student a warning at any time if the student is failing or in danger of failing a course.

## Academic Honesty

Meaningful learning occurs in an environment of intellectual honesty. As future professionals, students have a responsibility to themselves and society to conduct their academic studies with integrity. Great Bay Community College will not allow plagiarism or cheating and will create an environment in which intellectual curiosity and honesty are valued.

Refer to the Student Handbook for definitions of Cheating and Plagiarism (Section VI). Instructors are empowered to impose sanctions as outlined in the Student Code of Conduct and Judicial Process. Violations will be referred to the Academic Affairs office.

## Academic Privacy

The Family Educational Rights and Privacy Act (FERPA) afford eligible students certain rights with respect to their education records. (FERPA rights apply at the point of matriculation or registration, regardless of minor status. The identifying status is the process which makes the individual a student at this college.) These rights include:

1. **The right to inspect and review the student's education records within 45 days after the day the College receives a request for access.**

A student should submit to the registrar, vice president, head of the academic department, or other appropriate official, a written request that identifies the record(s) the student wishes to inspect. The College official will make arrangements 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, that official shall advise the student of the correct official to whom the request should be addressed.

2. **The right to request the amendment of the student's education records that the student believes is 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, clearly identify the part of the record the student wants changed and specify why it should be 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 the request for amendment. Additional information regarding the hearing procedures will be provided to the student when notified of the right to a hearing.

3. **The right to provide written consent before the College discloses personally identifiable information (PII) from the student's education records, except to the extent that FERPA authorizes disclosure without consent.**

The College discloses PII without a student's prior written consent under the FERPA exception for disclosure to College officials with legitimate educational interests. A College official is a person employed by the College in an administrative, supervisory, academic, research, or support staff position (including law enforcement unit personnel and health staff); a person serving on the board of trustees; or a student serving on an official committee, such as a disciplinary or grievance committee. A College official also may include a volunteer or contractor outside of the College who performs an institutional service or function for which the College would otherwise use its own employees and who is under the direct control of the College with respect to the use and maintenance of PII from education records, such as an attorney, auditor, or collection agent or a student volunteering to assist another College official in performing his or her tasks. A College 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. Upon request, the College also discloses PII without consent to officials of another institution in which a student seeks or intends to enroll.

Except for disclosures to College officials, disclosures related to some judicial orders or lawfully issued subpoenas, disclosures of directory information, and disclosures to the student, §99.32 of FERPA regulations requires the institution to record the disclosure. Eligible students have a right to inspect and review the record of disclosures.

- 4. The right to be notified annually by the College of what student record information the College designates as “directory information,” and the right to request that no student information be designated as directory information.**

The College may release student record information designated as “directory information” without a student’s consent. “Directory information” is information that is generally not considered harmful to the individual and does not constitute an invasion of privacy if released. The College identifies the following student information as directory information: name, address, email address (CCSNH only), telephone number, major field of study, dates of attendance, enrollment status i.e. full-time or part-time, degrees/honors/awards, most recent educational institution attended, and participation in officially recognized activities and sports. If you do not want the College to disclose directory information from your education records without your prior written consent, you must notify the College’s Registrar, in writing. Your request shall remain in effect until withdrawn by you in writing.

If the College receives a request for student recruiting information from the Department of Defense (DOD), or one of its affiliated agencies, the College will release the student recruiting information requested. Because the information sought by the DOD may include information not designated as directory information under the College’s policy, compliance with the DOD’s request may result in the nonconsensual release of PII.

- 5. The right to file a complaint with the U.S. Department of Education concerning alleged failures by the College to comply with the requirements of FERPA. The name and address of the Office that administers FERPA is:**

Family Policy Compliance Office

U.S. Department of Education

400 Maryland Avenue, SW Washington, DC 20202

The Family Educational Rights and Privacy Act (FERPA) prohibits an institution of higher education from releasing most student record information to any requesting third party, absent the student’s prior written consent. Failure of the College to comply with FERPA may result in a violation of federal law and jeopardize the College’s federal funding.

## Immunization Policy

Students, regardless of age, who are accepted into a CCSNH program requiring participation in a clinic, practicum, internship, co-op, or field experience, or students who participate in inter-collegiate athletics, must present documented proof of immunization against measles, mumps, rubella, tuberculin skin infection and tetanus before participation can be approved. Individual colleges may include additional groups or constituencies at their discretion. Records will be maintained by the department requiring immunization documentation, or by another office or individual deemed appropriate by The College. See individual program requirements.

## Information Technology Acceptable Use

### 1. Policy Statement

Information technology resources are used by individual employees, students, and other persons affiliated with the Community College System of New Hampshire (CCSNH) and its Colleges. These resources are to be used for educational and business purposes in serving the interests of CCSNH and its Colleges. Misuse of

information technology resources poses legal, privacy and security risks and therefore it is important for all users to understand the appropriate and acceptable use of such resources. Effective security and protection is a team effort. It is the responsibility of every user to know this policy, the standards contained herein, and to conduct their activities accordingly.

## 2. Policy Purpose

This policy establishes the proper use of CCSNH information technology resources and makes IT Users aware of what CCSNH deems as acceptable and unacceptable use.

## 3. Scope of Policy

This policy applies to employees, students and any other person who has access to CCSNH information technology resources including computers, email, Internet, social media, the network and any other CCSNH information technology or storage system (collectively "IT Users"). All IT Users are responsible for exercising good judgment regarding appropriate use of information, electronic devices, and network resources in accordance with CCSNH policy and standards.

## 4. Privacy

CCSNH reserves the right to monitor, duplicate, record, and/or log all use of CCSNH technology resources with or without notice. This includes, but is not limited to, email, Internet access, file access, logins, and/or changes to access levels. **IT Users shall have no expectation of privacy in the use of CCSNH technology resources.**

## 5. General Use, Access and Ownership

1. CCSNH Information Assets stored on electronic and computing devices, whether owned or leased by CCSNH, employees, students, or a third-party, remain the property of CCSNH. Computer and telecommunication equipment, software, operating systems, storage media, Intranet, network accounts providing electronic mail, Internet access and browsing, and related network systems, are the property of CCSNH. These systems are to be used for educational and business purposes serving the interests of CCSNH and its Colleges

**Access to CCSNH technology resources is a privilege, not a right.**

1. CCSNH technology resources include, but are not limited to, computers, equipment, email, Wi-Fi, Internet access and browsing, Intranet, social media, telecommunications and network services, video network services, web services, software, applications, printing and scanning services, and user and technical support provided by Information Technology Staff. Accepting access to any CCSNH technology resource carries an associated expectation of responsible and acceptable use. Failure to meet the standards set forth herein or constitutes a violation of this policy and may result in disciplinary action up to and including termination or denial of access, termination of employment or, for students, dismissal from the College.
2. IT Users may access, use and share CCSNH Information Assets only to the extent and for such purposes that access is authorized. This policy expressly prohibits accessing or attempting to obtain unauthorized access, supplying false or misleading information to access, and circumventing user authentication or security of any host, network or account. IT Users are prohibited from accessing data not intended for the IT User, logging into a server or account without express authorization, and probing the security of systems or networks without express authorization.
3. An IT User's access to technology is not transferable. Access privileges may not be shared with any other person.
4. IT Users have a responsibility to promptly report the theft, loss or unauthorized disclosure of CCSNH Information Assets.

5. CCSNH reserves the right to immediately, and without prior notice, disconnect any system or terminate any user access to protect the security of CCSNH technology resources, CCSNH Information Assets, and CCSNH IT Users.
6. **Password Security and Protection**
  1. Passwords are a critical component of information security. Passwords serve to protect user accounts; however, a poorly constructed password may result in the compromise of individual systems, data, or the network. CCSNH has established the following standards for password security and protection.
7. IT Users should create passwords that:
  2. Contain at least 14 alphanumeric characters and not more than 64 alphanumeric characters.
  3. It can be a combination of any upper and lower case letters, numbers and special characters.
  4. It can be a phrase.

6.3 IT Users should not create passwords that:

- Can be found in a dictionary, including foreign language, or exist in a language slang, dialect, or jargon.
  - Contain personal information such as birthdates, addresses, phone numbers, or names of family members, pets, friends, and fantasy characters.
  - Contain work-related information such as building names, system commands, sites, companies, hardware, or software.
  - Contain number patterns such as aaabbb, qwerty, zyxwvuts, or 123321.
  - Contain common words spelled backward or preceded or followed by a number (for example, terces, secret1 or lsecret).
  - Are some version of “Welcome123” “Password123” “Changeme123”
1. IT Users should not write passwords down or store them anywhere in their office or in a file on a computer system or mobile devices (phone, tablet) without encryption. Instead, IT Users should create passwords that can be remembered easily. One way to do this is to create a password based on a song title, affirmation, or other phrase. For example, the phrase, "This May Be One Way to Remember" could become the password TmB1w2R! or another variation.
  2. All system-level passwords (for example: root, enable, NT admin, application administration accounts, and soon) must be changed on at least a quarterly basis.
  3. All user-level passwords (for example: email, web, desktop computer, and so on) must be changed at least every twelve months. The recommended change interval is every four months.
  4. Passwords must not be shared with anyone, including administrative assistants, secretaries, managers, co-workers, and family members. All passwords are to be treated as sensitive, confidential CCSNH information.
  5. Passwords must not be inserted into email messages or other forms of electronic communication or saved using the "Remember Password" feature of applications (for example, Internet browsers). Any IT User suspecting that his/her password may have been compromised must report the incident and change all passwords.
  6. **Unacceptable Use**

7.1 System and Network Activities

The following activities are strictly prohibited:

1. Connecting computers or other devices directly to the CCSNH network that have not been registered with, or approved by, CCSNH.
2. Installing software or hardware on or modifying the software or hardware configuration of a CCSNH-owned IT asset without appropriate authorization from CCSNH Chief Information Officer.
3. Violations of the rights of any person or company protected by copyright, trade secret, patent or other intellectual property, or similar laws or regulations, including but not limited to, the installation or distribution of “pirated” or other software products that are not appropriately licensed for use by CCSNH.

4. Unauthorized copying of copyrighted material including, but not limited to, digitization and distribution of photographs from magazines, books or other copyrighted sources, copyrighted music, and the installation of any copyrighted software for which CCSNH or the end user does not have an active license is strictly prohibited.
5. Violation of federal, state or local laws and regulations regarding access and use of information resources (e.g., Family Education Rights and Privacy Act, Gramm-Leach-Bliley Act, Computer Fraud and Abuse Act, code of professional conduct, etc.).
6. Except for Internet browsing, accessing data, a server or an account for any purpose other than CCSNH educational or business purposes, even if access is otherwise authorized, is prohibited.
7. Exporting software, technical information, encryption software or technology, in violation of international or regional export control laws, is illegal. The appropriate CCSNH official should be consulted prior to export of any material that is in question.
8. Introduction of malicious programs into the network or server (e.g., viruses, worms, Trojan horses, email bombs, etc.)
9. Using a CCSNH technology resource to actively engage in procuring or transmitting material that is in violation of sexual harassment or hostile workplace laws and policies.
10. Effecting security breaches or disruptions of network communication.
11. Security breaches include, but are not limited to, accessing data that the IT User is not an intended recipient of or logging into a server or account that the IT User is not expressly authorized to access. For purposes of this section, disruption includes, but is not limited to, network sniffing, pinged floods, packet spoofing, denial of service, and forged routing information for malicious purposes.
12. Using any kind of program, script, or command designed to interfere with a user's computer or network session or collect, use or distribute another user's personal information.
13. Port scanning, security scanning and executing any form of network monitoring that will intercept data not intended for the IT User's host.
14. Circumventing user authentication or security of any host, network or account.
15. Introducing honeypots, honeynets, or similar technology on the CCSNH network.
16. Interfering with or denying service to any user other than the IT User's host (for example, denial of service attack).
17. Providing information about, or lists of, CCSNH employees or students except as expressly authorized.

## 7.2 Email and Communication Activities

CCSNH faculty and staff must use their assigned CCSNH email address for all email communication to students and other official business of CCSNH and its Colleges. CCSNH faculty and staff shall not forward CCSNH email to personal email addresses.

When using CCSNH technology resources to access and use the Internet, users must realize that their communications may be viewed as representing CCSNH unless they clearly indicate otherwise.

The following activities are strictly prohibited:

1. Sending unsolicited email messages including sending "junk mail," chain letters, Ponzi or other pyramid schemes of any type, or other inappropriate use of email distribution lists.
2. Any form of harassment via email, telephone or texting, whether through language, frequency, or size of messages.
3. Unauthorized use, or forging, of email header information.
4. Unauthorized use of CCSNH and its Colleges registered Internet domain names.
5. Solicitation of email for any other email address, other than that of the sender's account with the intent to harass or to collect replies.

## 7.3 Blogging and Social Media

1. CCSNH employees who engage in blogging or use social media, whether using CCSNH's technology resources or personal computer systems, should at all times be accurate, should exercise appropriate restraint, should show respect for the opinion of others, and should make every effort to indicate when the CCSNH employee is and is not an institutional spokesperson.
2. When an employee is expressing his or her beliefs and/or opinions in blogs or social media, the employee may not, expressly or implicitly, represent themselves as a representative of CCSNH or its Colleges.
3. The name, seal, images and other insignia of CCSNH or any of CCSNH's Colleges shall not be used without the express written permission of CCSNH.
4. CCSNH hosted web pages and blogs are not to be used for activities unrelated to the business purposes or educational mission of CCSNH or its Colleges without prior written authorization.
5. CCSNH IT Users are prohibited from revealing any CCSNH confidential or proprietary information, trade secrets or any other Restricted Internal, Confidential or Private Information when engaged in blogging or use of social media.

## Service Learning

Service learning combines community service with academic instruction. Students enrolled in courses with a service-learning component as part of the academic experience are guided through a critical analysis of what they observe in the field and what is presented in class.

The service-learning approach enhances the breadth and depth of student learning in at least three domains:

- Academics and higher order cognitive skills
- Life skills
- Sense of civic responsibility and ability to be an effective member of the communities where they will reside after graduation

The service-learning program focuses on promoting service learning as an effective teaching strategy within the existing curricula of the College. Course learning outcomes are the basis for integrating projects that serve the College or the community at large. In order to preserve the academic integrity of a service-learning opportunity, students are not graded on simply "putting in hours". Rather, they are graded on specific assignments and projects that demonstrate learning from the service-learning experience. Some courses provide built-in, experiential projects; others require students to identify their own projects. Service-learning activities have been demonstrated as positive learning experiences for both students and faculty. Courses with required service-learning components are labeled SL in the semester course scheduler.

## Academic Support Services

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### Center for Academic Planning and Support

Advising and persistence support services are available to students and community members through the Center for Academic Planning and Support (CAPS). Most services are available both in-person and remotely. Services include: assessment; academic advising (including international student advising); disability support and accommodations; academic coaching; peer and professional tutoring; career coaching; single parent, first generation, and ELL (English Language Learner) support services; web-based instruction; and workshops. In addition, the Center maintains a computer lab, study/tutoring space, career development resources, computer training room, assistive technology station, and testing rooms. Students are encouraged to visit CAPS during their first week of classes to familiarize themselves with the services and staff. CAPS services are free of charge to students enrolled in credit-bearing courses. Community members may access the Center and its services by purchasing a Community Access Card.

<b>Service Hours of Operation*:</b>	
Monday – Wednesday	8:00 am to 5:00 pm



Thursday	8:00 am to 6:00 pm
Friday	8:00 am to 4:00 pm
*Hours may vary when classes are not in session or for staff training needs. Updated hours are posted throughout the Center and on the college web pages.	
Rochester laptop lab hours vary – contact <a href="mailto:kmccarthy@ccsnh.edu">kmccarthy@ccsnh.edu</a> for more information.	

For more information about any CAPS service or to receive a brochure, email CAPS at [greatbaycaps@ccsnh.edu](mailto:greatbaycaps@ccsnh.edu), visit the website at [Great Bay CAPS](#), call 603-427-7715, or drop in during open hours. CAPS is in Room 210 in Portsmouth, and some services may be accessed through the front desk in Rochester.

## Academic Advising

The goal of academic advising at Great Bay Community College is to assist students in creating academic plans that will help them achieve their educational goals in a timely manner. Advising is a process in which the student and the advisor work collaboratively to set individual objectives for the student's college experience. Whether the goal is to earn a degree or certificate, transfer to another institution, or just take a few classes, the advisor will assist in developing a plan to achieve the goal.

Professional Academic and Transfer Advisors in CAPS on the Portsmouth campus, work with all students new to the college, regardless of major\*, to select classes for their first semester. In subsequent semesters, the advisors work with various students including Liberal Arts majors and non-matriculated students. The program faculty advise other students in the specific discipline. A complete list of faculty advisors can be found in the Advising and Transfer Center or online at [Advising & Transfer Center](#). All GBCC students are welcome to contact Advising and Transfer with any academic advising, transfer questions, or concerns. For more information email [greatbayadvising@ccsnh.edu](mailto:greatbayadvising@ccsnh.edu) or call 603-427-7728.

\*First-semester Nursing students are advised by faculty advisors.

## Transfer Advising

Advising services include assistance with exploring colleges for transfer, the transfer application process, and course selection based on future transfer goals.

As a comprehensive community college, Great Bay Community College develops partnerships to enable seamless transfer to baccalaureate colleges and universities across the state and beyond. Some of these colleges and universities include:

- Berklee College of Music
- Franklin Pierce University
- Granite State College
- Keene State College
- Maine College of Art
- New England College
- New Hampshire Institute of Art
- Plymouth State University
- Rivier University
- Southern New Hampshire University
- St. Joseph's College of Maine
- University of New England
- University of Massachusetts, Lowell
- University of New Hampshire, Durham
- University of New Hampshire, Manchester

Transfer articulation agreements have been developed with the University of New Hampshire to guarantee transfer into the following colleges:

- The College of Life Sciences and Agriculture
- The College of Engineering and Physical Science
- The Peter T. Paul College of Business and Economics

### New Hampshire Transfer Program

The NH Transfer Program is a free transfer application. It offers a seamless process for all Community College System students who want to transfer to a University System of New Hampshire university or college. Visit [www.nhtransfer.org](http://www.nhtransfer.org) for more information.

### SNHU Dual Admission Program

Great Bay Community College (GBCC) and Southern New Hampshire University (SNHU) have developed a transfer agreement that allows students who have completed an associate degree program at Great Bay Community College to transfer to SNHU to complete their bachelor's degree automatically. Participation in this dual admission agreement can take place at the time of the student's acceptance or any time before graduation from Great Bay Community College. All academic coursework in which a student has earned a 2.0 cumulative grade point average (CGPA) or grade of C- or higher in individual courses is fully transferable.

For more information on these and other transfer opportunities, please contact the Advising and Transfer: [greatbayadvising@ccsnh.edu](mailto:greatbayadvising@ccsnh.edu) or 603-427-7728.

### **Academic Coaching**

CAPS Academic Coaches work with students at any point in their program to design personalized strategies for academic success. These strategies can include but are not limited to: time-management planning, organizational skills development, identifying and accessing support resources (e.g., tutoring services), and assistance managing school-life balance. Specialty support is available in the areas described below, and students may work collaboratively with faculty and CAPS Academic Coaches around these topics. When appropriate, students are referred to outside agencies for further assistance. Students referred to CAPS through an Academic Alert from a faculty or staff member will be contacted to receive these services.

### **Tutoring Services**

Both peer and professional tutors are available in many subject areas to help students gain greater knowledge/confidence in their learning strategies, develop organizational skills, and complete assignments more successfully. Tutoring options include drop-in and by-appointment tutoring through Navigate, web-based tutorials, and Smarthinking. Tutoring is offered on campus in CAPS and remotely via zoom. Schedules for tutoring are posted at the beginning of each semester and located on the website at [Great Bay Tutoring](#). Services are free of charge for GBCC students taking credit-bearing courses. The tutor program trains and certifies its tutors through the College Reading & Learning Association (CRLA). For more information about receiving tutoring or becoming a tutor, contact the Coordinator of Tutoring Services and College Transition.

### **College Transition Services**

Students who are transitioning to college from GED or adult education programs, or who have been away from school for prolonged periods, may access CAPS support in developing college readiness skills. Academic coaching is provided to assist students with college navigation, resources, and study skills for success. For more information, contact the Coordinator of Tutoring Services and College Transition.

### **Disabilities Support Services**

Community College System of New Hampshire (CCSNH) Disabilities Services Mission Statement: It is the mission of CCSNH Disabilities Services to provide equal educational access, opportunities, and experiences to all qualified students with documented disabilities who register with Great Bay Community College's Accessibility Services Coordinator. Reasonable accommodations are provided to students to allow them to

achieve at a level limited only by their abilities and not by their disabilities. Assistance is provided collaboratively to help students develop strong and effective independent learning and self-advocacy skills, as they assume responsibility for reaching their academic goals.

In compliance with Section 504 of the 1973 Rehabilitation Act and the Americans with Disabilities Act of 1990, the College does not discriminate against students with disabilities in terms of program admission and/or opportunities for academic success. Students are entitled to equal access to programs and services for which they are otherwise qualified.

Although students are not obliged to disclose their disability, in doing so, they become eligible to receive support services that promote retention and success. As each student's needs are unique, the provision of services is designed each semester individually. The nature of the disability, the requirements of the curriculum and specific classes, and the timeliness of the request determine reasonable accommodations.

To access services, students must provide recent documentation of their disability to the Accessibility Services Coordinator. All information is kept confidential. For more information, contact the Accessibility Services Coordinator at 603-427-7625, or visit our website at [Great Bay Accessibility Services](#).

Additional support is available to students with documented disabilities in career and technical programs through the Carl D. Perkins Vocational Educational Grant. For more information, contact the Academic and Community Support Coordinator at (603) 427-7724.

**Grievance Policies and Procedures Appeal Process for a Student Denied Disability Services:** Students denied disability services may submit a written appeal of the decision. Appeals should be sent to the Director of the Center for Academic Planning and Support (CAPS) and the Vice President of Academic Affairs (VPAA) within ten (10) working days of receipt of the decision from the Accessibility Services Coordinator. The Director and VPAA will research the appeal and provide a decision to the student within ten (10) working days of receipt of the appeal letter.

If the student disagrees with the decision of the Director of CAPS and the Vice President of Academic Affairs, the student may submit a written appeal to the President of Great Bay Community College. The original documentation and recommendation of the Accessibility Services Coordinator will be reviewed by the President (or designee), who will communicate his/her decision in writing within fifteen (15) working days of receipt of the written appeal. The student may then appeal this decision to the Chancellor of the Community College System of New Hampshire if desired. Inquiries may also be directed to the US Department of Education, Office of Civil Rights, 8<sup>th</sup> Floor, 5 Post Office Square, Boston, MA 02109-3921; (617) 289-0111; email: [OCR.Boston@ed.gov](mailto:OCR.Boston@ed.gov).

### **Single Parent Support**

GBCC recognizes the unique challenges associated with being a student who is also a single parent, single pregnant person, or displaced homemaker. Along with personalized academic support for these students, CAPS Academic Coaches can facilitate access to community service providers who specialize in meeting the needs of families and children. For more information, contact the Academic and Community Support Coordinator at 603-427-7724.

### **First-Generation/Low-Income Student Support**

GBCC recognizes the challenges of enrolling and maintaining matriculation for students from low-income backgrounds, especially if they are the first in their families to attend college. Support to complete the enrollment process, understand college terminology, manage barriers as they arise, and maintain academic success are available through the Academic and Community Support Coordinator in CAPS. For more information, call 603-427-7724.

### **English Language Learners (ELL) and International Student Services**

ELL and international students receive specialized academic support and advising services, which include skill development in oral and written communication, reading, study skills, test preparation, tutoring, and more. Other supports include advising regarding immigration status, employment eligibility, health insurance, taxes, travel, and legal referral. Students are encouraged to participate in the International Club to promote social growth and cross-cultural understanding. For more information, contact the ELL and International Academic Support Coordinator in CAPS. For more information, call 603-427-7626.

## **Testing**

CAPS provides a range of testing services which include, but are not limited to, proctored exams for distance learners, alternative testing services for faculty, student assessments for academic and career purposes, CLEP exams for credit through examination, and placement testing for new students. CLEP exams and placement testing are described in more detail under Academic Policies. Please see the Academic Policies section of this catalog, under sections [IX. Completion of Course Credits – #3 College Level Examination Program \(CLEP\)](#) and [VIII. Academic Placement Policy](#).

## **Career Development Resources**

A Career Coach works in CAPS on the Portsmouth campus to provide information about career resources available throughout the college and community. Computers are available for accessing Career Coach and the College Central Job Board, and individualized help is available remotely and in person. Events around job search skills, interviewing, and networking are held on an as-needed basis, as determined by expressed student interest. For more information, visit [Great Bay Career Assistance](#) or email [gbcareers@ccsnh.edu](mailto:gbcareers@ccsnh.edu).

## **Workshops**

The Center for Academic Planning and Support works collaboratively with other departments throughout the college and outside partners to offer non-credit workshops in a variety of subjects relevant to students and faculty. Dates and times are posted in the college events calendar and/or through promotional materials. Community members may attend workshops for a fee or with the purchase of a Community Access Card.

# **Library**

The Library supports the teaching and learning activities of Great Bay Community College and provides informational services for New Hampshire residents. A full range of library services are available, including circulation of our print library for browsing and research, remote access to information provided by multiple journal databases and over 250,000 electronic books, instructor reserves, research/reference support, information literacy training, photocopying/scanning/ printing, information via free access to the Internet, and interlibrary loan.

## **Hours and Locations**

The Library is open Monday through Thursday from 9 am to 5 pm, and from 8 am to 4 pm on Friday. Remote support is available for hours beyond when the Library is physically open. Please contact us for information about how to access any service at [reference@ccsnh.edu](mailto:reference@ccsnh.edu). Hours may change during holidays and summer. Please call the Library at 603-427-7618 for current hours.

## **Reference Help**

The librarians have professional expertise in helping students find and use information. They are familiar with library assignments handed out in classes and also offers instruction in the print and electronic research process. Librarians can also give citation assistance with MLA, APA, and Chicago style formats. Students can access assistance at the Library circulation desk, by phone, through Navigate or via email. Questions can be e-mailed to [reference@ccsnh.edu](mailto:reference@ccsnh.edu).

## Online Access

Using Library workstations or their own computers, students can access the online catalog, locate full-text periodical articles, search electronic reference sources, access entire e-books, or search the Internet. Begin at the Library home page, [greatbay.edu/library](http://greatbay.edu/library). Only current students can access electronic resources from off campus, using their EZ Login username and password. Call the Library, or email [reference@ccsnh.edu](mailto:reference@ccsnh.edu), for further assistance in remote use.

## Academic Programs Material

Library materials include reference resources, circulating books, electronic books, online full-text databases of periodicals and reference materials, and a wide variety of audiovisual materials. All media materials and the equipment to use them are available for use in the Library. In addition, there is a reserve collection of materials, placed on reserve by instructors for specific classes.

Reserves may be in print or audiovisual format. From Library workstations, students can also access their online course(s), web email, and the Internet. Thousands of periodicals (magazines and journals) and newspapers are available online. Many online databases offer the full text of periodical articles that students may print, download, or send via email. Librarians can show students how to use these resources.

## Printing & Copying

Great Bay Community College uses a print management solution called PaperCut for network printing from college computers. Every student is given a \$25 initial credit for printing and/or copying. Scanning to a USB thumb drive is free. It is every student's responsibility to monitor their own print account and ration their quota appropriately. If a student runs out of their initial \$25 credit, they can purchase more credits by visiting the website <https://print.ccsnh.edu>. Please select "Add Credit" and follow the steps to add funds to your account. All credits expire at the end of every semester, and another \$25 credit will be reloaded for the new semester. No refunds will be issued for any unused credits (including purchased credits) per semester. *Note: There are three semesters in an academic year, Fall, Spring, and Summer. Quotas will start the first day of each semester.*

Printing/Copying Costs:				
	SINGLE SIDED B&W	DOUBLE SIDED B&W	SINGLE SIDED COLOR	DOUBLE SIDED COLOR
Letter 8.5" x 11" .05	\$0.10	\$0.20	\$0.50	\$1.00
Legal 8.5" x 14" .05	\$0.10	\$0.20	\$0.50	\$1.00
Tabloid 11" x 17" .10	\$0.10	\$0.20	\$0.50	\$1.00

*Great Bay Community College reserves the right to change print/copying quantities and pricing at any time.*

Credits can be purchased in \$2.00, \$5.00, \$10.00 and \$20.00 increments and balance is updated instantly. No refunds will be issued for any unused credits or purchased credits per semester.

## Scanning

The Multifunction Printers are capable of scanning to a USB thumb drive and scan can be send to your CCSNH assigned email by default. You must log in with your GBCC ID to use the scanning features. There is **no cost** for scanning images to your thumb drive.

## Printing, Copying & Scanning Guidelines

- Respect the rights of other students, faculty, and staff while printing or copying.
- During peak times, avoid large print/copying jobs.

- Do not open the printer for jams. Please contact the IT Dept.
- Do not remove toner. Please contact the IT Dept.
- Do not remove or load paper. Please contact the IT Dept. If you need scratch paper, please visit the CAPS lab.
- Do not adjust, unplug, or remove any of the printers' components or reconfigure any permanent settings.
- Please be sure you have logged out of your session when making copies or scanning. **IMPORTANT:** Leaving a session open could allow another user to print using your credits. GBCC is not responsible for sessions that are left open.
- When copying documents, you are responsible for following copyright laws.
- Lost, stolen, or damaged cards have a \$25 replacement fee. Replacement IDs for name changes are free with return of old card; otherwise, there is a \$25 fee.
- Do not wait until you are down to a zero balance before purchasing more print credits.

### **Material from Other Libraries**

Students needing material that is at another Community College System of New Hampshire campus can request that it be sent through interlibrary loan. Students may make a request themselves online through the card catalog or ask a Library staff member to make the request. Great Bay Community College students, under a reciprocal agreement, have access to the resources of the University System libraries. These include the libraries at UNH Manchester and Durham, Keene State, Plymouth State and Granite State College. Students, with a valid picture student ID, may go to these libraries and borrow materials directly at no charge. Please be aware that if materials are not returned to any University System library, students will be responsible for the full replacement cost of the items plus any applicable fees. This will result in a charge being placed on the student's account at Great Bay Community College and will need to be paid before registering for classes, receiving transcripts or graduating.

### **Fines**

Fines for most items are .25 cents/day per item. A hold will be placed on student records if materials are not returned or fines are not paid. This hold must be cleared before a student can check out more materials, register for classes, graduate, or obtain transcripts.

### **Access, Use, and Check-out Procedures for Library Materials**

Students need a current Great Bay Community College photo ID to check out Library materials. Books are loaned for three weeks. Loan periods for other materials vary and may include room-use only restrictions.

## **Student Services**

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### **Bookstore – Portsmouth Campus**

The college contracts with Follett to run the bookstore, where students can purchase textbooks and other supplies. Students who have questions about pricing, books or any issues should direct their inquiries directly to the bookstore at (603) 709-0177. Students can also purchase textbooks online. The bookstore can be accessed through the college website.

### **Fitness Center – Portsmouth Campus**

The Portsmouth campus has a fitness center with cardio, circuit and free weight equipment. Registered students may utilize the center with their Student ID.

### **Gymnasium – Portsmouth Campus**

The Portsmouth campus has a gymnasium in which students can play basketball and other activities. Registered students may utilize the center with their Student ID.



## **Student Identification Cards**

Students should obtain a college ID at the Helpdesk, Room 200C-Portsmouth Campus during normal weekday operating hours. Students must know their Student ID numbers and must have photo IDs with them (driver's license, passport, military ID). Cards are required for borrowing Library books, returning books to the campus bookstore, and for student discounts at area merchants or public facilities. Students may also have borrowing privileges at other college libraries through presentation of their Student Identification Cards to participating college libraries. Students will need to stop by the Helpdesk at the start of each academic year in order to get a current validation sticker for their IDs.

## **Lost Identification Cards**

Any student who loses an identification card can obtain a new card at a cost of \$25 (payable at College Services One Stop). Lost identification cards should be reported to the Helpdesk or Campus Safety as soon as possible.

## **Helpdesk**

The Helpdesk is a vital information and troubleshooting center for all students, faculty, and staff at

Great Bay Community College. This service helps resolve problems with SIS, CANVAS, Email, Computer issues, or general college FAQs. The Helpdesk also has a physical location, in room 200C at the Portsmouth Campus. Hours of operation are Monday – Thursday 9:30am to 6:00pm and Fridays 9:30am to 3:30pm. The Helpdesk is closed on Saturday and Sunday; however, tickets are still received. If the Helpdesk is unable to resolve an issue on the weekend, it will be resolved first thing Monday morning. It is highly recommended to open a ticket by either sending email to [GBCCITSupport@ccsnh.edu](mailto:GBCCITSupport@ccsnh.edu) or visiting the website at: [www.greatbay.edu/helpdesk](http://www.greatbay.edu/helpdesk).

## **Information Technology Services (IT)**

Classroom computers and College technology systems are maintained and updated by the College's Information Technology department. IT staff work directly with faculty and Department Chairs to support the learning needs of a diverse student population, and classrooms are equipped with a variety of instructional technology. Wireless networks exist for instruction, meetings, and special events. Open computer labs are located in the Library and in the CAPS Department for students to work on assignments and access online learning environments such as CANVAS. Information Technology specialists also partner with Disability Services to review, purchase, and implement assistive technology for students with disabilities.

## **Cafeteria – Portsmouth Campus**

The college cafeteria is located on the main floor. Students can buy hot or cold foods, drinks, and pastries. The cafeteria hours are posted each semester. Meals are available at reasonable prices, and vending machines are also available. The college contracts with a private vendor to run the cafeteria.

## **Campus Safety**

Campus Safety officers are stationed at the Front Desk to monitor traffic coming into and exiting the building, respond to any safety concerns that may arise, and provide an escort service for those students, faculty and staff who would like to be accompanied to their vehicles. Campus Safety has a daily schedule of on campus classes and events and is available to assist with locating services on campus. You can reach Campus Safety by calling 603-427-7697, emailing [GBCCCampusSafety@ccsnh.edu](mailto:GBCCCampusSafety@ccsnh.edu), or just stopping by the Campus Safety Desk in the lobby of the Portsmouth Campus.

## **GBCC Alerts**

An emergency notification system has been developed whereby members of the Great Bay community will be notified by email, text or voice of any emergencies that may occur. Most commonly these notices will be

related to weather related cancellations and closings, but they could involve any number of other possible emergency situations. Students must “opt-in” to this service and may do so by clicking the GBCC Alerts button on the front page of our website.

### **Bus Service**

Great Bay Community College students ride the COAST Bus Service free with their valid College ID Card. Bus service is available Monday-Friday. Schedules are available at <https://coastbus.org>.

### **Housing and Living Expenses**

The college does not maintain residence halls or assume responsibility for housing. Students are advised to check on campus to see if any information about local housing options have been made available or have been posted. Arrangements and contracts for housing are solely between the student and the landlord.

### **Insurance**

The college is not liable for personal injuries incurred by students who are in attendance. Students are encouraged to either provide their own coverage or purchase the insurance provided by the System.

All Nursing and Allied Health Students who have a clinical must have accident and illness insurance, as well as professional liability coverage. Information regarding this professional liability coverage is available in the Nursing and Allied Health Departments.

All students who wish to participate in intercollegiate athletics must produce evidence of enrollment in a health insurance policy.

### **Student Code of Conduct**

The college’s Student Code of Conduct document is available in the Student Handbook. The Student Code of Conduct outlines academic and student policies and procedures. Students are responsible for being familiar with the information contained in this document.

### **Campus Crime Report**

Each year the College compiles a report which identifies the frequency with which certain crimes have been reported to have occurred on campus and on adjacent public property. In addition, related policies, programs and services are identified. This report may also be accessed on our website through the Consumer Information link found on the bottom of the front page.

## **Student Life**

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Great Bay Community College believes in the value of providing students with opportunities to develop and refine comprehensive skills needed to be successful both in and out of the classroom. The Student Life office strives to promote student growth and development in learning, involvement, leadership, and building community through diverse co-curricular cultural, social, educational, athletic, and recreational activities.

### **Leadership Development**

- Emerging Leader Program - Students attend a three-day retreat to explore how their individual characteristics/traits impact a group while learning key interpersonal skills such as effective communication, ethical decision making, goal setting, and time management.
- Engaged Leader Program - Students attend a three-day retreat to explore various leadership styles while learning skills that are needed to lead groups such as conflict resolution and group dynamics/diversity.



## Civic Engagement

- The Great Bay Gives Back Program - Students become self-aware of their community and the importance of civic engagement. This program encourages students to complete 100 hours of community service during their time at the college and reflect on how the experience has affected their perspective as a participative member of society. Members of The Great Bay Gives Back Program will be awarded an individualized plaque and be recognized at our annual Student Leadership Banquet, as well as have their name featured on a plaque displayed in the Student Success Center.

## Campus Involvement

- Student Clubs and Organizations - In addition to having the opportunities to experience success in the classroom, students are provided the opportunity to and take advantage of a wide range of activities to further enhance their life skills. Our student clubs and organizations offer chances to be a part of a team, gain a head start on a career, build leadership skills, and get involved in community service.
- Student Government Association - Students who serve on the Student Government Association (SGA) serve as a representative voice for all GBCC students to the administration, faculty, staff, Board of Trustees and the Seacoast community. SGA is the advocate for student-related issues and concerns and is the main governing body of all clubs and organizations on campus. Meetings are open to all members of the campus community.
- Campus Activities and Events - Students who participate in Campus Activities and Events have the opportunity to engage in social, cultural, intellectual and recreational interests. These activities and events not only include intramural sports, but also health and wellness opportunities.

## Intercollegiate Athletics

Through their participation in intercollegiate athletics, students will become more self-aware of the roles within a team and develop skills such as effective communication, problem solving, conflict resolution, and time management.

Great Bay Community College athletic teams participate in the Yankee Small College Conference (YSCC) and the United States Collegiate Athletic Association (USCAA).

- Women's Volleyball
- Women's Basketball
- Men's Basketball
- Men's Baseball
- Women's Softball
- Men's and Women's Golf
- Men's & Women's Track & Field
- Esports

# Dual Enrollment Programs

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## Running Start, eStart & Early College

Dual Enrollment, often referred to as *concurrent enrollment*, allows high school students to take college courses while still enrolled in high school and receive college credits that will be applied to both high school and college transcripts. Great Bay Community College offers high school students three options for dual enrollment.

# Running Start

The New Hampshire Running Start program is a unique higher-education initiative for high school sophomores, juniors and seniors. Specifically, this program enables high school students to enroll in selected college courses offered by Great Bay Community College at a significant reduction in tuition. College courses are offered during the day at high schools throughout New Hampshire. The Running Start program promotes a very special -- and important -- partnership with secondary schools. This partnership will play a significant role in promoting access to higher education and lowering the costs associated with obtaining a college education.

## Program Goals

The Running Start program is focused on the following goals:

- Encourage more young learners to seek a higher education.
- Accelerate the process of higher education.
- Retain more residents in the New Hampshire public higher education system.
- Enroll more young students in the CCSNH.
- Reduce the cost of higher education.

## Benefits for Students

- Students receive college credit and appropriate high school credit.
- Students will graduate from high school with a college transcript of earned credits.
- Students are recognized as Great Bay students with access to many college resources.

## Assessment

In order to qualify to register for Running Start Math and English classes, students are required to meet SAT, Accuplacer scoring, or other placement requirements prior to registration.

## Cost

The cost to enroll in a Great Bay course through Running Start is \$150 per course plus books and supplies (if not provided by the high school). This represents a substantial savings in college tuition costs. Any course less than three credit hours will be pro-rate.

## Faculty Information

All teaching faculty come from the ranks of the secondary schools and meet or exceed the hiring qualifications for Great Bay faculty. There is no adjunct salary compensation for Running Start faculty. In addition to providing a faculty mentor, Great Bay welcomes Running Start faculty at departmental and other college activities as professional development opportunities. Great Bay will also issue one course voucher for every college course taught. Course vouchers cover the cost of \$323.00 toward tuition for any college course taken within the Community College System of New Hampshire (fees excluded) and are intended for the use of Running Start faculty. Running Start faculty may elect to transfer their voucher.

## Transfer Opportunities

Running Start alumni have successfully transferred credits to many colleges and universities. Transferability policies vary from college to college and are dependent on a variety of factors such as major course of study.

## For Further Information

Contact the Running Start Coordinator or your local high school regarding courses offered for college credit through the Running Start program.

## eSTART

eStart is a partnership between the Virtual Learning Academy Charter School (VLACS) and the Community College System of New Hampshire (CCSNH).

Credits earned through eStart are dual credits - high school and college. The online courses are taught by CCSNH faculty. eStart courses are available to New Hampshire residents who are enrolled in a public school, private school, alternative school or home school program. Eligible students must be at least 15 years old or have obtained special permission from the eStart course instructor.

The Community College System of New Hampshire eStart tuition is \$150. Students must also purchase textbooks which may cost between \$75 and \$100.

The college credits may be used for degree programs at CCSNH or transferred to other postsecondary institutions.

Students and parents: Contact your school's guidance department to be sure the eStart course meets requirements for high school credit and graduation.

## Early College

Early College invites high school juniors and seniors to take college courses on the Great Bay Community College campus. College courses are offered during the day and evening and are taught by highly qualified college professors. Students may choose from a large selection of courses; some courses may require placement testing. Prior to registration, High School and Home-Schooled students must confer with their school counselors or curriculum coordinators to make sure the courses they select will satisfy high school requirements for graduation. High School and Home-Schooled students are limited to taking two courses per semester; these courses may be face-to-face, hybrid, remote, hyflex, or 100% online.

Enrollment forms are available on the Great Bay website or in the Great Bay Advising Center. Early College allows high school students to experience college life both inside and outside the classroom as well as take advantage of the many college resources to support their success. The cost for Early College students is 50% of the regular tuition. Students are responsible for textbooks and course materials.

## Business and Training

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The Business & Training Center is focused on building the skills and aptitudes needed by employers of the Seacoast region. Programs provide short-term training for entry-level positions as well as professional development for middle level management. The Business & Training Center faculty and consultants bring a depth and breadth of experience and expertise to evaluate needs and deliver training solutions to improve productivity and performance. Customized delivery programming can be offered on-site and off-campus.

## Community and Corporate Education Courses and Programs

The Business & Training Center offers a full slate of short-term professional development programs through a menu of scheduled open enrollment courses that are updated throughout the year. These courses are offered online as well as in-person and taught by industry professionals. Training can also be customized for area companies with flexible scheduling and delivery onsite, on campus, or online.

For more information go to: <https://www.greatbay.edu/business-community/business-training-center/>

Or email: [greatbaybtc@ccsnh.edu](mailto:greatbaybtc@ccsnh.edu)

# Healthcare

## MEDICAL ASSISTANT TRAINING PROGRAM

This program prepares students to assist medical providers by performing functions related to the administrative and clinical responsibilities of a medical office. 320 classroom hours and 160 practical hours.

NCHC140G	Medical Assistant. Training	Non-Credit
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## WORKREADYNH PROGRAM

WorkReadyNH is a practical, tuition-FREE Professional Development program open to NH residents that are 16+ years of age. This program focuses on the **soft skills** that help employees succeed in the workforce. Participants will enhance their resume and professional interview skills as well as review the essential workplace skills of reading, math and locating information.

Attend Online or In-Person! Participate in a blend of live, interactive classes and independent work. Learn and have fun in this simulated workplace setting to enhance and practice the powerful **soft skills** that employers want most. Participants will earn three highly recognized credentials upon the successful completion of this program.

For more information, please go to the following link to review the class & information sessions schedules as well as complete the enrollment form.

<https://www.greatbay.edu/business-community/business-training-center/workreadynh/>

Contact WorkReadyNH at 603-427-7636 or at [ccsnh.edu/workreadynh](http://ccsnh.edu/workreadynh)

NCPD246G	WorkReadyNH Soft Skills	Non-Credit
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## Non-Credit Tuition Payment and Refund Policy

Tuition is required at the time of registration. Students registered for non-credit courses, workshops, or seminars must notify the Business & Training Center in writing at least three days prior to the first session and submit a Drop Form to receive a refund minus all fees, if applicable. If students registered online with a credit/debit card, there is a 7.0% transaction fee and \$1.99 administration fee that will be deducted from your refund. You can avoid these fees by paying with cash or check in person at the college. Students who cancel within 3 business days prior to the first session of class will not receive a refund. Students registered for credit-bearing courses are subject to the tuition refund per GBCC policy. Refunds take approximately four to six weeks to be processed. If the college cancels a class, tuition and fees will be refunded.

## Funding for Training

*Workforce Innovation and Opportunity Act (WIOA)*

WIOA provides funds for many community education programs to qualified individuals. For qualification guidelines, speak with a counselor at the local NH Works office [www.nhworks.org](http://www.nhworks.org).

*Trade Act*

Trade Act provides funds for many Great Bay Community College programs to qualified individuals who lost their jobs to overseas markets. For qualification guidelines, speak with a counselor at the local NH Works office [www.nhworks.org](http://www.nhworks.org).

*WorkInvestNH*

The WorkInvestNH Grant is awarded to NH businesses to improve the capability of their workforce. This grant can reimburse employers up to one-half of the cost of training. To find out more about the grant, go to <https://www.nhes.nh.gov> and contact the Business & Training Center staff to discuss training solutions.

# General Degree Information

## Credit Information

1. **A CREDIT HOUR:** shall be the equivalent of one (1) hour of classroom or direct faculty instruction and a minimum of two hours of out-of-class student work each week for 15 or 16 weeks.
2. **A SEMESTER CREDIT HOUR:** shall be comprised of the following:
  1. Direct Faculty Instruction (face-to-face or online contact)
  2. Laboratory or studio
  3. Clinics
  4. Practicum, Fieldwork, etc.
  5. Internships\*
  6. Co-ops\*\*
3. **ASSIGNMENT OF CREDITS:** A credit hour shall be allocated based on the below:

Category	Contact hours per week	Contact hours per semester (based on minimum 15-week semester)
Class	1	15
Laboratory	2 or 3	30-45
Clinical	3 to 5	45-75
Practicum, Fieldwork	3	45
Internship	3 to 6	45-90
Co-op	Variable by Dept.	Variable by Dept.

### 4. INSTRUCTIONAL HOUR DESIGNATION

One instructional hour is equal to fifty (50) minutes of classroom/direct faculty instruction or laboratory/studio, or sixty (60) minutes of clinical, practicum or fieldwork, internship or co-op.

Next to each course is the course credit breakdown, shown in three numbers. The first number represents the number of lecture hours per week. The second number represents the number of lab, clinical, co-op, internship, or practicum hours per week. The third number represents the total number of credits.

BIOL110G	Human Anatomy and Physiology I	3-3-4
PSYC110G	Introduction to Psychology	3-0-3

The academic instructional semester consists of no less than 15 weeks and no longer than 16 weeks, or their equivalent, including final exams. Courses that are delivered in alternate schedules including summer semester (8 weeks, 12 weeks, etc.) will be shown the same as above, and will be scheduled to reflect the equivalency of the total number of hours. For example, PSYC110G offered on an 8week schedule meets 6 hours per week and earns the same 3 credits.

1. **INTERNSHIP DEFINITION:** A capstone educational experience that allows a student to independently apply skills and knowledge acquired in major field courses in a workplace setting. While the goals and expected outcomes of the internship experience are determined by faculty, specific daily work activities are assigned by the on-site supervisor, and students are supervised and evaluated on-site by an employee of the company hosting the internship. Individual departments must approve internship sites, determine

assessment requirements, and set minimum standards for eligibility. Faculty will typically visit (in person or virtually) students and supervisors at the internship site a minimum of 1-3 times per semester and will collaborate with the on-site supervisor in the assessment of student performance. Internships may be paid or unpaid, and one credit is awarded for every 3-6 hours of internship per week for a 15/16-week semester (prorated accordingly for shorter semesters).

2. **PRACTICUM DEFINITION:** An educational experience that allows a student to work with professional practitioners, typically in an education or social work setting, while concurrently enrolled in a course that meets regularly to help groups of students assigned to different practicum sites integrate their experiences with learned theory. Students work collaboratively with on-site professionals to observe and perform activities under the guidance of on-site staff. Faculty work with on-site professionals to determine the appropriate types of activities to ensure that students gain experience that meets specified program goals and outcomes. Individual departments must approve practicum sites, determine assessment requirements, and set minimum standards for eligibility. Faculty will typically visit (in person or virtually) students and supervisors at the practicum site a minimum of 1-2 times per semester and will collaborate with the on-site supervisor in the assessment of student performance. Practicum experiences are typically unpaid, and one credit is awarded for every 3 hours of practicum per week for a 15/16-week semester (prorated accordingly for shorter semesters).
3. **CLINICAL DEFINITION:** An educational experience that allows a student to develop skills in applying theory to practice in a patient care setting. Students are supervised directly on site by college faculty, who work collaboratively with on-site staff at the facility, and are directly assessed by college faculty in accordance with published evaluation criteria. Individual departments engage the clinical site through a legal Memorandum of Understanding, which defines criteria for student participation at the site. Clinical experiences are unpaid, and one credit is awarded for every 3-5 hours of clinical experience per week for a 15/16-week semester (prorated accordingly for shorter semesters).
4. **CO-OP DEFINITION:** A co-op is an educational program involving paid, productive work experience in a field related to the student's major or career. The student is a full-time employee of the site and is not required to take classes during the duration of the co-op. Depending on the length of the co-op and criteria established by the sponsoring academic department, up to 4 credits may be awarded. Each college department will set standards for credit allocation and student eligibility to participate in a co-op. Individual departments must approve co-op sites and will determine requirements (papers, journals, etc.) that must be met during the co-op. The co-op will be graded using the college's grading system and credit will be awarded accordingly.

## Course Substitutions

In programs that require the courses listed below, higher level courses within that department may be substituted in fulfillment of degree requirements.

FYE101G	First Year Seminar	1-0-1
MATH145G *	Quantitative Reasoning	4-0-4
CIS110G *	Introduction to Computers	2-2-3
(or CIS107G*)	(or Essentials of Computer Literacy)	(or 2-4-4)
*Based on placement testing scores.		
Please note: DGMT courses 115G, 135G and 142G may be substituted for CIS 110G (or CIS107G). Please check your program of study.		

## Elective Course Information

In addition to the required courses in a student's program, there may be elective options. Each program offers a unique set of electives, so please refer to each individual program for specific options. The following information provides the categories of electives and selection of elective courses. All academic subject codes and course numbers refer to courses offered only at Great Bay Community College.

**Business Elective:** Any course with the academic subject code of ACCT, BUS, ECON, HOS, INSR, MKTG, SPTS, and a course number of at least 100.

**English Elective:** Any course with the academic subject code of ENGL and a course number of at least 100.

**Foreign Language/Humanities Elective/Fine Arts Elective:** Any course with the academic subject code of AMER, ARTS, ASL, ENGL (except for ENGL215G), HIST120G, HIST130G, PHIL, SPAN, FREN, and a course number of at least 100.

**Liberal Arts Elective:** Any course listed under the categories of English elective, Social Science elective, Foreign Language/Humanities/Fine Arts elective, Math elective, Natural Resources elective, or Science elective with a course number of at least 100.

**Life Science Electives:** The following list of life science courses is approved for the Liberal Arts General Biology program. At least two need to be of the 200 level. BIOL110G, BIOL120G, BIOL150G, BIOL160G, BIOL210G, BIOL220G, BIOL230G, BTEC105G, CHEM116G, CHEM205G.

**Math Elective:** Any course with the academic subject code of MATH or DATA and a course number of at least 100.

**Open Elective:** Any course that the college offers with a course number of at least 100.

**Science Elective:** Any course with the academic subject code of BIOL (excluding BIOL200G), BTEC (excluding BTEC205G), CHEM, ESCI, PHYS and a course number of at least 100.

**Social Science Elective:** Any course with the academic subject code of ANTH, ECON, GEOG, HIST, POLS, PSYC, SOCI, and a course number of at least 100.

**Technical Elective:** Any course designation determined by the program of at least the 100 level

## Transfer Credit Policy

In addition to the Transfer of Credit from Another Institution Policy in the completion of Course Credits section of this catalog, each program of study establishes its own individual transfer and currency requirements.

Programs of Study carry the credits based on Great Bay Community College courses. Courses may be transferred in for fewer credits than indicated in the Program of Study.

## Class Schedules

Class schedules noting specific times and days are developed on a semester-by-semester basis and are published in the Semester Course Schedule. Classes are held during the day, evening, weekend, and online. In addition, classes designated as hybrid are a combination of on-campus and online. Evening courses start at 5:00 PM or later. Students completing program requirements may need to take classes at any of these times.

# Personnel Directory

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## State of New Hampshire

### Governor

The Honorable Chris Sununu

## **The Executive Council**

District 1 Joseph D. Kenney

District 2 Cinde Warmington

District 3 Janet Stevens

District 4 Theodore L. Gatsas

District 5 David K. Wheeler

# Community College System of New Hampshire

## **Board of Trustees**

- Katharine Bogle Shields, Chair, Exec. Committee Chair
- Robert Baines, Vice Chair
- Paul J. Holloway, Past Chair
- Alison Stebbins, Treasurer, Finance Committee Chair
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- Hollie T. Noveletsky, Governance Committee Chair
- Christopher Dodge
- Richard M. Heath
- John “Jack” Calhoun, IV
- Bryant Abbott
- Todd C. Emmons
- Darrin Daniels
- Tiler F. Eaton
- John T. Stevens
- Stephen J. Ellis
- Sharon D. Harris
- Steven H. Slovinski
- Richard Ackerman
- Gregory C. Eastman
- Donnalee M. Lozeau
- Nick Toumpas
- Heather Burwell, Great Bay Community College, Student
- Will Cunningham, White Mountains Community College, Student

## **Chancellor**

- Mark Rubinstein

## **Ex Officio**

- Governor Chris Sununu
- Commissioner Frank Edelblut, Department of Education
- Commissioner George N. Copadis, New Hampshire Employment Security
- Commissioner Taylor Caswell, Department of Business and Economic Affairs
- Chancellor Mark Rubinstein, CCSNH
- Presidents of CCSNH Colleges

## **Chancellor Emeritus**



- Dr. Richard A. Gustafson
- J. Bonnie Newman

### **Vice Chancellor Emeritus**

- Dr. Charles Annal
- Ronald Rioux

## College Advisory Board

- Christine Strong, Advisory Board Chairperson/President, Strong Resource Group
- Casey Snyder, Partner, Senior Vice President Wealth Manager – The Sedoric Group of Steward Partners
- Christine Carberry
- David Hampson, Specialty Insurance Executive, Retired
- Mark Galvin, Managing Director, New England Innovation Center, LLC
- Mark R. Windt, MD, Center for Asthma, Allergy and Respiratory Disease
- Nancy Pierce, Independent Education Management Professional, Retired
- Rep. Norman Major, Representative, House of Representatives State of NH, District 14
- Thomas G. Ferrini, Ferrini, Wyskiel, Boc, Tillinghast & Bolduc, PA
- Ben VanCamp, Chief Collaborator & President, Greater Portsmouth Chamber of Commerce
- Brian Hughes, President & CEO, Holy Rosary Credit Union (HRCU)
- Laurie Murray, Director of Health Services, RiverWoods
- Michele Halligan-Foley, Career & Technical Education Director/Co-Wellness District Facilitator/VP of NH-CTA, Rochester School District
- Nick Foster, Senior Manufacturing Associate for Lonza Biologics, GBCC Graduate
- Sean Clancy, Assistant City Manager for Economic Development, Portsmouth, NH

### **Great Bay Community College Representatives**

- Dr. Cheryl Lesser, President
- Lisa McCurley, VP Academic Affairs
- John Boggs, AVP Academic Affairs
- Tom Andruskevich, Chief Business Affairs Officer
- Diane Carroll, Sr. Human Resources Officer
- Christopher Blackington, Executive Assistant to the President

## Administration

Dr. Cheryl Lesser  
President

- B.A. Bucknell University
- M.A. Saint Louis University
- Ph.D. University of Nebraska-Lincoln

Lisa McCurley  
Vice President of Academic Affairs

- B.S. University of Lowell
- M.S. University of Massachusetts-Boston
- CS-ANP University of Massachusetts-Worcester

Rebecca Dean  
Vice President of Enrollment Management

- B.S., Central Michigan University
- M. Div., Princeton Theological Seminary
- Ed.D., University of Massachusetts - Lowell

John Boggs  
AVP, Academic Affairs

- Master's Degree in Theology, University of Durham (UK)
- M.S. University of St. Mary's

Tom Andruskevich  
Chief Business Affairs Officer

- B.A. College of the Holy Cross
- M.B.A. University of Virginia

Diane S. Carroll  
Senior Human Resources Officer

- A.S. Quincy College
- B.S. Franklin University

## President's Office

Dr. Cheryl Lesser  
President

- B.A. Bucknell University
- M.A. Saint Louis University
- Ph.D. University of Nebraska-Lincoln

Christopher O. Blackington  
Executive Assistant to the President

- A.A., Great Bay Community College
- B.S., University of New Hampshire

## Human Resources

Diane S. Carroll  
Senior Human Resource Officer

- A.S. Quincy College
- B.S. Franklin University

## Rochester Campus

Scott Christie  
Welding/Manufacturing Lab Assistant

- A.S. NH Community Technical College
- B.S. Granite State College
- M.S. SNHU

Paul Giuliano  
Technical Programs Director and Director, Rochester Campus

- B.S. Stockton College

Kerrie McCarthy  
Office Manager

## Business and Training Center

Lynn Szymanski  
Director of Workforce Development / BTC

- B.A. University of Buffalo
- M.A. San Diego State University
- M.B.A. University of New Hampshire
- M.A.B. University of Louisville

Laurie Merrick  
Business and Training Assistant

- B.S. Simmons College

Bruce Vance  
Allied Health Program Manager

- B.S. University of Wisconsin

Martha Holland  
Massage Therapy Program Coordinator

- B.S., University of New Hampshire
- M.S., Northeastern University
- D.P.T., Franklin Pierce University

## WorkReady NH

Dawn Hamdi  
WorkReady NH Program Manager

- B.S., SUNY Oswego
- M.S., Miami University

Kara Flynn  
WorkReady NH Program Assistant

- B.S. UMass-Amherst

## Academic Affairs

Lisa McCurley  
Vice President of Academic Affairs

- B.S. University of Lowell
- M.S. University of Massachusetts-Boston
- CS-ANP University of Massachusetts-Worcester

John Boggs  
Associate Vice President of Academic Affairs

- Master's Degree in Theology, University of Durham (UK)
- M.S. University of St. Mary's

Stephanie Riotto  
Running Start Coordinator

- A.B., Miami University, OH
- B.A., Miami University, OH

Karen Burns

Assistant to the Vice President & Office Manager

- A.S. Casco Bay College

## Advising and Transfer Center

Jenna Anand

Director, Center for Academic Planning and Support (CAPS)

- B.A. SUNY Fredonia
- M.S. New England College

Erica Brown

Academic & Transfer Advisor

- B.A., University of New Hampshire
- M.A., University of New Hampshire
- M.Ed., University of New Hampshire

Amy Darrigo-Doyle

Academic and Transfer Advisor

- B.S. Lyndon State College

Margaret Duffy-Durkin

Academic and Transfer Advisor

- B.A. University of New Hampshire
- Secondary Certification, Salem State College
- M.S. University of Southern Maine

Kathy Yazinka

Academic and Transfer Advisor

- A.S. Middlesex Community College
- B.S. Daniel Webster College
- M.Ed. University of New Hampshire

## Center for Academic Planning and Support (CAPS)

Kristen Altamar

Academic and Community Support Coordinator

- A.B., Brown University
- M.A.T., Brown University
- Ed.M, Harvard Graduate School of Education

Siri Dumont

CAPS Liaison

- B.A., Wheaton College

Geoffrey Grinnell  
CAPS Liaison

- B.S. Roger Williams University

Kathy Totten  
Career Coach

- B.A., University of New Hampshire

Diana Varga  
ELL and International Academic Support Coordinator

- B.A. University of New Hampshire

Amanda Voce  
Accessibility Services Coordinator

- B.S.W., Radford University
- M.A., Assumption College

Christina Wall  
Coordinator of Tutoring Services and College Transition

- B.A. Franklin Pierce University
- M.Ed. Plymouth State University

## Library

Rebecca J. Clerkin  
Director of Library and Media Services

- B.A., M.S. Simmons College

Samantha Claussen  
Electronic Resources Librarian

- B.A. Dickinson College
- M.S. Simmons University

## Student Success and Enrollment Management

Rebecca Dean  
Vice President of Enrollment Management

- B.S., Central Michigan University
- M. Div., Princeton Theological Seminary
- Ed.D., University of Massachusetts - Lowell

## Student Life

Brittanie Mulkigian  
Director of Student Life

- B.A., Regis College
- M.A., Regis College

Brian Scott  
Director of Student Engagement & Athletics

- B.S., Texas A & M University
- M.S., University of New Hampshire

Isabella Edwards  
Athletics Game Manager

## Admissions

Steve Gorman  
Director of Admissions

- A.S., Green River Community College
- B.S., University of Southern Maine
- M.B.A., Touro University

Michael Heath  
Admissions Counselor

- A.S. New Hampshire Technical Institute
- B.A. University of New Hampshire

Alexander Burt  
Admissions Representative

- B.S., Plymouth State University

Abigail Olean  
Enrollment Specialist for Career and Technical Programs

- B.A., Binghamton University
- M.Ed., University of New Hampshire

Katherine Haley Webb  
College Navigator

- B.A., Fairfield University
- M.S.W., University of Michigan

## College Services One Stop/Registrar

Sandra Ho  
Registrar

- A.S. McIntosh College
- B.A. Middlebury College

Alan Landale  
College Services Representative

- A.S., Great Bay Community College

Sara Lang  
Assistant Registrar

- A.A. Great Bay Community College

Katherine Knight  
College Services Representative

- B.A., University of Chicago

Patricia Waggoner  
Banner Coordinator

- A.S., Middlesex Community College
- B.B.A., University of Massachusetts, Amherst
- M.B.A., George Washington University

Annarie Van Coesant  
College Services Representative

- B.S. Granite State College

## Financial Aid Office

Susan Proulx  
Director of Financial Aid

- A.B. Dartmouth College
- M.B.A. University of New Hampshire

Andrew Savage  
Assistant Director, Financial Aid

- B.A. Saint Anselm College
- M.S. Southern NH University

Tyler Anderson  
Financial Aid Assistant

- B.A. Lafayette College

## Business Affairs

### Business Office

Tom Andruskevich  
Chief Business Affairs Officer

- B.A. College of the Holy Cross
- M.B.A. University of Virginia

Raymond Biondi  
Bursar

- A.S. McIntosh College
- B.S. New England College

James Carroll  
Accounting Technician Purchasing / Payables

Jennifer Tapley  
Accounting Technician

- B.A. University of Maine at Presque Isle

## Institutional Research

Sarah Follansbee  
Institutional Researcher

- B.A. Northeastern University

## Marketing

Lisa Proulx  
Public Information Officer

- B.A., St. Anselm College

Amy Winslow-Weiss  
Marketing and Communications Assistant

- B.S., Penn State

## Campus Safety

Robert Wiechert  
Chief Safety Officer

Stephen Dockery  
Assistant Chief of Campus Safety

- A.S. New Hampshire Technical Institute

Daniel D'Amato  
Safety Officer

- A.S. Community College of the Air Force

John Proulx  
Safety Officer

- US Military Academy, West Point

## Information Technology

Shubhashish Mathema  
Director of Administrative and Academic Computing

- B.E. Kathmandu University, Nepal
- M.S. and Graduate Certificate, Oklahoma State University

Leo Bourbeau  
IT Technician

- A.S. Great Bay Community College



Lee Kenyon  
Help Desk Coordinator

- A.S. NHCTC / Stratham

Edmond Mayrand  
IT Specialist

- A.A.S. NHCTC / Stratham
- A.A. University of New Hampshire
- B.S. Granite State College

Geoffrey Stone  
IT Technician

- A.S. NHCTC

## Maintenance

Dylan Follansbee  
Facilities Supervisor

- B.A. Northeastern University

Christopher Cumings  
Facilities Utility Worker

Scott Stadig  
Building and Grounds Maintenance

John Vermette  
Maintenance Mechanic

- A.S., Kennebec Valley Vocational Technical Institute

## Programs of Study

### BUSINESS ADMINISTRATION

Lynda Bonneau  
Associate Professor and Department Chair / Business and Accounting/Hospitality

- A.S., McIntosh College
- M.S., Southern New Hampshire University

Linda Richelson  
Professor and Program Coordinator / Business

- B.S., Emerson College
- M.S., M.B.A., Southern NH University

### HOTEL, RESTAURANT & EVENT MANAGEMENT

Laurie Mantegari  
Program Coordinator

- M.S., Regis College

## COMPUTER TECHNOLOGIES

Meg Prescott

Associate Professor and Department Chair / Computer Technologies, Information Systems Technology

- B.A., University of Maine

## CRIMINAL JUSTICE AND HOMELAND SECURITY

Eric Kulberg

Professor and Department Chair of CJ/HS/Education

- B.A., M.A., University of New Hampshire, Durham

## EDUCATION

Jennifer Ganim Smith

Professor and Program Coordinator, Early Childhood Education

- B.A., Florida International University
- M.S., State University of New York at New Paltz

Catherine Brophy

Educator Prep Coordinator

- B.A., University of Lowell
- CAGS, Plymouth State University
- M.Ed., University of New Hampshire

## ENGLISH AND HUMANITIES

Cynthia Walton

Professor and Department Chair, English

- B.A., University of Massachusetts
- M.A., Simmons College

Richard Walters

Professor

- B.A., Ph.D., University of New Hampshire
- M.A., Boston College

Emily Hinnov

Professor

- B.A., Allegheny College
- M.A., Simmons College
- Ph.D., University of New Hampshire

## FINE ARTS AND DIGITAL MEDIA TECHNOLOGY

Andrew Super

Associate Professor and Program Coordinator

- B.A., The Sumner Academy of Arts and Sciences
- B.F.A., Pittsburg State University
- M.F.A., Rochester Institute of Technology

## INFORMATION SYSTEMS TECHNOLOGY

Kevin Behnke

Professor and Co-Program Coordinator / Information Systems Technology

- B.S., Westbrook College
- M.S., New Hampshire College
- M.B.A., Plymouth State College

Michael Harrison

Associate Professor and Co-Program Coordinator / Information Systems Technology

- B.S.E.E., Northfield University

## LIFE AND PHYSICAL SCIENCES

Kim Williams

Professor and Chairperson / Biological Science

- B.S., Ph.D., University of New Hampshire

Leslie Barber

Professor, Biological Science

- B.A., Earlham College
- Ph.D., University of California Los Angeles

Deborah Audino

Professor and Program Coordinator / Biotechnology

- B.S., Brown University
- M.S., University of New Hampshire

Catherine Ciotti

Professor, Biological Science

- B.S., M.S., University of New Hampshire

Robert O'Brien

Biotechnology Laboratory Assistant

- A.S., NHCTC / Stratham
- A.A.S., Northern Essex Community College

Michael Gordon

Professor and Program Coordinator / Chemistry

- B.S., University of New Hampshire
- Ph.D., Dartmouth College

Brett LeClair

Professor, Biological Science

- A.A., Northern Essex Community College
- B.S., Bridgewater State College
- D.C., Sherman College of Straight Chiropractic

David Harper Wilson  
Professor and Program Coordinator / Environmental Science

- B.S., Radford College
- M.S., University of New Hampshire

Jenna L. Campbell  
Professor, Biological Science

- B.S., St. Lawrence University
- Ph.D., University of Arizona

## MESSAGE THERAPY

Martha Holland  
Massage Therapy Program Coordinator

- B.S., University of New Hampshire
- M.S., Northeastern University
- D.P.T., Franklin Pierce University

## MATHEMATICS

John Mannarini  
Professor and Department Chair / Math and Engineering

- B.S., Keene State College
- M.S., University of New Hampshire

Wendy Morrow  
Associate Professor

- B.S., M.S., University of New Hampshire
- M.Ed., New England College

## NURSING & SURGICAL TECHNOLOGY

Dulcinea Kaufman  
Professor and Chairperson, Nursing/Surgical Technology

- B.S., Simmons College
- M.S., PMH-NP, Northeastern University
- D.N.P., Northeastern University

Nancy DeSotto  
Professor

- B.S.N., M.S.N., University of New Hampshire
- D.N.P., Case Western Reserve University

Barbara Laganieri  
Professor

- A.S., Great Bay Community College
- B.S.N., M.S.N-Ed., St Joseph College

Kelly McDonough  
Professor

- S., M.S.N., University of New Hampshire
- B.S.N., Salem State College

Lorraine Mancuso  
Professor

- B.S.N., University of Rhode Island
- M.S.N., University of Phoenix

Carrie Marchand  
Professor

- B.S., University of Massachusetts-Lowell
- M.S., F.N.P., Rivier College

Sarah Raeburn  
Professor

- A.S.N, Great Bay Community College
- B.S., University of Vermont
- M.S.N., Franklin Pierce University

Keri Tice  
Executive Secretary, Nursing/Allied Health

- A.A.B., Bowling Green State University
- B.S., New Hampshire College

## SURGICAL TECHNOLOGY

Kristin Whitney, CST  
Assistant Professor and Program Coordinator / Surgical Technology

- A.A.S., Great Bay Community College

## SOCIAL SCIENCE

Aimee E. Huard  
Professor and Chairperson / Social Science

- B.A., Elmira College
- M.A., University of Arkansas
- Ph.D., Binghamton University, SUNY

Jordan Fansler  
Professor and Program Coordinator / History

- B.A., St. Joseph's University
- M.S., University of Edinburgh
- Ph.D., University of New Hampshire

## VETERINARY TECHNOLOGY

Deborah Discher

Professor and Chairperson / Veterinary Technology

- B.S., Rutgers University
- D.V.M., University of Minnesota

Bonnie Miller

Professor

- A.S., Great Bay Community College
- B.S., Roger Williams University

# Degrees and Certificates

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## Accounting

### Accounting

#### Degree Type

Associate in Science

The Accounting curriculum is continuously evaluated, modified and improved to remain current with ever-changing rules, laws, and technology. The accounting program focuses on providing the student with the accounting skills needed to meet current job requirements as well as the necessary analytical skills needed to be successful in business. The Accounting degree provides a foundation in economics, law, management, finance, and information technologies.

Accounting graduates are prepared for employment in entry-level accounting/bookkeeping positions or can transfer to a four-year institution in pursuit of a bachelor's degree. Accounting careers include public accounting, private industry accounting, government and non-profit accounting, international accounting, financial analysis, credit analysis, cost accounting, tax accounting, consulting, advising, auditing and forensic accounting, among many other possibilities. There are a variety of exciting, challenging, and rewarding career opportunities for those with an accounting degree.

#### Program Outcomes

Students will:

- Have a practical working knowledge of financial and managerial accounting.
- Know how to operate at least one accounting software program.
- Know how to prepare a complex individual tax return.
- Be able to prepare accurate and well-organized financial statements.
- Be able to make the adjustments needed to create financial statements in accordance with generally accepted accounting principles.
- Demonstrate proficiency in analytical thinking, oral and written communication, and applied mathematical skills.
- Be able to transfer to a four-year college or university with a solid accounting and overall business studies foundation so as to continue their accounting education in a seamless manner.

#### Technical Standards

Students should be able to communicate effectively using written and oral communication skills, possess good analytical skills, understand and practice ethical behavior, be comfortable using computers and computer application software, be able to sit and concentrate for extended periods of time and be comfortable with fundamental mathematics.

#### Transfer Credit Policy

In addition to Great Bay transfer credit policies, transfer of courses in accounting more than ten years old will be evaluated by the program coordinator on an individual basis.

## Degree Program First Year

### Fall Semester

Item #	Title	Theory Hours	Lab Hours	Credits
FYE111G	First Year Seminar-BUS/HOSP	1	0	1
ACCT113G	Accounting and Financial Reporting I	3	0	3
BUS110G	Introduction to Business	3	0	3
	ENGL110G/111G	4	0	4-5
	MATH145G/147G	4	0	4-5
	CIS156G/154G	2	2	3-4
	<b>Sub-Total Credits</b>	<b>17-18</b>	<b>2-6</b>	<b>18-21</b>

FYE111G: Recommended. Any one-credit FYE course fulfills this requirement.

### Spring Semester

Item #	Title	Theory Hours	Lab Hours	Credits
ACCT123G	Accounting and Financial Reporting II	3	0	3
ECON234G	Macroeconomics	3	0	3
MATH225G	Probability and Statistics	4	0	4
	ENGL210G or ENGL214G	3	0	3
	Science Elective	3	3	3-4
	<b>Sub-Total Credits</b>	<b>16</b>	<b>3</b>	<b>16-17</b>

## Degree Program Second Year

### Fall Semester

Item #	Title	Theory Hours	Lab Hours	Credits
ACCT213G	Cost Accounting I	3	0	3
ACCT243G	Federal Income Taxes-Individual	3	0	3
ACCT223G	Intermediate Accounting I	3	0	3
BUS242G	Ethics and Social Responsibility in Business	3	0	3
ECON235G	Microeconomics	3	0	3
	<b>Sub-Total Credits</b>	<b>15</b>	<b>0</b>	<b>15</b>

### Spring Semester

Item #	Title	Theory Hours	Lab Hours	Credits
ACCT215G	Cost Accounting II	3	0	3
ACCT233G	Intermediate Accounting II	3	0	3
ACCT216G	Software Systems Applications	2	2	3
BUS221G	Business Finance	3	0	3
BUS211G	Business Law	3	0	3
	<b>Sub-Total Credits</b>	<b>14</b>	<b>2</b>	<b>15</b>
	<b>Total Credits</b>			<b>64-68</b>

## Accounting

Degree Type  
Certificate



## Accounting Certificate Requirements

Item #	Title	Theory Hours	Lab Hours	Credits
ACCT113G	Accounting and Financial Reporting I	3	0	3
ACCT123G	Accounting and Financial Reporting II	3	0	3
ACCT213G	Cost Accounting I	3	0	3
ACCT215G	Cost Accounting II	3	0	3
ACCT216G	Software Systems Applications	2	2	3
ACCT223G	Intermediate Accounting I	3	0	3
ACCT233G	Intermediate Accounting II	3	0	3
ACCT243G	Federal Income Taxes-Individual	3	0	3
<b>Sub-Total Credits</b>		<b>23</b>	<b>2</b>	<b>24</b>
<b>Total Credits</b>				<b>24</b>

## American Studies

### American Studies

#### Degree Type

Associate in Arts

American Studies is the interdisciplinary study of the United States and all its local, national, and global contexts. Drawing from a variety of content areas and methodologies, American Studies focuses on particular American moments, places, and ideas in order to pursue questions, such as “What is American culture? What does it mean to be American? Who, What, and Where is ‘American?’” And what is at stake when we ask these questions? The degree program is designed to provide students with the rigorous interdisciplinary training necessary to transfer into baccalaureate programs in not only American Studies, but related fields as well, such as English, History, Political Science, Education, Sociology, Anthropology, and others. Students with degrees in American Studies have found jobs in a wide variety of fields such as publishing, education, communications, government, public service, public relations, marketing, management, law, and social welfare, to name a few.

#### Program Outcomes

- Students will understand the methods, goals, and value of an interdisciplinary investigation of American history, ideology, culture and discourse.
- Students will be acquainted with themes and questions commonly addressed in the field of American Studies and understand how they arise from and inform particular historical and cultural moments.
- Students will be prepared to move on to a more extensive program of American Studies and/or related fields such as History, American Literature, or Political Science.

#### Transfer Credit Policy

In addition to Great Bay transfer credit policies, Liberal Arts and Science courses will be considered for transfer regardless of when they were taken as long as they meet minimum grade requirements. See individual department policies for program exceptions on general education requirements. In the case of English and math course transfers, it may be recommended that the student take portions of the Accuplacer Placement Test to demonstrate the skill level required for success in subsequent classes within the program.

Transfer of a course to this institution does not guarantee transfer of that same course to subsequent institutions. SAT testing may be required by some transfer institutions.

## Degree Program First Year

### Fall Semester

Item #	Title	Theory Hours	Lab Hours	Credits
ENGL110G	College Composition I	4	0	4
	Lab Science Elective*	3	3	4
	US History or American Literature Survey Elective	3	0	3
AMER110G	Introduction to American Studies	3	0	3
	<b>Sub-Total Credits</b>	<b>13</b>	<b>3</b>	<b>14</b>

### Spring Semester

Item #	Title	Theory Hours	Lab Hours	Credits
ENGL214G	Introduction to Creative Nonfiction	3	0	3
	Math Elective	4	0	4
	US History or American Literature Survey Elective	3	0	3
ANTH101G	Introduction to Anthropology	3	0	3
	Humanities/Foreign Language/Fine Arts Elective*	3	0	3
	<b>Sub-Total Credits</b>	<b>16</b>	<b>0</b>	<b>16</b>

## Degree Program Second Year

### Fall Semester

Item #	Title	Theory Hours	Lab Hours	Credits
AMER210G	American Studies Seminar	3	0	3
	Lab Science Elective (AMER)	3	3	4
	US History or American Literature Survey Elective	3	0	3
POLS110G	American Government	3	0	3
	Social Science Elective*	3	0	3-4
	<b>Sub-Total Credits</b>	<b>15-16</b>	<b>3</b>	<b>16-17</b>

### Spring Semester

Item #	Title	Theory Hours	Lab Hours	Credits
	Social Science Elective*	3	0	3-4
	Social Science Elective*	3	0	3-4
	Math Elective	4	0	4
	Humanities/Foreign Language/Fine Arts Elective*	3	0	3
CRIT150G	Critical Thinking in the Humanities	3	0	3
	<b>Sub-Total Credits</b>	<b>16-18</b>	<b>0</b>	<b>16-18</b>

### Curriculum Recommendations

It is recommended that students make Lab Science, Math, Humanities/Foreign Language/Fine Arts, and Social Science Elective choices based upon particular 4-year colleges' transfer requirements and general education cores.

It is recommended to take [AMER110G](#) Introduction to American Studies, and [ENGL110G](#) College Composition I in the first semester.

# Analytics

## Analytics

### Degree Type

Associate in Science

The Analytics program is designed to meet many of the first- and second-year Baccalaureate requirements including the computer programming, mathematics, and database skills essential to complete a 4-year degree. The transfer program has been developed in consultation with the Analytics Department at the University of New Hampshire, Manchester, in order to align program requirements for transfer purposes. Upon completion, students will be in a strong position to complete the remainder of the Bachelor of Science degree with two years of additional study. Other degrees students may wish to pursue include a B.S. in Math/Computer Science or B.S. Statistics.

The Associate in Science degree in Analytics is more than just a transfer degree. Students who complete the degree will be in a position to be employed as a junior data scientist. The 2 years of bachelor's degree completion primarily focus on the field in which (ultimately) a student might wish to concentrate his/her expertise. The associate degree alone provides an individual with all of the data analytical skills needed to begin a career. Job experience and domain expertise will allow the person to gain more ability to advance his/her career beyond simply junior and entry-level status.

This degree emulates the first two years of four-year college and university degrees in (data) analytics and prepares students to be successful in one of the disciplines that relies on data science to answer questions, drive business decisions, and conduct research.

### Program Outcomes

Select a topic of research for which sufficient data exist or data can be simulated in order to answer a question involving statistical analysis, and create a reproducible research report that incorporates and illustrates competent knowledge with the following:

- Use advanced R packages and constructs and create R functions
- Develop reproducible analysis report using Markdown and generated in 3 formats: html, Word doc and pdf doc
- Apply the Cross-Industry Standard Process for Data Mining (CRISP-DM) methodology to the analysis project
- Perform linear regression and multiple linear regression on real-world data sets that are applicable to the project
- Apply statistical methods such as clustering, classification, time series analysis and/or factor analysis as applicable to the project selected and communicate results of these analyses
- Develop advanced visualizations in support of communicating results of statistical analysis as part of the final report in an aesthetically appropriate manner

## First Year

### Fall Semester

Item #	Title	Theory Hours	Lab Hours	Credits
FYE101G	First Year Seminar	1	0	1
CIS112G	Introduction to Object Oriented Programming	2	2	3
MATH210G	Pre-Calculus	4	0	4
	ENGL110G/111G	4	0	4-5
	Lab Science Elective (Analytics)	3	3	4
	<b>Sub-Total Credits</b>	<b>14</b>	<b>5-7</b>	<b>16-17</b>

FYE101G: Any one FYE course fulfills this requirement.

### Spring Semester

Item #	Title	Theory Hours	Lab Hours	Credits
CIS148G	Introduction to Java Programming	2	2	3
BUS110G	Introduction to Business	3	0	3
	Foreign Language/Humanities/Fine Arts Elective - ARTS125G Preferred	3	0	3
MATH230G	Calculus I	4	0	4
MATH235G	Statistics for Engineers and Scientists	4	0	4
	<b>Sub-Total Credits</b>	<b>16</b>	<b>2</b>	<b>17</b>

### Summer Semester Prior to Year One (if needed)

Item #	Title	Theory Hours	Lab Hours	Credits
	MATH150/152G (Analytics)	4	0	4
	<b>Sub-Total Credits</b>	<b>4</b>	<b>0</b>	<b>4</b>

## Second Year

### Fall Semester

Item #	Title	Theory Hours	Lab Hours	Credits
DATA210G	Elements of Data Science	3	0	3
CIS113G	Database Design and Management	2	2	3
MATH245G	Introduction to Linear Algebra	4	0	4
ENGL215G	Writing Technical Documents	3	0	3
SOCI20G	Society and Technological Change	3	0	3
	<b>Sub-Total Credits</b>	<b>15</b>	<b>2</b>	<b>16</b>

## Spring Semester

Item #	Title	Theory Hours	Lab Hours	Credits
DATA220G	Data Analysis with R	3	0	3
CIS210G	Data Structures and Elementary Algorithms	3	2	4
	MATH250G or MATH235G	4	0	4
CIS177G	Introduction to Python	2	2	3
	<b>Sub-Total Credits</b>	<b>12</b>	<b>4</b>	<b>14</b>

Students who started with MATH150G/152G will take MATH235G in 2nd year instead of MATH250G Calculus II;  
Total MATH credits: 20

## Summer Semester

Item #	Title	Theory Hours	Lab Hours	Credits
DATA225G	Analytics Capstone	2	0	2
	<b>Sub-Total Credits</b>	<b>2</b>	<b>0</b>	<b>2</b>
	<b>Total Credits</b>			<b>65-66</b>

# Arts

## Fine Arts

### Degree Type

Associate in Arts

The Associate in Arts Degree in Fine Arts provides students with a foundation in fine arts and is designed to facilitate transfer into a four-year fine arts program. A variety of studio experiences in two- and three-dimensional mediums are offered as well as art history. The program is designed to develop traditional technical skills in studio art, while inspiring creative problem solving, the ability to express visual thinking in oral and written work, the ability to critique art as well as self-assess, an awareness of contemporary culture, and the exploration of personal artistic expression. The program will prepare students for transfer into a degree in studio art, art education, or art history. Several articulation agreements currently exist for transfer into four-year BFA programs at New England institutions. The student will be responsible for purchasing the necessary art supplies, a list of which will be provided with the syllabus of each course.

### Program Outcomes

Graduates will demonstrate the following:

- Render realistic and expressive images in a variety of media.
- Present a portfolio of images that demonstrates artistic skill, direction and a consistent personal style.
- Transform an idea into a finished work of art.
- Demonstrate technical expertise in a variety of two- and three-dimensional media.
- Situate personal work within contemporary culture.
- Understand major art periods and movements from Ancient to Modern periods of Art History.
- Understand the role of the artist in the 21st century.
- Identify and explore careers in the arts.
- Demonstrate creative problem solving.
- Demonstrate the ability to critique the work of others in written and oral formats.
- Demonstrate the ability to reflect, describe and assess one's own work.
- Demonstrate the use of visual vocabulary in oral and written work.
- Demonstrate the ability to use art materials appropriately, safely and responsibly.

## Technical Standards

This program requires work with a variety of art materials in a lab setting. Students must therefore be able to:

- Physically hold and utilize art materials, including but not limited to paintbrushes, pencils and x-acto knives.
- Have sufficient vision to safely use the materials noted as well as visually inspect their own work and that of others.
- Remain seated or standing for focused activity at a workstation for a minimum of 2 hours at a time.

## Transfer Credit Policy

In addition to Great Bay transfer credit policies, Liberal Arts and Science courses will be considered for transfer regardless of when they were taken, as long as they meet minimum grade requirements.

See individual department policies for program exceptions on general education requirements. In the case of English and math course transfers, it may be recommended that the student take portions of the Accuplacer Placement Test to demonstrate the skill level required for success in subsequent classes within the program.

Transfer of a course to this institution does not guarantee transfer of that same course to subsequent institutions. SAT testing may be required by some transfer institutions.

## First Year

### Fall Semester

Item #	Title	Theory Hours	Lab Hours	Credits
FYE115G	First Year Seminar Fine Arts	1	0	1
	ENGL110G/111G	4	0	4-5
	MATH145G/147G (Fine Arts)	4	0	4-5
ARTS123G	Drawing I	2	2	3
	Social Science Elective*	3	0	3-4
	<b>Sub-Total Credits</b>	<b>14-16</b>	<b>2-4</b>	<b>15-18</b>

*FYE115G: Recommended. Any one-credit FYE course fulfills this requirement.*

### Spring Semester

Item #	Title	Theory Hours	Lab Hours	Credits
ENGL214G	Introduction to Creative Nonfiction	3	0	3
	MATH170G or MATH215G or MATH225G	4	0	4
ARTS223G	Drawing II	2	2	3
	Art History Elective	3	0	3
	Fine Arts Elective	2	3	3
	<b>Sub-Total Credits</b>	<b>14</b>	<b>5</b>	<b>16</b>

## Second Year

### Fall Semester

Item #	Title	Theory Hours	Lab Hours	Credits
	Lab Science Elective*	3	3	4
	Social Science Elective*	3	0	3-4
	Fine Arts Elective	2	3	3
	Fine Arts Elective	2	3	3
	Fine Arts Elective	2	3	3
	<b>Sub-Total Credits</b>	<b>12-13</b>	<b>12</b>	<b>16-17</b>

### Spring Semester

Item #	Title	Theory Hours	Lab Hours	Credits
	Lab Science Elective*	3	3	4
	Social Science Elective*	3	0	3-4
ARTS125G	Visual Language	3	0	3
	Fine Arts Elective	2	3	3
	Fine Arts Elective	2	3	3
	<b>Sub-Total Credits</b>	<b>13-14</b>	<b>9</b>	<b>16-17</b>
	<b>Total Credits</b>			<b>63-68</b>

# Automotive Technology

## Automotive Technology

### Degree Type

Certificate

The goal of this program is to provide students with skills and knowledge required for entry-level technicians performing inspection, diagnostics, maintenance and repair on automobiles and light trucks. Students will use investigative skills as they learn to locate problems, use a variety of power tools as well as hand tools and diagnostic tools as they work on parts, and work with technical reference materials. Applied math and computer skills will be incorporated throughout the curriculum. Students will prepare for Student Certification ASE exams in some areas and entry level employment in the field. This program is offered at an off-premises location and can be completed in 3 semesters. Please contact Admissions for more information.

### Program Outcomes

The goal of the Automotive Technician program is to prepare the student to work in the increasingly sophisticated and complex field of automotive technology through a combination of classroom instruction and hands-on skill development. Technicians must be able to work with electronic diagnostic equipment, read and understand technical manuals, investigate to find the cause of a problem, and connect effectively with the customer. They use a variety of tools, including both manual and high-tech equipment, to perform repairs.

After successful completion of the program, students will be able to:

- Demonstrate skills and knowledge required for passing the Student Certification ASE exams, including inspection, diagnostics, maintenance and repair of vehicles.
- Demonstrate safe and appropriate use and care of tools and equipment in the automotive lab.
- Diagnose, repair and document automotive systems including electrical, brakes, engines, suspensions, and steering.
- Inspect a vehicle, use a diagnostic approach to determine cause of operating problems, and decide action to take; complete a NH State Vehicle Inspection.

- Compare and contrast alternate actions to determine whether to repair or replace a part.
- Use appropriate software for information retrieval, analysis, and reporting.
- Communicate effectively with coworkers and customers.

## Admission Requirements

- Complete an application for the program.
- Provide proof of high school completion or equivalent.
- Provide an official copy of prior college transcripts, if appropriate.
- Must possess a valid driver's license.

## Health, Safety, and Internship Considerations

This program includes work in an automotive lab where potentially hazardous equipment and materials are used. Students will be taught industry standards for safety and will be expected to follow all safety procedures. Personal protective equipment must be worn. Students will provide their own safety glasses and boots or shoes before the first class begins.

## Automotive Technology Required Tool List

**Anticipated Cost: \$1,800 to \$2,400**

Tools are to be provided by the student and are not included in tuition or fees. Your instructor will discuss student-only discounts available from various vendors. Tools and tool storage are required no later than the 3rd week of class. Required tools list is subject to change.

### Wrenches

Combination wrench set (8mm - 24mm)  
Torque wrench (3/8 drive beam type)  
Torque wrench (1/2" drive 250FT lb.)  
Wrench (8" adjustable)

### Pliers

Pliers (slip joint)  
Pliers (needle nose)  
Pliers (locking, vise grip)  
Pliers (diagonal cutters)  
Pliers (10" channel lock)

### Hammers

Hammer (soft face)  
Hammer ball peen (large)  
Hammer ball peen (small)  
Hammer Dead blow

### Screwdrivers

Screwdriver set (common)  
Screwdriver set (Phillips)

### Test Equipment

Test light (12 volt)  
Fluke auto-ranging meter (88-V Required)  
Electrical test leads  
T-Pins  
Thermometer

### Ratchets and Sockets

1/2" drive sockets (6 point) 10-24mm  
1/2" drive (6"-10") extension  
1/2" deep impact sockets 10-27mm  
1/2" drive to 3/8" adapter  
1/2" drive universal impact  
1/2" drive ratchet  
3/8" drive sockets (6 point) 7-19mm  
3/8" drive 3", 6" & 12" extensions  
3/8" drive to 1/4" adapter  
3/8" drive universal impact  
3/8" ratchet  
1/4" drive socket set with ratchet & extensions  
Hex Key sockets 1.5mm - 10mm  
Torx bit sockets (male & female) T8-60  
Spark plug sockets (9/16", 5/8" & 13/16")  
12 pt axle nut sockets

### Other

Lockable seven-drawer bench tool box  
Scraper (razor blade)  
Feeler gauges (metric)  
Steel rule (6")  
Tire pressure gauge  
Tire valve core remover  
Safety glasses  
1/2" drive pneumatic impact wrench with fitting  
Pry-bar  
Fender cover  
Air chuck with "Tru-flate" fitting  
Tape measure (standard/metric)  
Telescoping magnet  
LED work/drop light  
Hearing protection  
Work uniforms  
Netbook/laptop computer with software  
4GB flash drive



## Technical Standards

This program includes work in an automotive lab and involves physically performing functions that require the following:

- Normal vision for reading instructions and for performing tasks, including inspecting parts for quality. (Corrective vision is acceptable.)
- Mobility and strength for performing tasks that require reaching, walking, standing, and safely lifting up to 20 lbs.
- Ability to hear sounds of equipment, for equipment operation and safety.

## Transfer Credit Policy

Students may transfer to either LRCC or MCC to complete an Associate Degree in Automotive Technology where advanced automotive technology courses are offered.

## Certificate Requirements

### Fall Semester

Item #	Title	Theory Hours	Lab Hours	Credits
AUTO110G	Automotive Maintenance and Light Repair	2	4	4
AUTO125G	Automotive Electronics I	3	3	4
<b>Sub-Total Credits</b>		<b>5</b>	<b>7</b>	<b>8</b>

### Spring Semester

Item #	Title	Theory Hours	Lab Hours	Credits
AUTO120G	Automotive Engines (Mechanical)	2	6	4
AUTO130G	Automotive Electronics II	2	4	4
<b>Sub-Total Credits</b>		<b>4</b>	<b>10</b>	<b>8</b>

### Summer Semester

Item #	Title	Theory Hours	Lab Hours	Credits
AUTO140G	Braking Systems	2	4	4
AUTO150G	Suspension and Steering	2	6	4
<b>Sub-Total Credits</b>		<b>4</b>	<b>10</b>	<b>8</b>
<b>Total Credits</b>				<b>24</b>

# Bioengineering

## Engineering: Bioengineering

### Degree Type

Associate in Science

The Bioengineering Associate in Science degree is a transfer program which meets a majority of the first and second year baccalaureate requirements for math, chemistry, biology, and physics, as well as the engineering principles which are the foundation of a bioengineering program of study. The transfer program has been developed in consultation with the University of New Hampshire's College of Engineering and Physical Sciences to align program requirements for transfer purposes. The core courses in the program are also common to most undergraduate bioengineering programs.

This program improves upon the previous Liberal Arts concentration in the following ways:

1. Students may transfer with true junior status upon completion of this degree, subject to GPA requirements.
2. Students who place into 100-level or developmental mathematics may still complete the program but will require up to ten (10) additional math credits.
3. General education requirements do not exceed Discovery program requirements at the University of New Hampshire with careful choice of courses.

### Program Outcomes

- Students will access, generate, process, and transfer information using appropriate technologies.
- Students will understand mathematics and become mathematically confident by communicating and reasoning mathematically, by applying mathematics in real-world settings, and by solving problems through the integrated study of number systems, geometry, algebra, and trigonometry.
- Students will understand and apply scientific concepts, principles, and theories pertaining to the physical world and recognize the historical development of ideas in science.
- Students will apply technological knowledge and skills to design, construct, use, and evaluate products and systems.
- Students will understand the relationships and common themes that connect mathematics, science, and technology and apply the themes to other areas.
- Students will apply the knowledge and skills of mathematics, science, and technology to real-life problems and make informed decisions.
- After completing the program, students will be prepared to begin using mathematical analysis, scientific inquiry, and engineering design, as appropriate, to pose questions, seek answers, and develop solutions.

### Technical Standards

1. Basic computer skills including software such as web browsers and office applications
2. Good manual dexterity; adequate (basic) keyboarding skills
3. Vision for reading on computer screen and printed material
4. Critical thinking ability
5. Ability to work independently as well as in small groups
6. Ability to communicate effectively verbally and in writing, as in an office/work environment

### Transfer Credit Policy

In addition to Great Bay transfer credit policies, transfer of courses in the Bioengineering program that are designated MAJOR courses more than 10 years old will be evaluated by the program coordinator on an individual basis.

## First Year

### Fall Semester

Item #	Title	Theory Hours	Lab Hours	Credits
FYE114G	First Year Seminar Engineering	1	0	1
CHEM115G	General Chemistry I	3	3	4
	MATH210G (Bioeng)	4	0	4
	ENGL110G/111G	4	0	4-5
	<b>Sub-Total Credits</b>	<b>12</b>	<b>3-5</b>	<b>13-14</b>

FYE114G: Recommended. Any one-credit FYE course fulfills this requirement.

## Spring Semester

Item #	Title	Theory Hours	Lab Hours	Credits
	English Elective	3	0	3
CHEM116G	General Chemistry II	3	3	4
BIOL108G	General Biology I	3	3	4
MATH230G	Calculus I	4	0	4
SOCH120G	Society and Technological Change	3	0	3
	<b>Sub-Total Credits</b>	<b>16</b>	<b>6</b>	<b>18</b>

## Second Year

### Fall Semester

Item #	Title	Theory Hours	Lab Hours	Credits
	CHE 501 (UNH) - Introduction to Chemical Engineering I	3	0	3
CHEM200G	Organic Chemistry	3	3	4
MATH250G	Calculus II	4	0	4
PHYS290G	University Physics I	3	3	4
	Humanities/Fine Arts Elective*	3	0	3
	<b>Sub-Total Credits</b>	<b>16</b>	<b>6</b>	<b>18</b>

### Spring Semester

Item #	Title	Theory Hours	Lab Hours	Credits
	CHE 502 (UNH) - Introduction to Chemical Engineering II	3	0	3
	BIOL210G or BIOL220G or CHEM205G or BTEC220G or PHYS295G	2	3	4
MATH235G	Statistics for Engineers and Scientists	4	0	4
MATH265G	Differential Equations	4	0	4
	<b>Sub-Total Credits</b>	<b>13-14</b>	<b>3-6</b>	<b>15</b>
	<b>Total Credits</b>			<b>64-65</b>

# Biological Science

## Biological Science

### Degree Type

Associate in Arts

The Biological Science Associate in Arts Degree serves students who are interested in Biological Sciences and intend to transfer to a 4-year institution, but are either unsure of the specific transfer program that interests them, are potentially interested in a Biology minor, or who are interested in programs such as Wildlife Conservation, Sustainable Agriculture, or Marine Biology that require a more varied set of major-related courses at the sophomore level. In comparison to the A.S. degree in Biological Science, students enrolled in the A.A. degree program in Biological Science will graduate with a greater number of general education credits completed, but with fewer credits in the sciences. When selected appropriately, all courses are transferrable to the University of New Hampshire, with the exception of College Algebra.

### Program Outcomes

Students will be able to:

- Understand theoretical principles across a broad range of sub-disciplines in biological sciences and chemistry.
- Understand and be able to apply principles of mathematics as they pertain to the study of biological science and chemistry.
- Understand and be able to apply the scientific method.
- Understand and be able to execute a wide variety of laboratory techniques in microbiology, biochemistry, cell biology, ecology, genetics, and chemistry.
- Generate and maintain accurate lab documentation, including a laboratory notebook.
- Analyze and draw conclusions from generated scientific data, and present findings both orally and in formal laboratory reports.
- Conduct basic bioinformatics-based analysis.
- Qualify for transfer to a four-year college or university with the necessary foundation in biology, chemistry, and mathematics for upper level study in a wide variety of biological disciplines.

### Technical Standards

Students enrolling in Biological Science degree programs must, in addition to meeting the specific pre-requisite requirements for each course, meet the following general, technical standards:

- Students must be able to comprehend the English language, both oral and written, and must have sufficient manual dexterity to produce legible written documents in a timely manner.
- Students must be able to sit or stand at a desk/ laboratory bench and must possess the necessary focus to stay on task for extended periods of time.
- Students must be able to comprehend and follow instructions in the classroom and laboratory in a timely manner.
- Students must possess the necessary manual dexterity to carry out assigned laboratory tasks.
- Students must be able to perform required classroom and laboratory operations, including mathematical operations, without reference to notes, as directed.

## First Year

### Fall Semester

Item #	Title	Theory Hours	Lab Hours	Credits
	ENGL110G/111G	4	0	4-5
BIOL108G	General Biology I	3	3	4
MATH150G	College Algebra	4	0	4
	Humanities/Foreign Language/Fine Arts Elective*	3	0	3
<b>Sub-Total Credits</b>		<b>14</b>	<b>3-5</b>	<b>15-16</b>

Students who do not test directly into MATH150G (College Algebra) may substitute MATH152G (College Algebra Plus). Students with appropriate test scores may substitute a higher-level course from the Calculus Math pathway: MATH210G (Pre-Calculus), MATH230G (Calculus I), MATH235G (Statistics for Engineers and Scientists), or MATH250G (Calculus II).

## Spring Semester

Item #	Title	Theory Hours	Lab Hours	Credits
BIOL109G	General Biology II	3	3	4
CHEM115G	General Chemistry I	3	3	4
MATH210G	Pre-Calculus	4	0	4
ENGL214G	Introduction to Creative Nonfiction	3	0	3
	Social Science Elective*	3	0	3-4
	<b>Sub-Total Credits</b>	<b>16-17</b>	<b>6</b>	<b>18-19</b>

Students with appropriate test scores or the appropriate prerequisite may substitute a higher-level course from the Calculus Math pathway: MATH230G (Calculus I), MATH235G (Statistics for Engineers and Scientists), MATH250G (Calculus II), or MATH265G (Differential Equations).

(Students should consider completing one of these courses over the summer.)

## Second Year

### Fall Semester

Item #	Title	Theory Hours	Lab Hours	Credits
CHEM116G	General Chemistry II	3	3	4
	Math Elective/Lab Science Elective	3	3	4
	Social Science Elective*	3	0	3-4
	Humanities/Foreign Language/Fine Arts Elective*	3	0	3
	<b>Sub-Total Credits</b>	<b>12-13</b>	<b>6</b>	<b>14-15</b>

### Spring Semester

Item #	Title	Theory Hours	Lab Hours	Credits
	Biology Elective	3	3	4
	Math Elective/Lab Science Elective	3	3	4
	Social Science Elective*	3	0	3-4
	Humanities/Foreign Language/Fine Arts Elective*	3	0	3
	<b>Sub-Total Credits</b>	<b>12-13</b>	<b>6</b>	<b>14-15</b>
	<b>Total Credits</b>			<b>61-65</b>

## Biological Science

### Degree Type

Associate in Science

The Biological Science Associate in Science degree serves students who intend to transfer to a 4-year institution to pursue a bachelor's degree with a major field related to biological or biomedical sciences. It is designed to replicate the course schedule for the freshman and sophomore years at a bachelor's degree granting institution such as the University of New Hampshire, and with sufficiently high math placement, is fully transferable to the College of Life Science and Agriculture at UNH.

### Program Outcomes

Students will be able to:

- Understand theoretical principles across a broad range of sub-disciplines in biological sciences and chemistry.
- Understand and be able to apply principles of mathematics as they pertain to the study of biological science and chemistry.
- Understand and be able to apply the scientific method.
- Understand and be able to execute a wide variety of laboratory techniques in microbiology, biochemistry, cell biology, ecology, genetics, and chemistry.
- Generate and maintain accurate lab documentation, including a laboratory notebook.
- Analyze and draw conclusions from generated scientific data, and present findings both orally and in formal laboratory reports.
- Conduct basic bioinformatics-based analysis.
- Qualify for transfer to a four-year college or university with the necessary foundation in biology, chemistry, and mathematics for upper level study in a wide variety of biological disciplines.

### Technical Standards

Students enrolling in Biological Science degree programs must, in addition to meeting the specific pre-requisite requirements for each course, meet the following general, technical standards:

- Students must be able to comprehend the English language, both oral and written, and must have sufficient manual dexterity to produce legible written documents in a timely manner.
- Students must be able to sit or stand at a desk/ laboratory bench and must possess the necessary focus to stay on task for extended periods of time.
- Students must be able to comprehend and follow instructions in the classroom and laboratory in a timely manner.
- Students must possess the necessary manual dexterity to carry out assigned laboratory tasks.
- Students must be able to perform required classroom and laboratory operations, including mathematical operations, without reference to notes, as directed.

## First Year

### Fall Semester

Item #	Title	Theory Hours	Lab Hours	Credits
	ENGL110G/111G	4	0	4-5
BIOL108G	General Biology I	3	3	4
	MATH150/152G (Biological Science)	4	0	4-5
CHEM115G	General Chemistry I	3	3	4
	<b>Sub-Total Credits</b>	<b>14-15</b>	<b>6-8</b>	<b>16-18</b>

### Spring Semester

Item #	Title	Theory Hours	Lab Hours	Credits
BIOL109G	General Biology II	3	3	4
CHEM116G	General Chemistry II	3	3	4
MATH210G	Pre-Calculus	4	0	4
ENGL214G	Introduction to Creative Nonfiction	3	0	3
	<b>Sub-Total Credits</b>	<b>13</b>	<b>6</b>	<b>15</b>

MATH210G: Students with appropriate test scores or the appropriate prerequisite may substitute a higher-level course from the Calculus math pathway: MATH230G, MATH235G, MATH250G, MATH265G.

## Second Year

### Fall Semester

Item #	Title	Theory Hours	Lab Hours	Credits
	BIOLXXXG - Biology Elective	3	3	4
	Math/Science Elective	3	0	4
	Math/Science Elective	3	0	4
	Humanities/Foreign Language/Fine Arts Elective*	3	0	3
	<b>Sub-Total Credits</b>	<b>12-14</b>	<b>3-9</b>	<b>15</b>

### Spring Semester

Item #	Title	Theory Hours	Lab Hours	Credits
	BIOLXXXG - Biology Elective	3	3	4
	Math/Science Elective	3	0	4
	Social Science Elective*	3	0	3-4
	Open Elective(s)	3	0	3-4
	<b>Sub-Total Credits</b>	<b>12-15</b>	<b>3-6</b>	<b>14-16</b>

Note: at least two of the five courses taken as Biology and Math/Science Electives must be at the 200 level.

<b>Total Credits</b>	<b>60-64</b>
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## Biotechnology

### Biotechnology

#### Degree Type

Advanced Certificate

#### Admissions Requirements

1. Complete an application for the program.
2. Provide proof of high school completion or equivalent.
3. Provide evidence of college level Biology and Chemistry.
4. Obtain permission of Department Chair.

#### Certificate Requirements

Item #	Title	Theory Hours	Lab Hours	Credits
BTEC105G	Introduction to Biotechnology	3	3	4
BTEC210G	Biotechnology Research	2	6	4
BTEC220G	Biomanufacturing	2	6	4
	<b>Sub-Total Credits</b>	<b>7</b>	<b>15</b>	<b>12</b>

200 level BIOL or CHEM course may be substituted at discretion of the department chair. Note: The Biotechnology Advanced Certificate Program is not financial aid eligible.

#### Curriculum Recommendations

A higher-level math class may be substituted for MATH150G; however, students planning to transfer are recommended to follow the Calculus sequence of Math courses.

<b>Total Credits</b>	<b>12</b>
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# Biotechnology

## Degree Type

Associate in Science

Biotechnology is a subject area that has enormous implications for the future of the 21st century. It already has a significant impact on our lives and will continue to revolutionize the ways in which we diagnose and treat disease, lengthen the life span, feed the planet, and remediate the environment. Our nationally recognized Biotechnology program prepares students with the skills and knowledge needed to enter the biotechnology industry or to proceed to further education at a four-year college or university. Current graduates may be found in a variety of biotechnology companies, working as Lab Technicians, Manufacturing Associates, Quality Control and Quality Assurance Technicians, and as Validation Consultants.

## Program Outcomes

Students graduating with the A.S. degree in Biotechnology will be able to:

- Understand the role of biotechnology in human experience, past and present.
- Understand the “benchtop to bottle” process of bringing a biopharmaceutical or other biotechnology-based product to market.
- Understand the Central Dogma, and its role as the theoretical foundation of modern biotechnology.
- Understand and be able to apply the scientific method.
- Understand and be able to execute a wide variety of laboratory techniques in microbiology, biochemistry and molecular genetics, including (but not limited to) solution preparation, gene cloning, DNA extraction and amplification, library construction, hybridization, forensic analysis, cell culture, and protein production, purification and verification.
- Generate and maintain accurate lab documentation, including laboratory notebooks, batch records and logbooks.
- Understand and adhere to the documentation guidelines of cGMP, when required.
- Analyze and draw conclusions from generated scientific data, and present findings in a formal laboratory report.
- Understand the basic principles of genomics, proteomics and systems approaches in biotechnology.
- Conduct basic bioinformatics-based analysis.
- Use critical thinking and principles of logic to analyze ethical issues raised in the practice of biotechnology.
- Qualify for entry level work in the biomanufacturing sector of the biotechnology industry.
- Qualify for transfer to a four-year college or university with the necessary foundation in biology, chemistry and mathematics for upper level study in a wide variety of biological disciplines.

## Health, Safety, and Internship Considerations

The Biotechnology program offers an optional externship. Participation in this externship requires the student to follow the College Immunization Policy. Please see the Academic Policies section of this catalog, under XVI. Immunization Policy. Depending upon the site, the student may be required to possess and maintain professional liability insurance. For unpaid externships, the student must possess and maintain accident insurance. Please see the Student Services section of this catalog, under Insurance for purchase options available through the College.

## Technical Standards

Students enrolling in degree and certificate programs, and/or enrolling in individual courses within the Biotechnology Program, in addition to meeting the specific prerequisite requirements for each course, must meet the following general, technical standards:

- Students must be able to comprehend the English language, both oral and written.



- Students must have sufficient manual dexterity to produce legible written documents in a timely manner. Appropriate assistive technology may be used, as needed.
- Students must be able to sit or stand at a desk and laboratory bench and must possess the necessary focus to stay on task for extended periods of time.
- Students must be able to comprehend and follow instructions in the classroom and laboratory in a timely manner.
- Students must possess the necessary manual dexterity to carry out assigned laboratory tasks.
- Students must be able to perform required classroom and laboratory operations, including mathematical operations, without reference to notes, as directed.

### Transfer Credit Policy

In addition to Great Bay transfer credit policies, transfer of courses in Biotechnology more than ten years old will be evaluated by the department chair on an individual basis.

## First Year (Pathway I)

### Fall Semester

Item #	Title	Theory Hours	Lab Hours	Credits
	Social Science Elective*	3	0	3-4
BIOL108G	General Biology I	3	3	4
	MATH145/7	4	0	4-5
	ENGL110G/111G	4	0	4-5
	<b>Sub-Total Credits</b>	<b>14-16</b>	<b>3-5</b>	<b>15-18</b>

### Spring Semester

Item #	Title	Theory Hours	Lab Hours	Credits
BTEC205G	Bioethics	3	0	3
CHEM115G	General Chemistry I	3	3	4
BTEC105G	Introduction to Biotechnology	3	3	4
MATH225G	Probability and Statistics	4	0	4
	<b>Sub-Total Credits</b>	<b>13</b>	<b>6</b>	<b>15</b>

PHIL240G Ethics may be substituted for BTEC205G Bioethics.

## Second Year

### Fall Semester

Item #	Title	Theory Hours	Lab Hours	Credits
BTEC210G	Biotechnology Research	2	6	4
BIOL109G	General Biology II	3	3	4
	Technical Elective	3	0	3-4
	Technical Elective	3	0	3-4
	Humanities/Foreign Language/Fine Arts Elective*	3	0	3
	<b>Sub-Total Credits</b>	<b>14-16</b>	<b>9-15</b>	<b>17-19</b>

## Spring Semester

Item #	Title	Theory Hours	Lab Hours	Credits
BTEC220G	Biomanufacturing	2	6	4
BIOL210G	Microbiology	3	3	4
	Technical Elective	3	0	3-4
	Technical Elective	3	0	3-4
	<b>Sub-Total Credits</b>	<b>11-13</b>	<b>9-15</b>	<b>14-16</b>

## First Year (Pathway II)

Item #	Title	Theory Hours	Lab Hours	Credits
CHEM115G	General Chemistry I	3	3	4
BIOL108G	General Biology I	3	3	4
	MATH150/152G (Biotech)	4	0	4-5
	ENGL110G/111G	4	0	4-5
	<b>Sub-Total Credits</b>	<b>14-15</b>	<b>6-8</b>	<b>16-18</b>

## Spring Semester

Item #	Title	Theory Hours	Lab Hours	Credits
BTEC205G	Bioethics	3	0	3
CHEM116G	General Chemistry II	3	3	4
BTEC105G	Introduction to Biotechnology	3	3	4
MATH210G	Pre-Calculus	4	0	4
	<b>Sub-Total Credits</b>	<b>13</b>	<b>6</b>	<b>15</b>

[PHIL240G](#) Ethics may be substituted for [BTEC205G](#) Bioethics.

[MATH210G](#): A higher-level MATH may be substituted.

## Second Year

### Fall Semester

Item #	Title	Theory Hours	Lab Hours	Credits
BTEC210G	Biotechnology Research	2	6	4
BIOL210G	Microbiology	3	3	4
BIOL109G	General Biology II	3	3	4
	Technical Elective	3	0	3-4
	Humanities/Foreign Language/Fine Arts Elective*	3	0	3
	<b>Sub-Total Credits</b>	<b>14-15</b>	<b>12-15</b>	<b>18-19</b>

Students may want to consider taking one of these courses during the summer term.

### Spring Semester

Item #	Title	Theory Hours	Lab Hours	Credits
BTEC220G	Biomanufacturing	2	6	4
	Social Science Elective*	3	0	3-4
	Technical Elective	3	0	3-4
	Technical Elective	3	0	3-4
	<b>Sub-Total Credits</b>	<b>11-14</b>	<b>6-12</b>	<b>13-16</b>
	<b>Total Credits</b>			<b>62-67</b>

## Biotechnology

### Degree Type

Certificate

### Admissions Requirements:

1. Complete an application for the program.
2. Provide proof of high school completion or equivalent.
3. Provide an official copy of prior college transcripts, if appropriate.
4. Successful completion of high school algebra, biology and chemistry with a grade of C or better.
5. Placement into ENGL110G/111G or higher.

### Certificate Requirements

Item #	Title	Theory Hours	Lab Hours	Credits
BTEC105G	Introduction to Biotechnology	3	3	4
	TECHXXX - Technical Elective	2	2	3-4
	MATH145G/147G	4	0	4-5
BIOL108G	General Biology I	3	3	4
CHEM110G	Introduction to Chemistry	3	3	4
BTEC210G	Biotechnology Research	2	6	4
BTEC220G	Biomanufacturing	2	6	4
	<b>Sub-Total Credits</b>	<b>19-21</b>	<b>23-24</b>	<b>27-29</b>
	<b>Total Credits</b>			<b>27-29</b>

## Business Administration

### Business Administration

#### Degree Type

Associate in Science

The Associate in Science Degree in Business Administration emphasizes broad management competencies in finance, marketing, human resources, economics, and computers. All of these competencies are needed in industry, nonprofit, and service organizations. The study of Business Administration focuses on how organizations develop and use strategies to compete in national and global arenas within the increasingly complex and changing socio-cultural, political/legal, economic, and technological environment.

Students in the program are encouraged to relate theoretical learning to practice and establish bridges between the classroom and the work environments. The Associate in Science Degree in Business Administration provides the framework needed for successful careers in high-tech industries, manufacturing, banking and finance, health care, communications, service industries, and nonprofit organizations.

The Business Administration degree is designed to provide students with options that enhance transfer to four-year institutions or allow students to pursue employment upon completion of the program. The Business Administration program is accredited by the Accreditation Council for Business Schools and Programs (ACBSP) which supports transfers to many four-year institutions.

#### Program Outcomes

Graduates with a degree in Business Administration will:

- Know the fundamentals of theory and practices in Business Administration.
- Demonstrate written and oral proficiency in business communications.
- Understand the foundations and importance of business ethics and social responsibility.
- Be able to transfer to a four-year college or university with a solid business studies foundation.

- Be prepared to enter the workforce with entry-level skills for Business Administration.
- Understand the need for lifelong learning to help ensure employability.
- Demonstrate competency in fundamental areas of business: accounting, finance, computers, and economics.
- Possess an understanding of cross-cultural and global issues, and sensitivity to diversity and other cultures.
- Demonstrate information literacy through research skills and the use of technology.
- Demonstrate proficiency in critical thinking, analysis, reasoning, questioning and quantitative skills.

### Health, Safety, and Internship Considerations

Participation in an internship requires the student to follow the College Immunization Policy. Please see the Academic Policies section of this catalog, under XVI. Immunization Policy. Depending upon the site, the student may be required to possess and maintain professional liability insurance. For unpaid internships, the student must possess and maintain accident insurance. Please see the Student Services section of this catalog, under Insurance.

### Technical Standards

Students must be able to demonstrate the ability to communicate effectively using written and oral techniques, including the use of technology, conduct themselves in a professional manner, possess critical thinking and analytical skills, be comfortable using computers and computer application software, and work independently and in groups.

### Transfer Credit Policy

In addition to Great Bay transfer credit policies, transfer of courses in Management more than ten years old will be evaluated by the department chair on an individual basis.

## First Year

### Fall Semester

Item #	Title	Theory Hours	Lab Hours	Credits
FYE111G	First Year Seminar-BUS/HOSP	1	0	1
BUS110G	Introduction to Business	3	0	3
	CIS156G/154G	2	2	3-4
	ENGL110G/111G	4	0	4-5
BUS114G	Management	3	0	3
ACCT113G	Accounting and Financial Reporting I	3	0	3
	<b>Sub-Total Credits</b>	<b>16</b>	<b>2-6</b>	<b>17-19</b>

FYE111G: Recommended. Any one-credit FYE course fulfills this requirement.

### Spring Semester

Item #	Title	Theory Hours	Lab Hours	Credits
	Math Elective	4	0	4
ACCT123G	Accounting and Financial Reporting II	3	0	3
	Lab Science Elective*	3	3	4
	Business or Liberal Arts Elective	3	0	3
	<b>Sub-Total Credits</b>	<b>13</b>	<b>3</b>	<b>14</b>

## Second Year

### Fall Semester

Item #	Title	Theory Hours	Lab Hours	Credits
ECON234G	Macroeconomics	3	0	3
CRIT150G	Critical Thinking in the Humanities	3	0	3
	Business or Liberal Arts Elective	3	0	3
	BUS, ACCT, ECON, MKTG, or HOSP Elective 3 (200 level course) or Liberal Arts Elective	3	0	3
	BUS, ACCT, ECON, MKTG, or HOSP Elective 3	3	0	3
	<b>Sub-Total Credits</b>	<b>15</b>	<b>0</b>	<b>15</b>

### Spring Semester

Item #	Title	Theory Hours	Lab Hours	Credits
ECON235G	Microeconomics	3	0	3
	Business or Liberal Arts Elective	3	0	3
	BUS, ACCT, ECON, MKTG, or HOSP Elective 3 (200 level course) or Liberal Arts Elective	3	0	3
BUS242G	Ethics and Social Responsibility in Business	3	0	3
	BUS, ACCT, ECON, MKTG, or HOSP Elective 3	3	0	3
	<b>Sub-Total Credits</b>	<b>15</b>	<b>0</b>	<b>15</b>

## Suggested Pathways:

### Pathway 1: Transfer to UNH Paul School or Other Universities

Item #	Title	Theory Hours	Lab Hours	Credits
	Elective (Fine & Performing Arts Discovery)	3	0	3
	Elective (Environment, Technology & Society Discovery)	3	0	3
	Elective (Social or Physical Science)	3	0	3
	Elective (World Cultures or Humanities Discovery)	3	0	3
	Elective (Historical Perspectives Discovery)	3	0	3
ACCT213G	Cost Accounting I	3	0	3
ACCT215G	Cost Accounting II	3	0	3
	<b>Sub-Total Credits</b>	<b>21</b>	<b>0</b>	<b>21</b>

### Pathway 2: Leadership & Management (Transfer to SNHU or other 4-Year Institutions)

Item #	Title	Theory Hours	Lab Hours	Credits
MKTG101G	Principles of Marketing	3	0	3
	BUS210 or BUS200G	3	0	3
	BUS224G or BUS 216G	3	0	3
BUS208G	Leadership Theory & Practice	3	0	3
BUS211G	Business Law	3	0	3
BUS221G	Business Finance	3	0	3
BUS209G	Principles of Global Business	3	0	3
	<b>Sub-Total Credits</b>	<b>21</b>	<b>0</b>	<b>21</b>

**Pathway 3: Sales & Digital Marketing  
(Entrepreneurs, Direct-to-Career, and Transfer)**

Item #	Title	Theory Hours	Lab Hours	Credits
MKTG101G	Principles of Marketing	3	0	3
MKTG224G	Sales and Sales Management	3	0	3
MKTG201G	Business Relationship Management	3	0	3
	BUS210 or BUS200G	3	0	3
	BUS205G or BUS291G	0	0	3
BUS209G	Principles of Global Business	3	0	3
BUS282G	Capstone Research	3	0	3
	<b>Sub-Total Credits</b>	<b>18-21</b>	<b>0-9</b>	<b>21</b>

**Pathway 4: Risk Management and Insurance**

Item #	Title	Theory Hours	Lab Hours	Credits
INSR120G	Introduction to Risk Management & Insurance	3	0	3
INSR122G	Personal Insurance	3	0	3
INSR123G	Commercial Insurance	3	0	3
INSR124G	Agency Operations	3	0	3
MKTG101G	Principles of Marketing	3	0	3
INSR125G	Introduction to Claims	3	0	3
BUS291G	Internship	0	9	3
	<b>Sub-Total Credits</b>	<b>18</b>	<b>9</b>	<b>21</b>
	<b>Total Credits</b>			<b>61-63</b>

## Leadership & Management

### Degree Type

Certificate

The study of management focuses on how organizations develop and use strategies to compete in national and global arenas within the increasingly complex and changing socio-cultural, political/legal, economic, and technological environment. Students in the program are encouraged to relate theoretical learning to practice and establish bridges between the classroom and the work environments.

The Certificate program can be completed on a full or part-time basis, and courses are offered during the day, evening, and online.

### Admissions Requirements

Placement into ENGL110G/111G.

### Program Outcomes

Students will be able to:

- Know the fundamentals of management theory and practices.
- Demonstrate knowledge of leadership theories and practices.
- Demonstrate written and oral proficiency in business communications.
- Understand the foundations and importance of business ethics and social responsibility.
- Be prepared to enter the workforce with entry-level management skills.
- Understand the necessity for a commitment to lifelong learning to ensure employability.

- Possess an understanding of cross-cultural and global issues and sensitivity to diversity and other cultures.
- Demonstrate information literacy through research skills and the use of technology.
- Demonstrate proficiency in critical thinking, analysis, reasoning, questioning and quantitative skills.

### Technical Standards

Students must be able to demonstrate the ability to communicate effectively using written and oral techniques, including the use of technology; conduct themselves in a professional manner; possess critical thinking and analytical skills; be comfortable using computers and computer application software; and be able to work independently and in groups.

### Certificate Requirements

Item #	Title	Theory Hours	Lab Hours	Credits
BUS110G	Introduction to Business	3	0	3
BUS114G	Management	3	0	3
BUS242G	Ethics and Social Responsibility in Business	3	0	3
BUS208G	Leadership Theory & Practice	3	0	3
<b>Sub-Total Credits</b>		<b>12</b>	<b>0</b>	<b>12</b>

Select 3 of the following:

(9 credits)

Item #	Title	Theory Hours	Lab Hours	Credits
BUS210G	Organizational Communications	3	0	3
BUS200G	Teambuilding	3	0	3
BUS224G	Human Resource Management	3	0	3
BUS216G	Organizational Behavior	3	0	3
BUS209G	Principles of Global Business	3	0	3
BUS234G	Entrepreneurship & Small Business Management	3		3
BUS211G	Business Law	3	0	3

*Note: The prerequisites for BUS211G Business Law, BUS216G Organizational Behavior, and BUS242G Ethics and Social Responsibility in Business include Placement into ENGL110G/111G. Placement testing for Essay Writing and Reading are strongly recommended before the student's first semester.*

**Total Credits**

**21**

### Risk Management & Insurance

#### Degree Type

Certificate

Risk and insurance affects every aspect of daily life and business. The study of risk management involves learning how to identify, assess, and manage financial risks faced by individuals or organizations and selecting the most appropriate technique to mitigate losses. There are several paths one can take within the insurance industry. Sales agents sell insurance, underwriters evaluate applications and determine whether to offer insurance coverage, and then there are the claims adjusters, appraisers, and investigators who manage the process of how and when insurance money is paid out. The Risk Management & Insurance certificate will focus on the different tools and techniques used in the insurance industry.

#### Program Outcomes

Students with a certificate in Risk Management & Insurance will:

- Be prepared to enter the workforce with entry-level skills for the Insurance industry
- Have a practical working knowledge of risk management and insurance
- Understand fundamental concepts of agency operations, including claims handling
- Analyze the types of insurance coverage available to mitigate loss exposure faced by individuals and organizations
- Demonstrate information literacy through research skills and the use of technology

### Technical Standards

Students must be able to demonstrate the ability to communicate effectively using written and oral techniques, including the use of technology; conduct themselves in a professional manner; possess critical thinking and analytical skills; be comfortable using computers and computer application software; and be able to work independently and in groups.

### Certificate Requirements

Item #	Title	Theory Hours	Lab Hours	Credits
ACCT113G	Accounting and Financial Reporting I	3	0	3
BUS110G	Introduction to Business	3	0	3
INSR120G	Introduction to Risk Management & Insurance	3	0	3
INSR122G	Personal Insurance	3	0	3
INSR123G	Commercial Insurance	3	0	3
INSR124G	Agency Operations	3	0	3
INSR125G	Introduction to Claims	3	0	3
MKTG101G	Principles of Marketing	3	0	3
	<b>Sub-Total Credits</b>	<b>24</b>	<b>0</b>	<b>24</b>
	<b>Total Credits</b>			<b>24</b>

## Sales & Digital Marketing

### Degree Type

Certificate

In an era of global, digitized, interactive business environments, Marketing offers one of the best career opportunities for today's business students. Marketing is a broad field which includes activities related to selecting, designing, packaging, pricing, advertising/promoting, selling, distributing, and servicing a product in the domestic and/or international marketplace. It is the driving force in most businesses.

Marketing is critically examined from the perspective of the consumer/client, economy, technology, legal/political issues, and ethical/social responsibility. Marketing classes integrate theory and practical applications while applying related business knowledge of information technology, accounting, economics and management principles.

Marketing personnel are employed in retail, industrial and commercial firms, schools and hospitals, both locally and internationally. Marketing offers something for every business student—a desk job as a market research analyst, or travel and excitement with the public as a salesperson, retailer, or public relations person.

The Certificate program can be completed on a full or part-time basis and courses are offered during the day, evening, and online.

### Program Outcomes



Students will be able to:

- Identify the marketing mix variables -- product, price, place, and promotion -- and write a marketing plan.
- Create and develop an integrated marketing communication (advertising) plan, including marketing objectives, strategies, and tactics.
- Analyze consumer decision making as it relates to consumer buying behavior and marketing decisions.
- Analyze the decision-making process in marketing products internationally and understand the role marketing plays in a global economy.
- Demonstrate knowledge of various advertising media, such as social media and all forms of digital media.
- Apply the strategic selling model to personal selling activities.
- Engage in a personal selling situation with emphasis on the customer relationship and deliver a personal sales presentation using a sales portfolio and other sales tools.
- Possess an understanding of cross-cultural and global issues and sensitivity to diversity and other cultures.
- Demonstrate information literacy through research skills and the use of technology.
- Demonstrate proficiency in critical thinking, analysis, reasoning, questioning and quantitative skills.

### Technical Standards

Students must be able to demonstrate the ability to communicate effectively using written and oral techniques, including the use of technology; conduct themselves in a professional manner; possess critical thinking and analytical skills; be comfortable using computers and computer application software; work independently and in groups.

### Certificate Requirements

Item #	Title	Theory Hours	Lab Hours	Credits
BUS110G	Introduction to Business	3	0	3
MKTG101G	Principles of Marketing	3	0	3
MKTG224G	Sales and Sales Management	3	0	3
MKTG201G	Business Relationship Management	3	0	3
BUS209G	Principles of Global Business	3	0	3
	BUS210 or BUS200G	3	0	3
	BUS205G or BUS282G	3	0	3
	<b>Sub-Total Credits</b>	<b>21</b>	<b>0</b>	<b>21</b>
	<b>Total Credits</b>			<b>21</b>

## Chemistry

### Chemistry

#### Degree Type

Associate in Arts

The Chemistry degree is designed for students who wish to transfer to a four-year institution to pursue a degree in chemistry, biochemistry or chemical engineering. It provides a basic foundation in chemistry, along with appropriate coursework in the related disciplines of mathematics, biology and physics.

#### Program Outcomes

Students graduating with the Associate of Arts degree in Chemistry will be able to:

- Understand and be able to apply principles of chemistry across the sub-disciplines.

- Understand principles of mathematics, biology and physics at a level appropriate to preparation for an undergraduate major in chemistry, biochemistry, or chemical engineering.
- Understand and be able to apply the scientific method.
- Understand and be able to execute a wide variety of laboratory techniques in chemistry and related fields.
- Generate and maintain accurate lab documentation including a laboratory notebook.
- Analyze and draw conclusions from generated scientific data, and present findings in a formal laboratory report.
- Qualify for transfer to a four-year college or university.

### Technical Standards

Students enrolling in the Chemistry program must, in addition to meeting the specific pre-requisite requirements for each course, meet the following general, technical standards:

- Students must be able to comprehend the English language, both oral and written, and must have sufficient manual dexterity to produce legible written documents in a timely manner.
- Students must be able to sit or stand at a desk/ laboratory bench, and must possess the necessary focus to stay on task for extended periods of time.
- Students must be able to comprehend and follow instructions in the classroom and laboratory in a timely manner.
- Students must possess the necessary manual dexterity to carry out assigned laboratory tasks.
- Students must be able to perform required classroom and laboratory operations, including mathematical operations, without reference to notes, as directed.

### Transfer Credit Policy

In addition to Great Bay transfer credit policies, transfer of courses more than ten years old will be evaluated by the department chair or program coordinator on an individual basis.

## First Year

### Fall Semester

Item #	Title	Theory Hours	Lab Hours	Credits
	ENGL110G/111G	4	0	4-5
CHEM115G	General Chemistry I	3	3	4
	MATH150/152G (Chem)	4	0	4-5
	Social Science Elective*	3	0	3-4
	<b>Sub-Total Credits</b>	<b>14-15</b>	<b>3-5</b>	<b>15-18</b>

### Spring Semester

Item #	Title	Theory Hours	Lab Hours	Credits
CHEM116G	General Chemistry II	3	3	4
MATH210G	Pre-Calculus	4	0	4
BIOL108G	General Biology I	3	3	4
	Social Science Elective*	3	0	3-4
	Humanities/Foreign Language/Fine Arts Elective*	3	0	3
	<b>Sub-Total Credits</b>	<b>16-17</b>	<b>6</b>	<b>18-19</b>

## Second Year

### Fall Semester

Item #	Title	Theory Hours	Lab Hours	Credits
CHEM200G	Organic Chemistry	3	3	4
MATH230G	Calculus I	4	0	4
ENGL214G	Introduction to Creative Nonfiction	3	0	3
	Humanities/Foreign Language/Fine Arts Elective*	3	0	3
<b>Sub-Total Credits</b>		<b>13</b>	<b>3</b>	<b>14</b>

MATH230G: Students with appropriate test scores or the appropriate prerequisite may substitute a higher-level course from the Calculus math pathway: MATH230G, [MATH235G](#), [MATH250G](#), [MATH265G](#).

### Spring Semester

Item #	Title	Theory Hours	Lab Hours	Credits
CHEM205G	Biochemistry	3	3	4
PHYS290G	University Physics I	3	3	4
	Social Science Elective*	3	0	3-4
	Humanities/Foreign Language/Fine Arts Elective*	3	0	3
<b>Sub-Total Credits</b>		<b>12-13</b>	<b>6</b>	<b>14-15</b>

### Curriculum Recommendations

Students who do not test directly into MATH 150G may substitute MATH 152G. Students with appropriate test scores may substitute a higher-level course from the Calculus math pathway: MATH210G, MATH230G, MATH235G, MATH250G.

Students with appropriate test scores or the appropriate prerequisite may substitute a higher-level course from the Calculus math pathway: MATH230G, MATH235G, MATH250G, MATH265G.

Social Science Elective, Foreign Language/Humanities/Fine Arts Elective: Students intending to transfer should take care to select a course that will transfer appropriately to their intended institution.

**Total Credits**

**61-66**

## Computer Numeric Control

### Computer Numeric Control (CNC)

#### Degree Type

Certificate

This certificate is designed to prepare participants for jobs as computer-controlled milling machine operators for metal and plastic. Courses are taught over two semesters, with the first semester covering foundation skills and prerequisites for the CNC course. The next semester provides basic skills, including milling, inspection, and computer aided design/computer aided manufacturing. Courses in this certificate prepare students for entry-level jobs as CNC operators.

Dual enrollment: Students enrolled in the CNC Certificate program may elect to enroll in the Associate Degree in Technical Studies. Dual enrollment is contingent upon active or graduate status of the certificate. Completion of the CNC certificate satisfies the requirement for the technical specialty core (21 credits) of the Technical Studies degree.

## **Program Outcomes**

After completing this certificate students will be able to:

- Demonstrate skills and knowledge required for jobs as CNC machine operators/programmers.
- Demonstrate ability to inspect, test, or measure materials, products, or work for conformance to specifications.
- Apply critical thinking skills to use logic and reason to identify the strengths and weaknesses of alternative approaches to problems.
- Safely operate a 3-axis milling machine, set up and maintain probes and cutting tools, perform basic machine maintenance, and apply tolerance specifications.
- Monitor operation/performance to make sure a machine is working properly, make improvements or take corrective action.

## **Admissions Requirements**

- Complete an application for the program.
- Provide proof of high school completion or equivalent.
- Provide an official copy of prior college transcripts, if appropriate

## **Health, Safety, and Internship Considerations**

This program includes work in a manufacturing lab where potentially hazardous materials are used. Students will be taught industry standards for safety and will be expected to follow all safety procedures for material handling. Personal protective equipment must be worn. Students will provide their own safety boots or shoes.

## **Technical Standards**

This program includes work in a manufacturing lab and requires participants to physically perform functions that require the following:

- Normal vision for reading instructions and for performing tasks, including inspecting parts for quality (corrective vision is acceptable).
- Mobility and strength for performing tasks that require reaching, walking, standing, and safely lifting up to 20 lbs.
- Ability to hear sounds of equipment, for equipment operation and safety.

## **Transfer Credit Policy**

- In addition to Great Bay transfer credits policies, transfer of courses in the CNC program will be evaluated by the department chair on an individual basis.
- Students enrolled in the CNC Certificate program may elect to enroll in the Associate Degree in Technical Studies. Dual enrollment is contingent upon active or graduate status of the certificate. Completion of the CNC certificate satisfies the requirement for the technical specialty core of the Technical Studies degree.

## Certificate Requirements

### Fall Semester

Item #	Title	Theory Hours	Lab Hours	Credits
MANF120G	Technical Blueprint Reading	1	2	2
MANF135G	Technical Math for Manufacturing	3	0	3
MANF230G	Manufacturing Ethics	1	0	1
MANF112G	Topics in Manufacturing	2	2	3
<b>Sub-Total Credits</b>		<b>7</b>	<b>4</b>	<b>9</b>

### Spring Semester

Item #	Title	Theory Hours	Lab Hours	Credits
MANF254G	Quality Inspection and CMM Operator	2	2	3
MANF255G	CNC Milling and Set-up Operator	4	4	6
MANF225G	Solid Modeling (CAD/CAM)	2	2	3
<b>Sub-Total Credits</b>		<b>8</b>	<b>8</b>	<b>12</b>
<b>Total Credits</b>				<b>21</b>

## Computer Technologies

### Computer Technologies

#### Degree Type

Associate in Science

The Department of Computer Technologies offers an Associate Degree program for either full-time or part-time study. The 61-63 credit degree consists of 28-30 credits of General Education Core courses, 12 credits of a Technical Core of courses, and 21 credits of Technical electives. It is recommended that students use the Technical electives to create a technology focus or pathway. This will allow students to gain a breadth and depth of knowledge in a given specialty and ensure the development of a marketable set of skills to offer employers in industry.

#### Program Outcomes

Pending course selection, graduates will be able to:

- Analyze a problem and identify and define the computing requirements appropriate to its solution.
- Design, implement and evaluate a computer-based process or program to meet desired needs.
- Use current techniques, skills, and tools necessary for computing practices.
- Demonstrate a familiarity with state-of-the-art programming techniques, tools, and practices.
- Demonstrate a solid foundation in the fundamental areas of computer science - which are algorithms, systems, and software - and exposure to multiple sub-disciplines of computer science.
- Understand professional, ethical, legal, security, and social issues and responsibilities related to IT, to include an understanding of cross-cultural issues and global perspectives.
- Use written and oral communication skills necessary to be effective in the IT industry.
- Recognize the need to maintain currency with future changes in the computing profession.
- Use creative and critical thinking processes to work independently and/or collaboratively to develop complex solutions and take the lead to implement those solutions.
- Function effectively on teams to accomplish a common goal.
- Through the use of an online portfolio, students will assess and reflect upon their own learning and create a cumulative portfolio of their "best" work.

#### Health, Safety, and Internship Considerations

Participation in an internship requires the student to follow the College Immunization Policy. Please see the Academic Policies section of this catalog, under XVI. Immunization Policy. Depending upon the site, the student may be required to possess and maintain professional liability insurance. For unpaid internships, the student must possess and maintain accident insurance. Please see the Student Services section of this catalog, under Insurance.

### Technical Standards

Students who enroll in the program should comprehend the English language, both oral and written, and should have the ability to communicate effectively to gather and convey information. They should be able to sit at a computer workstation and stay on task for extended periods of time and be able to replicate teacher-demonstrated procedures. They should apply principles, concepts, and procedures for industry standards, behave appropriately in both self-directed and shared learning environments, and perform basic mathematical operations.

### Transfer Credit Policy

In addition to Great Bay transfer credit policies, transfer of courses into Computer Technologies more than five years old will be evaluated by the department chair and program coordinator(s) on an individual basis.

## First Year

### Fall Semester

Item #	Title	Theory Hours	Lab Hours	Credits
	ENGL110G/111G	4	0	4-5
	Liberal Arts Elective (Comp Tech)	3	0	3-5
ANTH105G	Introduction to Ethnography: World of Work	4	0	4
CIS111G	Computer Technologies	2	2	3
	CIS112G or CIS177G	2	2	3
	<b>Sub-Total Credits</b>	<b>15-17</b>	<b>4-6</b>	<b>17-20</b>

### Spring Semester

Item #	Title	Theory Hours	Lab Hours	Credits
MATH170G	Discrete Mathematics	4	0	4
CIS113G	Database Design and Management	2	2	3
	Technical Elective (Comp Tech)	2	2	3
SOCI120G	Society and Technological Change	3	0	3
	Humanities/Fine Arts Elective (Computer Technologies)	3	0	3
	<b>Sub-Total Credits</b>	<b>14</b>	<b>4</b>	<b>16</b>

SOCI120G, Humanities/Fine Arts Elective: It is recommended to take these courses in the summer semester if possible.

## Second Year

### Fall Semester

Item #	Title	Theory Hours	Lab Hours	Credits
	Lab Science Elective	3	3	4
	IST122G or IST112G	2	2	3
	Technical Elective (Comp Tech)	2	2	3
	Technical Elective (Comp Tech)	2	2	3
	<b>Sub-Total Credits</b>	<b>9</b>	<b>9</b>	<b>13</b>

### Spring Semester

Item #	Title	Theory Hours	Lab Hours	Credits
	English Elective	3	0	3
	Technical Elective (Comp Tech)	2	2	3
	Technical Elective (Comp Tech)	2	2	3
	Technical Elective (Comp Tech)	2	2	3
	Technical Elective (Comp Tech)	2	2	3
	<b>Sub-Total Credits</b>	<b>11</b>	<b>8</b>	<b>15</b>

## Curriculum Recommendations

### Associate in Science

- If students are seeking to transfer to a four-year program, it is recommended that they consider fulfilling a Liberal Arts Elective requirement with a higher-level MATH course. MATH170G is the minimum required MATH course; however, MATH215G or above is strongly encouraged.
- Students should see their advisor for specific recommendations based on possible future transfer plans.
- Students should also see their advisor for assistance when making course selections.

**Total Credits**

**61-64**

## Linux

### Degree Type

Certificate

The Linux operating system provides powerful open source solutions which offer increased stability, higher levels of security, and lower cost than commercial operating systems. Linux is particularly attractive to small and mid-sized businesses, and interest in Linux is high and growing rapidly.

There are a variety of applications available for Linux today, and many of these open source solutions have been ported to run within a Windows environment as well. Many of these programs are gaining a large foothold in the business community, and the demand for skilled professionals in this area is high. The Linux Certificate will provide students with the fundamental knowledge needed to work in a Linux/Open Source environment. Students enrolled in this Certificate program must have a solid background in computer use and significant experience with at least the Windows or Mac OS X operating system.

### Program Outcomes

Pending course selection, graduates will be able to:

- Analyze a problem and identify/define the computing requirements appropriate to its solution.
- Design, implement and evaluate a computer-based process or program to meet desired needs.
- Use current techniques, skills, and tools necessary for computing practices.
- Demonstrate a familiarity with state-of-the-art programming techniques, tools, and practices.

- Demonstrate a solid foundation in the fundamental areas of computer science - which are algorithms, systems, and software - and exposure to multiple sub-disciplines of computer science.
- Understand professional, ethical, legal, security, and social issues and responsibilities related to IT, to include an understanding of cross-cultural issues and global perspectives.
- Use written and oral communication skills necessary to be effective in the IT industry.
- Recognize the need to maintain currency with future changes in the computing profession.
- Use creative and critical thinking processes to work independently and/or collaboratively to develop complex solutions and take the lead to implement those solutions.
- Function effectively on teams to accomplish a common goal.
- Through the use of an online portfolio, students will assess and reflect upon their own learning and create a cumulative portfolio of their “best” work.

*Note: The LINUX Certificate is a rigorous program. Students are expected to spend additional time beyond the minimum to complete requirements and achieve success. Students are also required to have college level reading, writing and math skills prior to enrollment.*

### Technical Standards

Students enrolling in the Linux Certificate program must have college level writing, mathematics and technology skills. Completion of or placement into the following (or equivalents) will satisfy these prerequisites:

- ENGL110G/111G for English proficiency
- MATH145G/150G or higher for Math
- CIS107G/110G or 111G for fundamental technology and programming skills

### Certificate Requirements

Item #	Title	Theory Hours	Lab Hours	Credits
CIS113G	Database Design and Management	2	2	3
CIS146G	Linux I	2	2	3
CIS149G	Linux Applications	2	2	3
CIS216G	Web Server Administration	2	2	3
CIS246G	Linux II	2	2	3
CIS249G	Linux Databases	2	2	3
CIS254G	PHP and MySQL	2	2	3
	<b>Sub-Total Credits</b>	<b>14</b>	<b>14</b>	<b>21</b>
	<b>Total Credits</b>			<b>21</b>

## Programming

### Degree Type

Certificate

The Computer Technologies Department offers a Programming Certificate for students who want to develop the technical expertise for a career in backend, middle-tier programming or web application development. The core portion of the Certificate provides students with a solid foundation in programming fundamentals and database design. Students can focus on Java, C++, or C# as their development platform and then expand on their expertise by selecting electives in a particular area.

Successful completion of this program will allow students to seek employment in entry-level programming, quality assurance, technical support, or technical sales and integration.

### Program Outcomes



Students will be able to:

- Analyze a problem and identify/define the computing requirements appropriate to its solution.
- Design, implement and evaluate a computer-based process or program to meet desired needs.
- Use current techniques, skills, and tools necessary for computing practices.
- Demonstrate a familiarity with state-of-the-art programming techniques, tools, and practices.
- Demonstrate a solid foundation in the fundamental areas of computer science - which are algorithms, systems, and software - and exposure to multiple sub-disciplines of computer science.
- Understand professional, ethical, legal, security, and social issues and responsibilities related to IT, to include an understanding of cross-cultural issues and global perspectives.
- Use written and oral communication skills necessary to be effective in the IT industry.
- Recognize the need to maintain currency with future changes in the computing profession.
- Use creative and critical thinking processes to work independently and/or collaboratively to develop complex solutions and take the lead to implement those solutions.
- Function effectively on teams to accomplish a common goal.
- Through the use of an online portfolio, students will assess and reflect upon their own learning and create a cumulative portfolio of their “best” work.

*Note: The Programming Certificate is a rigorous program. Students are expected to spend additional time beyond the minimum to complete requirements and achieve success. Students are also required to have college level reading, writing and math skills prior to enrollment. CIS112G Introduction to Object Oriented Programming or permission of the program advisor is required before taking any CISXX8G course.*

### Technical Standards

Students enrolling in the Programming Certificate program must have college level writing, mathematics and technology skills. Completion of or placement into the following (or equivalents) will satisfy these prerequisites:

- ENGL110G or 111G for English proficiency
- MATH145G or 150G or higher for Math
- CIS107G/110G or 111G/112G/177G for fundamental technology and programming skills

### Certificate Requirements

Item #	Title	Theory Hours	Lab Hours	Credits
CIS113G	Database Design and Management	2	2	3
CIS124G	Web Development I	2	2	3
CIS224G	Web Development II	2	2	3
	CIS1X8G Introductory Programming course	2	2	3
	CIS2X8G Advanced Programming course	2	2	3
	<b>Sub-Total Credits</b>	<b>10</b>	<b>10</b>	<b>15</b>

## Elective Courses

### 9 Credits (Choose a minimum of 3 courses)

Students must take at least one introductory and advanced class in the language of their choice. Once they complete the advanced course, they may select another programming language for study. All of the programming classes listed as part of the core can also count toward an elective.

Item #	Title	Theory Hours	Lab Hours	Credits
CIS118G	Introduction to .NET	2	2	3
CIS134G	Web Style and Design	2	2	3
CIS146G	Linux I	2	2	3
CIS148G	Introduction to Java Programming	2	2	3
CIS158G	Introduction to C++	2	2	3
CIS177G	Introduction to Python	2	2	3
CIS216G	Web Server Administration	2	2	3
CIS218G	Advanced .NET	2	2	3
CIS223G	Advanced SQL	2	2	3
CIS246G	Linux II	2	2	3
CIS248G	Advanced Java Programming	2	2	3
CIS249G	Linux Databases	2	2	3
CIS253G	Data Sharing	2	2	3
CIS254G	PHP and MySQL	2	2	3
CIS258G	Advanced C++	2	2	3
CIS291G	Advanced Topics	2	2	3
<b>Total Credits</b>				<b>24</b>

## Software Development

### Degree Type

Certificate

The certificate provides a solid foundation for software and application development. Successful completion of this certificate prepares students for entry into the exciting industry of developing apps for smart devices/tablets and mobile platforms.

The Software Development Certificate is intended to prepare students for careers such as:

- Software Developers
- Software Project Managers
- Web and Mobile App Developers

### Technical Standards

Students must have college level writing, mathematics and technology skills. Placement into the following (or equivalent) will satisfy these prerequisites:

- ENGL110G/111G
- MATH150G/170G
- CIS110G (or CIS107G)

## Certificate Requirements

Item #	Title	Theory Hours	Lab Hours	Credits
CIS112G	Introduction to Object Oriented Programming	2	2	3
CIS113G	Database Design and Management	2	2	3
IST113G	IT Essentials: PC Hardware and Software	2	2	3
CIS124G	Web Development I	2	2	3
CIS148G	Introduction to Java Programming	2	2	3
CIS177G	Introduction to Python	2	2	3
	CIS224G or CIS248G	2	2	3
IST150G	Network Operating System Fundamentals	2	2	3
IST212G	Mobile Systems Architecture	2	2	3
IST275G	Network Protocols and Services	2	2	3
MATH170G	Discrete Mathematics	4	0	4
	<b>Sub-Total Credits</b>	<b>24</b>	<b>20</b>	<b>34</b>
	<b>Total Credits</b>			<b>34</b>

## Criminal Justice

### Criminal Justice

#### Degree Type

Associate in Science

The Criminal Justice Associate in Science degree is designed to prepare students for careers in law enforcement, corrections, juvenile justice, or the courts. It also serves as the academic foundation to transfer on to complete a baccalaureate degree. The program provides educational progress for promotion and other career development purposes for those already in the criminal justice field.

ALSO OFFERED 100% ONLINE. Students will have the option of enrolling in the criminal justice program in the traditional format as a face-to-face hybrid offering, or as a 100% online program. After completion, students are prepared to work in local or state law enforcement as an officer, in corrections as an officer, or within the state and federal court systems. To accommodate the specific needs of the online student, an additional advising component has been added to the program. Guest speakers from law enforcement, corrections, juvenile justice, and courts will be integrated into course delivery and as part of the online curriculum. As in other formats, students will be placed in a criminal justice internship. Additional training may be required to receive a law enforcement certification.

#### Program Outcomes

Upon successful completion of the program of study, students should be able to:

- Demonstrate knowledge of current issues, concepts, philosophies, and theories in the field of criminal justice.
- Explain and discuss various theories of crime causation and societal response, and the techniques of prevention and treatment of crime.
- Describe the role of the courts in the administration of justice.
- Apply constitutional principles that protect the rights of citizens and regulate criminal justice agencies.
- Identify and discuss procedures necessary to establish a lawful arrest and search, proper judicial procedures, and the admissibility of evidence.
- Explain principles of effective law enforcement and security administration.
- Describe the structure and procedures of juvenile court; the function and jurisdiction of juvenile agencies; and the processing and disposition of juvenile cases.

- Articulate the role of corrections in the criminal justice system.
- Think logically and critically to formulate, present, and defend logical arguments.
- Comprehend information presented in written or spoken form and communicate clearly and effectively in both written and oral form.
- Apply the knowledge of ethical principles with the high standards expected of criminal justice practitioners.

### Health, Safety, and Internship Considerations

Applicants should be aware of the basic health and fitness requirements for many careers in the criminal justice field. Prospective students with special needs or limitations that may affect their internship placement and/or potential employability are encouraged to discuss their career goals during the interview with a department member before admission. The College must ensure that individuals (customers, employees, etc.) at internship and service-learning sites are not adversely affected by students during learning experiences. Therefore, students participating in internship and field experiences must demonstrate the emotional stability required to exercise sound judgment, accept direction and guidance from a supervisor or faculty member, and establish rapport and maintain sensitive interpersonal relationships with employees, customers, and clients.

Most internship placement sites require students to have health insurance and students participating in an internship are required to follow the College Immunization Policy. Please see the Academic Policies section of this catalog, under XVI. Immunization Policy.

### Technical Standards

Applicants should be aware that thorough background checks are completed by potential employers before obtaining any position with arrest or detention powers, and typically, even before being accepted for an internship. Applicants with a criminal history may not be employable, or even eligible for participation in the Criminal Justice Internship Program. Due to the possible negative impact on future employability, applicants are strongly advised to discuss any concerns with the department chair before applying to the program. Overall opportunities within the criminal justice field will be favorable for individuals who meet psychological, physical, and personal qualifications.

### Transfer Credit Policy

In addition to Great Bay transfer credit policies, transfer of courses in criminal justice more than ten years old will be evaluated by the department chair individually.

## First Year

### Fall Semester

Item #	Title	Theory Hours	Lab Hours	Credits
CRMJ101G	Intro to Criminal Justice	3	0	3
CRMJ121G	Criminal Procedure	3	0	3
	ENGL110G/111G	4	0	4-5
	CIS110G or CIS107G	2	2	3-4
PHIL240G	Ethics	3	0	3
	<b>Sub-Total Credits</b>	<b>15</b>	<b>2-6</b>	<b>16-18</b>

## Spring Semester

Item #	Title	Theory Hours	Lab Hours	Credits
CRMJ123G	Criminal Law	4	0	4
CRMJ210G	Juvenile Justice	3	0	3
PSYC110G	Introduction to Psychology	3	0	3
POLS220G	Public Administration	3	0	3
SOCI110G	Sociology	3	0	3
<b>Sub-Total Credits</b>		<b>16</b>	<b>0</b>	<b>16</b>

## Second Year

### Fall Semester

Item #	Title	Theory Hours	Lab Hours	Credits
CRMJ150G	Criminology	4	0	4
CRMJ205G	Police Operations	3	0	3
CRMJ215G	Corrections Operations	3	0	3
	MATH145G/147G	4	0	4-5
PSYC205G	Crisis Intervention	3	0	3
	Open Elective*	3	0	3
<b>Sub-Total Credits</b>		<b>20-21</b>	<b>0</b>	<b>20-21</b>

### Spring Semester

Item #	Title	Theory Hours	Lab Hours	Credits
BIOL106G	The Human Body	3	2	4
CRMJ225G	Drug Abuse and the Law	3	0	3
CRMJ230G	Justice and the Community	3	0	3
	ENGL210G or English Elective	3	0	3
	CRMJ270G or CRMJ275G	0	0	3
<b>Sub-Total Credits</b>		<b>12-15</b>	<b>2-11</b>	<b>16</b>

## Curriculum Recommendations

It is highly recommended that all students enroll in a minimum of one criminal justice course during the first semester of attendance.

**Total Credits**

**68-71**

## Data Science

### Data: Practical Data Science

#### Degree Type

Certificate

The Certificate in Practical Data Science is designed for undergraduate students and will supplement current administrative, journalistic and technical careers with marketable skills. Upon completion, the student will have gained a foundational understanding and related competencies in many facets of effective communication with data.

Competencies will include conducting surveys and experiments, data wrangling, cleaning, sampling, analyzing, and visualizing of data, and more. Topics pertaining to the analysis and presentation of big data will be

explored. Intended as a stand-alone certificate, the Practical Data Science certificate equips students to apply data analysis skills in any career or job that requires reporting from quantitative and qualitative sources of information.

### Program Outcomes

The student will be able to:

- Write and organize analysis scripts that utilize the functional programming nature of a statistical programming language and vectorization model
- Work with all modern data formats, including XML, CSV, JSON, XLS (Excel), XHTML (web pages), and understand how to appropriately transform this data for use in structured analysis projects and reporting
- Visualize data for use in exploratory data analysis as a precursor to statistical analysis of data sets; effectively communicate preliminary results toward further understanding of the problem and solution
- Apply the Cross-Industry Standard Process for Data Mining (CRISP-DM) methodology to any analysis project; develop reproducible analysis reports generated in a variety of formats
- Understand the concepts of modern statistical methods and analyses and how they apply in data analysis projects and especially how they are used in more advanced predictive modeling
- Develop advanced visualizations in support of communicating results of statistical analyses; produce clear, concise reports in conclusion of analysis of a topic as an effective demonstration of the data as it serves to enlighten and inform

### Technical Standards

1. Basic computer skills including software such as web browsers, office applications
2. Good manual dexterity; adequate (basic) keyboarding skills
3. Vision for reading on computer screen and printed material
4. Critical thinking ability
5. Ability to work independently as well as in small groups
6. Be an effective communicator verbally, as in an office/work environment, and write legibly.

### Transfer Credit Policy

In addition to Great Bay transfer credit policies, transfer of courses in the Practical Data Science program that are more than 10 years old will be evaluated by the program coordinator on an individual basis.

## Certificate Requirements

### Fall Semester

Item #	Title	Theory Hours	Lab Hours	Credits
ARTS125G	Visual Language	3	0	3
DATA210G	Elements of Data Science	3	0	3
	MATH210G or MATH225G	4	0	4
	<b>Sub-Total Credits</b>	<b>10</b>	<b>0</b>	<b>10</b>

### Spring Semester

Item #	Title	Theory Hours	Lab Hours	Credits
CIS177G	Introduction to Python	2	2	3
MATH235G	Statistics for Engineers and Scientists	4	0	4
DATA220G	Data Analysis with R	3	0	3
	<b>Sub-Total Credits</b>	<b>9</b>	<b>2</b>	<b>10</b>

## Summer Capstone

Item #	Title	Theory Hours	Lab Hours	Credits
DATA225G	Analytics Capstone	2	0	2
<b>Sub-Total Credits</b>		<b>2</b>	<b>0</b>	<b>2</b>

Note: The Practical Data Science Certificate is a rigorous program. Students are expected to spend additional time beyond the minimum to complete requirements and achieve success. Students are also expected to have college level reading, writing and math skills as soon as possible after declaring this major.

**Total Credits**

**22**

# Digital Media Technology

## Digital Media Communications

### Degree Type

Associate in Science

The Associate of Science Degree in Digital Media Communications requires core computer technology and general education courses. Students will gain in-depth knowledge and hands-on experience in a variety of graphic design, web design and animation courses using industry standard applications. The program enables students to build their design and technology skills to prepare for an entry level career in graphic design for print and digital communication, as well as offers options for transfer to a four-year program. The program requires a 1-credit portfolio capstone course. Courses are offered on a rotating semester basis and many courses are delivered in a hybrid or fully online format. A basic understanding of computers, in both Windows and Macintosh platforms, and an appreciation for design is desirable for success. Students should work with their advisor to plan course selections to optimize program completion time. Due to competitive market conditions, transfer to a Bachelor Degree program is recommended.

### Program Outcomes

Upon successful completion of the program of study, students will be able to:

- Demonstrate an understanding of the application of graphic design as visual communication.
- Demonstrate and apply theories of aesthetics to functional objects, websites, motion graphics and brand communication.
- Employ creative problem solving in projects that simulate real-world applications.
- Understand the principles and applications of motion and interactivity in the user experience.
- Describe and apply current theories of usability and functionality in digital media, or web design.
- Explain the history of graphic communication.
- Articulate the role of the artist, designer, programmer and storyteller in technically mediated communication.
- Demonstrate technical mastery in the student's area of concentration via a professional portfolio.

### Technical Standards

Students who enroll in the program should comprehend the English language, both oral and written, and should have the ability to communicate effectively to gather and convey information. They should be able to sit at a computer workstation and stay on task for extended periods of time and be able to replicate teacher-demonstrated procedures. They should apply principles, concepts, and procedures for industry standards, behave appropriately in both self-directed and shared learning environments, and be able to perform algebraic calculations.

### Transfer Credit Policy

In addition to Great Bay transfer credit policies, transfer of courses in Computer Technologies more than five years old will be evaluated by the program coordinator on an individual basis.

## First Year

### Fall Semester

Item #	Title	Theory Hours	Lab Hours	Credits
FYE115G	First Year Seminar Fine Arts	1	0	1
	ENGL110G/111G	4	0	4-5
DGMT115G	Introduction to Graphic Design	2	2	3
	MATH150G/152G	4	0	4-5
SOCH20G	Society and Technological Change	3	0	3
	<b>Sub-Total Credits</b>	<b>14-15</b>	<b>2-4</b>	<b>15-17</b>

FYE115G: Recommended. Any one-credit FYE course fulfills this requirement.

### Spring Semester

Item #	Title	Theory Hours	Lab Hours	Credits
CIS112G	Introduction to Object Oriented Programming	2	2	3
ARTS124G	Art, Design, and Color	2	2	3
	Liberal Arts Elective*	3	0	3
	English Elective*	3	0	3
	Digital Media Communications Elective	2	2	3
	<b>Sub-Total Credits</b>	<b>12</b>	<b>6</b>	<b>15</b>

### Summer Semester

Item #	Title	Theory Hours	Lab Hours	Credits
	Lab Science Elective*	3	3	4
	Liberal Arts Elective*	3	0	3
	<b>Sub-Total Credits</b>	<b>6</b>	<b>3</b>	<b>7</b>

## Second Year

### Fall Semester

Item #	Title	Theory Hours	Lab Hours	Credits
CIS124G	Web Development I	2	2	3
	Digital Media Communications Elective	2	2	3
	Digital Media Communications Elective	2	2	3
	Digital Media Communications Elective	2	2	3
DGMT125G	Introduction to Animation	2	2	3
	<b>Sub-Total Credits</b>	<b>10</b>	<b>10</b>	<b>15</b>



## Spring Semester

Item #	Title	Theory Hours	Lab Hours	Credits
DGMT142G	Publication Design	2	4	4
	Digital Media Communications Elective	2	2	3
	Digital Media Communications Elective	2	2	3
	Digital Media Communications Elective	2	2	3
	Digital Media Communications Elective	2	2	3
CIS292G	Portfolio Preparation and Presentation	1	0	1
	<b>Sub-Total Credits</b>	<b>11</b>	<b>12</b>	<b>17</b>
	<b>Total Credits</b>			<b>69-71</b>

## Early Childhood Education

### Early Childhood Education

#### Degree Type

Advanced Certificate

#### Advanced Certificate Requirements

Item #	Title	Theory Hours	Lab Hours	Credits
ECE100G	Early Childhood Growth and Development	3	0	3
ECE112G	Curriculum Planning and Environments in ECE	3	3	4
ECE116G	Child Health, Safety, and Nutrition	3	0	3
	ENGL110G/111G	4	0	4-5
ECE210G	Child, Family, and Community Relationships	3	0	3
	Elective (ECE Advanced Cert)	3	0	3
	Elective (ECE Advanced Cert)	3	0	3
	Elective (ECE Advanced Cert)	3	0	3
	Elective (ECE Advanced Cert)	3	0	3
	<b>Sub-Total Credits</b>	<b>28</b>	<b>3-5</b>	<b>29-30</b>
	<b>Total Credits</b>			<b>29-30</b>

### Early Childhood Education

#### Degree Type

Associate in Science

The Early Childhood Education (ECE) program provides students with the knowledge and skills necessary to create a positive learning experience for young children. Teachers who work in high quality early childhood programs understand how young children grow and learn, and are able to provide materials and activities that are developmentally, interest, and culturally appropriate. They also recognized and support the unique social and emotional needs of children and how they impact learning. The College must ensure that students enrolled in any ECE program demonstrate emotional stability to withstand the ever-changing circumstances and the ability to respond quickly and appropriately as events require. Students are expected to have the maturity to accept direction and guidance, exercise sound judgment, and maintain confidentiality and sensitive interpersonal relationships with teachers, fellow students, children, and families.

#### Admissions Criteria

All students are welcome to enroll in Early Childhood classes; however, when enrolled in ECE112G, ECE202G, and ECE212G where field placements are required, they must be able to meet technical standards for the field

and New Hampshire Child Care Licensing Bureau requirements for health and background checks for child care personnel. It is recommended that students begin the background check process upon entering the ECE program if not already employed in a NH childcare program. See the program coordinator for more information. Prospective students with special needs requiring accommodations that may affect their practicum placement or employment options are advised to discuss specific career objectives with the program coordinator during the admissions process.

### **Program Outcomes**

Program outcomes are adapted from Professional Standards and Competencies for Early Childhood Educators, published by the National Association for the Education of Young Children.

#### **Standard 1: Child Development and Learning in Context**

Students understand early childhood developmental domains and see each child with unique developmental variations, learning, and developing within relationships and multiple contexts, including families, cultures, languages, communities, and society, using this knowledge to make evidence-based decisions.

#### **Standard 2: Family-Teacher Partnerships and Community Connections**

Successful early childhood education depends upon partnerships with the families and knowing about, understanding, and valuing the diversity in family characteristics. Students understand how to create respectful, responsive, reciprocal relationships with families and identify ways to engage with them as partners and understand methods to build connections between early learning settings, schools, and community organizations.

#### **Standard 3: Child Observation, Documentation, and Assessment**

The primary purpose of assessment is to inform instruction and planning in early learning settings. Students use observation, documentation, and other appropriate assessment approaches and tools, in ways that are ethically grounded and developmentally, culturally, ability, and linguistically appropriate, and value assessment partnerships with families and professional colleagues.

#### **Standard 4: Developmentally, Culturally, and Linguistically Appropriate Teaching Practices**

Teaching and learning vary depending on children's ages, characteristics and the setting in which this occurs. Students demonstrate positive, caring, supportive relationships and interactions, and use teaching skills that are responsive to the needs of each child including developmentally appropriate, culturally, linguistically relevant, anti-bias, and evidence-based teaching approaches.

#### **Standard 5: Knowledge, Application, and Integration of Academic Content in the Early Childhood Curriculum**

Students understand many academic disciplines and strategies for teaching them. They apply this knowledge using early learning standards to make decisions about spontaneous and planned learning experiences and about curriculum development, implementation, and evaluation to ensure that learning will be stimulating, challenging, and meaningful to each child.

#### **Standard 6: Professionalism as an Early Childhood Educator**

Students identify and participate as members of the early childhood profession and know how to advocate for young children, families, and the profession. They know and use ethical and other early childhood professional guidelines, and communicate effectively in their work with young children, families, and colleagues. Students practice collaboration, reflective, and intentional practice as members of the profession.

### **Health, Safety, and Internship Considerations**

1. Required GBCC Health Form on file prior to ECE112G or senior practicum placements if not completing site hours in work settings.
2. Required New Hampshire Child Care Personnel Health Form on file that indicates that the student has no apparent health problems that would prohibit him/her from caring for children prior to practicum.
3. Required background check of "clear" or "non-disqualifying" prior to practicum. The cost of the record check and fingerprinting is the responsibility of the student.

4. Students are required to complete practicum during regular morning hours in order to meet the ECE course requirements. Transportation to and from the practicum site is the responsibility of the student. All practicum sites are subject to practicum coordinator approval.

Note: Students who do not successfully complete the health and background requirements will not be able to successfully complete the program.

*Participation in an internship requires the student to follow the College Immunization Policy. Please see the Academic Policies section, under XVI. Immunization Policy. Depending upon the site, the student may be required to possess and maintain professional liability insurance. For unpaid internships, the student must possess and maintain accident insurance. Please see the Student Services section of this catalog, under Insurance for purchase options available through the College.*

### **Technical Standards**

Technical Standards have been established to provide insight to students as to the skills and abilities required to function successfully in the ECE program and eventually the profession. Applicants who do not feel they can successfully meet these should contact the ECE program coordinator before applying to the program. Students enrolling in the Early Childhood Education program must have sufficient strength, stamina, motor coordination, and sensory capabilities to perform the following:

1. Standing for sustained periods of time, walking, running, bending, sitting on the floor and on child-size furniture to meet the child's needs and accomplish tasks.
2. Frequent lifting, moving, and transferring children, especially infants and toddlers.
3. Sufficient visual and hearing acuity to ensure a safe environment and the ability to respond quickly to children, colleagues, and professional partners in the event of an emergency.
4. Sufficient verbal ability to express and exchange information and ideas as well as to interpret important instructions to and from children, colleagues, and parents.
5. Sufficient skill in written expression to accurately record children's daily progress and milestones as well as medications administered, accident, and suspected child abuse/neglect reports, etc.
6. Ability to work with frequent interruptions, to respond appropriately in unexpected situations, and to cope with extreme variations in workload and stress levels.
7. Students must have reliable transportation to travel to and from practicum settings and have sustained health as outlined in Child Care Personnel Health form to fulfill time commitment as agreed in the Practicum contract.
8. Ability to respond to children's personal needs, including changing diapers, in a manner that safeguards the health and safety of the student, children, and staff.
9. Ability to work in a professional and respectful manner with a diverse range of children and their families including those from different races, cultures, religions, and ethnicities as well as children with a wide range of disabling conditions.
10. Ability to maintain professional boundaries in both the school and home environments.
11. Ability and disposition to adhere to and practice the Code of Ethical Conduct set forth by the National Association for the Education of Young Children.

### **Transfer Credit Policy**

In addition to Great Bay transfer credit policies, transfer of courses in Early Childhood Education more than five years old from the time of acceptance will be evaluated by the program coordinator on an individual basis.

## First Year

### Fall Semester

Item #	Title	Theory Hours	Lab Hours	Credits
ECE100G	Early Childhood Growth and Development	3	0	3
	ENGL110G/111G	4	0	4-5
	MATH145G/147G	4	0	4-5
	ECEXXX - ECE Elective	3	0	3
	<b>Sub-Total Credits</b>	<b>14-15</b>	<b>0-2</b>	<b>14-16</b>

### Spring Semester

Item #	Title	Theory Hours	Lab Hours	Credits
ECE112G	Curriculum Planning and Environments in ECE	3	3	4
	English Elective*	3	0	3
	Science Elective (ECE)	3	3	4
	Social Science Elective*	3	0	3-4
	ECE206G or TCHP101	3	0	3
	<b>Sub-Total Credits</b>	<b>15-16</b>	<b>6</b>	<b>17-18</b>

## Second Year

### Fall Semester

Item #	Title	Theory Hours	Lab Hours	Credits
	Humanities/Foreign Language/Fine Arts Elective*	3	0	3
	ECEXXX - ECE Elective	3	0	3
	ECEXXX - ECE Elective	3	0	3
	Open Elective (ECE)	3	0	3
ECE202G	Senior Practicum: Student Teaching	1	6	3
	<b>Sub-Total Credits</b>	<b>13</b>	<b>6</b>	<b>15</b>

### Spring Semester

Item #	Title	Theory Hours	Lab Hours	Credits
ECE210G	Child, Family, and Community Relationships	3	0	3
	ECEXXX - ECE Elective	3	0	3
	Open Elective (ECE)	3	0	3
	Open Elective (ECE)	3	0	3
ECE212G	Senior Practicum: Professional Development	1	6	3
	<b>Sub-Total Credits</b>	<b>13</b>	<b>6</b>	<b>15</b>
	<b>Total Credits</b>			<b>61-64</b>

## Early Childhood Education

### Degree Type

Certificate

## Certificate Requirements

Item #	Title	Theory Hours	Lab Hours	Credits
ECE100G	Early Childhood Growth and Development	3	0	3
ECE112G	Curriculum Planning and Environments in ECE	3	3	4
ECE206G	Supporting the Special Needs Child	3	0	3
ECE210G	Child, Family, and Community Relationships	3	0	3
	ECEXXX - ECE Elective	3	0	3
	ECEXXX - ECE Elective	3	0	3
	<b>Sub-Total Credits</b>	<b>18</b>	<b>3</b>	<b>19</b>
	<b>Total Credits</b>			<b>19</b>

## Education Preparation

### Educator Preparation

#### Degree Type

Associate in Arts

The Educator Preparation degree is designed to prepare students to transfer to a four-year degree program to fulfill their dream to become K-12 educators or to prepare students to work in the field as paraeducators. Throughout their course of study, students complete field observations in grades K-12, along with common coursework. In their second year, in consultation with their advisor, students choose elective courses in any one of the following areas: math, science, social sciences, English, Humanities, special education and elementary education. Completion of these elective courses will demonstrate the content expertise required to become eligible for licensure once the baccalaureate degree is completed. Students are expected to declare their area of focus prior to the beginning of the second year of the program. This degree also meets the requirements for paraeducators seeking an Associate Degree in fulfillment of national and state guidelines. Students are encouraged to take the Praxis Core exam prior to the completion of their work at Great Bay Community College. Applicants are recommended to meet with their advisor to discuss the many program and career pathways.

#### Program Outcomes

1. Graduating students will develop an appreciation for the act of reflective practice and recognize the impact of ongoing reflection and professional development to become an effective educator.
2. Graduating students will be exposed to our elementary, middle, and secondary school systems while developing an understanding of the importance of meeting the individual needs of all children.
3. Graduating students will acquire an understanding of various educational theories and their application to the real-world classroom.
4. Graduating students will be exposed to a variety of teaching techniques to be used in today's classrooms to meet the individual needs of all children.
5. Graduating students will utilize technology to enhance their teaching skills.

#### Technical Standards

Technical Standards have been created as a guideline for completion of the Teacher Preparation Program and for success as an educator in a public-school setting. For New Hampshire state licensure as an educator, students are required to pass the Praxis Core Academic Skills for Educators, and to undergo a criminal record check and fingerprinting. Individuals are encouraged to contact the New Hampshire Department of Education for further requirement details. Students seeking a career in the field of education should possess strong

written and verbal communication skills, enjoy working with children, be able to adapt to a variety of situations, and collaborate effectively with others. Students are encouraged to meet with their advisor to discuss any questions regarding these matters.

### Transfer Credit Policy

In addition to Great Bay transfer credit policies, appropriate education courses will be accepted if taken within a five-year period. Exceptions to this policy, based on professional experience, may be granted at the discretion of the department chair. Proper documentation will be required to initiate this process. In the case of English and math course transfers, it may be recommended that the student take portions of the Accuplacer Placement Test to verify the skill level required to be successful in subsequent classes within the program.

## First Year

### Fall Semester

Item #	Title	Theory Hours	Lab Hours	Credits
EDUP104G	Foundations of Education	3	0	3
	ENGL110G/111G	4	0	4-5
	Math Elective 145G/147G, 150G/152G (or higher)	4	0	4-5
	Social Science Elective*	3	0	3-4
	<b>Sub-Total Credits</b>	<b>14-16</b>	<b>0-2</b>	<b>14-17</b>

### Spring Semester

Item #	Title	Theory Hours	Lab Hours	Credits
EDUP101G	Introduction to Exceptionalities	3	0	3
	Math Elective	4	0	4
	Educational Transfer Focus Elective	3	0	3
	English Literature Course	3	0	3
	Humanities/Foreign Language/Fine Arts Elective*	3	0	3
	<b>Sub-Total Credits</b>	<b>16</b>	<b>0</b>	<b>16</b>

## Second Year

### Fall Semester

Item #	Title	Theory Hours	Lab Hours	Credits
	Educational Transfer Focus Elective	3	0	3
	Educational Transfer Focus Elective	3	0	3
	Lab Science Elective	3	3	4
PSYC110G	Introduction to Psychology	3	0	3
	Humanities/Foreign Language/Fine Arts Elective*	3	0	3
	<b>Sub-Total Credits</b>	<b>15</b>	<b>3</b>	<b>16</b>

## Spring Semester

Item #	Title	Theory Hours	Lab Hours	Credits
	Social Science Elective*	3	0	3-4
	Lab Science Elective	3	3	4
	Educational Transfer Focus Elective	3	0	3
	Educational Transfer Focus Elective	3	0	3
	Humanities/Foreign Language/Fine Arts Elective*	3	0	3
	<b>Sub-Total Credits</b>	<b>15-16</b>	<b>3</b>	<b>16-17</b>
	<b>Total Credits</b>			<b>62-66</b>

# Engineering Science

## Engineering Science

### Degree Type

Associate in Science

The Engineering Science Associate in Science degree is a transfer program which meets a majority of the first and second year baccalaureate requirements for math, chemistry, biology and physics. These courses are the foundation of an engineering or applied mathematics program of study. The transfer program has been developed in consultation with the University of New Hampshire's College of Engineering and Physical Sciences to align program requirements for transfer purposes. The core courses in the program are also common to most undergraduate engineering programs; however, there are a wide variety of engineering-oriented programs that students must choose from. This program offers students flexibility in the final year of the program to allow a direct path toward a career in an engineering or applied mathematics discipline.

This program improves upon the previous Liberal Arts concentration in the following ways:

1. Students may transfer with true junior status upon completion of this degree, subject to GPA requirements and choice of electives matching with the student's desired transfer degree program.
2. Students have greater flexibility in selecting engineering, engineering technology, math or computer science electives with a view toward the desired program for the next phase.
3. Students wishing to pursue a bachelor's degree in mathematics or applied mathematics can do so with this degree.
4. Students who place into 100-level or developmental mathematics may still complete the program but will require up to ten (10) additional math credits.
5. General education requirements do not exceed Discovery program requirements at the University of New Hampshire with careful choice of courses.

### Program Outcomes

- Students will access, generate, process, and transfer information using appropriate technologies.
- Students will understand mathematics and become mathematically confident by communicating and reasoning mathematically, by applying mathematics in real-world settings, and by solving problems through the integrated study of number systems, geometry, algebra, and trigonometry.
- Students will understand and apply scientific concepts, principles, and theories pertaining to the physical world and recognize the historical development of ideas in science.
- Students will apply technological knowledge and skills to design, construct, use, and evaluate products and systems.
- Students will understand the relationships and common themes that connect mathematics, science, and technology and apply these themes to other areas.

- Students will apply the knowledge and skills of mathematics, science, and technology to real-life problems and make informed decisions.
- After completing the program, students will be prepared to begin using mathematical analysis and scientific inquiry, as appropriate, to pose questions, seek answers, and develop solutions.

### Technical Standards

1. Basic computer skills including software such as web browsers and office applications
2. Good manual dexterity; adequate (basic) keyboarding skills
3. Vision for reading on computer screen and printed material
4. Critical thinking ability
5. Ability to work independently as well as in small groups
6. Effectively communicate verbally and in writing, as in an office/work environment

### Transfer Credit Policy

In addition to Great Bay transfer credit policies, transfer of courses in the Engineering Science program that are designated MAJOR courses more than 10 years old will be evaluated by the program coordinator on an individual basis.

**Please Note:** This degree includes several **major elective sequences**. Students may select an elective sequence based on educational and career goals. Students must complete all courses within the chosen sequence in order to satisfy the degree. **Please see the Guide to Major Elective Sequences at the end of this section.**

\*If MATH150G/MATH152G is needed, it is strongly recommended that students complete this course **prior to beginning the Engineering Science program** in order to stay on track.

**Please Note:** The Engineering Science degree is a rigorous program. Students are expected to spend additional time beyond the minimum to complete the requirements and achieve success. Students are also expected to have college-level reading, writing, and math skills as soon as possible after declaring this major.

## First Year

### Fall Semester

Item #	Title	Theory Hours	Lab Hours	Credits
FYE114G	First Year Seminar Engineering	1	0	1
CHEM115G	General Chemistry I	3	3	4
MATH210G	Pre-Calculus	4	0	4
	ENGL110G/111G	4	0	4-5

FYE114G: Recommended. Any one-credit FYE course fulfills this requirement.

### Sequence A:

Item #	Title	Theory Hours	Lab Hours	Credits
CIS112G	Introduction to Object Oriented Programming	2	2	3

### Sequence B

Item #	Title	Theory Hours	Lab Hours	Credits
ARTS125G	Visual Language	3	0	3
	<b>Sub-Total Credits</b>	<b>3</b>	<b>0</b>	<b>14-15</b>



## Spring Semester

Item #	Title	Theory Hours	Lab Hours	Credits
	English Elective*	3	0	3
	Social Science Elective*	3	0	3-4
MATH230G	Calculus I	4	0	4
CHEM116G	General Chemistry II	3	3	4

### Sequence A

Item #	Title	Theory Hours	Lab Hours	Credits
	Humanities/Fine Arts Elective*	3	0	3

### Sequence B

Item #	Title	Theory Hours	Lab Hours	Credits
CIS177G	Introduction to Python	2	2	3
	<b>Sub-Total Credits</b>	<b>2</b>	<b>2</b>	<b>3</b>

## Second Year

### Fall Semester

Item #	Title	Theory Hours	Lab Hours	Credits
MATH250G	Calculus II	4	0	4
PHYS290G	University Physics I	3	3	4
	Liberal Arts Elective	3	0	3

### Sequence A

Item #	Title	Theory Hours	Lab Hours	Credits
	Math Elective (Math 235G or higher)	4	0	4

### Sequence B

Item #	Title	Theory Hours	Lab Hours	Credits
DATA210G	Elements of Data Science	3	0	3
	<b>Sub-Total Credits</b>	<b>3</b>	<b>0</b>	<b>16-17</b>

### Spring/Summer Semester

Item #	Title	Theory Hours	Lab Hours	Credits
	Math Elective (Math 235G or higher)	4	0	4
PHYS295G	University Physics II	3	3	4

### Sequence A

Item #	Title	Theory Hours	Lab Hours	Credits
CIS177G	Introduction to Python	2	2	3
	4-Credit Liberal Arts Elective	4	0	4

### Sequence B

Item #	Title	Theory Hours	Lab Hours	Credits
DATA220G	Data Analysis with R	3	0	3
	4-Credit Liberal Arts Elective	4	0	4
DATA225G	Analytics Capstone	2	0	2
	<b>Sub-Total Credits</b>	<b>9</b>	<b>0</b>	<b>15-17</b>

## **Guide to Major Elective Sequences:**

**Sequence A: Applied Math/Programming Option:** MATH170G or MATH215G, CIS177G, and CIS112G or CIS148G.

**Sequence B: Practical Data Science Certificate Option:** DATA215G, CIS177G, DATA220G, and DATA225G (along with MATH235 and ARTS125 electives).

**Sequence C:** Students may transfer the following from other CCSNH colleges: Computer Aided Design (CAD), Engineering Statistics, and Engineering Dynamics or Strength of Materials.

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**Total Credits**

**61-66**

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# English

## English

### **Degree Type**

Associate in Arts

The English major at Great Bay encompasses the study of a wide range of literary periods, styles, and genres. The program requirements provide students with a broad background in American, British, and continental literature written in English, as well as the analytical tools and skills necessary for the serious academic study of literature. Students can pursue specialized literary or writing interests through their major electives. The program provides a strong foundation for further study of English and the humanities at four-year colleges and universities.

An English associate degree emphasizes solid, adaptable communication skills for students who love literature and language and the exploration and development of complex ideas. The English major also builds important research, writing, and critical thinking skills that translate into valuable workplace contributions in a wide variety of fields. Specific career areas may include: teaching, writing, communications, editing, publishing, journalism, and the law.

It is recommended that students take ENGL110G/111G College Composition I/with Lab, CRIT150 Critical Thinking in the Humanities, and an introductory literature course (such as ENGL114G Introduction to Poetry, ENGL115G Introduction to Film Studies, or ENGL120G Introduction to African American Literature and Culture) in their first semester. ENGL 127G Introduction to Literary Analysis is best taken in the second semester. Students are also encouraged to make Lab Science, Math, Humanities/Foreign Language/Fine Arts, and Social Science Elective choices based upon particular four-year college's transfer requirements and general education cores.

### **Program Outcomes**

Students graduating with the Associate of Arts degree in English will be able to:

- Understand a comprehensive variety of stylistic periods and genres, as well as the scope and significance of literature written in English.
- Develop skills of analysis and interpretation using different theoretical approaches to study and analyze literature and language within the broad range of human experience.
- Examine how texts are written and received within literary, cultural, and socio-historical contexts while recognizing that literature and language reflect and impact cultural change.
- Develop the ability to write effectively, persuasively, and analytically for a wide range of audiences.
- Qualify for transfer to a four-year college or university with the necessary foundation in English and/or related fields such as Writing, History, the Humanities, or Political Science.

### **Transfer Credit Policy**

In addition to Great Bay transfer credit policies, Liberal Arts and Science courses will be considered for transfer regardless of when they were taken as long as they meet minimum grade requirements. See individual department policies for program exceptions on general education requirements. In the case of English and math course transfers, it may be recommended that the student take portions of the Accuplacer Placement Test to demonstrate the skill level required for success in subsequent classes within the program. Transfer of a course to this institution does not guarantee transfer of that same course to subsequent institutions. SAT testing may be required by some transfer institutions.

## First Year

### Fall Semester

Item #	Title	Theory Hours	Lab Hours	Credits
	ENGL110G/111G	4	0	4-5
CRIT150G	Critical Thinking in the Humanities	3	0	3
	MATH145G/147G (English)	4	0	4-5
	ENGL 1XXG - 100 Level English Elective	3	0	3
	<b>Sub-Total Credits</b>	<b>14-15</b>	<b>0-2</b>	<b>14-16</b>

### Spring Semester

Item #	Title	Theory Hours	Lab Hours	Credits
ENGL214G	Introduction to Creative Nonfiction	3	0	3
	MATH Elective (225, 215, or 170)	4	0	4
ENGL127G	Introduction to Literary Analysis	3	0	3
	ENGL 2XXG - 200 Level Survey Elective	3	0	3
	<b>Sub-Total Credits</b>	<b>13</b>	<b>0</b>	<b>13</b>

### Summer Semester

Item #	Title	Theory Hours	Lab Hours	Credits
	Social Science Elective*	3	0	3-4
	<b>Sub-Total Credits</b>	<b>3-4</b>	<b>0</b>	<b>3-4</b>

## Second Year

### Fall Semester

Item #	Title	Theory Hours	Lab Hours	Credits
	ENGL 2XXG - 200 Level Survey Elective	3	0	3
	ENGL 2XXG - 200 Level English Elective	3	0	3
	Lab Science Elective (English)	3	2	4
	Social Science Elective*	3	0	3-4
	Humanities/Foreign Language/Fine Arts Elective*	3	0	3
	<b>Sub-Total Credits</b>	<b>15-16</b>	<b>2-3</b>	<b>16-17</b>

### Spring Semester

Item #	Title	Theory Hours	Lab Hours	Credits
	ENGL 2XXG - 200 Level Survey Elective	3	0	3
	ENGL 2XXG - 200 Level English Elective	3	0	3
	ENGL289G or ENGL2XXG	3	0	3
	Social Science Elective*	3	0	3-4
	Lab Science Elective (English)	3	2	4
	<b>Total Credits</b>			<b>62-64</b>

# Environmental Science

## Environmental Science

### Degree Type

Associate in Science

The Environmental Science Degree is intended for students who wish to transfer to a four-year institution, to pursue a degree in environmental studies, environmental policy, environmental science, ecology, natural resources management, or related fields. It is configured as a diverse environmental science foundation and is designed to provide a solid scientific and social scientific substance for students with a broad range of interests related to the environment. The degree of Associate in Science with a major in Environmental Science will be awarded upon completion of all requirements.

### Program Outcomes

Students graduating with the A.S. degree in Environmental Science will be able to:

- Understand general ecological laws and principles regarding the systemic nature of the planet.
- Understand and be able to execute a wide variety of laboratory and field science techniques in Environmental Science, Chemistry, and Biology.
- Understand the holistic nature of environmental issues stemming from anthropogenic sources, geological sources, biological sources, and the biogeochemistry of the Earth.
- Understand and integrate the selected sub-disciplines of environmental science and environmental studies at a more advanced undergraduate level.
- Understand and appreciate the overlap of science, public policy, and ethics when exploring environmental and social issues.
- Use critical thinking and critical inquiry to analyze and explore ethical, scientific, and policy issues in environmental science.
- Employ aforementioned skills to analyze, interpret, and explain scientific data regarding the systems of the earth and be able to present conclusions in formal writing and presentations.
- Qualify for transfer to a four-year college or university.

### Technical Standards

Students enrolling in the A.S. Degree in Environmental Science must, in addition to meeting the specific pre-requisite requirements for each course, meet the following general, technical standards:

- Students must be able to comprehend the English language, both oral and written, and must have sufficient manual dexterity to produce legible written documents in a timely manner.
- Students must be able to sit or stand at a desk/laboratory bench, and also be able to conduct work in the field.
- Students must possess the necessary focus to stay on task for extended periods of time.
- Students must be able to comprehend and follow instructions in the classroom and laboratory in a timely manner.
- Students must possess the necessary manual dexterity to carry out assigned laboratory and field work tasks.
- Students must be able to perform required classroom, field and laboratory operations, including mathematical operations, without reference to notes, as directed.

### Transfer Credit Policy

In addition to Great Bay transfer credit policies, transfer of courses more than ten years old will be evaluated by the department chair or program coordinator on an individual basis.

## First Year

### Fall Semester

Item #	Title	Theory Hours	Lab Hours	Credits
	ENGL110G/111G	4	0	4-5
	MATH150G/152G (Envi Science)	4	0	4-5
SOCH20G	Society and Technological Change	3	0	3
BIOL109G	General Biology II	3	3	4
	<b>Sub-Total Credits</b>	<b>14</b>	<b>3-5</b>	<b>15-17</b>

### Spring Semester

Item #	Title	Theory Hours	Lab Hours	Credits
CHEM115G	General Chemistry I	3	3	4
NATR105G	Sustainable Agriculture & Food Systems	3	2	4
ENGL214G	Introduction to Creative Nonfiction	3	0	3
BTEC205G	Bioethics	3	0	3
	Open Elective*	3	0	3
	<b>Sub-Total Credits</b>	<b>15</b>	<b>5</b>	<b>17</b>

## Second Year

### Fall Semester

Item #	Title	Theory Hours	Lab Hours	Credits
BIOL160G	Introduction to Environmental Science	3	3	4
BIOL230G	General Ecology	3	3	4
MATH210G	Pre-Calculus	4	0	4
	Social Science Elective*	3	0	3-4
	<b>Sub-Total Credits</b>	<b>13-14</b>	<b>6</b>	<b>15-16</b>

MATH210G: Students intending to transfer should select courses that will transfer appropriately to their intended institution.

### Spring Semester

Item #	Title	Theory Hours	Lab Hours	Credits
NATR299G	Contemporary Conservation Issues and Environmental Awareness	3	3	4
CHEM116G	General Chemistry II	3	3	4
	Humanities/Fine Arts Elective*	3	0	3
	Open Elective*	3	0	3
	<b>Sub-Total Credits</b>	<b>12</b>	<b>6</b>	<b>14</b>

Students with appropriate test scores may substitute a higher-level course from the direct calculus math pathway: MATH210G, MATH230G, MATH235G, MATH250G.

**Total Credits**

**61-64**

## History

### History Degree Type

## Associate in Arts

The Associate in Arts in History provides students with a broad range of historical and political perspectives. This degree allows students to explore various views and concepts from our own country and around the world. Students will develop research skills using primary and secondary sources. The coursework is designed to transfer to a baccalaureate program where students may continue on a pathway to a career in law, public policy, education, government, or historic preservation.

### Program Outcomes

Upon graduation, students will be able to:

- Examine historical and political perspectives and concepts.
- Analyze the relationship between society, culture, and politics in a variety of periods and locations.
- Identify and critique appropriate primary and secondary sources to complete research.
- Construct long-form and shorter evidence-based arguments.
- Argue in historical and political debates, both written and oral, from multiple perspectives.
- Develop strong communication skills that can be applied to a variety of disciplines.
- Demonstrate academic skills to prepare for transfer to other institutions or to work in the field.

## First Year

### Fall Semester

Item #	Title	Theory Hours	Lab Hours	Credits
	MATH145G/147G (History)	4	0	4-5
	History Elective	3	0	3
	ENGL110G/111G	4	0	4-5
	Social Science Elective*	3	0	3-4
	<b>Sub-Total Credits</b>	<b>14-16</b>	<b>0-2</b>	<b>14-17</b>

### Spring Semester

Item #	Title	Theory Hours	Lab Hours	Credits
	MATH225G or MATH215G	4	0	4
	History Elective	3	0	3
	Social Science Elective*	3	0	3-4
	English Literature Course	3	0	3
	Humanities/Foreign Language/Fine Arts Elective*	3	0	3
	<b>Sub-Total Credits</b>	<b>16-17</b>	<b>0</b>	<b>16-17</b>

## Second Year

### Fall Semester

Item #	Title	Theory Hours	Lab Hours	Credits
	History Elective	3	0	3
	History Elective	3	0	3
	Lab Science Elective	3	3	4
	Social Science Elective*	3	0	3-4
	Humanities/Foreign Language/Fine Arts Elective*	3	0	3
	<b>Sub-Total Credits</b>	<b>15-16</b>	<b>3</b>	<b>16-17</b>

## Spring Semester

Item #	Title	Theory Hours	Lab Hours	Credits
	History Elective	3	0	3
	History Elective	3	0	3
	History Elective	3	0	3
	Lab Science Elective*	3	3	4
	Humanities/Foreign Language/Fine Arts Elective*	3	0	3
	<b>Sub-Total Credits</b>	<b>15</b>	<b>3</b>	<b>16</b>
	<b>Total Credits</b>			<b>62-67</b>

# Homeland Security

## Homeland Security and Emergency Management

### Degree Type

Associate in Science

The market for homeland security jobs is growing at all levels in the public and private sectors. Earning a degree in homeland security and emergency at Great Bay can provide emergency-response professionals with the skills and expertise necessary to effectively plan for, prepare for, and respond to natural or man-made disasters and emergencies.

### Program Outcomes

Upon successful completion of the program of study, students should be able to:

- Describe the four phases of emergency management and the role each of them plays in managing and mitigating a disaster.
- Differentiate among the various homeland security threats to include those that are manmade, technological, and natural.
- List the resources needed and how to obtain those resources effectively mitigate disaster damage.
- Examine the historical and evolving concept of homeland security within the contemporary nation-state's broader political and national security system.
- Discuss the strategic, operational, and tactical threats of chemical, nuclear, and biological agents, including agent characteristics and delivery systems.
- Distinguish among and assess the various homeland security approaches, techniques, and processes, such as analytics, indications, warnings, and forecasting.
- Explain the key administrative and command and control elements of the evolving homeland security relationships among the intelligence community, Department of Homeland Security, interagency processes, institutions, federal, state, and local intergovernmental relations, and a comprehensive U.S. homeland security strategy.
- Describe the effective way to make decisions and problem solve during an emergency.
- Be able to assess the risk of threat and utilize crisis management strategies to develop a plan and minimize organization and community vulnerability.

### Health, Safety, and Internship Considerations

Applicants should be aware of the basic health and fitness requirements for many careers in the criminal justice field. Prospective students with special needs or limitations that may affect their internship placement and/or potential employability are encouraged to discuss their career goals during the interview with a department member before admission. The College must ensure that individuals (customers, employees, etc.) at internship and service-learning sites are not adversely affected by students during learning experiences.

Therefore, students participating in internship and field experiences must demonstrate the emotional stability required to exercise sound judgment, accept direction and guidance from a supervisor or faculty member, and establish rapport and maintain sensitive interpersonal relationships with employees, customers, and clients.

Most internship placement sites require students to have health insurance and students participating in an internship are required to follow the College Immunization Policy. Please see the Academic Policies section of this catalog, under XVI. Immunization Policy.

### Technical Standards

Applicants should be aware that thorough background checks are completed by potential employers before obtaining any position with arrest or detention powers, and typically, even before being accepted for an internship. Applicants with a criminal history may not be employable or even eligible for participation in the Homeland Security & Emergency Management Internship Program. Due to the possible negative impact on future employability, applicants are strongly advised to discuss any concerns with the department chair before applying to the program. Overall, opportunities within the criminal justice field will be favorable for individuals who meet psychological, physical, and personal qualifications.

### Transfer Credit Policy

In addition to Great Bay transfer credit policies, transfer of courses in criminal justice more than ten years old will be evaluated by the department chair individually.

## First Year

### First Year

Item #	Title	Theory Hours	Lab Hours	Credits
HSEM110G	Introduction to Homeland Security	3	0	3
HSEM111G	Intro to Emergency Management	3	0	3
	ENGL110G/111G	4	0	4-5
	CIS110G or CIS107G	2	2	3-4
PHIL240G	Ethics	3	0	3
	<b>Sub-Total Credits</b>	<b>15</b>	<b>2-6</b>	<b>16-18</b>

### Spring Semester

Item #	Title	Theory Hours	Lab Hours	Credits
HSEM112G	National Incident Mgt. Systems	3	0	3
HSEM115G	Crisis Planning, Operations, and Management	4	0	4
	MATH145/7	4	0	4-5
POLS220G	Public Administration	3	0	3
	Lab Science Electives (3 credits)	3	3	3
	<b>Sub-Total Credits</b>	<b>17-18</b>	<b>3</b>	<b>17-18</b>



## Second Year

### Fall Semester

Item #	Title	Theory Hours	Lab Hours	Credits
HSEM120G	Terrorism & Political Extremism	3	0	3
HSEM211G	Critical Infrastructure Protection	3	0	3
ANTH101G	Introduction to Anthropology	3	0	3
ENGL214G	Introduction to Creative Nonfiction	3	0	3
	HS & EM Elective	3	0	3
	<b>Sub-Total Credits</b>	<b>15</b>	<b>0</b>	<b>15</b>

### Spring Semester

Item #	Title	Theory Hours	Lab Hours	Credits
HSEM212G	Tech in Homeland Security & Emergency Management	3	0	3
	HS & EM Elective	3	0	3
	Open Elective*	3	0	3
	HSEM270G or HSEM275G	0	0	3
	<b>Sub-Total Credits</b>	<b>9-12</b>	<b>0-9</b>	<b>12</b>

### Curriculum Recommendations

It is highly recommended that all students enroll in a minimum of one homeland security and emergency management course during the first semester of attendance.

**Total Credits**

**60-63**

## Homeland Security

### Degree Type

Certificate

The market for homeland security jobs is growing in the public and private sectors. Earning a certificate in homeland security at Great Bay can provide emergency-response professionals with the skills and expertise necessary to effectively plan for, prepare for, and respond to a potential terrorist attack. Students pursuing a criminal justice degree may also take the Homeland Security Certificate to enhance their potential employment opportunities.

### Program Outcomes

Upon completion of the Homeland Security Certificate at Great Bay, graduates will be able to:

- Examine the historical and evolving concept of homeland security within the broader political and national security system of the contemporary nation-state.
- Recognize the detailed mitigation, planning, response, and recovery phases to and from a homeland security incident.
- Differentiate among the various homeland security threats to include those that are manmade, technological, and natural.
- Discuss the strategic, operational, and tactical threats presented by chemical, nuclear, and biological agents to include agent characteristics and delivery systems.
- Distinguish among and assess the various homeland security approaches, techniques, and processes, such as analytics, indications, warnings, and forecasting.

- Explain the key administrative and command and control elements of the evolving homeland security relationships among the intelligence community, Department of Homeland Security, interagency processes, and institutions; federal, state, and local intergovernmental relations; and a comprehensive U.S. homeland security strategy.
- Be able to assess the risk of threat and utilize crisis management strategies to develop a plan and minimize organization and community vulnerability.

### Technical Standards

Applicants should be aware that thorough background checks are completed by potential employers before obtaining any position with arrest or detention powers, and typically, even before being accepted for an internship. Applicants who have a criminal record may not be employable. Due to the possible negative impact on future employability, applicants are strongly advised to discuss any concerns with the department chair before applying to the program.

To be successful in the homeland security field, one must demonstrate the emotional stability required to exercise sound judgment and accept direction and guidance from a supervisor. One must also be able to establish rapport and maintain sensitive interpersonal relationships with employees, customers, and clients. Overall opportunities within homeland security will be favorable for individuals who meet psychological, physical, and personal qualifications.

### Transfer Credit Policy

In addition to Great Bay transfer credit policies, transfer of courses in homeland security more than ten years old will be evaluated by the program coordinator on an individual basis.

### Certificate Requirements

Item #	Title	Theory Hours	Lab Hours	Credits
HSEM110G	Introduction to Homeland Security	3	0	3
HSEM115G	Crisis Planning, Operations, and Management	4	0	4
HSEM120G	Terrorism & Political Extremism	3	0	3
<b>Sub-Total Credits</b>		<b>10</b>	<b>0</b>	<b>10</b>

**Students must also select two additional courses from the following list:**

Item #	Title	Theory Hours	Lab Hours	Credits
CRMJ121G	Criminal Procedure	3	0	3
CRMJ123G	Criminal Law	4	0	4
CRMJ150G	Criminology	4	0	4
POLS220G	Public Administration	3	0	3
IST263G	Information Assurance/Information Risk Management	2	2	3
<b>Sub-Total Credits</b>		<b>16</b>	<b>2</b>	<b>6-8</b>
<b>Total Credits</b>				<b>16-18</b>

## Hospitality Management

### Hotel, Restaurant, & Event Management

#### Degree Type

Associate in Science

The Hotel, Restaurant, and Event Management Associate in Science Degree and related Certificate programs prepare students to succeed in a fast-growing, people-oriented career with global job possibilities. The hospitality industry offers a wide array of career paths in management, operations, sales, marketing and small business ownership. Students will gain hands-on experience developing skills in effective communication, creative problem-solving, and diverse team collaboration all while focusing on delivering service excellence. These skills translate into advancement opportunities, long-term job security, and career choices that expand well beyond the hospitality industry. Students can also take advantage of the abundant internship, job placement, and networking prospects available in Portsmouth, New Hampshire's premier tourism destination. Flexible course options provide the freedom to customize the program and schedule to fit career interests and plans whether they include embarking on a career after graduation or continuing onto a university.

Certificate programs in **Event & Meeting Planning, Hotel/Restaurant Management, and Spa and Wellness Management**, offer students an opportunity to specialize in a particular area of hospitality. Credits in each certificate program may be applied toward a degree in Hotel, Restaurant, and Event Management, making it possible for students to earn two industry-recognized credentials at the same time. A certificate may also serve as a stand-alone credential for professionals preparing for a career change or advancement opportunities.

Great Bay Hospitality students also have an opportunity to earn several industry-recognized certifications which are integrated into coursework. These include the Cvent Certificate for event planners, the Delphi Certificate for sales and catering, AHLEI's Managing Front Office Operations Certificate for hotel professionals, and TIPS and ServSafe Certification for food and beverage professionals.

### **Program Outcomes**

Graduates of the Hotel, Restaurant, and Event Management program will be able to:

- Identify the fundamental components, historical developments, and current and future trends of the global hospitality industry.
- Explain the significance of the guest-host relationship inherent to the hospitality industry and the strategies used to achieve service excellence.
- Display the necessary written and oral communication skills required to be successful in the hospitality industry, including nonverbal techniques and an appreciation of cultural differences.
- Realize and appreciate the importance of professional, ethical, legal, and social issues and responsibilities related to the hospitality industry.
- Demonstrate a solid understanding of effective hospitality sales, marketing, and management practices.
- Develop and apply problem solving, decision making, team building and critical thinking skills to practical hospitality management situations.
- Broaden career perspectives and enhance personal and professional development opportunities for a successful career in the hospitality industry.
- Qualify for transfer to a four-year college or university having completed the necessary requirements in hospitality, business, and general education for upper level study in Hospitality Management.

### **Health, Safety, and Internship Considerations**

Participation in an internship requires the student to follow the College Immunization Policy. Please see the Academic Policies section of this catalog, under XVI. Immunization Policy. Depending upon the site, the student may be required to possess and maintain professional liability insurance. For unpaid internships, the student must possess and maintain accident insurance. Please see the Student Services section of this catalog, under Insurance for purchase options available through the College.

### **Technical Standards**

Students in the Hotel, Restaurant, and Event Management Degree and related Certificate programs must be able to demonstrate the ability to:

- Communicate effectively using written and oral techniques, including the use of technology.
- Conduct themselves in a professional manner.
- Work independently and in teams.
- Work with frequent interruptions, respond appropriately to unexpected situations, and cope with variations in workload and stress levels.

### Transfer Credit Policy

In addition to Great Bay transfer credit policies, transfer of courses in Hotel, Restaurant, and Event Management more than ten years old will be evaluated by the program coordinator on an individual basis.

## First Year

### Fall Semester

Item #	Title	Theory Hours	Lab Hours	Credits
HOS110G	Introduction to Hospitality Management	3	0	3
	MATH145G/147G (HOS)	4	0	4-5
	ENGL110G/111G	4	0	4-5
HOS150G	Hotel Operations	3	0	3
	<b>Sub-Total Credits</b>	<b>14-15</b>	<b>0-2</b>	<b>14-16</b>

### Spring Semester

Item #	Title	Theory Hours	Lab Hours	Credits
	BUS110G or BUS114G	3	0	3
	HOS235G or HOS230G	3	0	3
	HOS175G or HOS225G	3	0	3
	HOS250G or HOS215G or HOS255G	3	0	3
GEOG110G	World Geography	3	0	3
	<b>Sub-Total Credits</b>	<b>15</b>	<b>0</b>	<b>15</b>

## Second Year

### Fall Semester

Item #	Title	Theory Hours	Lab Hours	Credits
	Social Science Elective*	3	0	3-4
	ACCT, BUS, ECON, HOS, or MKTG Elective	3	0	3
HOS210G	Customer Service	3	0	3
ACCT113G	Accounting and Financial Reporting I	3	0	3
	Science Elective	3	3	4
	<b>Sub-Total Credits</b>	<b>15-16</b>	<b>3</b>	<b>16-17</b>

### Spring Semester

Item #	Title	Theory Hours	Lab Hours	Credits
	ACCT, BUS, ECON, HOS, or MKTG Elective	3	0	3
	Liberal Arts Elective	3	0	3
	Humanities/Foreign Language/Fine Arts Elective	3	0	3
	HOS275G or Hospitality Elective	3	0	3
	HOS280G or Hospitality Elective	0	0	3
	<b>Sub-Total Credits</b>	<b>12-15</b>	<b>0-9</b>	<b>15</b>
	<b>Total Credits</b>			<b>60-63</b>

## Event & Meeting Planning

### Degree Type

Certificate

These Certificate programs are designed for students wishing to specialize in one area of hospitality: Hotel/ Restaurant Management, Spa and Wellness Management, or Event & Meeting Planning. All certificate credits may be applied toward fulfilling requirements for a degree in Hotel, Restaurant, and Event Management. Certificates may also serve as stand-alone credentials for professionals preparing for a career change or advancement opportunities.

## Event and Meeting Planning

This certificate prepares students for employment in event and meeting planning management for large hotels, resorts, conference or convention centers, attractions, private catering operations, event management companies, nonprofit organizations, and independent event and wedding planners. Students who love working with people, enjoy planning social events, and are creative and detail oriented, should consider this rapidly growing field.

Item #	Title	Theory Hours	Lab Hours	Credits
HOS110G	Introduction to Hospitality Management	3	0	3
HOS210G	Customer Service	3	0	3
	HOS255G or HOS111G or HOS201G	3	0	3
	HOS175G or HOS225G	3	0	3
	HOS215G or HOS250G or HOS211G	3	0	3
	HOS235G or HOS230G	3	0	3
	HOS280G or Hospitality Elective	0	0	3
	<b>Sub-Total Credits</b>	<b>18-21</b>	<b>0-9</b>	<b>21</b>

With Department Chair approval, one certificate course requirement may be replaced with HOS275G Professional Development.

<b>Total Credits</b>	<b>21</b>
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## Hotel/Restaurant Management

### Degree Type

Certificate

These Certificate programs are designed for students wishing to specialize in one area of hospitality: Hotel/ Restaurant Management, Spa and Wellness Management, or Event & Meeting Planning. All certificate credits may be applied toward fulfilling requirements for a degree in Hotel, Restaurant, and Event Management. Certificates may also serve as stand-alone credentials for professionals preparing for a career change or advancement opportunities.

## Hotel/Restaurant Management

This certificate prepares students for a variety of career options in lodging and food service. Students with a desire to help people and assist in daily management and operations in a fast-paced service industry will find a multitude of job opportunities with hotels, resorts, restaurants, casinos, clubs, convention centers, and cruise lines.

<b>Item #</b>	<b>Title</b>	<b>Theory Hours</b>	<b>Lab Hours</b>	<b>Credits</b>
HOS110G	Introduction to Hospitality Management	3	0	3
HOS210G	Customer Service	3	0	3
	HOS150G or HOS230G	3	0	3
	HOS235G or HOS244G or HOS111G	3	0	3
	HOS250G or HOS215G or HOS255G	3	0	3
	HOS175G or HOS225G	3	0	3
	HOS280G or Hospitality Elective	0	0	3
	<b>Sub-Total Credits</b>	<b>18-21</b>	<b>0-9</b>	<b>21</b>

With Department Chair approval, one certificate course requirement may be replaced with HOS275G Professional Development.

<b>Total Credits</b>	<b>21</b>
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## Spa and Wellness Management

### Degree Type

Certificate

These Certificate programs are designed for students wishing to specialize in one area of hospitality: Hotel/Restaurant Management, Spa and Wellness Management, or Event & Meeting Planning. All certificate credits may be applied toward fulfilling requirements for a degree in Hotel, Restaurant, and Event Management. Certificates may also serve as stand-alone credentials for professionals preparing for a career change or advancement opportunities.

## Spa and Wellness Management

The spa and wellness industry is growing rapidly as people seek to reduce stress by taking a more holistic approach to healthy living, eating, and vacationing. This certificate prepares students for career opportunities in a variety of spa and wellness retreats focusing on programs and experiences that enhance personal well-being. Job possibilities include hotels, resorts, cruise ships, day spas, salons, medical spas, yoga retreats, and fitness centers. Students will develop skills to supervise day-to-day operations, oversee massage and skin therapists, nutritionists, and other health and wellness specialists, while creating a stress-free environment where clients can relax and decompress. This certificate also complements the Massage Therapy Certificate. With just five additional courses, these students can earn a second credential to prepare them for a supervisory or management role in the spa and wellness industry.

Item #	Title	Theory Hours	Lab Hours	Credits
HOS110G	Introduction to Hospitality Management	3	0	3
HOS244G	Introduction to the Spa Industry	3	0	3
MASS150G	Physiology of Wellness	2	0	2
HOS210G	Customer Service	3	0	3
	HOS175G or HOS225G	3	0	3
BIOL150G	Nutrition	3	3	4
	HOS280G or HOS111G or Hospitality Elective	0	0	3
<b>Sub-Total Credits</b>		<b>17-20</b>	<b>3-12</b>	<b>21</b>

With Department Chair approval, one certificate course requirement may be replaced with HOS275G Professional Development.

**Total Credits**

**21**

## Information Systems Technology

### Cyber Security Infrastructure

#### Degree Type

Associate in Science

The Department of Information Systems Technology offers coursework in a Cyber Security Infrastructure Program. The Cyber Security Program will provide students the skills to become knowledgeable and skilled in a layered approach to computer systems security. The education process will train students for entry-level positions as network security technicians, data security analysts, and systems security administrators. The program provides students an introduction to the latest security technologies and best practices. Students will examine issues related to network security hardware, security awareness and education, security planning and defense, network security organization and the legal and ethical issues associated with information systems security. Students also will complete multiple projects throughout the 2-year program to solidify new knowledge and skills. Students completing this degree program will be able to use the curriculum fundamentals learned to prepare for the CCNA, CCNAS, Network+, and Security+ industry certification exams. This program is designed for students to enter the Cyber Security field at an entry level position.

#### Program Outcomes

Students will be able to:

- Plan, configure, and implement network router and switch configurations based on security “best practice.”
- Monitor the security infrastructure to analyze network problems and traffic flow.

- SNMP, Syslog, Radius, Snort IDS.
- Identify and remediate network security vulnerabilities and threats.
- Understand the need for a Business Continuity Plan (BCP) and Disaster Recovery Plan (DRP) and the relationship between the two.
- Design, monitor and enforce an organizational security policy.
- Install, configure, and monitor a firewall.
- Introductory programming skills in either Java or C++ and Python.

### Health, Safety, and Internship Considerations

The college must ensure that stakeholders at internship and service-learning sites are not adversely affected by students during learning experiences. Therefore, students participating in internship and field experiences must demonstrate the emotional stability required to exercise sound judgment, accept direction and guidance from a supervisor or faculty member, and establish rapport and maintain sensitive interpersonal relationships with employees, customers, and clients. Participation in an internship requires the student to follow the college's immunization policy. Please see the Academic Policies section of this catalog, under XVI. Immunization Policy. Depending upon the site, the student may be required to possess and maintain professional liability insurance. Please see the Student Services section of this catalog, under Insurance for purchase options available through the College.

### Technical Standards

Students who enroll in the program should comprehend the English language, both oral and written, and have sufficient keyboarding skills to produce electronic documents in a timely manner. They should be able to sit or stand at a desk or workstation and stay on task for extended periods of time. They should be detail-oriented, able to read small print, and perform basic mathematical operations with emphasis on Binary Boolean Algebra. Successful employees in the field demonstrate the emotional stability required to exercise sound judgment, accept direction and guidance from a supervisor, establish rapport and maintain sensitive interpersonal relationships with employees, customers, and clients.

### Transfer Credit Policy

In addition to Great Bay transfer credit policies, all Information Systems Technology transfer credits will be evaluated by the IST Program Coordinator or his/her designee.

### General Education Core Classes

Item #	Title	Theory Hours	Lab Hours	Credits
	ENGL110G/111G	4	0	4-5
MATH170G	Discrete Mathematics	4	0	4
	BIOL101 or BIOL106	3	2	4
	Social Science Elective*	3	0	3-4
PHIL240G	Ethics	3	0	3
	MATH145G/147G	4	0	4-5
MATH225G	Probability and Statistics	4	0	4

*Math Track 1 will include Math145/147G and Math170G*

*Math Track 2 will include Math170G and Math225G*



## Cyber Security Major Courses

Up to 18 credits at the 100 levels

At least 21 credits at the 200 levels

Item #	Title	Theory Hours	Lab Hours	Credits
CIS177G	Introduction to Python	2	2	3
IST122G	Introduction to Networks	2	2	3
IST123G	Switching, Routing, and Wireless Essentials (SRWE)	2	2	3
IST142G	Virtualization Essentials	2	2	3
CIS146G	Linux I	2	2	3
	CIS148G or CIS158G	2	2	3
IST222G	Enterprise Networking, Security, and Automation (ENSA)	2	2	3
IST262G	Advanced Network Security	2	2	3
IST263G	Information Assurance/Information Risk Management	2	2	3
IST264G	Configuration Security Appliance	2	2	3
IST265G	CCNA Cybersecurity Operations	2	2	3
IST275G	Network Protocols and Services	2	2	3
IST266G	Security+	2	2	3

### First Year

#### Fall Semester

Item #	Title	Theory Hours	Lab Hours	Credits
	ENGL110G/111G	4	0	4-5
	MATH145/147G or MATH 170	4	0	4-5
IST122G	Introduction to Networks	2	2	3
IST123G	Switching, Routing, and Wireless Essentials (SRWE)	2	2	3
<b>Sub-Total Credits</b>		<b>12</b>	<b>4-6</b>	<b>14-16</b>

#### Spring Semester

Item #	Title	Theory Hours	Lab Hours	Credits
	MATH170G or MATH 225G	4	0	4
IST142G	Virtualization Essentials	2	2	3
IST222G	Enterprise Networking, Security, and Automation (ENSA)	2	2	3
CIS146G	Linux I	2	2	3
CIS177G	Introduction to Python	2	2	3
<b>Sub-Total Credits</b>		<b>12</b>	<b>8</b>	<b>16</b>

#### Summer Semester

Item #	Title	Theory Hours	Lab Hours	Credits
IST266G	Security+	2	2	3
<b>Sub-Total Credits</b>		<b>2</b>	<b>2</b>	<b>3</b>

## Second Year

### Fall Semester

Item #	Title	Theory Hours	Lab Hours	Credits
	Social Science Elective*	3	0	3-4
IST263G	Information Assurance/Information Risk Management	2	2	3
	CIS148G or CIS158G	2	2	3
IST264G	Configuration Security Appliance	2	2	3
	<b>Sub-Total Credits</b>	<b>9-10</b>	<b>6</b>	<b>12-13</b>

### Spring Semester

Item #	Title	Theory Hours	Lab Hours	Credits
	BIOL101 or BIOL106	3	2	4
IST265G	CCNA Cybersecurity Operations	2	2	3
PHIL240G	Ethics	3	0	3
IST262G	Advanced Network Security	2	2	3
	<b>Sub-Total Credits</b>	<b>10</b>	<b>6</b>	<b>13</b>

### Summer Semester

Item #	Title	Theory Hours	Lab Hours	Credits
IST275G	Network Protocols and Services	2	2	3
	<b>Sub-Total Credits</b>	<b>2</b>	<b>2</b>	<b>3</b>
	<b>Total Credits</b>			<b>61-64</b>

## Information Systems Technology

### Degree Type

Associate in Science

The Department of Information Systems Technology offers coursework in computer hardware repair, computer networking, network security, and network management. This coursework opens the door to career changes, career enhancements, and career opportunities. The demand for IT professionals continues to rise. IT professionals are being sought after with higher salaries as an incentive. Continuing education opportunities are available for IST graduates through current articulation agreements with four-year colleges. Courses will be offered on a rotating semester basis. Students should work with their advisors to plan course selections to optimize program completion time.

### Program Outcomes

Students will be able to:

- Design local area networks using multiple sub-networks.
- Configure networking devices to forward traffic throughout a local area network.
- Implement, configure and manage Wi-Fi network infrastructure.
- Configure networking devices to connect to internet service provider network.
- Configure and maintain personal computers in a networked environment.
- Configure and maintain network servers.
- Install and test physical layer infrastructure to include copper, fiber- optic, and wireless media.
- Install and configure Windows workstations and servers.
- Establish and maintain basic network security policies and procedures.
- Configure and maintain advanced network security devices.
- Configure and implement virtualization of the desktop and network.

- Prepare for selected industry recognized certifications.

### Health, Safety, and Internship Considerations

The college must ensure that stakeholders at internship and service-learning sites are not adversely affected by students during learning experiences. Therefore, students participating in internship and field experiences must demonstrate the emotional stability required to exercise sound judgment, accept direction and guidance from a supervisor or faculty member, and establish rapport and maintain sensitive interpersonal relationships with employees, customers, and clients.

Students participating in an internship are required to follow The College immunization policy. Please see the Academic Policies section of this catalog, under XVI. Immunization Policy. Depending upon the site, the student may be required to possess and maintain professional liability insurance. For unpaid internships, the student must possess and maintain accident insurance. Please see the Student Services section of this catalog, under Insurance for purchase options available through the College.

### Technical Standards

Students who enroll in the program should comprehend the English language, both oral and written, and have sufficient keyboarding skills to produce electronic documents in a timely manner. They should be able to sit or stand at a desk or workstation and stay on task for extended periods of time. They should be detail-oriented, able to read small print, and perform basic mathematical operations. Successful employees in the field demonstrate the emotional stability required to exercise sound judgment, accept direction and guidance from a supervisor, and establish rapport and maintain sensitive interpersonal relationships with employees, customers and clients.

### Transfer Credit Policy

In addition to Great Bay transfer credit policies, all Information Systems Technology transfer credits will be evaluated by the IST chairperson or his/her designee.

### General Education Core Classes

Item #	Title	Theory Hours	Lab Hours	Credits
	ENGL110G/111G	4	0	4-5
	ENGL214G or ENGL215G	3	0	3
	MATH145/7	4	0	4-5
	MATH170G or MATH2XX	4	0	4
	Science Elective (IST)	4	0	4
	Social Science Elective*	3	0	3-4
	Humanities/Foreign Language/Fine Arts Elective	3	0	3
	<b>Sub-Total Credits</b>	<b>25-27</b>	<b>0-2</b>	<b>25-28</b>

At least 21 credits at the 100 level and at least 18 credits must be at the 200 level. Up to 15 CIS or DGMT credits may be applied at either the 100 or 200 level in fulfillment of IST degree requirements.

## Information System Technology Core Courses

Item #	Title	Theory Hours	Lab Hours	Credits
IST112G	Applied Logic	2	2	3
IST113G	IT Essentials: PC Hardware and Software	2	2	3
IST122G	Introduction to Networks	2	2	3
IST123G	Switching, Routing, and Wireless Essentials (SRWE)	2	2	3
IST142G	Virtualization Essentials	2	2	3
IST150G	Network Operating System Fundamentals	2	2	3
IST161G	Fundamentals of Networking/Security	2	2	3
IST163G	Legal Issues in Information Security	3	0	3
IST200G	Communication Electro-Optics	2	2	3
IST212G	Mobile Systems Architecture	2	2	3
IST222G	Enterprise Networking, Security, and Automation (ENSA)	2	2	3
IST242G	Advanced Virtualization	2	2	3
IST245G	Enterprise Data Management	2	2	3
IST251G	Windows Network Operating Systems Services	2	2	3
IST253G	Windows Server 2008 Active Directory	2	2	3
IST262G	Advanced Network Security	2	2	3
IST263G	Information Assurance/Information Risk Management	2	2	3
IST264G	Configuration Security Appliance	2	2	3
IST265G	CCNA Cybersecurity Operations	2	2	3
IST266G	Security+	2	2	3
IST275G	Network Protocols and Services	2	2	3
IST281G	Internship	1	8	3
<b>Sub-Total Credits</b>		<b>44</b>	<b>48</b>	<b>39</b>

## First Year

### Fall Semester

Item #	Title	Theory Hours	Lab Hours	Credits
	ENGL110G/111G	4	0	4-5
	MATH145/147G or MATH 170	4	0	4-5
IST122G	Introduction to Networks	2	2	3
IST123G	Switching, Routing, and Wireless Essentials (SRWE)	2	2	3
<b>Sub-Total Credits</b>		<b>12</b>	<b>4-6</b>	<b>14-16</b>

### Spring Semester

Item #	Title	Theory Hours	Lab Hours	Credits
	MATH170G or MATH2XX	4	0	4
	Science Elective (IST)	4	0	4
IST222G	Enterprise Networking, Security, and Automation (ENSA)	2	2	3
	IST Elective (100 Level)	2	2	3
<b>Sub-Total Credits</b>		<b>12</b>	<b>4</b>	<b>14</b>

## Summer Semester

Item #	Title	Theory Hours	Lab Hours	Credits
	IST Elective (100 Level)	2	2	3
	IST Elective (200 Level)	2	2	3
	Humanities/Fine Arts	3	0	3
	<b>Sub-Total Credits</b>	<b>7</b>	<b>4</b>	<b>9</b>

## Second Year

### Fall Semester

Item #	Title	Theory Hours	Lab Hours	Credits
	ENGL214G or ENGL215G	3	0	3
	IST / CIS Elective (100/200 Level)	2	2	3
	IST / CIS Elective (100/200 Level)	2	2	3
	IST / CIS Elective (100/200 Level)	2	2	3
	Social Science Elective*	3	0	3-4
	<b>Sub-Total Credits</b>	<b>12-13</b>	<b>6</b>	<b>15-16</b>

### Spring Semester

Item #	Title	Theory Hours	Lab Hours	Credits
	IST / CIS Elective (100/200 Level)	2	2	3
	IST / CIS Elective (100/200 Level)	2	2	3
	IST / CIS Elective (100/200 Level)	2	2	3
	IST / CIS Elective (100/200 Level)	2	2	3
	<b>Sub-Total Credits</b>	<b>8</b>	<b>8</b>	<b>12</b>

At least 18 credits must be at the 200 level for IST Classes

Up to 15 CIS and DGMT credits will be accepted in the IST Program

**Total Credits**

**64-67**

## Information Systems Technology

### Degree Type

Certificate

The 24-credit IST Certificate is designed to prepare the student for a place in the Information Technology workplace with a 24-credit milestone. The eight-course requirement is flexible, with a maximum of fifteen 100-level credits in courses with IST designations and a minimum of nine 200-level credits in courses with IST designations.

The eight-course sequence of the IST Certificate program provides some preparation for industry recognized certifications such as the CompTIA A+, CompTIA Net+, Cisco Certified Network Associate (CCNA), FOA Certified Fiber Optic Technician (CFOT), FOA Fiber To The Premises (CFxT), the Microsoft Technology Associate, and EMC2 ISM.

Students may then choose to finish the Associate in Science Degree and further their education at a four-year college. Students who already have a degree may choose this Certificate to redirect their expanding networking skills and prepare them for the rapidly changing and ever-challenging world of Information Technology.

Up to nine credits may be taken under the CIS or DGMT designation and applied to the IST Associate in Science Degree or IST Certificate programs.

## Curriculum Recommendations

Students are encouraged to explore the topic areas of networking devices, network infrastructure, PC maintenance and support, security, and Windows network operating systems during their 100- level course experiences and focus on their specific areas of interest when selecting their 200-level coursework.

The course sequence of IST122G, IST123G, and IST222G comprise the entire Cisco Certified Network Associate (CCNA) Academy. These courses are offered in 8-week/8-week format over a semester to allow students to complete the CCNA Certification preparation track over two semesters.

The IST200G course offers the Fiber Optic Association CFOT, and CFxT, certification exams as part of the course assessments. (See [www.thefoa.org](http://www.thefoa.org) for details.) Other industry certification exams such as the Cisco (CCNA), Microsoft (MTA), CompTIA, certifications are not included within the IST program. However, the IST curriculum is designed to provide foundation preparation for these industry certification exams. Students wishing to pursue these certifications must arrange to take these exams on their own.

## Certificate Requirements

**Choose 24 credits** from the following:

Item #	Title	Theory Hours	Lab Hours	Credits
IST112G	Applied Logic	2	2	3
IST113G	IT Essentials: PC Hardware and Software	2	2	3
IST122G	Introduction to Networks	2	2	3
IST123G	Switching, Routing, and Wireless Essentials (SRWE)	2	2	3
IST142G	Virtualization Essentials	2	2	3
IST150G	Network Operating System Fundamentals	2	2	3
IST161G	Fundamentals of Networking/Security	2	2	3
IST163G	Legal Issues in Information Security	3	0	3
IST200G	Communication Electro-Optics	2	2	3
IST212G	Mobile Systems Architecture	2	2	3
IST222G	Enterprise Networking, Security, and Automation (ENSA)	2	2	3
IST242G	Advanced Virtualization	2	2	3
IST245G	Enterprise Data Management	2	2	3
IST251G	Windows Network Operating Systems Services	2	2	3
IST253G	Windows Server 2008 Active Directory	2	2	3
IST262G	Advanced Network Security	2	2	3
IST263G	Information Assurance/Information Risk Management	2	2	3
IST264G	Configuration Security Appliance	2	2	3
IST265G	CCNA Cybersecurity Operations	2	2	3
IST266G	Security+	2	2	3
IST275G	Network Protocols and Services	2	2	3
IST281G	Internship	1	8	3
<b>Sub-Total Credits</b>		<b>44</b>	<b>48</b>	<b>66</b>
<b>Total Credits</b>				<b>24</b>

# Liberal Arts

## Liberal Arts

### Degree Type

Associate in Arts

The Liberal Arts Associate in Arts degree program of study provides a solid core of courses in arts and sciences, allowing students to transfer with confidence to Baccalaureate programs at four-year colleges and universities. A wide variety of course choices exist for students to explore content areas in arts and sciences. American Studies courses offer an interdisciplinary approach to topics related to American society. English selections include writing courses, Literature, Communications, and Technical Writing. Social Science selections include Anthropology, Economics, History, Geography, Political Science, Psychology, and Sociology. Foreign Language selections include American Sign Language and Spanish. Humanities selections include courses in Western Civilization, Humanities, Literature, Philosophy, Communications and Creative Writing, and American Studies. Fine Arts selections include arts courses in Drawing and Painting. Math courses are offered in two pathways: Applied Mathematics/Statistics and the Calculus sequence. Science selections can include Biology, Biotechnology, Chemistry, Earth Science, Environmental Science, and Physics.

In addition to fulfilling the mission of Baccalaureate transfer, the program will also provide the core of general education requirements for all degrees at this College.

### Program Outcomes

The primary objective of the Liberal Arts degree program is transfer. The program is representative of the first two years of a baccalaureate program. Its academic format emphasizes access to various disciplines of knowledge, critical thinking, and the principles and techniques of research within academic subject areas. Students will find the program flexible enough to allow them to select courses based on the requirements of the four-year colleges to which they plan to transfer or use their course selections to clarify their educational goals and to explore career opportunities and interests. This broad experience provides students with the academic exposure relevant to intellectual, personal, and social growth.

- Completion of a degree program based upon the discovery and development of academic interests.
- Exposure to a variety of courses that satisfy general education requirements at GBCC and transfer institutions.
- Involvement in or completion of Associate of Arts concentrations that prepare students to transfer to specific baccalaureate degrees at four-year institutions.
- Participation in elective offerings in the Arts and Science disciplines that support intellectual enrichment and continued study in a variety of fields.

Through their involvement in a variety of Arts and Sciences courses, students will develop the skills necessary to interpret facts, solve problems, evaluate issues, appreciate aesthetics, develop multiple perspectives, and think critically and creatively.

### Transfer Credit Policy

In addition to Great Bay transfer credit policies, Liberal Arts and Science courses will be considered for transfer regardless of when they were taken as long as they meet minimum grade requirements. See individual department policies for program exceptions on general education requirements. In the case of English and Math course transfers, it may be recommended that the student take portions of the Accuplacer Placement Test to demonstrate the skill level required for success in subsequent classes within the program.

Transfer of a course to this institution does not guarantee transfer of that same course to subsequent institutions. SAT testing may be required by some transfer institutions.

## First Year

### Fall Semester

Item #	Title	Theory Hours	Lab Hours	Credits
	ENGL110G/111G	4	0	4-5
	Math Elective*	4	0	4
CRIT150G	Critical Thinking in the Humanities	3	0	3
ANTH105G	Introduction to Ethnography: World of Work	4	0	4
<b>Sub-Total Credits</b>		<b>15</b>	<b>0-2</b>	<b>15-16</b>

### Spring Semester

Item #	Title	Theory Hours	Lab Hours	Credits
ENGL214G	Introduction to Creative Nonfiction	3	0	3
	Lab Science Elective*	4	3	4
	Math Elective*	4	0	4
	Humanities/Foreign Language/Fine Arts Elective*	3	0	3
	Open Elective	3	0	3
<b>Sub-Total Credits</b>		<b>17</b>	<b>3</b>	<b>17</b>

## Second Year

### Fall Semester

Item #	Title	Theory Hours	Lab Hours	Credits
	Humanities/Foreign Language/Fine Arts Elective*	3	0	3
	Lab Science Elective*	4	3	4
	Social Science Elective*	3	0	3-4
	200-Level Liberal Arts Elective	3	0	3
	Open Elective*	3	0	3
<b>Sub-Total Credits</b>		<b>16-17</b>	<b>3</b>	<b>16-17</b>

### Spring Semester

Item #	Title	Theory Hours	Lab Hours	Credits
	Social Science Elective*	3	0	3-4
	100-Level Liberal Arts Elective	3	0	3
	200-Level Liberal Arts Elective	3	0	3
	200-Level Liberal Arts Elective	3	0	3
	Open Elective*	3	0	3
<b>Sub-Total Credits</b>		<b>15-16</b>	<b>0</b>	<b>15-16</b>

Liberal Arts electives: (American Studies, Art, English, Geography, History, Humanities, Languages, Math, Natural Resources, Social Sciences, and Sciences)

A computer literacy course can be included within the Open Electives area. Electives must include at least 3 Liberal Arts courses at the 200 level.

**Total Credits**

**63-66**



# Massage Therapy

## Massage Therapy

### Degree Type

Certificate

Massage Therapy has become integral to conventional healthcare, complementary healthcare and alternative healthcare environments. Massage Therapy is frequently used in sports medicine, hospitals, physical therapy, physicians' offices, as well as in chiropractic offices, spa/resort settings, gyms, and acupuncture clinics. The Massage Therapy Certificate also complements the Spa and Wellness Management Certificate, offering students the opportunity to acquire the necessary skills and knowledge to transition into management positions in the spa and wellness industry.

Our curriculum is approved by the State of New Hampshire Massage Therapy Board, The National Certification Board of Therapeutic Massage and Bodywork and by the State of New Hampshire Department of Education, Post-Secondary Education Division. Upon successful completion of our program, students will be prepared to take the Massage and Bodywork Licensing Exam (MBLEx), which is required by the state of New Hampshire and many other states for licensure.

The Massage Therapy Certificate program is designed to be completed within one year. Students must attend full time to continue in the program. While massage lecture teaches the theory of massage; the lab allows for hands-on practical application of these concepts as well as proper posture and body mechanics. Students will partner with each other to practice proper massage technique.

### Admissions Criteria

The application preferred deadline is July 1st for the fall semester. After the deadline, applications will be accepted until the program is filled.

### Admissions Requirements for Certificate in Massage Therapy

1. Complete an application to the program.
2. Provide proof of high school completion or equivalent and submit an official copy of college transcripts (if applicable).
3. Complete placement testing for, and place into, college-level reading.

### Clinical/Lab Requirements

After acceptance and prior to the first week of classes, all Massage Therapy students must:

1. Submit a form (provided by the college and completed by the student's physician) stating they are in good physical condition and have no contraindications to giving or receiving massage. Hepatitis B immunizations are at the discretion of the physician but are highly recommended.
2. Complete a criminal background check using our approved vendor (\$25, NH State Police) prior to the first day of class.
3. Possess and maintain professional liability insurance prior to the first week of any class that requires practical demonstration. Insurance is purchased through the college at the One Stop (\$20/year, July 1-June 30).
4. Possess and maintain certification in Adult/Infant/Child CPR and First Aid prior to clinical assignments.

### Massage Therapy Program Suspension Information

Students matriculated in the Therapeutic Massage program who do not achieve the required minimum grade of "C" (excluding W and WP grades) in any required course will be suspended from Massage Therapy Program.

## Massage Therapy Readmission Policy

Students matriculated in the Massage Therapy Program who withdraw or are suspended may be eligible for readmission consideration. A student may be readmitted to the program one time only. Students who have failed a course because of lack of professionalism or unsafe practice involving actions or non-actions are not eligible for readmission to the Massage Therapy Program. Readmissions are contingent upon space availability. The student applying for readmission will be required to meet the curriculum requirements in effect at the time of readmission and must have maintained a C or better in all MASS designated and science courses. If two or more semesters have passed before readmission, the student will be required to successfully complete competency exams for prior courses.

In order to be reconsidered for admission the student must submit a written, dated letter requesting readmission consideration to the Massage Therapy Program Coordinator. In this letter, the student should briefly outline the reasons he/she was unable to continue in the program and identify the massage therapy course and level to which he/she is requesting readmission. Students who have requested readmission consideration will be ranked according to their prior Massage Therapy course average, as space availability is determined. Students will then be readmitted based on their ranking order and at the discretion of the Therapeutic Massage Program Coordinator. Students will then be notified of the status of the request in writing by the Admissions Department.

## Program Outcomes

Graduates from the Massage Therapy program will be able to:

- Demonstrate a full body massage designed specifically for the client.
- Identify major muscles and muscle groups.
- Determine if massage is indicated or contraindicated for various conditions.
- Apply the skills learned in a variety of environments.
- Write SOAP notes and explain a treatment plan to the client.
- Develop a business plan and properly apply and interview for jobs.

## Technical Standards

The successful Massage Therapist is emotionally and psychologically stable. He/she is sensitive to the needs of the client, is able to set priorities, and perform in emergency situations in a quick, accurate, detail-oriented manner should these arise. He/she should be flexible and possess manual dexterity and physical stamina. The massage therapy program is physically and mentally strenuous and requires occasional heavy lifting such as assisting a physically challenged client in getting on and off the massage table. Massage Therapists work with a diverse clientele to include all cultural backgrounds, individuals of various shapes, sizes and personalities. Individuals who cannot meet the professional, mental, physical and customer service demands may have difficulty meeting course objectives and the requirements of the field.

Licensed Massage Therapists must be American Heart Association Heart Saver, or American Red Cross or National Safety Council certified for adult/infant-child CPR and First Aid. We highly recommend that Certification be obtained before entering the program or within the first term, as it is required before beginning Clinical courses. Student liability insurance is required and must be obtained by the first week of your first class that requires practical demonstration. Insurance is purchased through the College at a discounted rate of \$20 per year (July 1- June 30).

## Transfer Credit Policy

In addition to Great Bay Community College transfer credit policy, credit for Human Anatomy and Physiology I and II, and Kinesiology for Massage Therapists cannot be more than ten years old at the time of acceptance. Transfer credits for Massage Therapy courses must be from an accredited school and will be at the discretion of the Massage Therapy Program Coordinator.

## Certificate Requirements

### Fall Semester

Item #	Title	Theory Hours	Lab Hours	Credits
MASS150G	Physiology of Wellness	2	0	2
MASS161G	Principles of Massage Therapy	2	0	2
MASS162G	Essentials of Massage Application	0	4	2
MASS171G	Structural Anatomy and Physiology	3	2	4
MASS181G	Pathology and Massage I	2	0	2
<b>Sub-Total Credits</b>		<b>9</b>	<b>6</b>	<b>12</b>

### Spring Semester

Item #	Title	Theory Hours	Lab Hours	Credits
MASS251G	Advanced Theory and Techniques	3	4	5
MASS261G	Kinesiology for Massage Therapists	3	4	5
MASS191G	Clinical Experience I	0	4	1
MASS281G	Ethics for Massage Therapists	1	0	1
<b>Sub-Total Credits</b>		<b>7</b>	<b>12</b>	<b>12</b>

### Summer Semester

Item #	Title	Theory Hours	Lab Hours	Credits
MASS271G	Therapeutic Massage Specialties	2	2	3
HOS244G	Introduction to the Spa Industry	3	0	3
MASS192G	Clinical Experience II	0	4	1
MASS172G	Visceral Anatomy and Physiology	3	2	4
MASS182G	Pathology and Massage II	2	0	2
<b>Sub-Total Credits</b>		<b>10</b>	<b>8</b>	<b>13</b>

### Curriculum Recommendations

The Certificate Program is designed to be completed in 3 semesters during the day. Part time attendance is not allowed.

<b>Total Credits</b>	<b>37</b>
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## Motorcycle Repair & Maintenance

### Motorcycle Maintenance and Repair

#### Degree Type

Certificate

The 24-credit Motorcycle Technology program will prepare students for entry-level positions in service, repair, and maintenance of motorcycles. Topics will include pre-delivery inspection (PDI), tires, wheel bearings, brakes, scheduled service, oil change, moving motorcycles, road tests, model theories, understanding and managing shop workflow, establishing a strong work ethic, conducting multi-point inspections, state inspections, and related lifelong learning.

#### Program Outcomes

The goal of the Motorcycle Technician program is to prepare students to work in the increasingly sophisticated and complex field of motorcycle technology through a combination of classroom instruction and hands-on skill development. Technicians must be able to work with electronic diagnostic equipment, read and understand technical manuals, investigate to find the cause of a problem, and connect effectively with the customer. Students will use a variety of tools, including both manual and high tech equipment, to assess and identify problems and perform repairs.

After successful completion of the program, students will be able to:

- Demonstrate skills and knowledge required to assume the role of a qualified, entry-level motorcycle maintenance professional, including pre-delivery inspection (PDI), tires, wheel bearings, brakes, scheduled service, oil changes, moving motorcycles, road testing, shop workflow, multi-point inspections, and state inspections.
- Demonstrate safe and appropriate use and care of tools and equipment in the motorcycle maintenance lab.
- Diagnose, repair and document motorcycle systems including powertrains, electrical systems, wheels, tires, and brakes.
- Inspect a vehicle, use a diagnostic approach to determine cause of operating problems, and decide action to take; complete a NH State Motorcycle Inspection.
- Compare and contrast alternate actions to determine whether to repair or replace a part.
- Use appropriate software and digital equipment to retrieve information, diagnose and analyze problems, and report outcomes.
- Communicate effectively with coworkers and customers.

## Admission Requirements

- Complete an application for the program.
- Provide proof of high school completion or equivalent.
- Provide Admissions with your valid driver's license with motorcycle endorsement. Contact Admissions for information on motorcycle operator training.

## Health, Safety, and Internship Considerations

The program includes work in a motorcycle technology lab where potentially hazardous equipment and materials are used. Students will be taught industry standards for safety and will be expected to follow all safety procedures. Personal protective equipment including safety glasses and footwear must be worn while in the lab.

## Tools and Equipment

Hand tools, suitable secure storage for hand tools, and personal protective equipment are to be supplied by students at their own expense. The following is the required tool list. The list is subject to change. Students are advised to wait until meeting with the instructor before purchasing new tools. All tools need to be in the lab no later than the 3rd week of class.

Description	Item Qty	Description	Item Qty
3/8"F-1/4"M ADAPTER	1	SET 13 PROHOLD BALL L-KEYS IN	1
1/2"F-3/8"M ADAPTER	1	SET 9PC MM PROHOLD BALL L-KEYS	1
12V 3/8 DRILL KIT	1	13PC IMPACT DRIVER SET	1
16OZ AV BALL PEEN HAMMER	1	14PC KS2 MM COMBO WR SET 12PT	1
DIAL CALIPER 0"-6"	1	5PC WOBBLE EXTENSION SET	1
3LB ANTIVIBE DRILLING HAMMER	1	44PC DELUXE SOCKET SET 1/4" DR	1
MICROMETER 0"-1" RANGE	1	50 PC BIT SOCKET SET	1
DIGITAL TIRE GAUGE W/CHUCK	1	9PC SPARK PLUG SOCKET SET	1
22 PIECE 1/2" SD SOCKET SET MM	1	PRO SUPER TORCH	1
DIGITAL MULTIMETER	1	5PC 1/2" DR EXTENSION SET	1
25BLD UNIV MSTR FEELER GAGE ST 1	1	44PC DELUXE SOCKET SET	1

Description	Item Qty	Description	Item Qty
5PC NEXT GEN PLIER KIT SM	1	5PC KNURLED EXTENSION SET 3/8	1
1/4 DR UNIVERSAL JOINT	1	3/8 ELEC TW 100 FT/LB	1
1/4"DRIVE5"METALHANDLE	1	1/2" UNIVERSAL JOINT	1
4-PC 90 DEG SNAP RING SET	1	1/2" DRIVE 18" MENTAL HANDLE FLEX	1
15PC KS2 COMBO WR SET 12PT	1	UNIVERSAL JOINT	1
8PC COMB SCREWDRIVER SET	1	3/8" DRIVE 13" COMFORT HANDLE FLEX	1

## Technical Standards

This program includes work in a motorcycle lab and requires participants to physically perform functions that require the following:

- Normal vision for reading instructions and performing tasks, including inspecting parts for quality. (Corrective vision is acceptable.)
- Mobility and strength for performing tasks that require reaching, walking, standing, and safely lifting and moving motorcycles of varying sizes and weights.
- Ability to hear sounds of equipment, for equipment operation and safety.

## Certificate Requirements

### Fall Semester

Item #	Title	Theory Hours	Lab Hours	Credits
MOTR110G	Product, PDI, and Dealer Experience	2	4	4
MOTR120G	Powertrains: Engine, Drivetrain, and Transmission	2	4	4
MOTR130G	Electrical Systems and Electrical Service Procedures	2	4	4
<b>Sub-Total Credits</b>		<b>6</b>	<b>12</b>	<b>12</b>

### Spring Semester

Item #	Title	Theory Hours	Lab Hours	Credits
MOTR140G	Wheels, Tires, and Brakes	2	4	4
MOTR150G	Capstone: Servicing Motorcycle Families	4	8	8
<b>Sub-Total Credits</b>		<b>6</b>	<b>12</b>	<b>12</b>
<b>Total Credits</b>				<b>24</b>

# Nondestructive Testing

## Nondestructive Testing

### Degree Type

Certificate

**\*Effective Fall 2023, GBCC will not be accepting any new students into the Nondestructive Testing (NDT) Certificate program at this time.**

Nondestructive testing (NDT) is the examination, test, or evaluation of a part without destroying or altering the part in any way, for the purpose of determining whether conditions exist that might have an effect on the usefulness of the part. The goal of this certificate program is to prepare students for employment as high-quality entry-level technicians within the diverse industries that NDT serves. This program will provide technical training in the inspection methods most commonly used in the industries in Southern and Seacoast

NH: radiography (RT), ultrasonic (UT), and liquid penetrant (PT), visual inspection (VT), Magnetic Particle Testing (MT), Eddy Current Testing (ET), and Digital Radiographic Testing (DRT). The NDT courses are developed using the American Society for Nondestructive Testing, Inc., and National Aerospace Standard (NAS), to meet formal training requirements. Industry certification as an NDT Technician must be provided by the employer. Requirements for certification as an NDT Technician include a specific number of classroom (formal) training hours for each inspection method, plus a specific number of hours of experience on the job. This program is designed to meet the requirements of **classroom hours** for level II technicians without previous level I certification. On the job experience must be completed after being hired by the company who will do the actual certification.

### Admission Requirements

1. Complete an application for the program.
2. Provide proof of high school completion or equivalent.
3. Provide an official copy of prior college transcripts if appropriate.

Prior experience in or knowledge of manufacturing is recommended.

### Dual Enrollment

Students enrolled in the NDT Certificate program may elect to enroll in the Associate Degree in Technical Studies. Dual enrollment is contingent upon active or graduate status of the certificate. Completion of the NDT certificate satisfies the requirement for the technical specialty core of the Technical Studies degree.

### Program Outcomes

The goal of the NDT Technology certificate is to prepare students for entry-level jobs in nondestructive testing. Students completing the program may continue to earn an Associate Degree in Technical Studies. After successful completion of the program, students will be able to:

- Meet the number of hours of classroom training required for certification once on the job training is done with an employer.
- Explain the skills, knowledge, ability, and qualifications required of the NDT technician.
- Understand the origins and classifications of discontinuities.
- Demonstrate proficiency with the principles and practices of the applicable test method and techniques, including ability to process parts, document results, and perform equipment standardization in accordance with approved work instructions.
- Demonstrate ability to properly perform a field calibration test and adjustment, evaluation for acceptance or rejection determinations according to written instructions, and record results.
- Demonstrate the ability to carry out the duties of an entry level NDT technician or NDT trainee.
- Select and explain appropriate testing methods for various situations and explain advantages and limitations of that method.

### Health, Safety, and Internship Considerations

The program includes work in a nondestructive testing lab where potentially hazardous equipment and materials are used. Students will be taught industry standards for safety and will be expected to follow all safety procedures. Personal protective equipment must be worn. Students will provide their own safety glasses and boots or shoes.

### Technical Standards

This program includes work in manufacturing labs and requires participants to physically perform the functions of reaching, walking, climbing, and standing, safely lifting up to 20 lbs., the ability to hear equipment and alarms, and ability to visually inspect parts.

## Transfer Credit Policy

In addition to Great Bay transfer credits policies, transfer of courses in the NDT program will be evaluated by the program coordinator on an individual basis.

## Certificate Program First Semester

Item #	Title	Theory Hours	Lab Hours	Credits
MANF120G	Technical Blueprint Reading	1	2	2
	MATH145G/147G	4	0	4-5
NDT110G	Introduction to Nondestructive Testing	2	2	3
	CIS110G or CIS107G	2	2	3-4
MANF230G	Manufacturing Ethics	1	0	1
	<b>Sub-Total Credits</b>	<b>10-11</b>	<b>6-8</b>	<b>13-15</b>

## Additional Coursework

Item #	Title	Theory Hours	Lab Hours	Credits
MANF254G	Quality Inspection and CMM Operator	2	2	3
	<b>Sub-Total Credits</b>	<b>2</b>	<b>2</b>	<b>3</b>

## NDT Methods Courses

Select 10 credits:

Item #	Title	Theory Hours	Lab Hours	Credits
NDT212G	Ultrasonic Inspection	3	2	4
NDT214G	Radiographic Testing	3	2	4
NDT210G	Liquid Penetrant Testing	1	2	2
NDT205G	Visual Testing	3	0	3
NDT211G	Magnetic Particle Testing	2	0	2
NDT215G	Digital Radiographic Testing	3	0	3
NDT220G	Eddy Current Testing	3	2	4

## Curriculum Recommendations

A higher-level CIS course may be substituted for CIS110G Introduction to Computers. Recommended substitutions are CIS111G Computer Technologies, or CIS156G Computer Applications in Business.

A higher MATH course may be substituted for MATH145G Quantitative Reasoning.

**Total Credits**

**26-28**

# Nursing

## Nursing

### Degree Type

Associate in Science

The associate degree nursing program at Great Bay Community College meets the state education requirements for a Registered Nurse license in the states of New Hampshire and Massachusetts. Great Bay Community College has not determined if the associate degree nursing program at Great Bay Community College meets the state education requirements in any other state, any U.S. Territory, or the District of Columbia. Contact the state regulatory agency for nursing in any other state for which this information is needed.

The associate degree nursing program is approved by the New Hampshire Board of Nursing (NHBON). Upon satisfactory completion of the program, the graduate is eligible to apply to the New Hampshire Board of Nursing (NHBON) and Pearson VUE NCLEX Candidate Services for the National Council Licensing Examination for Registered Nurses (NCLEX-RN). The New Hampshire Board of Nursing’s licensing regulations may restrict candidates who have been involved in civil or criminal legal proceedings. Questions about licensing restrictions should be addressed to the New Hampshire Board of Nursing via email at: board.questions@opl.nh.gov or mail at: NHBON Office of Professional Licensure & Certification, 7 Eagle Square, Concord, NH 03301.

The associate degree nursing program at Great Bay Community College located in Portsmouth, NH is accredited by the Accreditation Commission for Education in Nursing (ACEN); 3343 Peachtree Road NE, Suite 850; Atlanta, GA 30326 (404) 975-5000. The most recent accreditation decision made by the ACEN Board of Commissioners for the associate degree nursing program is Continuing Accreditation. View the public information disclosed by the ACEN regarding this program at Accreditation Commission for Education in Nursing.

### **NCLEX First Time Passage Rates: Program Performance 2016-2022**

#### **Performance on Licensure Exam: NCLEX-RN**

	2016	2017	2018	2019	2020	2021	2022
GBCC	94.12%	89.4%	97.44%	86.36%	93.18%	97.62%	89.74%
NH Pass Rate	90.31%	90.85%	96.71%	95.68%	96.20%	93.35%	TBA
National Pass Rate	84.56%	87.12%	88.29%	88.18%	86.57%	82.48%	80.87%*

\*as published by NCSBN NCLEX Statistics 2022 3rd quarter pass rates

#### **Program Retention Rates: within 100% of the time of the program’s stated length**

<b>Timeframe</b>	<b>2017-2019</b>	<b>2018-2019</b>	<b>2019-2021</b>	<b>2021-2022</b>
Percent Completed	76.08%	82.97%	82.22%	70.83%
Number of Students	35/46	39/47	37/45	34/48

Prior to meeting all program course requirements, the matriculated Nursing students may be eligible to apply to the NHBON for licensure after successful completion (defined as achieving a minimum course grade of “C+”) of the following Nursing courses:

- Nursing I: Apply for licensure as a Licensed Nursing Assistant (LNA)
- Nursing III: Apply for licensure as a Licensed Practical Nurse (LPN)

### **Program Outcomes**

1. Communicate professionally and collaboratively with individuals, families and members of the interdisciplinary healthcare team to promote mutual respect and shared decision making. (Communication/Collaboration and Teamwork)
2. Utilize information and technology to manage information, minimize error and support decision making. (Informatics & Technology)
3. Embrace the leadership role, promote change and foster achievement that will facilitate the realization of shared goals. (Leadership)
4. Incorporate principles and theories from humanities, sciences and social sciences; demonstrate accountability for the delivery of standard-based nursing care that is consistent with moral, legal, ethical and regulatory principles. (Professionalism & Knowledge)
5. Provide safe, compassionate, holistic patient-centered care in collaboration with diverse patients and their families, making practice decisions using the best current evidence to meet their individual preferences, values and needs. (Evidence Based Practice / Patient-Centered Care)
6. Demonstrate an awareness of the overall components of the health care system through the effective utilization of resources to optimize outcomes in various health care delivery settings. (Systems-Based Practice)



7. Utilize quality initiatives and quality indicators to deliver safe patient-centered care. (Quality Improvement/ Safety)

The goal of the Associate Degree Nursing Program is to prepare the student to provide direct care to clients in acute care, long-term care, and other structured settings. As a member of the discipline, the student collaborates with the healthcare team to provide and manage the care of clients. The student utilizes the nursing process as a basis for decision making in caring for well clients and clients with possible or actual health problems.

Learning experiences and clinical practice may vary in time and in locations including days, evenings, and/or weekends. The program may be completed on a full-time or part-time basis. Classroom and clinical components of the Nursing courses must be completed concurrently. All Nursing courses must be completed within four years of the date of entry into the first Nursing course.

Students admitted or readmitted to the program must meet current requirements necessary for graduation. Advanced Placement and Transfer are possible through transfer credit and testing. Students may enroll in Liberal Arts and Science courses prior to admission into the Nursing program. Enrollment in these courses does not guarantee acceptance into the Nursing program. Students admitted into the Nursing program must take Nursing courses in sequence and must achieve a minimum grade of C+ (76.67%) in all major theory and science courses (Nursing, Human Anatomy & Physiology I & II, and Microbiology) and a grade of "Pass" in clinical courses in order to continue in the program. Human Anatomy & Physiology I and II and Microbiology must be taken within a specific time-frame (see table below) or concurrently as scheduled with the Nursing core courses. Students who do not successfully achieve the minimum grade in the major theory, science and other co-requisite courses as outlined in the program course sequencing will be Program Suspended from Nursing. Transportation to and from the practicum site is the responsibility of the student.

#### **Timeframe for Science Courses for Admitted and Readmitted Students**

##### **Student circumstance Time-frame (calendar years)**

Admission	5 years from time of admission into the Nursing program
Readmission	7 years from time of readmission into the Nursing program

## Admissions Criteria

A review of all **COMPLETED** Admission files will begin in March. Nursing program applications must be completed by February 28 to be considered for acceptance into the Fall class.

## Admissions Requirements

1. Complete an application for the program.
2. Provide proof of high school completion or equivalent.
3. Provide an official copy of prior college transcripts if seeking transfer credit.
4. Provide proof of completion of high school algebra, biology, and chemistry or equivalent with a grade of "C" or greater or proof of registration in a course with projected date of completion by June 30th of the current year.
5. Complete the ATI Test of Essential Academic Skills (TEAS)\* with a minimum Total Score of 66%. GBCC's ATI TEAS Testing Policy - Applicants are permitted to take the TEAS exam three times per 12-month period. Test dates must be at least 30 days apart. Test scores are valid for a period of two years. Scores may not be combined or averaged from multiple attempts.
6. Special Consideration points are given to an applicant who:
  - has completed college-level Human Anatomy Physiology I and/or II prior to the February 28th deadline with a grade of "C+" within the past 5 years from the time of acceptance.
  - is a current or former Health Occupation student from a CTE high school program prior to the February 28th deadline.

- is an active LPN, LNA/MNA, CNA, MA, Paramedic, or EMT (*Submit a copy of your license/certification with your name and expiration date.*)
- is a current or former military medic/corpsman (*Submit a copy of your DD Form 214 or Joint Services Transcript (JST) or Community College of the Air Force (CCAF) transcript that shows your awarded military occupation.*)
- has completed a Medical Doctorate program (e.g. DMD, DVM, DDS, etc) (*Submit a copy of your transcript; if outside the US, submit a copy of your transcript or diploma translated into English by a certified translation service if not originally in English.*)

*\*The ATI TEAS is designed to measure entry-level academic readiness for applicants and to predict success in the first semester Nursing course. The ATI TEAS will be waived for an LPN with an active license. To receive information regarding the ATI TEAS or to register for a specific exam date, contact ATI at <https://atitesting.com>.*

## Clinical Requirements

After acceptance and prior to the first week of classes, all nursing students must:

1. Submit a current (within 1 year prior to beginning first Nursing course) GBCC Health Report Form including all required health screenings and immunizations.
  1. MMR (2 doses or positive titer)
  2. Varicella (2 doses or positive titer)
  3. Hepatitis B (3 doses or positive titer)
  4. Tdap (required within 10 years)
  5. Two-step TB skin test (required within 1 year; blood test acceptable)
  6. COVID-19 vaccine\* (full series with booster)
2. Submit documentation of Influenza vaccine or a signed waiver by October.
3. Possess and maintain personal health and accident insurance.
4. Possess and maintain professional liability insurance (purchased at Great Bay).
5. Possess and maintain verification of current CPR: American Heart Association Basic Life Support or American Red Cross Basic Life Support
6. Complete a criminal background check through approved vendor. Students may be required to perform more than one criminal background check throughout the course of the program based on clinical facility requirements. Participation in clinical experiences may be restricted or denied based on results of criminal record check and therefore would affect the ability of the student to meet course learning outcomes and successfully complete the program.
7. Complete drug testing through approved vendor. Students may be required to perform more than one drug test throughout the course of the program based on clinical facility requirements. Participation in clinical experiences may be restricted or denied based on results of drug testing and therefore would affect the ability of the student to meet course objectives and successfully complete the program.
8. Complete other health requirements/technical standards as determined by individual clinical agency affiliation agreements.

**\*\*A note on COVID-19 vaccination:** *Although the Nursing program is NOT requiring proof of vaccination for acceptance, many of Great Bay's partner healthcare agencies have policies that require students to have received the complete series of COVID-19 vaccinations with booster. Some agencies will allow medical and religious exemptions, but others will not. If a student is unable to meet clinical requirements due to making a choice not to vaccinate, they may not be able to meet clinical and course learning outcomes.*

## Nursing Program Suspension Information

Students matriculated in the Nursing program who are withdrawn or who do not successfully achieve the minimum grade in the major theory, science and other co-requisite courses as outlined in the program course sequencing will be Program Suspended from Nursing.

## Nursing Readmission Policy

Students matriculated in the Nursing program who withdraw or are Program Suspended may be eligible for readmission consideration. A student may be readmitted to the Nursing program one time only. Students who have failed a Nursing course because of unsafe practice involving actions or non-actions are not eligible for readmission to the Nursing program. Readmissions are contingent upon space availability. The student applying for readmission will be required to meet the curriculum requirements in effect at the time of readmission. In order to be reconsidered for admission, the student must:

Submit a typed, dated letter to the Chair of the Department of Nursing. This letter must be received by February 1 for Fall semester readmission consideration and October 1 for Spring semester readmission consideration. In the letter, identify the Nursing course for which readmission is requested, outline the reason(s) for not being able to continue in the program, and plan for success should readmission be granted. Students who have requested readmission consideration will be ranked according to their Nursing program course average. As space availability is determined, students will be readmitted based on their ranking order and notified in writing by the Admissions Department. Students who are granted readmission will need to complete and submit a new Application for Admission to the College. Additionally, students will have to successfully complete course content, competency testing, and other requirements determined by faculty once they have been notified of their readmission status. Failure to complete requirements within specified timeframes will result in the student not being readmitted.

## Advanced Placement or Transfer

Admission via advanced placement or transfer is extremely limited and on a space-available basis. In addition to the admissions requirements listed above (excluding item #5 the ATI TEAS), students seeking Advanced Placement or Transfer must have completed all prerequisite coursework by examination, challenge or transfer credit.

**Advanced Placement:** A student must be a currently licensed practical nurse (LPN). In addition, in order to be considered for advanced placement into NURS211G, Nursing III, a student must successfully complete the NLN Nursing Acceleration Challenge Exam (NACE) I: Foundations of Nursing with a required overall percent correct score of 74% or better within the past two years in order to be granted credit. Please contact the Director/Chair of the Department of Nursing for specific information about this exam.

Students accepted for Advanced Placement into the senior year are required to take NURS200G Advanced Placement Seminar prior to the start of the senior year. Upon successful completion of the Advanced Placement Seminar, students are granted transfer credit for NURS111G and NURS112G via Credit by Examination (CRE). The fee associated with CRE is waived for Advanced Placement Nursing students. Nursing Advanced Placement applications must be completed by May 1st to be considered for acceptance in the fall Nursing III class. In addition to meeting all requirements, admission is on a space-available basis.

**Transfer:** In order to be considered for transfer from another Nursing program into NURS112G, Nursing II, students must have successfully completed (defined as achieving a minimum course grade of "C+") a Nursing Fundamentals course while matriculated in another nursing program, and the ATI Proctored Assessment: RN Fundamentals. An ATI Proficiency Level of Level II or greater is required on this exam within the past two years in order to be granted credit via Credit by Examination (CRE). The fee associated with CRE is waived for students who transfer into Nursing. Nursing Transfer applications must be completed by December 1st to be considered for acceptance in the Nursing II class. In addition to meeting all requirements, admission is on a space-available basis. Preference will be given to applicants whose applications are complete and received by the Admissions Office by the deadline. Applications received after the deadline will only be considered if space remains in the program after qualified candidates have been reviewed. Applications received after the deadline (i.e. students currently enrolled in a Nursing Fundamentals class whose Fall grades will not post before December 1st) will only be considered if space remains in the program after qualified candidates have been reviewed.

**Nursing Transfer Credit Policy:** In addition to specific Nursing course transfer policies noted above and other Great Bay Community College transfer credit policies, a minimum grade of C+ (76.67%) must have been achieved in Human Anatomy & Physiology I and II and Microbiology within a five-year period from the time of acceptance into the Nursing program in order to have these courses meet the Nursing curriculum requirements.

### Technical Standards

This program is physically strenuous and requires some heavy lifting. Individuals must be able to meet the general health demands of the program in order to satisfy course/clinical objectives and the requirements of the field.

## First Year

### Fall Semester

Item #	Title	Theory Hours	Lab Hours	Credits
NURS111G	Nursing I	6	9	9
BIOL110G	Human Anatomy and Physiology I	3	3	4
PSYC110G	Introduction to Psychology	3	0	3
<b>Sub-Total Credits</b>		<b>12</b>	<b>12</b>	<b>16</b>

### Spring Semester

Item #	Title	Theory Hours	Lab Hours	Credits
NURS112G	Nursing II	4	15	9
BIOL120G	Human Anatomy and Physiology II	3	3	4
PSYC210G	Human Growth and Development	3	0	3
<b>Sub-Total Credits</b>		<b>10</b>	<b>18</b>	<b>16</b>

## Second Year

### Fall Semester

Item #	Title	Theory Hours	Lab Hours	Credits
NURS211G	Nursing III	4	15	9
BIOL210G	Microbiology	3	3	4
	ENGL110G/111G	4	0	4-5
<b>Sub-Total Credits</b>		<b>11</b>	<b>18-20</b>	<b>17-18</b>

### Spring Semester

Item #	Title	Theory Hours	Lab Hours	Credits
NURS212G	Nursing IV	3	18	9
MATH145G	Quantitative Reasoning	4	0	4
	Humanities/Foreign Language/Fine Arts Elective	3	0	3
	English Elective	3	0	3
<b>Sub-Total Credits</b>		<b>13</b>	<b>18</b>	<b>19</b>

Lab/Clinical consists of the following components: the simulation learning laboratory, the health care setting, ATI proctored testing, [NURS212](#) Seminar and other activities designated as clinical by faculty. [MATH145](#) or higher meets the math requirement.

**Total Credits**

**68-69**

# Psychology

## Psychology

### Degree Type

Associate in Arts

The Associate of Arts in Psychology offers students a foundation of the principles of psychology and direct application of theory. This degree is designed to allow students to transfer to a four-year degree program or to begin a career connected to the field of psychology. Students will have the opportunity to use their skills in the community and design their own research.

### Program Outcomes

Upon graduation, students will be able to:

1. Demonstrate written and oral communication proficiency for a variety of audiences.
2. Utilize knowledge from a foundation of psychological theories and concepts.
3. Analyze and apply psychological theories to real world situations.
4. Gather and analyze data within their own research.
5. Apply ethical standards to evaluate psychological science and practice.

### Health, Safety, and Internship Considerations

Students completing an internship program will be required to submit proof of immunizations to the College. Please see the Academic Policies section of this catalog, under XVI. Immunization Policy, along with any other information needed by the assigned site.

### Technical Standards

In order to transfer to a four-year institution or pursue a career in psychology, students should possess strong written and verbal communication skills; collaborate effectively with others; conduct themselves in a professional manner; demonstrate empathy, integrity, concern for others, interpersonal skills, interest, and motivation; adapt to a variety of situations; and use critical thinking skills to solve problems.

### Transfer Credit Policy

In addition to the Great Bay transfer credit policies, transfer of courses in psychology more than ten years old will be evaluated by the Department Chair on an individual basis. In the case of English and math course transfers, it may be recommended that the student take portions of the Accuplacer Placement Test to verify the skill level required in order to be successful in subsequent classes with the program.

## First Year

### Fall Semester

Item #	Title	Theory Hours	Lab Hours	Credits
	ENGL110G/111G	4	0	4-5
PSYC110G	Introduction to Psychology	3	0	3
ANTH105G	Introduction to Ethnography: World of Work	4	0	4
	MATH145G/147G	4	0	4-5
	<b>Sub-Total Credits</b>	<b>15-16</b>	<b>0-2</b>	<b>15-17</b>

## Spring Semester

Item #	Title	Theory Hours	Lab Hours	Credits
	Psychology Elective	3	0	3
	Psychology Elective	3	0	3
	Discrete Math, Finite Math, or Probability & Statistics	4	0	4
	English Elective	3	0	3
	Humanities/Foreign Language/Fine Arts Elective*	3	0	3
	<b>Sub-Total Credits</b>	<b>16</b>	<b>0</b>	<b>16</b>

## Second Year

### Fall Semester

Item #	Title	Theory Hours	Lab Hours	Credits
PSYC241G	Social Science Research Methods	3	0	3
	Psychology Elective	3	0	3
	Social Science Elective*	3	0	3-4
	Lab Science Elective*	3	3	4
	Humanities/Foreign Language/Fine Arts Elective*	3	0	3
	<b>Sub-Total Credits</b>	<b>15-16</b>	<b>3</b>	<b>16-17</b>

### Spring Semester

Item #	Title	Theory Hours	Lab Hours	Credits
	Psychology Elective	3	0	3
	Psychology Elective	3	0	3
	Social Science Elective*	3	0	3-4
	Lab Science Elective*	3	3	4
	Humanities/Foreign Language/Fine Arts Elective*	3	0	3
	<b>Sub-Total Credits</b>	<b>15-16</b>	<b>3</b>	<b>16-17</b>
	<b>Total Credits</b>			<b>63-67</b>

# Surgical Technology

## Surgical Technology

### Degree Type

Associate in Science

The Surgical Technology Program at Great Bay Community College is the only Associate in Science degree program of its kind in the area. The program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP) upon the recommendation of Accreditation Review Council on Education in Surgical Technology and Surgical Assisting (ARC-STSA). The goal of the program is to prepare competent entry-level surgical technologists with the cognitive (knowledge), psychomotor (skills), and affective (behavior) domains needed to be successful in their careers. Students will take the National Board of Surgical Technology and Surgical Assisting (NBSTSA) exam upon completion of the program. All Surgical Technology courses must be completed within four years of the date of entry into the first Surgical Technology course. Students admitted to or re-entering the program must meet current requirements necessary for graduation. Advanced Placement and Transfer are possible through transfer credit and testing. Students may enroll in Liberal Arts

and Science courses prior to admission to the surgical Technology program. Enrollment into these courses does not guarantee acceptance into the Surgical Technology program. Students admitted into the Surgical Technology program must take Surgical Technology courses in sequence and must achieve a minimum grade of C (73.33%) in all major theory and science courses (Surgical Technology, Human Anatomy and Physiology I & II, and Microbiology) and a grade of "Pass" in clinical courses to continue in the program. Human Anatomy and Physiology I & II and Microbiology must be taken within a five-year period from the time of acceptance into the Surgical Technology program or concurrently as scheduled with the Surgical Technology core courses. Students who do not successfully achieve the minimum grade in the major theory, science and other co-requisite courses as outlined in the program course sequencing will be Program Suspended.

Questions about the status of accreditation for the Surgical Technology program should be addressed to the Commission on Accreditation of Allied Health Education Programs (CAAHEP), 9355 - 113th St. N, #7709, Seminole, FL 33775 Website: [www.caahep.org](http://www.caahep.org) 727.210.2350 Email: [mail@caahep.org](mailto:mail@caahep.org) Fax: 727.210.2354

Accreditation Review Council on Education in Surgical Technology and Surgical Assisting (ARC-STSA), 6 West Dry Creek Circle, Suite 110, Littleton, CO 80120 303.694.9262 Website: [www.arcstsa.org](http://www.arcstsa.org) Email: [info@arcstsa.org](mailto:info@arcstsa.org) Fax: 303.741.3655

Questions about certification should be addressed to the National Board of Surgical Technology and Surgical Assisting 3 West Dry Creek Circle, Littleton, CO 80120 Toll Free: 1.800.707.0057 FAX: 303.325.2536 Website: [www.nbstsa.org](http://www.nbstsa.org)

Surgical technologists are highly skilled members of the surgical team qualified by classroom education and supervised clinical experience. They work closely with the surgeon, anesthesiologist, registered nurse, and other surgical personnel to deliver the highest level of care for the surgical patient before, during, and after surgery. Surgical technologists work under the supervision of a surgeon to facilitate the safe and effective conduct of surgical procedures, ensuring that the operating room environment is safe, that equipment functions properly, and that the operative procedure is conducted under conditions that maximize patient safety. Surgical technologists possess expertise in the theory and application of sterile and aseptic techniques and combine the knowledge of human anatomy, surgical procedures, and implementation of instruments and technologies to facilitate a physician's performance of invasive therapeutic and diagnostic procedures.

Surgical technologists comprehend the procedure being performed and anticipate the needs of the surgeon. They have the necessary knowledge and ability to ensure quality patient care before and during the operative procedure and are constantly on vigil for maintenance of the sterile field. The surgical technologist handles the instruments, supplies, and equipment necessary during the surgical procedure. Duties include setting up a sterile field, gowning and gloving other sterile team members, maintaining the highest standard of sterile technique during procedures, and assisting the surgeon during surgery. With advanced training, surgical technologists may become first assistants who assist in complex surgical procedures such as open-heart surgery. With additional education, they may become operating room nurses, physician assistants, or instructors. Some surgical technologists assume management positions in hospital education, and central supply departments or business firms such as sterile-supply services and operating-room equipment distributions.

The Surgical Technology program includes classroom courses in liberal arts, basic sciences, and surgical technology, along with clinical laboratory and supervised clinical experiences in community hospital operating rooms. Students must be able to complete and successfully pass Competency Based Objectives embedded within Surgical Technology courses to continue with the program. Surgical Technology students must be CPR certified before their first clinical practicum (SURG123) and maintain certification throughout their senior year. Transportation to and from the practicum site is the responsibility of the student. Hospital regulations may restrict candidates from attending clinical practice who have been involved in civil or criminal legal proceedings. Questions may be directed to the student's assigned clinical site.

## Admissions Criteria

Surgical Technology program applications must be completed by April 1st to be considered for acceptance in the fall semester.

### Admissions Requirements:

1. Complete an application to the program.
2. Provide proof of high school completion or equivalent.
3. Provide proof of completion of high school biology, or equivalent with a grade of “C” or greater or proof of registration in a course with a projected completion date of August 30th of the current year. Computer background strongly recommended.
4. Place into college level Math, Reading and Writing or demonstrate equivalent competencies through a college transcript or SAT scores.
5. Special Consideration points are given to applicants who:
  - Have completed any of the following college-level courses prior to the April 1 deadline with a grade of “C” within the past 5 years from the time of acceptance: Human Anatomy & Physiology I, Human Anatomy & Physiology II, Microbiology
  - Are Health Occupation students in a CTE high school program prior to the April 1 deadline
  - Are LPNs, LNAs/MNAs, CNAs, EMTs, Medical Assistants, or Paramedics with an active license/certification. If you are currently one of the listed, please submit a copy of your license to Admissions that shows your name, type of license, and expiration date. A screenshot from your state’s Department of Licensing showing this information is acceptable.

### Clinical Requirements:

1. Prior to Orientation to Surgical Clinical, applicants must:
  - Possess and maintain professional liability insurance (available at the College).
  - Submit a report of a current physical examination including all program required health screenings and immunizations.
  - Certify in American Heart Association CPR Healthcare Provider or Red Cross equivalent (BLS).
2. Possess/maintain health/accident insurance (purchased through the college).
3. Complete a Level I criminal background check.
  - Students may be required to perform more than one criminal background check throughout the course of the program based on clinical facility requirements. Participation in clinical experiences may be restricted or denied based on results of criminal record check and therefore would affect the ability of the student to meet course objectives and successfully complete the program.
4. Submit and pass a 12-panel drug screen (through approved vendor).
  - Students may be required to perform more than one drug test throughout the course of the program based on clinical facility requirements. Participation in clinical experiences may be restricted or denied based on results of drug testing and therefore would affect the ability of the student to meet course objective and successfully complete the program.

### Surgical Technology Program Suspension Information

Students matriculated in the Surgical Technology Program who are withdrawn or do not achieve the required minimum grade of a “C” in all major Surgical Technology and science courses will not be able to continue in the program. In addition, students are required to achieve the required minimum grade of “C” in BIOL110G, BIOL120G and BIOL210G, as designated in the chart below.

<b>Requirement</b>	<b>Prior to Core Course Registration:</b>
BIOL110G “C” or higher	SURG215G & SURG210G
BIOL120G & BIOL210G “C” or higher	SURG224G & SURG225G



Students who do not pass the Competency Based Objectives (CBO) will not be allowed to retake the CBO. A student who fails the CBO will not be able to continue in the program.

### **Surgical Technology Readmission Policy**

Students matriculated in the Surgical Technology program who withdraw or are Program Suspended may be eligible for readmission consideration. Students who have failed a course because of lack of professionalism or unsafe practice involving actions or non-actions may be suspended from the program without eligibility for readmission consideration. Unsafe practice includes actions or nonactions that may cause injury, damage or harm to the surgical client or others.

Readmissions are contingent upon space availability. The student applying for readmission will be required to meet the curriculum requirements in effect at the time of readmission. To be reconsidered for admission, the student must:

- Have successfully completed with a C or better BIOL110G, BIOL120G, and BIOL210G within the past five years from the time of readmission to the program.
- Submit a written, dated letter requesting readmission consideration to the Program Director of Surgical Technology.
- Briefly outline the reasons they were unable to continue in the program and identify the surgical technology course to which they are requesting readmission.
- Students who have requested readmission consideration will be ranked according to their surgical technology course average as space availability is determined.
- Students will be readmitted based on their ranking order. Students will then be notified of the status of the request in writing by the Admissions department.
- If a request for readmission is granted, the student must complete a new application.
- If the student is reentering the program and has completed the requirements for SURG119G and/or 122G, they will need to pass Competency Based Objectives (CBO), outlined in SURG119G and SURG122G lab syllabi, to demonstrate that they are ready for clinical and have retained skills learned during these labs.

### **Advanced Placement:**

In addition to the general admission criteria, students seeking advanced placement must have completed and passed with a C grade or better all prerequisite coursework by examination, challenge, or transfer credit. They must pass Competency Based Objectives (CBO), outlined in SURG119G and/or SURG122G lab syllabi. Students applying to the Surgical Technology Program will be required to have a personal interview with the program director.

### **Program Outcomes**

Surgical Technology Students will be able to:

- Incorporate knowledge of Anatomy and Physiology, Pathophysiology, and Microbiology into the practice of surgical technology
- Assess at appropriate levels for progress in the program
- Always demonstrate surgical and aseptic safe practice
- Recognize unsafe practice in all aspects and immediately report it, per hospital policy
- Always practice with a surgical conscience
- Apply ethical, legal, moral, and medical values related to the patient and or team during all levels of the perioperative procedure
- Understand elements, actions, and use of all medications, anesthetic agents used during perioperative procedure
- Perform in sequence all perioperative requirements
- Understand, value, and demonstrate professional attributes of a surgical technologist
- Implement actions, behaviors, decisions, and characteristics/qualities of a surgical technologist:
  - Psychomotor – skill

- Cognitive – learned
- Affective – behavior domains

### Technical Standards

Surgical Technology requires the ability to:

- Recognize, report and correct unsafe practice by self or by team member
- Communicate professionally, appropriately, and effectively in different situations
- Advocate for the patient’s safety, legal and moral rights
- Function as a team member
- Perform effectively in high stress situations
- Stand for long periods of time
- Hold uncomfortable positions for extended periods of time
- Lift heavy objects/patients safely
- Remain calm and alert in stressful and tiring situations
- Work effectively with both hands (manual dexterity)
- Focus for extended periods of time
- Perform in a quick, accurate, and detailed-oriented manner
- Follow orders and directions as instructed
- Handle constructive criticism with a positive and professional attitude
- Be flexible both physically and mentally
- Be honest and ethical
- Develop effective strategies for controlling bodily functions (sweat, urination, etc.)
- Understand risks (physical and health) of job (HIV, Hep C, etc.), and take the necessary precautions to avoid these risks
- Handle physical, emotional, mental, smells and sights of the operating room (all sensory aspects and/or unexpected outcomes in the operating room)

If at any time during the program the student does not demonstrate/practice any of the above listed under Program Outcomes and Technical Standards or fails to progress in the clinical setting, they may be placed on suspension from the program with the possibility of not being readmitted to the program. Also, if at any time the student demonstrates unethical practices, does not follow the College’s Code of Ethics, or if the student is asked to be removed from a clinical site for unsafe practice or behavioral issues, student will be suspended from the program and will not be eligible for readmission.

### Transfer Credit Policy

In addition to Great Bay Community College transfer credit policies, transfer courses in Human Anatomy and Physiology I, Human Anatomy and Physiology II, and Microbiology cannot be more than five years old at the time of acceptance.

## First Year

### Fall Semester

Item #	Title	Theory Hours	Lab Hours	Credits
SURG118G	Surgical Technology Fundamentals Lecture	6	0	6
SURG119G	Surgical Technology Fundamentals Lab	0	3	1
SURG115G	Basic Instrumentation, Supplies and Equipment	0	3	1
AHLT110G	Medical Terminology	3	0	3
BIOL110G	Human Anatomy and Physiology I	3	3	4
<b>Sub-Total Credits</b>		<b>12</b>	<b>9</b>	<b>15</b>

## Spring Semester

Item #	Title	Theory Hours	Lab Hours	Credits
SURG116G	Advanced Instrumentation, Supplies and Equipment	0	3	1
SURG121G	Surgical Procedure I Lecture	3	0	3
SURG122G	Surgical Procedure I Lab	0	3	1
BIOL120G	Human Anatomy and Physiology II	3	3	4
	ENGL110G/111G	4	0	4-5
	<b>Sub-Total Credits</b>	<b>10</b>	<b>9-11</b>	<b>13-14</b>

## Summer Semester

Item #	Title	Theory Hours	Lab Hours	Credits
SURG123G	Orientation to Surgical Clinical	0	6	2
	MATH145/7	4	0	4-5
BIOL210G	Microbiology	3	3	4
	<b>Sub-Total Credits</b>	<b>7-8</b>	<b>9</b>	<b>10-11</b>

## Second Year

### Fall Semester

Item #	Title	Theory Hours	Lab Hours	Credits
SURG210G	Surgical Procedures II	3	0	3
SURG215G	Surgical Clinical I	0	32	8
PSYC110G	Introduction to Psychology	3	0	3
	<b>Sub-Total Credits</b>	<b>6</b>	<b>32</b>	<b>14</b>

### Spring Semester

Item #	Title	Theory Hours	Lab Hours	Credits
SURG224G	Surgical Procedures III/Special Considerations in Surgery	4	0	4
SURG225G	Surgical Clinical II	0	32	8
	Humanities/Foreign Language/Fine Arts Elective*	3	0	3
	<b>Sub-Total Credits</b>	<b>7</b>	<b>32</b>	<b>15</b>

Course expectations include computer work. Students unfamiliar with computers are encouraged to take the Accuplacer Assessment in Computer Literacy or take Introduction to Computers (CIS110G) (or CIS107G) before entering the program.

Upon acceptance, applicants must participate in an operating room tour at a hospital affiliated with the program. This experience will be under the supervision of the program director or designee and will occur prior to the start of Orientation to Surgical Clinical (SURG123). Specific dates will be provided to each student.

**Total Credits**

**67-69**

## Technical Studies

### Technical Studies

#### Degree Type

Associate in Science

The Technical Studies program provides pathways for skilled workers to earn Associate Degrees by offering credit for recognized, technical specialties. The program allows students to build on previous success in areas of technical expertise through the choice of electives that complement the technical specialties. The Technical Studies degree is designed as an individualized program of study in an area not otherwise offered at the College. Students from recognized apprenticeship programs or students with certificates in technical fields (in areas in which Great Bay does not offer a degree) may complete the Associates degree in Technical Studies. Students with industry training and certifications equivalent in hours to 24 credits and documented by certification exams may receive credit for the Technical Specialty core. Credit will be awarded through the College's Credit for Prior Learning-Experiential Learning process. Fees apply.

### **Admissions Criteria**

- Each applicant must receive approval from Academic Affairs to participate in the Technical Studies program.
- Complete a college application indicating Technical Studies as choice of major.
- Provide proof of high school completion or equivalent and college transcripts.

### **Program Outcomes**

Students in the Technical Studies Program will:

- Build on applied expertise through selected coursework, gaining knowledge and skills in a specific discipline or clearly articulated interdisciplinary area.
- Attain proficiency in the concepts, theories, and methods of inquiry pertinent to the courses chosen as related technical electives.
- Integrate knowledge of their technical specialty fields with new knowledge from their chosen related technical electives.
- Advance in the development of skills necessary to interpret facts, solve problems, evaluate issues, develop multiple perspectives, and think critically and creatively.

### **Technical Standards**

The Technical Standards of the related, technical electives and open electives chosen apply. See individual degree programs associated with chosen coursework.

### **Transfer Credit Policy**

In addition to Great Bay transfer credit policies, transfer of courses into the Technical Studies Program will be evaluated by the applicable department or program and according to each department's currency requirements.

### **Degree Program**

#### **Technical Specialty Core 20-24 Credits**

In addition to Experiential Credit evaluated and awarded through a portfolio, Experiential Credit is also awarded for completed Industry Training/Certification, US Department of Labor Registered Apprenticeships, and CCSNH Certificate programs which are not in an area in which Great Bay offers an Associates Degree. These experiences may be documented by Certification exams, certificates that show number of hours completed and grades, and/or Apprenticeship transcripts.

#### **Related Technical Elective Courses: 12-16 Credits**

Students will work with their advisor to choose courses that complement their technical specialty and career pathway. Course selections must follow program prerequisite requirements. Students will take 12-16 credits depending on how many credits are awarded for their Technical Core.

### Open Elective: 3 Credits

Students can choose any course that the College offers with a course number of at least 100, provided the student has met the prerequisite; exceptions are courses which have admission to the program as a prerequisite to the course.

### Degree Program

Item #	Title	Theory Hours	Lab Hours	Credits
	Technical Specialty Courses			20-24
	Related Technical Elective Courses			12-16
	Open Elective (TS)			3
	<b>Sub-Total Credits</b>	<b>0</b>	<b>0</b>	<b>35-43</b>

### General Education Requirements

Item #	Title	Theory Hours	Lab Hours	Credits
	ENGL110G/111G (TS)			4-5
	Lab Science Elective (TS)			4
	Foreign Language/Humanities/Fine Arts Electives (TS)			3
	Social Science Elective*	3	0	3-4
	Math Elective (TS)			3-4
	Liberal Arts Elective (TS)			3
	<b>Sub-Total Credits</b>	<b>3-4</b>	<b>0</b>	<b>20-23</b>

Total Degree Credits (Minimum required, some exceptions apply): 60

<b>Total Credits</b>	<b>55-66</b>
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## Veterinary Technology

### Veterinary Technology

#### Degree Type

Associate in Science

As the field of veterinary medicine becomes increasingly complex, there is a growing need for skilled, educated paraprofessionals who can perform a variety of duties. Veterinary technicians work as a team with veterinarians providing medical, surgical, and laboratory procedures. They offer comprehensive support to clients as well as general healthcare to the animal patient. The Veterinary Technology program is accredited by the American Veterinary Medical Association Committee on Veterinary Technician Education and Activities (AVMA CVTEA). The program provides education in the basic sciences and liberal arts as well as in veterinary technology. Program starts in the fall.

Hands-on experience is obtained during clinical affiliations at local animal hospitals, service-learning sites, and spay/neuter clinics. Transportation to and from off-campus sites is the responsibility of the student. Clinical Affiliation experiences may vary in time and in locations including days, evenings, and/or weekends. Students are required to purchase, through the college approved vendor, a scrub top and bottom, and a lab coat in their first semester in the program. Scrubs will be worn in lab courses at the college and during clinical affiliations. Lab coats will be worn in anatomy and clinical pathology lab courses. Veterinary courses including Veterinary Anatomy and Physiology I and II must be successfully completed with a minimum grade of C+ before enrollment in the subsequent semesters, Clinical Affiliations, and to graduate from the program.

The goal of the program is to provide our students with a comprehensive academic foundation emphasizing technical skills, integrity, and professionalism. The program may be completed on a full-time or part-time basis. All veterinary technology courses must be completed within four years of the date of entry to the program. Students admitted to or re-entering the program must meet current requirements necessary for graduation.

Successful completion of this degree program provides students the opportunity to seek employment in veterinary hospitals and other related fields. They are also eligible to take the Veterinary Technician National Exam (VTNE) to become certified or licensed. In the last three years, 71 graduates sat for the VTNE with a 3-year average pass rate of 76.1%. Graduates may find jobs in veterinary hospitals, medical laboratories, pet-related industries, zoos, research facilities, and the pharmaceutical industry.

### **Program Outcomes**

Based on curriculum standards set by the AVMA CVTEA, the program partners with New England veterinary facilities to create skilled medical professionals qualified for employment in many areas of the veterinary healthcare field.

### **Technical Standards**

The program is physically strenuous, requiring lifting animals up to 50 lbs. and working with large animals. Sufficient manual dexterity and vision is necessary to perform clinical and microscopic procedures. Students will be expected to establish priorities, function effectively in emergency situations, comply with safety regulations, and communicate in a professional manner during clinical affiliations. Individuals who cannot meet these standards may have difficulty satisfying course objectives and becoming successful as a Veterinary Technician.

### **Admissions Criteria**

The deadline for completion of the application process, including the interview with the director, is April 30th. Early decision is possible for applicants with a strong academic history who complete their application prior to the deadline.

### **Admissions Requirements**

1. Complete an application to the program.
2. Provide proof of high school completion or equivalent.
3. Provide proof of completion of high school algebra, biology, and chemistry or equivalent of current enrollment.
4. Place into college level Math, Reading and Writing or demonstrate equivalent competencies through a college transcript or SAT scores.
5. Complete a personal interview with the program director.

*Applicants will be contacted by Admissions to set up interviews with the program director once the first four requirements have been met.*

- **Special Consideration points are given to applicants who:**
  - Have experience working/volunteering at a veterinary hospital or shelter
  - Have completed, either at GBCC or through transfer, select college-level general education classes that are required for the Veterinary Technology Associate Degree. Classes must be completed with a grade of C or higher and include ENGL 110/111G, MATH 145/147G and CHEM 110G.
  - Have completed VETN 110G, Introduction to Veterinary Technology through a Project Running Start class in high school with a grade of C+ or higher.
  - Have graduated from White Mountains Community College's Veterinary Assistant Certificate Program with a grade of C+ or higher.

- Have been awarded an Associate Degree or higher from a regionally accredited college/university with a 2.5 Cumulative GPA or higher.

## Clinical Requirements

Prior to participating in required service learning for VETN121G, students must:

1. Possess and maintain health insurance and professional liability insurance. (Professional liability insurance is available at the College; Please see the Academic Policies section of this catalog, under XVI. Immunization Policy.)
2. Have documentation showing current rabies, tetanus, measles, mumps and rubella vaccinations.
3. Provide proof of a negative TB skin test.

Prior to the first clinical affiliation, students must also:

1. Purchase a radiology dosimeter badge (available at the College).

## Veterinary Technology Program Suspension Information and Readmission Policy

Students matriculated in the Veterinary Technology program who withdraw or do not achieve the minimum grade in the Veterinary Technology or Veterinary Anatomy and Physiology I and II courses will be allowed to retake the course(s) one time only. Should a student fail to achieve the minimum grade on the second attempt, they will be dismissed from the program and must re-apply if they choose. Students who have failed a Veterinary Technology course because of unsafe practice involving actions or non-actions are dismissed and not eligible for readmission to the Veterinary Technology Program.

### Advanced Placement:

Admission to the program for students transferring from another AVMA accredited Veterinary Technology program will be determined by the program director based upon courses that have been successfully completed and space availability. All students seeking advanced placement are subject to the same admission and program requirements.

### Transfer Credit Policy

In addition to Great Bay Community College transfer credit policies, there is a ten-year limitation on accepting the course equivalencies of all VETN courses, BIOL111G and BIOL121G. Exceptions may be made by the department chairperson.

## First Year

### Fall Semester

Item #	Title	Theory Hours	Lab Hours	Credits
VETN110G	Introduction to Veterinary Technology	2	0	2
BIOL111G	Veterinary Anatomy and Physiology I	3	3	4
	ENGL110G/111G	4	0	4-5
	MATH145G/ MATH147G	4	0	4-5
	<b>Sub-Total Credits</b>	<b>13-14</b>	<b>3-5</b>	<b>14-16</b>

## Spring Semester

Item #	Title	Theory Hours	Lab Hours	Credits
VETN121G	Veterinary Clinical Methods I	3	3	4
BIOL121G	Veterinary A&P II	3	3	4
VETN114G	Veterinary Pharmacology	2	2	3
VETN115G	Veterinary Parasitology	2	0	2
CHEM110G	Introduction to Chemistry	3	3	4
<b>Sub-Total Credits</b>		<b>13</b>	<b>11</b>	<b>17</b>

CHEM110G: Students planning to transfer to a four-year college may substitute CHEM115G.

## Summer Semester

Item #	Title	Theory Hours	Lab Hours	Credits
VETN130G	Veterinary Clinical Affiliation I	0	24	4
	Veterinary Elective	2	0	2
<b>Sub-Total Credits</b>		<b>2</b>	<b>24</b>	<b>6</b>

## Second Year

### Fall Semester

Item #	Title	Theory Hours	Lab Hours	Credits
VETN210G	Veterinary Clinical Methods II	3	3	4
VETN212G	Laboratory Animal Science	2	2	3
VETN215G	Large Animal Management	2	2	3
VETN220G	Veterinary Clinical Pathology I	2	3	3
VETN214G	Veterinary Pharmacology II	1	0	1
	Social Science Elective*	3	0	3-4
<b>Sub-Total Credits</b>		<b>13-14</b>	<b>10</b>	<b>17-18</b>

### Spring Semester

Item #	Title	Theory Hours	Lab Hours	Credits
VETN221G	Veterinary Clinical Pathology II	2	3	3
VETN224G	Veterinary Diagnostic Imaging	1	3	2
VETN222G	Veterinary Clinical Affiliation II	0	15	5
	Humanities/Foreign Language/Fine Arts Elective*	3	0	3
<b>Sub-Total Credits</b>		<b>6</b>	<b>21</b>	<b>13</b>

## Curriculum Recommendations

Students are encouraged to take the required program general education courses before they begin the Veterinary Technology program. Alternatively, they should take the general education courses as they appear in the recommended sequence above. If a student fails to complete a first-year general education course, they are encouraged to take it over the summer between first and second year along with their Clinical Affiliation I and VETN elective course. The student may not take the credentialing exam (VTNE) until all courses are complete and the student has graduated. Health insurance is recommended for the entirety of the program.

**Total Credits**

**67-70**

## Veterinary Practice Management Degree Type



## Certificate

There is a need for educated managers in the veterinary profession. Veterinarians want to practice their medical skills, leaving the small business and management tasks to someone they can trust. This certificate program prepares a student to work as a Veterinary Practice Manager, Office Manager or Hospital Manager within the veterinary office. In addition to business, management and accounting courses, the program offers courses in veterinary medical terminology and law.

Graduates of the Veterinary Technology program or students who are currently in the program may take these courses to add to their training. Working technicians or individuals who are employed in an office setting can improve their potential with this certificate.

The program prepares the student for certification through the Veterinary Hospital Manager's Association (VHMA). To become a Certified Veterinary Practice Manager (CVPM), one has to have been active as a practice manager for 3 of the last 7 years, have a minimum of 18 credits of management related courses, complete 48 hours of continuing education and obtain four (4) letters of recommendation to be eligible to sit for the practice manager's exam.

### **Program Outcomes**

Graduates from the Veterinary Practice Management Certificate will:

- Perform human resource functions such as staffing, scheduling, and employee management.
- Prepare financial statements and other business monitoring analyses.
- Prepare marketing strategies for a veterinary practice.
- Comply with veterinary and medical laws and regulations such as rabies compliance, controlled substance compliance, and veterinary practice act compliance.
- Review and utilize simple business contracts.
- Perform operational functions in a veterinary business such as inventory, ordering, scheduling, and client communications.
- Utilize veterinary practice software to perform these tasks.

### **Technical Standards**

The successful Veterinary Manager will be emotionally and psychologically stable. In addition, graduates will be expected to establish priorities, be detail oriented, function effectively in emergency situations, and communicate in a professional manner.

### **Admissions Criteria**

1. Complete an application to the program.
2. Provide proof of high school completion or equivalent.
3. Place into college level Math, Reading and Writing or demonstrate equivalent competencies through a college transcript or SAT scores.
4. Show documented work experience (ex: a letter from the applicant's supervisor or pay stubs) of at least 2 years in one of the following: veterinary clinic, animal care business, or medical or business office, or acceptance into the Veterinary Technology Program. Graduation or enrollment in another AVMA accredited Veterinary Technology program will fulfill this requirement.

### **Transfer Credit Policy**

In addition to Great Bay Community College transfer credit policies, transfer of courses in Veterinary Practice Management more than ten years old will be evaluated by the program coordinator on an individual basis.

## Certificate Requirements

Item #	Title	Theory Hours	Lab Hours	Credits
ACCT113G	Accounting and Financial Reporting I	3	0	3
BUS114G	Management	3	0	3
BUS224G	Human Resource Management	3	0	3
MKTG101G	Principles of Marketing	3	0	3
VETN110G	Introduction to Veterinary Technology	2	0	2
VETN225G	Veterinary Practice Law	2	0	2
<b>Sub-Total Credits</b>		<b>16</b>	<b>0</b>	<b>16</b>

Choose one of the following:

**3 credits**

Item #	Title	Theory Hours	Lab Hours	Credits
ACCT123G	Accounting and Financial Reporting II	3	0	3
BUS216G	Organizational Behavior	3	0	3
ECON234G	Macroeconomics	3	0	3
<b>Total Credits</b>				<b>19</b>

## Welding Technology

### Welding Technologies

#### Degree Type

Certificate

According to the American Welding Society (AWS), there are currently 600,000 welding jobs available in the U.S. With the lack of skilled workers, only half of those positions are currently filled. Employers are currently seeking a new skilled workforce with an understanding of fabrication, welding and repair techniques as well as other differentiated attributes. The welding career field has a variety of job levels and responsibilities. Common career opportunities include:

- Fitters: Welders that set up material, pipe or plate, for the certified welder.
- Tack Welders: Fitters that tack the weld joints prior to large weldments.
- Fabricators: Welders who use welding to fabricate items with metal.
- Welders: Welders usually in manufacturing industry, with only one process.
- Combination Welders: Welders that can weld with more than one process.
- Certified Welder: Welder with credentials that prove the ability to repeat 100% weld quality.
- Solders: Welders who work with low temperature material joining.
- Welder Inspector: Those certified to inspect the welding from other welders.
- Welding Engineer: A mechanical engineer certified in the welding specifications.
- Welding Sales: Individuals who work for the suppliers for the welding field.
- Shop Owners: Business owners that are established in the welding field.

The Certificate in Welding, offered by Great Bay Community College, will provide graduates with the ability to meet the needs of entry and intermediate skill levels to acquire sustainable jobs in the field of welding. Upon completion of the program, students may be proficient in the use of welding equipment, set up, and operation for the five major processes; MIG, TIG, Stick, Oxy-fuel, and Plasma as well as many of the auxiliary processes such as; FCAW, Aluminum-TIG, Spool guns, etc. The curriculum will also provide students with a solid range of welding theory, blueprint reading, electricity, and fabrication techniques. Upon completion of the program, students will also be prepared for AWS Certification Testing. This program can be completed in 3 semesters. Please contact Admissions for more information.

Dual enrollment: Students enrolled in the Welding Certificate program may elect to enroll in the Associate Degree in Technical Studies. Dual enrollment is contingent upon active or graduate status of the certificate. Completion of the Welding certificate satisfies the requirement for the technical specialty core (24 credits) of the Technical Studies degree.

### Program Outcomes

Graduates of the Welding Technologies certificate program will:

- Possess basic competency in the five major welding processes.
- Demonstrate proficiency in the use of welding equipment, set up, and operation for the five major processes: MIG, TIG, Stick, Oxy-fuel, and Plasma.
- Demonstrate basic concepts and practices of technical drawing and blueprint reading in accordance with industry standards.
- Articulate safety guidelines and use of machine tools.
- Refine skills to meet code requirements and specifications.
- Demonstrate knowledge of material strengths and weaknesses.
- Articulate industrial quality control procedures.
- Demonstrate fabrication techniques and cost estimation.

### Health, Safety, and Internship Considerations

This program includes work in a welding shop where high temperatures and explosive gases are used. Students will be taught industry standards for safety of themselves and others in the shop and will be expected to follow all safety procedures. Personal protective equipment must always be worn in the shop.

### Admissions Criteria

- Complete an application to the program.
- Provide proof of high school completion or equivalent.

### Technical Standards

This program includes work in a welding shop and requires participants to physically perform functions that require the following:

- Normal vision for reading instructions and for performing tasks (corrective vision is acceptable).
- Manual dexterity with both hands; good hand and eye coordination.
- No medical electronic implants such as pacemakers are allowed in the welding shop.

### Transfer Credit Policy

In addition to Great Bay transfer credit policies, transfer of courses in the Welding program will be evaluated by the program coordinator on an individual basis.

### Certificate Requirements

Item #	Title	Theory Hours	Lab Hours	Credits
WELD100G	Basic Welding Technologies	5	3	6
WELD150G	Intermediate Welding Technologies	3	6	6
WELD200G	Advanced Welding Technologies	3	6	6
	<b>Sub-Total Credits</b>	<b>11</b>	<b>15</b>	<b>18</b>
	<b>Total Credits</b>			<b>18</b>

# Courses

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## Accounting

### **ACCT113G : Accounting and Financial Reporting I**

This course is an introduction to accounting as the language of business and the purpose of accounting in business. Students will develop an understanding of the concepts and use of the classification of assets, liabilities, equity, revenue and expense accounts. The student will be introduced to accounting procedures necessary to prepare financial statements utilizing current concepts and accounting principles. This includes journalizing transactions, preparation of a trial balance, accounting adjustments, closing journal entries, inventory, accounts receivable, accounts payable, special journals, cash receipts, disbursements, and banking procedures.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Semester Offered**

All semesters

### **ACCT123G : Accounting and Financial Reporting II**

This course consists of a more in-depth study of accounting procedures and concepts. An emphasis is placed on accounts from the balance sheet such as accounts and notes receivable; plant, property and equipment; and current and long-term liabilities. This course will also involve comparing and contrasting sole proprietorships, partnerships and corporations, as well as capital stock and stock transactions. Students will learn to use financial ratios to measure financial strength, profitability and liquidity.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Prerequisite Courses**

ACCT113G: Accounting and Financial Reporting I

**Semester Offered**

All semesters

### **ACCT213G : Cost Accounting I**

Cost Accounting is concerned with how accounting data is used within an organization. Managers need information to carry out three essential functions in an organization: (1) planning operations, (2) controlling activities, and (3) making decisions. The student will study what kind of information is needed, where this information can be obtained, and how this information can be used in planning, controlling and decision-making responsibilities. Cost concepts and behavior will be explored, as well as the fundamentals of cost-volume-profit analysis. Job order and process costing will be examined.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Prerequisite Courses**

ACCT123G: Accounting and Financial Reporting II

**Semester Offered**

Fall semester

**ACCT215G : Cost Accounting II**

This course is designed as a continuation of the concepts covered in [ACCT213G](#), where the student was introduced to the recording, classification and reporting of costs management use to plan, control, and make decisions. The student will build on this foundation with a more in-depth analysis and reporting of costs. This analysis and reporting will include performance measures, financial statement analysis, capital budgeting and service department costing methods, as well as a further detailed analysis of activity-based costing and process costing.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Prerequisite Courses**

ACCT213G: Cost Accounting I

**Semester Offered**

Spring semester

**ACCT216G : Software Systems Applications**

This course offers an introduction to an integrated accounting software package. It includes an evaluation of common software characteristics and features, and the review of internal controls for computerized accounting systems. The student will become proficient in processing transactions in a computerized accounting environment using a popular software package. Modules introduced are general ledger, financial statement preparation, accounts receivable, accounts payable, payroll, inventory, time and billing, fixed assets and depreciation, cost control, budgeting, and reporting.

**Credits** 3

**Theory Hours** 2

**Lab Hours** 2

**Prerequisite Courses**

ACCT123G: Accounting and Financial Reporting II

**Semester Offered**

Spring semester

**ACCT223G : Intermediate Accounting I**

An extension of topics covered in Accounting and Financial Reporting I and II, further emphasis is placed on the study and application of generally accepted accounting principles. The student will encounter an in-depth study of accounting concepts, including detailed applications of accounting theory with the preparation and analysis of the financial statements. The student will also cover an in-depth analysis of cash, receivables, inventory valuation, property, plant and equipment purchase and disposal, depreciation, intangible assets and the time value of money.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Prerequisite Courses**

ACCT123G: Accounting and Financial Reporting II

**Semester Offered**

Fall semester

**ACCT233G : Intermediate Accounting II**

Intermediate Accounting II is a continuation of the intensive examination begun in Intermediate Accounting I. It provides a closer look at current and long-term liabilities, stockholders' equity, earnings per share, investments, income taxes, pensions, leases, and the statement of cash flows. Guidelines of revenue recognition are discussed, and an evaluation of accounting changes and error analysis.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Prerequisite Courses**

ACCT223G: Intermediate Accounting I

**Semester Offered**

Spring semester

**ACCT243G : Federal Income Taxes-Individual**

A detailed presentation of Federal Income Tax Laws focusing on Internal Revenue Service procedures and court rulings as related to the tax preparation of individual taxpayers and sole proprietorships. Applicable tax forms are prepared in conjunction with rules and regulations.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Prerequisite Courses**

ACCT123G: Accounting and Financial Reporting II

**Semester Offered**

Fall semester

## Allied Health

**AHLT110G : Medical Terminology**

This course is designed to provide the student with the ability to communicate in a professional, effective manner in a variety of healthcare settings. Through a realistic approach, the student will learn the basic rules for building and defining medical terms, the correct pronunciation and spelling of medical terms, and the application of medical terminology as it relates to each body system. The student is introduced to various types of medical records and reports encountered in the healthcare setting and provided with the necessary skills to read and interpret these reports. A variety of activities will guide the student in the application of medical terminology as it relates to the clinical world.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Semester Offered**

Fall semester

# American Sign Language

## **ASL110G : American Sign Language I**

This is an introductory course that provides non-native signers with the opportunity to study American Sign Language. Emphasis will be on the development of visual receptive and expressive skills necessary for effective communication with deaf and hard-of-hearing individuals. Through a variety of classroom experiences, students will learn to recognize and produce both manual and non-manual behaviors that reflect an understanding of the language's grammatical, semantic, spatial, and cultural frameworks.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Semester Offered**

Fall/Spring semesters

**Notes**

(Fulfills Foreign Language requirement.)

## **ASL120G : American Sign Language II**

Builds on the skills developed in American Sign Language I. Participants will be introduced to more advanced vocabulary and grammatical features inherent in the language of ASL. Emphasis is on conversational fluency. Students will also explore the historical and cultural evolution of ASL through a variety of learning mediums.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Prerequisite Courses**

ASL110G: American Sign Language I

**Semester Offered**

Spring semester

**Notes**

(Fulfills Foreign Language requirement.)

# American Studies

## **AMER110G : Introduction to American Studies**

This course is designed to introduce students to the topics, materials and methods attendant to an interdisciplinary study of American culture, identity, and experience. Students will develop their critical, writing, and reading skills through a focused inquiry into particular American moments, places, and ideas, and in doing so, begin to address some of the large questions around which American Studies are centered.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Semester Offered**

Fall semester

**Notes**

(Fulfills Humanities requirement.)

### **AMER210G : American Studies Seminar**

This seminar is designed to provide a collaborative praxis in which, as a class, students formulate and develop interdisciplinary American Studies research topic/problem. Using the class work as a model, students will then personalize an individual interdisciplinary American Studies research topic/problem and complete that project with peer and advisor support. Though final demonstration of the projects may vary, the project requirements will include: a topic centered on a particular defining moment, idea, or element of American culture; research; critical thinking; communications skills; and the use of at least two methodologies.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Semester Offered**

Spring semester

## Anthropology

### **ANTH101G : Introduction to Anthropology**

This course is designed to be an introductory college course in anthropology. The student will primarily be introduced to cultural anthropology, its key concepts, terminology, theories and research, with some introduction of physical anthropology and linguistics. The course is designed to nurture students to develop a broader scope of understanding and respect for human variation. *Effective Fall 2023: this is a CCSNH Access course and will display on transcripts, count as credits attempted, and count towards the cumulative grade point average for all seven colleges: Great Bay, Lakes Region, Manchester, Nashua, NHTI, River Valley, and White Mountains. Students cannot receive credit for more than one of the CCSNH Access courses or equivalents and the most recent course on the college transcript will be used in the cumulative grade point average (CGPA) calculation. For graduation residency purposes, only Access courses owned by the campus where the student is matriculated will be used to meet the requirements.*

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Semester Offered**

All semesters

**Notes**

Fulfills Social Science requirement.

### **ANTH105G : Introduction to Ethnography: World of Work**

Introduction to Ethnography introduces students to anthropological perspectives and social science research methods as they investigate a range of careers. The course approaches work as a cultural system invested with meanings, norms, values, customs, behavioral expectations, and social hierarchies. Through ethnographic techniques, students evaluate the myths and stereotypes about work, as well as gain insight into how and why work matters to individuals. Work life is examined in the context of contemporary dynamics of disruption, uncertainty, innovation, and diversity. Assignments encourage students to draw connections between the Self and work, so they are prepared to make informed decisions about majors and career paths. This course is a requirement for all students in the liberal arts program who have not selected a concentration or major.

**Credits** 4

**Theory Hours** 4

**Lab Hours** 0

**Semester Offered**

All semesters

**Notes**

This course also fulfills a Social Science elective.



**ANTH135G : Introduction to Gender Studies**

This course will provide an introduction to the concepts and principles of gender and identity. Within an anthropological perspective, the gendered issues of culture and ideology, socialization, family and intimate relationships, education, work and health are discussed. Gender discrimination and changing roles will also be examined through the context of the major themes.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Semester Offered**

Fall semester

**ANTH202G : Introduction to Archaeology**

An introductory course to the field of archaeology. The course covers a wide variety of concepts and topics relevant to contemporary archaeological practices. How artifacts are analyzed and how archaeological sites are interpreted are examined. The large variety of specialized subfields is also examined. Critical concepts regarding chronology, the application of scientific techniques, methodology and fieldwork are discussed. The course will delve into a variety of topics explored by archaeologists – human origins and ancestry, populating the world, the prevalence of hunting & gathering subsistence strategies through time and across the globe. In addition, the course examines major changes in human development – the domestication of plants and animals, the transition to food production, “settling” down, the increase and concentration of populations along with ancient urbanization. We will scrutinize the archaeological evidence highlighting the formulation of social and cultural complexity, and evaluate archaeological interpretations recognizing past religion, trade & exchange, warfare, early writing, social stratification, political and economic systems.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Semester Offered**

Fall semester

## Arts

**ARTS103G : Fundamentals of Acting I**

This course will introduce students to the fundamentals of the creative process of acting. It will focus on developing and training the actor's instrument. Through structured exercises and performance projects, the student will develop skills in relaxation and concentration, voice and movement, and script analysis. Students will also acquire basic theatre terminology, sharpen their observation skills, and gain an understanding of the rehearsal process. The course will culminate in the final presentation of a scene from a contemporary play.

**Credits** 4

**Theory Hours** 4

**Lab Hours** 0

**Semester Offered**

Fall or Spring semester

**ARTS105G : Intro to Music**

This course is an introduction to western music. The student will listen to, read about, and discuss music from a variety of time periods, genres, and styles. The course will include some history and literature, and exposure to basic elements of music, as well as form and instrumentation. Primary emphasis will be on developing critical listening skills.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Semester Offered**

Fall semester

**Notes**

(Fulfills Humanities requirement.)

**ARTS107G : Blues, Jazz, and Rock and Roll**

This course will survey the three most important developments in America in popular music during the 20th Century: Blues, Jazz, and Rock and Roll. Emphasis will be on active listening to representative works, engagement with supporting film and textual materials, and historical and cultural context. Written responses, and attendance at live performances will be required.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Semester Offered**

Fall semester

**Notes**

(Fulfills Humanities requirement.)

**ARTS117G : Art History I**

This course surveys the history of art and design in Western and non-Western traditions from prehistoric to the 14th century including the Gothic period in Europe. The course emphasizes the connections among historical, political, social, religious and artistic developments, showing how artists and designers are influenced by the culture and time in which they live.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Semester Offered**

Fall/Summer semesters

**Notes**

(Fulfills Humanities requirement.)

**ARTS121G : Jewelry Design & Metalsmithing**

Through technical demonstrations, lectures and hands-on studio experience, students will learn the metalworking skills necessary to create unique pieces of jewelry and/or one-of-a-kind utilitarian objects. Students will investigate the relationship between form and function through creative problem solving. Respect for technical processes and quality construction will be combined with creative expression as the student learns to follow a concept from planning stages to execution. Class will be held at an off-campus location.

**Credits** 3

**Theory Hours** 2

**Lab Hours** 3

**ARTS123G : Drawing I**

Various drawing media and techniques are explored in this course. Assignments are designed to build drawing observation skills necessary for visual communication.

**Credits** 3

**Theory Hours** 2

**Lab Hours** 2

**Semester Offered**

All semesters

**Notes**

(Fulfills Fine Arts requirement.)

**ARTS124G : Art, Design, and Color**

Through the hands-on exploration of traditional media, this course focuses on the principles of design and color theory as they are applied to 2D and 3D projects. The art elements of line, shape, form, space, and texture, as well as the design principles of balance, proportion, perspective, contrast, focal point, white space, unity, and color theory will be demonstrated in the layout of real-world graphic communication projects. Students will experience the design process from brainstorming to presentation, as they develop an understanding of the challenges inherent in integrating exemplary design through visual media.

**Credits** 3

**Theory Hours** 2

**Lab Hours** 2

**Semester Offered**

Spring semester

**ARTS125G : Visual Language**

Communication occurs through visual symbols as well as through verbal symbols or language. Through the ages, art has served to record visual data through images and symbolism. Art also conveys intense emotion, is used as propaganda or social commentary, is interpreted through cultural and religious contexts, and functions as storytelling. This course examines the bridge between language and images by exploring the vocabulary of the elements and principles of design, the history and function of art criticism, the terms used to describe major art movements and periods in Western art history, and the terminology related to the methods, processes and materials used to create art. Using observation, reflection and critical thinking, students will analyze, discuss and write about visual art.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Prerequisites**

[ENGL110G](#) or [ENGL111G](#)

**Semester Offered**

Fall semester

**Notes**

Fulfills Humanities requirement.

**ARTS126G : Typography**

This course will emphasize the design of projects that explore typographical structures, their characteristics, terminology, layout considerations, and the use of typography as a communication medium. This course uses both computer and hands-on methods to address the language of type and its effective use as a design element. By studying the language of type through its history and application, students will gain strong working knowledge of this essential element to graphic design.

**Credits** 3

**Theory Hours** 2

**Lab Hours** 2

**Semester Offered**

Fall semester

**ARTS127G : Art History II**

This course surveys the history of art and design in Western and non-Western traditions from the 14th century in Europe to the Postmodern era up to the year 2000. The course emphasizes the connections among historical, political, social, religious and artistic developments, showing how artists and designers are influenced by the culture and time in which they live.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Semester Offered**

Fall semester

**Notes**

Fulfills Humanities requirement.

**ARTS137G : Contemporary Art History**

This survey course will cover the movements in Modern (1880-1960) and Contemporary (1960- Present) art history. The history of art, architecture and design in Western and non-Western traditions will be analyzed for aesthetic developments and alignment to the corresponding historical, political, social and religious issues of the day. Emphasis will be on how artists define the culture and time in which they live, and the influence these movements have on artists of the present day.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Semester Offered**

Fall semester

**Notes**

Fulfills Humanities requirement.

**ARTS203G : Fundamentals of Acting II**

This course will build on the foundational skills developed in Fundamentals of Acting I. Through structured exercises and intense scene study, the student will develop skills in script analysis, scoring a role, partner work, voice and movement, and basic audition technique. Students will apply their skills in several performance projects.

**Credits** 4

**Theory Hours** 4

**Prerequisite Courses**

ARTS103G: Fundamentals of Acting I

**Prerequisites**

ARTS103G or permission of the instructor.

**ARTS220G : Painting I**

This course is an introduction to the processes of painting through the investigation of materials, theories and techniques. This course will explore painting media with an emphasis of color theory, color mixing, composition and paint application on a variety of surfaces. The focus will be on creative approaches to painting and observational work. Historical and contemporary aesthetic issues will be explored through assignments, slide lectures, discussions, critiques and museum/gallery visits.

**Credits** 3

**Theory Hours** 2

**Lab Hours** 2

**Prerequisites**

[ARTS123G](#) or permission from the Program Coordinator.

**Semester Offered**

Spring semester

**ARTS223G : Drawing II**

Students will continue developing drawing skills based on the knowledge and training acquired in Drawing I. More complex still-life, portrait, and life figure drawing will be created in classes. Further investigation of drawing materials and an introduction to more mediums will also be covered in this course.

**Credits** 3

**Theory Hours** 2

**Lab Hours** 2

**Prerequisite Courses**

[ARTS123G](#): Drawing I

**Semester Offered**

Spring semester

**Notes**

(Fulfills Fine Arts requirement.)

**ARTS225G : Watercolor Painting**

Through the exploration of traditional artist watercolor techniques, students will learn and apply watercolor processes, procedures and techniques to selected compositions and motifs such as landscapes, floral arrangements, skies, still life, seascape and abstraction. Techniques will include washes, color mixing, brush technique, masking, sponging, wet on wet and mixed media. Students will work from life when practical, learning composition, atmospheric perspective and color theory.

**Credits** 3

**Theory Hours** 2

**Lab Hours** 2

**Prerequisites**

[ARTS123G](#) or [ARTS124G](#) or Permission of Instructor

**Semester Offered**

Fall semester

**ARTS230G : Introduction to Printmaking**

This course provides an introduction to a variety of printmaking techniques including monotype, relief and intaglio processes. Students will create one of a kind prints and projects through the exploration of printmaking strategies and sequences while creatively and objectively addressing the historical and contemporary issues of the art form. Students will gain skills necessary to produce and evaluate aesthetic solutions for a variety of printmaking methods.

**Credits** 3

**Theory Hours** 2

**Lab Hours** 2

**Prerequisites**

[ARTS123G](#) or permission from the Program Coordinator

**Semester Offered**

Fall semester

**ARTS235G : Sculpture and 3D Form**

This course is an introduction to the theory and practice of creating three dimensional forms and sculptures. Through the manipulation of various materials, the student will investigate the composition and processes necessary to construct free-standing, suspended and relief sculpture. Students will employ modeling, carving, casting and construction methods to create original sculptural works. The three-dimensional elements of line, plane, surface, volume, mass and space will be utilized to create abstract and functional forms.

**Credits** 3

**Theory Hours** 2

**Lab Hours** 2

**Prerequisites**

[ARTS123G](#) or [ARTS124G](#)

**Semester Offered**

Spring semester

## Automotive Technology

**AUTO110G : Automotive Maintenance and Light Repair**

The Maintenance and Light Repair course prepares students for entry into the automotive repair industry. Students explore career opportunities and requirements of a professional service technician. Content emphasizes beginning transportation service skills and workplace success skills. Students study safety, tools, equipment, shop operations, vehicle service fundamentals, and basic technician skills. Instruction will incorporate hands-on lab work, discussion, demonstration, lecture, and assigned readings. Upon completion of the Maintenance and Light Repair course students will be eligible to take the MLR ASE Student Certification Exam.

**Credits** 4

**Theory Hours** 2

**Lab Hours** 4

**Semester Offered**

Fall semester

**AUTO120G : Automotive Engines (Mechanical)**

This course provides a comprehensive study of the theory, construction, design, and repair of the internal combustion engine. Topics discussed include engine classification, power and torque development, engine power-efficiency tests, engine performance parameters, and mechanical design and failure analysis. The mathematical solution of performance characteristics is demonstrated. Alternative engines and fuels are also discussed. The lab reinforces the lecture by providing engine mechanical diagnostic procedures, repair and overhaul procedures. System problem diagnosis and component failure analysis are continually stressed.

**Credits** 4

**Theory Hours** 2

**Lab Hours** 6

**Prerequisite Courses**

AUTO110G: Automotive Maintenance and Light Repair

**Semester Offered**

Spring semester

**AUTO125G : Automotive Electronics I**

This course will introduce the student to general vehicle electrical and electronic principles, theory, and components. Topics include Ohm's Law, circuit analysis, basic circuits, diodes, transistors, relays, and solenoids. The lab will use electrical test equipment to analyze and troubleshoot basic electrical circuits including warning systems, electrical accessories, battery, starting, and charging systems.

**Credits** 4

**Theory Hours** 3

**Lab Hours** 3

**Co-Requisite Courses**

AUTO110G: Automotive Maintenance and Light Repair

**Semester Offered**

Fall semester

**AUTO130G : Automotive Electronics II**

Electricity/Electronics II. This course builds on the material covered in Electrical/Electronics I and includes communication and networking, body control systems, security systems, occupant safety systems, entertainment and audio systems and driver information and navigation systems. Students will practice diagnosis and repair using scan tools, oscilloscopes and multi-meters.

**Credits** 4

**Theory Hours** 2

**Lab Hours** 4

**Prerequisites**

[AUTO110G](#) Automotive Maintenance and Light Repair with a C or better; and [AUTO125G](#) Automotive Electronics I with a C or better

**Semester Offered**

Spring semester

### **AUTO140G : Braking Systems**

This course covers diagnosing, evaluating and servicing base brake systems, parking brake systems, anti-lock brake systems, and traction control systems. Students will machine drums and rotors using both on-car and off-car lathes, diagnose, evaluate and repair using pressure gauges, measuring tools, scan tools, oscilloscopes and multi-meters, and demonstrate safe use of all tools and equipment used in the course.

**Credits** 4

**Theory Hours** 2

**Lab Hours** 4

**Prerequisites**

[AUTO110G](#) with a C or better

**Semester Offered**

Summer semester

### **AUTO150G : Suspension and Steering**

In this course students will diagnose, evaluate, repair and document steering and suspension systems, including both base and electronically controlled systems. They will replace steering and suspension components, practice 2 wheel and 4-wheel alignment, and document their work.

**Credits** 4

**Theory Hours** 2

**Lab Hours** 6

**Prerequisites**

[AUTO110G](#) with a C or better

**Semester Offered**

Summer semester

## Biological Science

### **BIOL041G : Developmental Biology**

This course will cover the main points of biology at the high school level. It is meant to replace or supplement students' background in biology if those students either never passed high school biology, or if they took the course too long ago to be prepared for further study of the life sciences. The course will give an overview of cell biology, the biology of organisms, and the biology of populations. These credits do not count toward graduation requirements.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Semester Offered**

Fall/Spring semesters

### **BIOL100G : Concepts in Biology**

This college-level course is designed for students who are curious about the biological sciences but do not intend to pursue a degree in Biology. It covers cellular anatomy and physiology, metabolism, and genetics. Laboratory exercises are designed to reinforce theoretical concepts presented in the lecture portion of the course.

**Credits** 4

**Theory Hours** 3

**Lab Hours** 2

**Semester Offered**

All semesters



**BIOL101G : Human Disease**

This course covers basic microbiology and immunology and is a non-science-majors' course. It provides an introduction to historical concepts of the nature of microorganisms, microbial diversity, the importance of microorganisms in the biosphere, and their roles in human and animal diseases. Emphasis is on medical microbiology, infectious diseases, and public health. The lab covers the basics of culture and identification of bacteria as well as microbial ecology.

**Credits** 4

**Theory Hours** 3

**Lab Hours** 2

**Semester Offered**

Fall/Spring semesters

**BIOL106G : The Human Body**

This is a one-semester course that introduces the structure and function of the human body. It includes the anatomy and physiology of each of the organ systems of the human body and practical discussions of disease and health. The course includes a series of laboratory experiences designed to enhance and reinforce the concepts presented in lecture.

**Credits** 4

**Theory Hours** 3

**Lab Hours** 2

**Semester Offered**

Fall/Spring semesters

**BIOL108G : General Biology I**

This college-level course covers the principles of cell biology, including cellular physiology, cellular metabolism, molecular biology, biochemistry and genetics. Laboratory exercises are designed to reinforce theoretical concepts presented in the lecture portion of the course.

**Credits** 4

**Theory Hours** 3

**Lab Hours** 3

**Prerequisites**

Successful completion of high school biology or [BIOL041G](#); successful completion of high school chemistry or [CHEM043G](#) is recommended but not required

**Semester Offered**

Fall/Spring semesters

**BIOL109G : General Biology II**

This college-level course covers principles of organismal biology, including comparative physiology, taxonomy, behavior, evolution and ecology. Laboratory exercises are designed to reinforce theoretical concepts presented in the lecture portion of the course. Students need not have taken Biology I in order to enroll in Biology II.

**Credits** 4

**Theory Hours** 3

**Lab Hours** 3

**Prerequisites**

Successful completion of high school biology or [BIOL041G](#); successful completion of high school chemistry or [CHEM043G](#) is recommended but not required

**Semester Offered**

Fall/Spring semesters

**BIOL110G : Human Anatomy and Physiology I**

This course is designed to give a student of any health or medical science a thorough background in anatomy and physiology. Current, in-depth information is presented on the structure and function of human cells, tissues and organ systems, including the skin, skeletal, muscular, nervous and sensory systems. Laboratory work augments lecture topics and includes exercises in microscopy, the study of fresh and preserved specimens, and exercises in human physiology.

**Credits** 4

**Theory Hours** 3

**Lab Hours** 3

**Prerequisites**

Placement into college-level reading; C or better in high school biology or [BIOL041G](#) or [BIOL106G](#); successful completion of high school chemistry or [CHEM043G](#) recommended

**Semester Offered**

Fall/Spring semesters

**BIOL111G : Veterinary Anatomy and Physiology I**

This course offers an in-depth study of the normal anatomy and physiology of domestic mammals with emphasis on the dog and cat. Major differences with respect to the larger domestic species are also covered. This is the first semester of a two-semester course and covers basic organization, cells, tissues, the integument, skeletal, muscular, and nervous systems. Lab work augments lecture topics and includes the study of microscope slides as well as preserved specimens and models.

**Credits** 4

**Theory Hours** 3

**Lab Hours** 3

**Prerequisites**

Admission to the Veterinary Technology program

**Semester Offered**

Fall semester

**BIOL120G : Human Anatomy and Physiology II**

A continuation of Human Anatomy and Physiology I. This course includes current in-depth information of the structure and function of the endocrine, digestive, respiratory, blood, cardiovascular, lymphatic, urinary, and reproductive systems. Laboratory work augments lecture topics and includes exercises in microscopy, the study of fresh and preserved specimens, and physiological measurements on the human body.

**Credits** 4

**Theory Hours** 3

**Lab Hours** 3

**Prerequisites**

C or better in [BIOL110G](#)

**Semester Offered**

Fall/Spring semesters

**BIOL121G : Veterinary A&P II**

This course offers an in-depth study of the normal anatomy and physiology of domestic mammals with emphasis on the dog and cat. Major differences with respect to the larger domestic species are also covered. This course is a continuation of [BIOL111G](#) and covers the endocrine, reproductive, cardiovascular, respiratory, urinary, and digestive systems. Lab work augments lecture topics and includes the study of microscope slides as well as preserved specimens and models.

**Credits** 4

**Theory Hours** 3

**Lab Hours** 3

**Prerequisites**

C+ or better in [BIOL111G](#) and [VETN110G](#)

**Semester Offered**

Spring semester

**BIOL150G : Nutrition**

Biology 150G (Nutrition) is a course designed to offer students an understanding of the science of nutrition so that they can make healthy food choices in their daily lives. The processes of digestion, absorption, and transport of the macro- and micronutrients in the body will be studied. The function and sources of the major nutrients including carbohydrates, lipids, protein, vitamins, minerals and water will be analyzed. Also, the following will be discussed: energy balance, nutrition throughout the life cycle, sports nutrition, environmental food issues, hunger, food safety, and nutrition therapy for medical problems including cardiovascular disease, cancer and diabetes. Each week selected activities, worksheets, and assignments will be completed. These are designed to engage and encourage students to apply what they are learning in lecture, in practical and personal contexts. Students will have the opportunity to work in formal Cooperative Learning Groups to complete the assignment in lab. The intent of group activity is to foster the learning of each member of the group from other members. The class will also engage in discussion on weekly topics.

**Credits** 4

**Theory Hours** 3

**Lab Hours** 3

**Semester Offered**

All semesters

**BIOL160G : Introduction to Environmental Science**

This course is designed to present the basics of environmental science and will focus on the earth as a living planet. Topics covered include principles of ecology, human population effects, natural resource needs and management, energy resources, pollution/prevention issues, and sustainability. Although primarily a science course, ethical issues related to the above topics will also be explored. Lab exercises are designed to reinforce the material presented in the lecture.

**Credits** 4

**Theory Hours** 3

**Lab Hours** 3

**Semester Offered**

All semesters

**BIOL200G : Professional Skills and Exploration for STEM Students**

This one-credit course is designed for second-year biological science majors but is open to any interested student meeting the pre-requisites. It will provide students with an opportunity to hone their skills as developing science scholars with an emphasis on effective studying, metacognition, and scientific communication (including practice with reading primary literature). Students will also explore issues of scientific identity and learn about the many career pathways available to students in the sciences. Information about transfer and degree options beyond the associates will be discussed. Credit will transfer to UNH COLSA. This course is required for students intending to apply for P2P transfer scholarships.

**Credits** 1

**Theory Hours** 1

**Lab Hours** 0

**Prerequisites**

Grade of C or better in two of the following courses: General Biology I, General Biology II, General Chemistry I, General Chemistry II

**BIOL210G : Microbiology**

An introduction to the principles and practices of microbiology. Topics covered include: the nature and behavior of microorganisms; principles of growth and reproduction of microorganisms; identification of microorganisms using staining, pure culture, biochemical and antigenic techniques; and the epidemiology, clinical features, laboratory diagnosis and appropriate control measure for microbial diseases caused by viruses, bacteria, fungi, protozoa and helminthes.

**Credits** 4

**Theory Hours** 3

**Lab Hours** 3

**Prerequisites**

C or better in [BIOL108G](#) or C or better in [BIOL110G](#) or Permission of Department Chair

**Semester Offered**

Fall/Spring semesters

**BIOL220G : Principles of Genetics**

This course covers fundamentals of classical, molecular and population genetics. Topics include chemical structure of the genetic material, Mendelian theory, gene recombination, chromosome mapping, genetic mutation, gene expression and regulation, applications of recombinant DNA technology, quantitative inheritance and the genetic basis of evolution. Laboratory exercises are designed to reinforce theoretical concepts presented in the lecture portion of the course.

**Credits** 4

**Theory Hours** 3

**Lab Hours** 3

**Prerequisites**

[BIOL108G](#) and C- or better in [MATH150G/152G](#) (or higher-level math class)

**Semester Offered**

Spring semester

**BIOL230G : General Ecology**

This course is for students who have already had some introduction to organismal biology. It focuses on physical and biological factors affecting distribution, abundance and adaptation of living organisms. Laboratory exercises emphasize fieldwork when possible and are designed to reinforce the theoretical material presented in lecture.

**Credits** 4

**Theory Hours** 3

**Lab Hours** 3

**Prerequisites**

[BIOL109G](#) and C- or better in [MATH150G](#)/152G (or higher-level math course)

**Semester Offered**

Fall semester

## Biotechnology

**BTEC105G : Introduction to Biotechnology**

This course is designed to introduce students to the tools and applications of genetic engineering, as well as the ethical issues that these technologies raise. No prior experience is assumed. Students will acquire basic laboratory skills in such areas as solution preparation but will also have a chance to experiment with techniques such as DNA isolation, DNA manipulation, and molecular cloning. Students will gain an understanding of how the biotechnology industry operates and will also learn about options for careers and further education in biotechnology.

**Credits** 4

**Theory Hours** 3

**Lab Hours** 3

**Semester Offered**

Spring semester

**BTEC205G : Bioethics**

Biotechnology is any technique that uses living organisms (or parts of organisms) to make or modify products to improve plants and animals or to develop microorganisms for specific uses. This course will address the sociological, ethical, and legal issues arising from biotechnology. This new field is known as bioethics. During the first four weeks of the course, students will develop a tool kit based on sociological, ethical, and legal thought. During the remainder of the course, students will read bioethical cases, analyze them as to their social, ethical, and legal implications, and argue their opinions as they apply these tools to answer bioethical questions.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Semester Offered**

Fall/Spring semesters

**BTEC210G : Biotechnology Research**

The first of two experiential, cornerstone courses in Biotechnology. The course begins by introducing the student to the field of biotechnology, the role of the technician in biotechnology, and GLP or good laboratory practices. The remainder of the course is a hands-on exposure to biotechnology research tools and protocols used for DNA isolation, gene mapping, DNA fingerprinting, gene cloning, gene expression regulation, protein identification, mRNA isolation, cDNA synthesis from mRNA, the production of gene libraries, and gene sequencing. A two-hour-per-week lecture provides the knowledge base of biotechnology research.

**Credits** 4

**Theory Hours** 2

**Lab Hours** 6

**Prerequisites**

[BTEC105G](#), [BIOL108G](#) (or [BIOL210G](#)), [CHEM115G](#) (or [CHEM110G](#)), and [MATH145G](#)/[MATH147G](#) or [MATH150G](#)/152G or higher. Exceptions by permission of department chair only

**Semester Offered**

Fall semester

**BTEC220G : Biomanufacturing**

The second of two experiential, cornerstone courses in Biotechnology. The course begins by introducing the student to the proteins and companies of biotechnology and to cGMP or current good manufacturing practices. In the remainder of the course, students use mammalian cells to produce a human protein using tools and manufacturing standard operating procedures of biotechnology, including upstream and downstream processing of proteins and quality control of protein production. A two-hour-per-week lecture provides the knowledge base of biotechnology manufacturing.

**Credits** 4

**Theory Hours** 2

**Lab Hours** 6

**Prerequisites**

C- or better in [BTEC210G](#). Exceptions by permission of department chair only

**Semester Offered**

Fall/Spring semesters

**BTEC223G : Biotechnology Externship**

This optional externship, consisting of 144 hours of experience in an area of biotechnology, is extended to students who want more exposure to biotechnology before seeking employment. Arrangements are made on an individual basis.

**Credits** 3

**Theory Hours** 0

**Lab Hours** 9

**Prerequisite Courses**

[BTEC210G](#): Biotechnology Research

[BTEC220G](#): Biomanufacturing

**BTEC224G : Biotechnology Externship II**

This optional externship, consisting of 192 hours of experience in an area of biotechnology, is extended to students who want more exposure to biotechnology before seeking employment. Arrangements are made on an individual basis.

**Credits** 4

**Theory Hours** 0

**Lab Hours** 12

**Prerequisites**

[BTEC210G](#) and [BTEC220G](#); or permission of instructor

# Business Administration

## **BUS110G : Introduction to Business**

This is an introductory course designed to provide students with a basic understanding of the structures and operations of business and an awareness of social and ethical responsibility as it relates to the environment, consumers, employees, and investors. An appreciation of the global economy will also be explored.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Semester Offered**

All semesters

## **BUS114G : Management**

The principles and techniques underlying the successful organization and management of business activities. This course combines the traditional analysis of management principles with the behavior approach. The management functions of planning, organizing, leadership, staffing, decision-making, communicating, and motivating and controlling will be stressed. Additionally, the impact of technology on management functions and implementation processes, especially information technology, will be examined.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Semester Offered**

All semesters

## **BUS200G : Teambuilding**

This course will introduce and expand upon the basic principles and concepts of team building and self-directed work teams as they pertain to the workplace environment. Through the use of lecture and workshop-type group exercises, the key concepts of how teamwork can influence and benefit the workplace will be explored.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Semester Offered**

Spring semester

**BUS208G : Leadership Theory & Practice**

Leadership Theory & Practice presents critical leadership and management concepts that have emerged over several decades, with emphasis on contemporary leadership theory. Students will apply theories of leadership through case analysis and enhance personal leadership skills through self-assessment exercises and other activities. Included in the course are recognition of significant leaders, understanding of research findings on critical leadership attributes, and contemporary perspectives on leadership ethics, networking, coaching, organizational culture, diversity, learning organizations, strategic leadership, and crisis leadership. The aim of the course is to help students develop as effective leaders in contexts where they currently serve, and for contexts to which they aspire. Leadership Theory & Practice reflects a belief that leadership involves moral and ethical dimensions, that effective leadership equals good leadership, and that leadership includes service to others, authenticity, and integrity.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Prerequisites**

[BUS110G](#) or permission of Dept. Chair

**Semester Offered**

Spring semester

**BUS209G : Principles of Global Business**

Principles of Global Business provides students with a practical, comprehensive foundation in international business topics. Students will gain an understanding of how globalization influences international trade and learn about the complexities of a global supply chain. Students will discover what it means to open and run a business in China, Brazil, or the Middle East. Students will acquire practical knowledge of the international monetary system and learn about the cultural and legal factors affecting international product development, distribution channels, sales, and promotion. The course will help prepare students for careers working in the context of multinational organizations and illustrate in depth how business is conducted outside the United States.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Prerequisite Courses**

[BUS110G](#): Introduction to Business

**Semester Offered**

Spring semester

**BUS210G : Organizational Communications**

Effective communication is the lifeblood of the organization; it is also the foundation of a successful business career. This course will focus on the methods and techniques necessary to utilize facts and inferences, understand communication strategies, create logical presentations, and develop critical skills in listening, speaking, and writing. Students will also gain an understanding of nonverbal, visual, and mass communication.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Semester Offered**

Fall semester



**BUS211G : Business Law**

Business Law provides a comprehensive study of the relationship between business and the law. A study of the American legal system and the basic legal concepts related to substantive and procedural law. Introduction to cases, statutes, the Constitution, and the court process and conflict resolution using Alternative Dispute Resolution principles. The course includes the topics of business ethics, Constitutional law principles, contractual concepts, the Uniform Commercial Code, the variety of ways in which a business may be legally organized and financed, agency and employment, torts and product liability, consumer protection, and intellectual property.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Prerequisites**

Placement in [ENGL110G](#) or [ENGL111G](#) and [BUS110G](#) (or [BUS114G](#)); or permission of Program Coordinator or Department Chair

**Semester Offered**

Spring semester

**BUS216G : Organizational Behavior**

This course is an introduction to the philosophy, concepts, and topics in organizational behavior (OB) and behavioral management. It is a study of individuals, groups, and interactions of these constituencies. Students will examine theories of motivation, communication, leadership, power, conflict, and change with practical relation to contemporary issues. Writing intensive course.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Prerequisites**

Placement in [ENGL110G](#) or [ENGL111G](#) and [BUS110G](#) (or [BUS114G](#) or approval of Program Coordinator)

**Semester Offered**

Fall semester

**BUS220G : Operations Management**

Operations Management focuses on the relationship of the production and operations functions of delivering products or services to the achievement of an organization's strategic plan and linking the organization to its customers. Students integrate forecasting, materials management, planning, scheduling, process, operations control skills and techniques with approaches and tools such as Total Quality, Statistical Process Control, Continuous Improvement, Demand Flow and Just- In-Time production systems.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**BUS221G : Business Finance**

This course is designed to survey the corporate finance discipline, to examine the financial management of corporations, to develop skills necessary for financial decision making, financial forecasting, ratio evaluation, and to acquaint students with money, capital markets, and institutions.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Prerequisite Courses**

[ACCT123G](#): Accounting and Financial Reporting II

**Semester Offered**

Spring semester

**BUS224G : Human Resource Management**

This course is designed to provide fundamental presentation of the dynamics of human resource management. Emphasis is placed on job design and development, employment training, benefits administration, compensation, and employee relations.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Semester Offered**

Fall/Spring semesters

**BUS231G : Self-Assessment**

This course, offered as a seminar or in an online structure, is designed to allow students to assess their strengths and weaknesses and to enlighten students on what types of organizational culture is most conducive to personal growth.

**Credits** 1

**Theory Hours** 1

**Lab Hours** 0

**BUS234G : Entrepreneurship & Small Business Management**

This course covers key concepts and skills critical to successfully launching, developing, and managing a small business. Emphasis will be placed on the integration of key management principles. Students will develop a business plan

**Credits** 3

**Theory Hours** 3

**Prerequisite Courses**

BUS110G: Introduction to Business

BUS114G: Management

**Prerequisites**

Prerequisites [BUS110G](#): Introduction to Business or [BUS114G](#): Management or Permission of Program

Coordinator: Business Administration

**Semester Offered**

Spring semester

**BUS242G : Ethics and Social Responsibility in Business**

Ethics and Social Responsibility in Business will provide the student with opportunities to examine the meaning of business ethics and social responsibility of business in light of the numerous high-profile challenges that managers have faced in the past several years. Focus on ethical leadership and the management of conflicting values confronting business leaders on a daily basis, as well as the more global issue of balancing principles of good business with principles of ethical behavior. Through analysis and discussion, the student will explore the meaning of socially responsible leadership, the various conflicting sets of values managers face in an increasingly global and diverse business context, and the manner in which companies manage their ethical obligations and responsibilities.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Prerequisites**

Placement in [ENGL110G](#) or [ENGL111G](#) and [BUS110G](#) (or approval of Program Coordinator)

**Semester Offered**

Spring and summer semesters

**BUS282G : Capstone Research**

This course will be taught from the viewpoint of the person who conducts market research with a concentration on techniques and processes required to conduct quality research studies. Topics include questionnaire development, sampling techniques, data-collection methods, and survey errors. Application of concepts through primary data coupled with secondary data through a market research project. This course must be taken in the student's final semester.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Prerequisites**

[MKTG101G](#)

**BUS291G : Internship**

A course designed to provide comprehensive experience in application of knowledge learned in previous coursework. Students will select a site and will work as a supervised intern. This course will be among the last in a student's program.

**Credits** 3

**Theory Hours** 0

**Lab Hours** 9

**Semester Offered**

All semesters

## Chemical Engineering

**ENGR201G : Introduction to Chemical Engineering I**

Systems of units; material balances and chemical reactions; gas laws; phase phenomena.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Prerequisites**

[CHEM115G](#) with a B or higher, 30 credits taken towards degree with a minimum CGPA of 3.0

**Semester Offered**

Fall semester

**ENGR202G : Introduction to Chemical Engineering II**

Energy and material balances for systems with and without chemical reactions; design case studies.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Prerequisite Courses**

[ENGR201G](#): Introduction to Chemical Engineering I

**Semester Offered**

Spring semester

# Chemistry

## **CHEM043G : Developmental Chemistry**

This high school-level course in chemistry examines the structure of matter and the nature of chemical reactions. Particular attention will be given to the types of reactions that apply to the health field. These credits do not count toward graduation requirements.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Semester Offered**

Fall/Spring semesters

## **CHEM110G : Introduction to Chemistry**

This introductory course covers the fundamental principles of chemistry including measurements, atomic structure, periodic trends, names and formulas of compounds, chemical reactions and bonds, acids, bases and solutions: stoichiometry, gas laws, and radiation chemistry. It is designed for students who have had no instruction or limited instruction in chemistry. The course is for the student whose chemistry requirements will have been fulfilled upon completion of this course. It satisfies the needs of the health sciences and related fields as well as the needs for the student who is preparing for further study in chemistry.

**Credits** 4

**Theory Hours** 3

**Lab Hours** 3

**Corequisites**

[MATH145G/147G](#) or [MATH150G/152G](#), or sufficient Placement Scores. This course is not intended to be a prerequisite for [CHEM115G](#)

**Semester Offered**

Fall/Spring semesters

## **CHEM115G : General Chemistry I**

The objective of the chemistry course is to introduce the student to the principles of chemistry included in the first semester of a two-semester chemistry course. The course will include topics such as components of matter, stoichiometry, chemical reactions, gas and kinetic-molecular theory, thermochemistry, quantum theory and atomic structure, chemical periodicity, chemical bonding, and molecular geometry. Principles taught in lectures will be reinforced in laboratory experiments.

**Credits** 4

**Theory Hours** 3

**Lab Hours** 3

**Prerequisites**

[CHEM043G](#) or High School Chemistry (or [CHEM110G](#))

**Corequisites**

[MATH145G/147G](#) or [MATH150G/152G](#), or higher

**Semester Offered**

Fall/Spring semesters

**CHEM116G : General Chemistry II**

This general chemistry course is designed to introduce the student to the principles of chemistry included in the second semester of a two-semester chemistry course. This course will include topics such as intermolecular forces, properties of solutions, kinetics, chemical equilibrium, acid-base equilibrium, electrochemistry, and thermodynamics.

**Credits** 4

**Theory Hours** 3

**Lab Hours** 3

**Prerequisites**

[MATH150G](#)/152G or higher or permission of department chair and [CHEM115G](#) (C or better)

**Semester Offered**

Fall/Spring semesters

**CHEM200G : Organic Chemistry**

This course will provide an introduction to the properties and reactions of hydrocarbons and their oxygen and nitrogen derivatives. Special emphasis will be placed on the application in biotechnology and related fields. Laboratory experiments will reinforce class lecture where possible.

**Credits** 4

**Theory Hours** 3

**Lab Hours** 3

**Prerequisites**

[CHEM115G](#) (C or better) and [CHEM116G](#) (C or better)

**Semester Offered**

Fall semester

**CHEM205G : Biochemistry**

This comprehensive, introductory level class emphasizes cellular metabolism, and covers the structure and function of the four major classes of biological macromolecules: proteins, nucleic acids, carbohydrates, and lipids. Laboratory exercises will reinforce theoretical concepts presented in the lecture portion of the course.

**Credits** 4

**Theory Hours** 3

**Lab Hours** 3

**Prerequisites**

[BIOL108G](#), [CHEM115G](#) (C or better), and [CHEM116G](#) (C or better)

**Semester Offered**

Spring semester

# Computer Technologies

## **CIS107G : Essentials of Computer Literacy**

This course is designed for students with little or no computer skills or for those who are interested in refreshing their computer knowledge. Students will use a fully integrated, hands-on approach to understand the essential components of computer technology. Students will identify the major hardware and software components of a computer, gain proficiency in the Windows operating system environment, and learn how to manage files and folders. Students will also learn the essential elements of Office Application Software including word processing, spreadsheets, presentation software, and database applications. In addition, students explore and use the Internet for research, while evaluating electronic information, safeguarding data, and properly using email. Students will also learn the terms and skills needed in today's computer literate society.

**Credits** 4

**Theory Hours** 2

**Lab Hours** 4

### **Prerequisites**

Placement Testing

### **Notes**

Students cannot receive credit for both CIS107G and CIS110G.

## **CIS110G : Introduction to Computers**

In this foundation course to gain computer literacy, students will use a fully integrated, hands-on approach to understand the critical components of computer technology. Students will examine personal computer hardware and software components, gain proficiency in the Windows operating system environment, and learn the fundamental elements of Office Application Software including word processing, spreadsheets, presentation software, and database applications. Students will also explore various facets of the Internet including using the Internet for research, working with online learning tools, evaluating electronic information, safeguarding data, proper use of email, and other current web technologies.

**Credits** 3

**Theory Hours** 2

**Lab Hours** 2

### **Prerequisites**

Placement Testing

### **Notes**

Students cannot receive credit for both [CIS107G](#) and CIS110G.

## **CIS111G : Computer Technologies**

The purpose of this course is to provide students with the fundamental background and understanding of various critical components of computer technology. A required course for all computer majors, this foundation course provides students with a firm foundation in computer technology including hardware components, software applications, processors, memory management, secondary storage, file management, operating systems, networking essentials, ethics, and emerging technologies. Students will also explore various ethical issues surrounding the use of digital information, as well as the impact of technology on business and society.

**Credits** 3

**Theory Hours** 2

**Lab Hours** 2

### **Prerequisites**

[CIS110G](#) or [CIS107G](#), or permission of instructor

**CIS112G : Introduction to Object Oriented Programming**

This course will emphasize systems thinking as an approach to solving computer problems and understanding formal logic. Programming theory and logic will be presented with hands-on practice in model environments, while students are provided with essential problem-solving methods, techniques, and disciplines. Control flow, data manipulation, and planning methods will be emphasized. Students will develop confidence in applying programming solutions, will be exposed to pertinent terminology, and will learn the effective use of reference materials.

**Credits** 3

**Theory Hours** 2

**Lab Hours** 2

**Prerequisites**

[CIS107G](#) or higher

**CIS113G : Database Design and Management**

This course is an introduction to database analysis, planning, designing, and implementation with emphasis on the relational model. Students will study the theory behind relational databases, relational database nomenclature, and relational concepts. The course will include studying Structured Query Language (SQL) and optimizing databases through normalization. Students will apply their knowledge with hands-on exercises designed to teach the intricacies of database design methodology. A final project will conclude the course.

**Credits** 3

**Theory Hours** 2

**Lab Hours** 2

**Prerequisites**

Placement Testing or [CIS111G](#) or [CIS110G](#) or [CIS107G](#) or permission of Instructor

**Semester Offered**

Fall semester

**CIS118G : Introduction to .NET**

This course will provide students with an understanding of structured, procedural, and event-driven programming. Students will develop techniques for problem solving through the application of programming methods and will gain experience in the nuts-and-bolts of program design as they complete lab work and assignments. Students will learn to use the Visual Basic .NET language and programming environment.

**Credits** 3

**Theory Hours** 2

**Lab Hours** 2

**Prerequisite Courses**

[CIS112G](#): Introduction to Object Oriented Programming

**CIS124G : Web Development I**

In this course, students will gain knowledge of the web site development process and learn how to develop web pages using XHTML standards. Through the use of different text editors and validation programs, students will study in detail XHTML syntax and will develop well-formed and valid web pages. Students will also incorporate text, graphical, and form components into web pages and will use text formatting, tables, and CSS for page layout and site design.

**Credits** 3

**Theory Hours** 2

**Lab Hours** 2

**Prerequisites**

[CIS110G](#), [CIS111G](#), or [CIS107G](#) or permission of instructor

**CIS134G : Web Style and Design**

Students will learn the basic layout and imaging skills for attractive, informative, and entertaining Web pages. Course topics include information architecture, site design, layout, type, color, scanning, image manipulation and formats, copyrights, element integration, and compatibility issues with multiple browsers. Current software specific to Web publishing will be utilized.

**Credits** 3

**Theory Hours** 2

**Lab Hours** 2

**Prerequisites**

[DGMT115G](#), [CIS124G](#)

**CIS146G : Linux I**

The purpose of this course is to provide students with the fundamental skills needed to work in a Linux environment. A recent version of the popular public domain operating system Linux will be used as a vehicle for course delivery. Topics to be covered include the file system, file management, text editors, running and creating shell scripts, Xwindows, and basic system administration. Installing the Linux operating system and networking issues will also be discussed.

**Credits** 3

**Theory Hours** 2

**Lab Hours** 2

**Prerequisite Courses**

[CIS112G](#): Introduction to Object Oriented Programming

**CIS148G : Introduction to Java Programming**

The purpose of this course is to provide a solid foundation in the Java programming language. Program planning, object-oriented design, and Java language syntax will be emphasized. This course will prepare students for advanced study of the Java language as well as introduce students in other fields of computer study to general object programming.

**Credits** 3

**Theory Hours** 2

**Lab Hours** 2

**Prerequisite Courses**

[CIS112G](#): Introduction to Object Oriented Programming

**CIS149G : Linux Applications**

In this course, students will explore the various common business applications available to run on Linux. This includes Star Office, Open Office, Evolution, Mozilla, Gimp, and many other useful, open-source programs which are generally available free from sources on the Internet.

**Credits** 3

**Theory Hours** 2

**Lab Hours** 2



**CIS154G : Comprehensive Business Computer Applications**

The main focus of this course is on the business applications of software, including word processing, spreadsheets, databases, presentations, and business utilization of the internet and email. This course will also provide a comprehensive overview of computer terminology, hardware, and operating systems relative to the business environment. Through a project-based approach, students will learn advanced concepts and functions of business application software. To become more efficient and effective, students will solve real-world office technology problems using integrated software applications. Students will be able to manage customers and sales opportunities more effectively, create impressive sales and marketing materials in-house, manage email, and share information more efficiently using Microsoft Office and other productivity applications. This course is well-suited to those students who know the fundamentals of Microsoft Office yet need additional instruction to become thoroughly knowledgeable and experienced in its many applications. \*\*This course may be used in place of CIS156 to meet Business, Hospitality and Accounting program requirements.

**Credits** 4

**Theory Hours** 2

**Lab Hours** 4

**Prerequisites**

Placement Testing or permission of instructor

**Notes**

(Students cannot receive credit for both CIS154G and CIS156G.)

**CIS156G : Computer Applications in Business**

This course stresses project planning using technology, aiming to provide professionals the ability to meet the challenges of business. Through a project-based approach, students will learn advanced concepts and functions of business application software. To become more efficient and effective, students will successfully solve real-world office technology problems using integrated software applications. Students will be able to manage customers and sales opportunities more effectively, create impressive sales and marketing materials in-house, manage email, and share information more efficiently using Microsoft Office. This course is well suited to those students who know the basics of Microsoft Office and need to become thoroughly knowledgeable and experienced in its many applications.

**Credits** 3

**Theory Hours** 2

**Lab Hours** 2

**Prerequisites**

[CIS110G](#) or [CIS107G](#)

**CIS158G : Introduction to C++**

This course introduces students to the fundamentals of structured programming and to the procedural aspects of the C++ programming language. Students will create programs to demonstrate the topics of program control, functions, arrays, and pointers. Microsoft's Visual C++ will be used as the primary development tool; however, other environments may also be utilized. Emphasis will be placed on the creation of platform-independent applications in order to allow students to become familiar with the core features of the C++ language.

**Credits** 3

**Theory Hours** 2

**Lab Hours** 2

**Prerequisite Courses**

[CIS112G](#): Introduction to Object Oriented Programming

**CIS177G : Introduction to Python**

This course will provide a gentle, yet intense, introduction to programming using Python for highly motivated students with little or no prior experience in programming. The course will focus on planning and organizing programs, as well as the grammar of the Python programming language.

**Credits** 3

**Theory Hours** 2

**Lab Hours** 2

**Prerequisites**

[CIS110G](#) or [CIS107G](#)

**CIS210G : Data Structures and Elementary Algorithms**

This is an advanced, language-independent programming course. Students will master the skills necessary to develop and work with common programming Data Structures. Such topics as Arrays, Stacks, Queue, Linked Lists, Binary Trees, Hash Tables, Heap Concepts, and Graphs will be emphasized. The programming language used will be the students' choice of Java, VB.Net, or C#. Each student will be required to work in a team environment.

**Credits** 4

**Theory Hours** 3

**Lab Hours** 2

**Prerequisites**

[CIS118G](#), OR [CIS148G](#), OR [CIS158G](#), OR permission of the instructor

**CIS216G : Web Server Administration**

In this course students will discover how to manage web sites at the server level. Students will learn how to set up and maintain the hardware and software needed for both Internet and Intranet web sites. Emphasis will be placed on setting up a UNIX/Linux system with Apache web server; however, other platforms will be discussed throughout the course.

**Credits** 3

**Theory Hours** 2

**Lab Hours** 2

**Prerequisites**

[CIS146G](#), [CIS224G](#)

**CIS218G : Advanced .NET**

This course will expand the students' understanding of structured, procedural and event-driven programming using Visual Basic .NET. Students will learn advanced programming methods and will gain further experience in the nut-and-bolts of program design as they complete lab work and assignments.

**Credits** 3

**Theory Hours** 2

**Lab Hours** 2

**Prerequisite Courses**

[CIS118G](#): Introduction to .NET

**CIS223G : Advanced SQL**

In this course, students will learn how to use Structured Query Language to manipulate and retrieve data from relational databases. Students will use SQL to modify database structure, add user permission to databases or tables, query the database for information, and update the contents of a database. Stress will be placed on working with large database management systems like SQL Server.

**Credits** 3

**Theory Hours** 2

**Lab Hours** 2

**Prerequisite Courses**

CIS113G: Database Design and Management

**CIS224G : Web Development II**

Building upon the web development skills taught in [CIS124G](#), this course will enable students to create dynamically built web sites using JavaScript and other client-side scripting languages. Students will also gain advanced XHTML and CSS skills and will gain familiarity with programming concepts and terminology common to many web scripting languages. Please note that if students have no previous programming experience, then [CIS112G](#) is a must prior to enrolling in this course.

**Credits** 3

**Theory Hours** 2

**Lab Hours** 2

**Prerequisite Courses**

CIS112G: Introduction to Object Oriented Programming

CIS124G: Web Development I

**CIS246G : Linux II**

Building upon fundamentals previously acquired, students will further develop Linux skills and knowledge in a hands-on environment. Students will install a dual boot operating system, develop shell scripts for application management, configure various business productivity applications, discuss Linux security issues, and gain a further understanding of Linux administration with respect to using and configuring various network services.

**Credits** 3

**Theory Hours** 2

**Lab Hours** 2

**Prerequisite Courses**

CIS146G: Linux I

**CIS248G : Advanced Java Programming**

In this course, students will extend their knowledge of object-oriented programming through the use of the Java programming language. They will develop applets for use in web pages as well as stand-alone applications. Application design, planning, language syntax, and a variety of Java environments will be covered. Individual and group projects are emphasized throughout the course.

**Credits** 3

**Theory Hours** 2

**Lab Hours** 2

**Prerequisite Courses**

CIS148G: Introduction to Java Programming

**CIS249G : Linux Databases**

In this course, students will establish a firm foundation in Linux database installation, design, construction, and use. Students will install and use My SQL and Postgres SQL, two popular open-source database programs, along with a variety of useful tools to work with these databases. Students will also write basic PHP/Perl code to link these databases to websites.

**Credits** 3

**Theory Hours** 2

**Lab Hours** 2

**Prerequisite Courses**

CIS113G: Database Design and Management

CIS146G: Linux I

**CIS253G : Data Sharing**

This course will provide the student with the skills necessary to share data across the Internet. Topics will include database queries, ASP, JSP, and CGI scripting, as well as security and form design. Current trends will be examined and discussed.

**Credits** 3

**Theory Hours** 2

**Lab Hours** 2

**Prerequisite Courses**

CIS223G: Advanced SQL

CIS224G: Web Development II

**CIS254G : PHP and MySQL**

PHP is a server-side, cross-platform scripting language. It offers a server-side approach to database connectivity with an integrated environment where complex scripting code combines with plain HTML. This class enables students to create dynamic web applications with PHP and MySQL. Topics include the basics of PHP, mixing PHP and HTML, displaying dynamic content, using cookies, and database connectivity. Other topics may include: fusebox design and open-source prebuilt solutions.

**Credits** 3

**Theory Hours** 2

**Lab Hours** 2

**Prerequisite Courses**

CIS113G: Database Design and Management

CIS224G: Web Development II

**CIS258G : Advanced C++**

This advanced programming course emphasizes the C++ implementation of object-oriented designs. It expands upon the structured techniques introduced in [CIS158G](#). While concentrating on the creation of C++ object systems, students will learn advanced language topics such as function overloading, default arguments, inheritance, virtual functions, and run-time type information.

**Credits** 3

**Theory Hours** 2

**Lab Hours** 2

**Prerequisite Courses**

CIS158G: Introduction to C++

**CIS281G : Internship**

This capstone course allows a limited number of students to receive on-the-job experience at an off-site location related to their specific area of academic concentration. Students are required to work eight hours per week at positions that meet the criteria established by the Internship Manual. A seminar meeting once per week will review internship progress and discuss issues related to successful employment. The course has one hour of lecture and eight hours of work for three credits. Department Elective.

**Credits** 3

**Theory Hours** 1

**Lab Hours** 8

**Prerequisites**

completion of coursework for the first three semesters of the student's program of study and approval of the Department Chair and/or Program Advisor

**CIS291G : Advanced Topics**

The purpose of this experience is to provide qualified students with the opportunity to pursue academic work outside the formal classroom setting. Independent Project is an ideal way for a student to specialize in a concentrated area within the Computer Technologies Department. In order to be eligible for this challenging opportunity, students must seek the approval of the Department Chair and work with a faculty advisor to set up a course of study. Students must submit an original project plan prior to acceptance.

**Credits** 3

**Theory Hours** 2

**Lab Hours** 2

**CIS292G : Portfolio Preparation and Presentation**

As a required capstone course, this course is an opportunity for students to demonstrate they have achieved the required goals and objectives for the CT/DGMT Programs. The course is designed to assist students with final portfolio preparation.

**Credits** 1

**Theory Hours** 1

**Lab Hours** 0

**Prerequisites**

Approval of the Department Chair and/or Program Advisor upon completion of coursework entering final semester

## Criminal Justice

**CRMJ101G : Intro to Criminal Justice**

This course covers the components of the justice system in American society. Although civil law will be discussed, the emphasis will be on the criminal justice system. The influence and pressures of changing social, political, technological, and economic factors on the agencies of justice will be studied. Much of the focus will compare ideals with realities of the system. Law enforcement, the courts, and correctional aspects will be examined.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Semester Offered**

Fall semester

**CRMJ121G : Criminal Procedure**

This course analyzes the constitutional issues in the United States which have direct bearing on the role and policies of criminal justice agencies. Application of these issues as they relate to investigation, arrest, pretrial and appeal will be emphasized.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Semester Offered**

Fall semester

**CRMJ123G : Criminal Law**

This course provides an in-depth review of substantive criminal law in the federal and state systems including analysis of the essential elements of all major crimes, the concepts of constitutional review and judicial scrutiny and the principles governing legal challenges to the constitutionality of laws.

**Credits** 4

**Theory Hours** 4

**Lab Hours** 0

**Semester Offered**

Spring semester

**CRMJ150G : Criminology**

Students will learn the definition and nature of crime, criminal statistics, and a survey of the theories of crime causation. Emphasis is placed on crime patterns and typologies.

**Credits** 4

**Theory Hours** 4

**Lab Hours** 0

**Semester Offered**

Fall semester

**CRMJ205G : Police Operations**

This course covers the principles of police organization and administration, and community policing, as well as the selection, training, promotion and socialization of officers. It also examines issues involving the influence of research, police deviance, minorities, the use of force, and the general hazards of police work.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Semester Offered**

Fall semester

**CRMJ206G : Victim Rights & Advocacy**

This course is designed to introduce students to the rights of crime victims and their advocacy in the criminal justice system. The course examines police, courts, advocates, and the media and their relationships with the crime victim. The course will examine the role of victims in the criminal justice process, understand the complexities of victim-offender relationships and understand how we respond to victims. Specific categories of crime victims are studied, including sexual assault victims, domestic violence, stalking victims, hate crime victims, workplace and school violence victims, and child and elderly victims.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Semester Offered**

Spring semester

**CRMJ210G : Juvenile Justice**

An examination of causative factors in the development of youthful offenders and the development and philosophy behind treatment and rehabilitative practices are covered. The course also covers legal, procedural, and substantive issues pertaining to the juvenile justice system.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Semester Offered**

Spring semester

**CRMJ215G : Corrections Operations**

This course is a study of correctional processes and services, standards, personnel and principles of management, allocation of resources, training and staffing, the role of sentencing and work release programs, special programs, and the use of outside contracts.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Semester Offered**

Fall semester

**CRMJ225G : Drug Abuse and the Law**

In the first part of this course, the historical use of the major drug groups (including alcohol) will be reviewed. In the second part, the reaction of the criminal justice system to illegal involvement with drugs and alcohol and methods of treating substance abusers will be reviewed.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Semester Offered**

Spring semester

**CRMJ230G : Justice and the Community**

This course deals with the interaction of the various components of the justice system with the community. It involves an analysis of how the work of police departments, courts, correctional institutions, and community corrections agencies appear to the public. The image of the justice system in the media is examined; specific attention is paid to the issues of the young, minorities, and community organizations.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Semester Offered**

Spring semester

**CRMJ250G : Criminal Investigations**

Meeting the needs of criminal investigations is one of the largest priorities for law enforcement agencies throughout the world. This course prepares graduates for investigations into multiple violations of law and procedures in many applications. The strong foundation provided by this course enables students to develop skills in the areas of incident investigation and case development for future prosecutorial needs of law enforcement and other enforcement entities.

**Credits** 4

**Theory Hours** 4

**Lab Hours** 0

**Prerequisites**

Admission to the Criminal Justice or Homeland Security programs or permission from the program chairperson

**CRMJ270G : Criminal Justice Internship**

This course prepares students entering the field of criminal justice by applying theoretical knowledge to practical experience. Students will complete a minimum of 120 hours at an agency provided by the internship coordinator and assist in activities deemed appropriate by the agency. The agency will also evaluate the student. Students are required to maintain an internship log and prepare an extensive paper which relates previous criminal justice coursework to the internship experience. Approval from the Department Chair is required prior to registration.

**Credits** 3

**Theory Hours** 0

**Lab Hours** 9

**Semester Offered**

Fall/Spring semesters

**CRMJ275G : Senior Project**

This course presents an opportunity for students to focus on a specific issue or topic in Criminal Justice, with a primary emphasis on completing a major independent research project and topic paper analyzing an agency or significant concept/issue in Criminal Justice. Students **MUST** see their Program Coordinator to discuss their goals for the course and to register for this class.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Semester Offered**

Fall/Spring semesters



# Critical Thinking

## **CRIT150G : Critical Thinking in the Humanities**

This is a reading, writing, and speaking course that applies critical thinking skills to an interdisciplinary theme, aesthetic frame, complex issue, or other broad area of investigation within the Humanities. Students will develop a sophisticated understanding of how facts, assumptions, implications, inferences, opinions, and bias work, and then make careful observations, and draw thoughtful conclusions about the texts that they work with.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Semester Offered**

All semesters

**Notes**

(Fulfills Humanities requirement.)

# Data Science

## **DATA210G : Elements of Data Science**

This course is the foundation for introducing students to key topics in data science, including data acquisition/preparation and exploratory data analysis. Major topics include an introduction to the R programming language and RStudio integrated development environment, working with modern data formats (e.g. XML, CSV, JSON, XLS, XHTML), data import/export (e.g. files, APIs – application programming interfaces – , web sites, databases), finding data to augment analyses, and exploratory data analysis & visualization.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Prerequisites**

[MATH145G](#)/147G or [MATH150G](#)/152G or higher. Some prior programming experience is helpful but not required

**Semester Offered**

Fall/Spring semesters

## **DATA220G : Data Analysis with R**

This course is an applied statistics course that introduces students to key topics in data science, including exploration, statistical data analysis and communicating the results of data analyses. Major topics include advanced R programming language concepts, working as a standalone data analyst and within a team, organizing analysis projects, modeling with univariate, bivariate and multivariate data and basic clustering, classification and time series analysis and forecasting.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Prerequisites**

C or better in [DATA210G](#) (or by department approval) and [MATH235G](#) (may be co-requisite)

**Semester Offered**

Spring semester

**DATA225G : Analytics Capstone**

This course serves as a final project for students who are seeking either the Certificate in Practical Data Science or the Associate Degree in Analytics. Students will need to combine knowledge gained in Statistics, including descriptive statistics, regression and analysis of variance, as well as advanced R programming language concepts and data extraction techniques to research a topic, perform data analysis and create a reproducible report.

**Credits** 2

**Theory Hours** 2

**Lab Hours** 0

**Prerequisites**

Successful completion of [DATA220G](#) and [MATH235G](#) with a C or better or by dept/program advisor approval

**Semester Offered**

Spring semester

## Digital Media Technology

**DGMT115G : Introduction to Graphic Design**

This design course will explore design and layout considerations for various production media. Students will study principles of design including color theory, line, texture, pattern, balance, space and movement. Students will be introduced to computer graphics creation using industry standard software packages. Students will also experience hands on drawing and design lessons to develop their own sense of design, learn how to use paths, manipulate basic shapes and text, apply color and gradients, implement styles, work in multiple layers, trace, and scale. Students will be able to use these design applications for future study in Web Design and Multimedia Production.

**Credits** 3

**Theory Hours** 2

**Lab Hours** 2

**Prerequisites**

[CIS110G](#) or [CIS107G](#)

**Co-Requisite Courses**

CIS111G: Computer Technologies

**Semester Offered**

Fall/Spring semesters

**DGMT120G : Intro to Digital Photography**

This course serves as an introduction to digital photographic processes, in which technical aspects of cameras and equipment are reviewed. Basic photographic principles such as using aperture and shutter speed to control exposure, metering, depth of field, lenses, and flashes are explained, through which students can gain an understanding of compositional techniques used to create professional-quality exposed photographs. This course also focuses on the history of photography and reviews techniques utilized by photographic masters. The student must supply his/her own digital SLR camera.

**Credits** 3

**Theory Hours** 2

**Lab Hours** 2

**Prerequisite Courses**

DGMT115G: Introduction to Graphic Design

**Semester Offered**

Spring semester

**DGMT125G : Introduction to Animation**

Learn how to apply the principles of animation and gain a full understanding of the animation process from conception to completion. Topics to be covered include storyboarding, creating production artwork, setting key frames, tweening and interpolation, creating and animating characters, materials manipulation and lighting. Hands-on experience using 2D and 3D animation tools and software application programs is a core component of this course. Students will gain a working knowledge of 2D and 3D Animation applications that will be expanded upon in DGMT264G.

**Credits** 3

**Theory Hours** 2

**Lab Hours** 2

**Prerequisite Courses**

DGMT115G: Introduction to Graphic Design

**Semester Offered**

Fall semester

**DGMT135G : Introduction to Photoshop**

Adobe PhotoShop brings the art and science of photo manipulation to the Web and other computer applications. An overview of the PhotoShop environment, color processes and channels, image modes, scanning, compositing, adjustment layers, masks, type manipulation, filters, actions, file formats, and web/multimedia considerations are among the many topics covered in this course.

**Credits** 3

**Theory Hours** 2

**Lab Hours** 2

**Prerequisite Courses**

CIS111G: Computer Technologies

**Semester Offered**

Fall/Spring semester

**DGMT142G : Publication Design**

This hands-on course introduces students to the basic hardware and software components of publication design as well as the skills needed to produce attractive and effective printed materials. Students will learn to produce page layouts while fulfilling service-learning objectives, creating business cards, brochures, display ads, newsletters, menus, logos and announcements, for community partners.

**Credits** 4

**Theory Hours** 2

**Lab Hours** 4

**Prerequisite Courses**

DGMT115G: Introduction to Graphic Design

**Semester Offered**

Spring semester

**Notes**

This is a Service-Learning Course (SL).

**DGMT165G : Introduction to Video Production**

This course introduces students to the fundamentals of video production. Through individual video projects and course work, students will learn technical and aesthetic basics for creating videos. This includes introductions to shooting, editing, lighting and sound and the associated equipment required for these individual disciplines.

**Credits** 3

**Theory Hours** 2

**Lab Hours** 2

**Prerequisites**

[CIS110G](#) or [CIS107G](#)

**Semester Offered**

Fall semester

**DGMT175G : Adobe Illustrator**

In this course, students will establish a firm foundation in Illustrator by mastering the primary tools and techniques necessary to create complex and attractive illustrations and text effects. Students will learn to use Illustrator's foundational tools and techniques such as paths, fills, strokes, pathfinder, drawing, painting, gradient mesh, filters, and masks to create artwork and illustrations that could be used for integration with multimedia, for vector animation, or on the World Wide Web.

**Credits** 3

**Theory Hours** 2

**Lab Hours** 2

**Prerequisite Courses**

DGMT115G: Introduction to Graphic Design

**Semester Offered**

Fall semester

**DGMT205G : Advanced Photoshop**

This course will expand student's knowledge of Photoshop through the exploration of more advanced tools and techniques for both print and the web. In-depth work on photo editing, masks, gradient masks and channels, color correction, image blending, digital images, clipping paths, filters and plug-ins, and the creation of 3 dimensional effects through the digital manipulation of lighting and shadow, will be covered. Students will be encouraged to take their own creative ideas from sketch pad to completion. Many professional tips and tricks from publications written by industry experts will be covered.

**Credits** 3

**Theory Hours** 2

**Lab Hours** 2

**Prerequisite Courses**

DGMT135G: Introduction to Photoshop

**Semester Offered**

Fall semester

**DGMT215G : Advanced Graphic Design**

This digital graphic design course provides the student with challenging design problem solving experiences that can be applied to print and digital media. This project-based course will utilize industry standard Adobe software, utilized as individual applications and in combination to produce a finished product. The student will be responsible for the development of an original idea from the thumbnail sketch to a digital comp, and to understand the impact of the visual message. The student will become fluent in graphic design vocabulary, experience collaborative work and develop visual literacy. Upon completion of this course the student will assemble a portfolio that expresses a personal voice, as well as help prepare them for an internship.

**Credits** 3

**Theory Hours** 2

**Lab Hours** 2

**Prerequisites**

[DGMT115G](#), [DGMT135G](#), and [DGMT175G](#)

**Semester Offered**

Spring semester

**DGMT225G : Introduction to Print Technology**

This course is an examination of different print mediums, the benefits of various technologies, and general application requirements for successful output. This course will rely on classroom discussion with emphasis placed on real-life examples of cost-effective decisions, requiring the student to remain current on industry news and trends. Utilizing Adobe InDesign, students will prepare files for print and perform preflight steps.

**Credits** 3

**Theory Hours** 2

**Lab Hours** 2

**Prerequisites**

[DGMT115G](#), [DGMT135G](#), and [DGMT175G](#)

**Semester Offered**

Spring semester

**DGMT264G : Expressive Web Animation**

This course will teach students to design scalable, key framed based animations for the web as well as games. Students will learn to use industry standard applications to provide responsive design solutions for mobile platforms and desktop browsers.

**Credits** 3

**Theory Hours** 2

**Lab Hours** 2

**Prerequisite Courses**

DGMT125G: Introduction to Animation

CIS112G: Introduction to Object Oriented Programming

CIS124G: Web Development I

**Semester Offered**

Spring semester

**DGMT265G : 3D Design and Animation**

Students will learn the fundamental principles that form the basis of effective 3D development. Topics will include scene and character development and animation, use of color and lighting, inverse kinematics and modeling using primitive shapes, NURBS and polygons. Hands-on experience using 3D animation tools and software application programs is a core component of this course.

**Credits** 3

**Theory Hours** 2

**Lab Hours** 2

**Prerequisite Courses**

DGMT125G: Introduction to Animation

**Semester Offered**

Spring semester

## Early Childhood Education

**ECE100G : Early Childhood Growth and Development**

This course examines the developmental patterns for children from conception through middle childhood. Students will recognize the influences of family, culture, environment, and biology on development and understand major theories of child development. The use of informal and formal documentation tools are incorporated into the required child observations.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Semester Offered**

Fall/Spring semesters

**ECE109G : Creativity in Early Childhood Curriculum**

This course will examine the inclusion of creativity as a tool for teaching in academic disciplines and supporting development through planned experiences, prepared environments, and interactions. Through the lens of diverse developmental, cultural, and linguistic backgrounds, students will have opportunities to plan, observe, or develop experiences using creativity as a tool for enhancing exploration and learning.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Semester Offered**

Fall semester

**ECE112G : Curriculum Planning and Environments in ECE**

The emphasis of the course is planning, preparing, and implementing developmentally, culturally and linguistically appropriate activities and environments for preschool aged children. Students will use observation and assessment techniques to determine individual child goals for development. They will participate in and observe the design of an engaging environment, the use of materials, and healthy interpersonal relationships and how they impact play, learning and discovery. Students will apply intentional, evidence-based strategies to plan experiences and implement activities. Evaluation of the learning environment including sensitivity to cultural diversity will be conducted. Students will complete 30 hours of observation and assist in a preschool setting as part of a lab requirement for this course.

**Credits** 4

**Theory Hours** 3

**Lab Hours** 3

**Prerequisites**

[ECE100G](#) or equivalent with a C or higher, place into [ENGL110G](#) or [ENGL111G](#) unless waived by Program Coordinator or Course Instructor.

**Semester Offered**

Fall/Spring semesters

**ECE116G : Child Health, Safety, and Nutrition**

This course addresses the needs and best practice in health, safety, and nutrition for young children. These concepts will enable the individual to implement preventive health and safety practices based on NH Child Care Licensing Regulations and national standards. Students will be able to develop menus for meals and snacks which are nutritious, appealing and age appropriate. Recognition and treatment of child abuse victims, emergency preparedness, infectious disease prevention and control, administering medication, and safe environments including safe sleep will be addressed. It should be noted that CPR and First Aid are NOT part of the course. This course is offered as a Hyflex and 100% online formats.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Semester Offered**

Fall/Spring semesters

**ECE200G : Math and Science Development in Childhood Education**

This course will provide students with the theoretical and developmental knowledge necessary to effectively teach the basic concepts of math and science to young children. Students will develop their skills in preparing developmentally appropriate activities that promote inquisitiveness, problem solving, and exploration. The interrelationship between math and science and other areas of the curriculum will be explored. Students will need access to young children to complete course requirements.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Prerequisites**

[ECE100G](#), [ECE112G](#), and 3 additional ECE credits or permission of the instructor or Program Coordinator.

**Semester Offered**

Spring semester

**ECE202G : Senior Practicum: Student Teaching**

This Practicum is the first of two senior Practicum experiences where students assume teacher responsibilities in an Early Childhood setting (i.e., infant/toddler; preschool; Head Start, Special Education, kindergarten or school-age program) under guided supervision with a qualified mentoring teacher. Students will practice intentional teaching in their work with young children by planning and implementing activities and preparing an environment for their classroom. Students will complete 90 Practicum hours at a college approved Early Childhood program and may not be able to complete hours at their worksite.

**Credits** 3

**Theory Hours** 1

**Lab Hours** 6

**Prerequisites**

[ECE100G](#), 112G ([ECE112G](#) requires a C+ or better to enroll in [ECE202G](#)); Child Care Personnel Health Form on record with no apparent health problems that would prohibit caring for children; Successful background check if required by NH Child Care Licensing Bureau; reliable transportation to practicum site; cumulative GPA of 2.5 or better in ECE coursework and 2.0 overall GPA and permission of the Program Coordinator

**Semester Offered**

All semesters

**ECE203G : Language Arts in Early Childhood Education**

In this course, the development of language and literacy, components of a language-rich environment, language arts curriculum, and approaches to reading and writing instruction will be explored. This course is designed to provide an overview of developmentally and interest-appropriate literature and language art curriculum for young children. It will afford an opportunity to explore the various genres, recognize the value of literature to children's development, become familiar with exemplary authors and illustrators of children's literature, and learn ways to extend and enhance literature for young children.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Prerequisites**

[ECE100G](#), 9 credits in ECE or permission of Program Coordinator.

**Semester Offered**

Fall semester

**ECE204G : Developmentally Appropriate Curriculum for Infants and Toddlers**

This course provides an in-depth study of the normal growth and development of the child from birth through toddlerhood. Emphasis is placed on the interrelationship of emotional, social, cognitive, physical, and language development patterns of infants and toddlers. The student will learn to plan a developmentally appropriate curriculum based upon standards of NAEYC and New Hampshire Bureau of Child Care Licensing. The sequential and effective use of play materials will be presented as essential to an infant and toddler curriculum. Students will be required to volunteer and observe eight hours in an infant and toddler program.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Prerequisites**

[ECE100G](#) or permission of the instructor or Program Coordinator.

**Semester Offered**

Spring semester



**ECE206G : Supporting the Special Needs Child**

The course will focus on the unique characteristics and needs of young children with communication disorders, sensory impairments, physical and health-related disabilities, child abuse, and giftedness, as well as those living under stress. Screening, assessment, early intervention, individualized education plans, inclusive education, community resources, and family issues will be discussed.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Prerequisite Courses**

[ECE100G](#): Early Childhood Growth and Development

**Semester Offered**

Spring semester

**ECE210G : Child, Family, and Community Relationships**

Young children are best understood and supported through the context of families, culture, community, and society. This course will explore ways to establish relationships with children, families, and colleagues while recognizing strengths and challenges through the lens of culture, family structure, language, racial identity, gender, abilities and disabilities, religious beliefs, and economic class. Students will identify ways to establish collaborative relationships and consider their own implicit and explicit biases that may be contributing to interactions. Professional advocacy and ethics, and their role in working with children and families will be examined.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Prerequisites**

[ECE100G](#) and 3 additional ECE credits.

**Semester Offered**

Spring semester

**ECE212G : Senior Practicum: Professional Development**

This Practicum is the second of two Senior Practicum experiences where students assume teacher responsibilities in a different Early Childhood setting (i.e., infant/toddler; preschool; Head Start, Special Education, kindergarten, or school-age program) than [ECE202](#), under guided supervision with a qualified mentoring teacher. Students will practice intentional teaching in their work with young children by planning and implementing activities and preparing an environment for their classroom. Students will complete 90 Practicum hours at a college approved Early Childhood program and may not be able to complete hours at their worksite.

**Credits** 3

**Theory Hours** 1

**Lab Hours** 6

**Prerequisite Courses**

[ECE100G](#): Early Childhood Growth and Development

[ECE112G](#): Curriculum Planning and Environments in ECE

[ECE202G](#): Senior Practicum: Student Teaching

**Prerequisites**

[ECE100G](#), [ECE112G](#), and [ECE202G](#); Child Care Personnel Health Form on record with no apparent health problem that would prohibit caring for children; Successful background check if required by NH Child Care Licensing Bureau; reliable transportation to practicum site; cumulative GPA of 2.5 or better in ECE coursework and 2.0 overall GPA and permission of the Program Coordinator.

**Semester Offered**

All semesters

**ECE214G : Theories and Strategies for Teaching Positive Child Guidance**

The emphasis of the course is on positive child guidance and its role in the healthy social and emotional development of children. Factors that can influence children's healthy social and emotional development will be explored. Several theories on positive child guidance will be examined; however, the Pyramid Model Framework will be the foundation for this course. We will delve into developmentally appropriate methods and practices to positively guide children's behavior. An emphasis will be placed on how to prevent challenging behaviors by effectively individualizing supports and implement evidenced-based strategies. Students will have the opportunity to develop a behavioral support plan to be used when more intensive intervention is required.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Prerequisites**

[ECE100G](#) or permission of the instructor or the Program Coordinator.

**Semester Offered**

Fall semester

**ECE250G : Childcare Administration and Management**

This course is designed to provide students with information on administering an early childhood education program. Students will explore diverse programs available to the community and examine state and federal licensing regulations along with national accreditation standards. Students will critically analyze the degree to which financial issues of marketing, accounting, and funding affect the management of the center. In addition, students will identify components of a healthy organization that manages people and resources in a positive, supportive manner.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Prerequisites**

12 credits in ECE or permission of Program Coordinator.

**Semester Offered**

Fall semester

## Earth Science

**ESCI110G : Earth Science**

This course is a lab science that covers the fundamental processes of earth for students who have little science background. Topics include the study of Geology, Meteorology, and Astronomy.

**Credits** 4

**Theory Hours** 3

**Lab Hours** 3

**Semester Offered**

Spring semester

# Economics

## **ECON225G : Personal Finance**

This course is designed to provide the student with an effective learning experience in personal finance. Emphasis is placed on helping students make sound financial decisions in the areas of budgeting, insurance, taxes, credit investments, real estate, and retirement planning.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Semester Offered**

All semesters

**Notes**

(Fulfills Social Science requirement).

## **ECON234G : Macroeconomics**

This course analyzes the determinants of aggregate economic activity and the effects of government policies intended to achieve full employment, price stability, and economic growth. The course examines consumer and business spending, government expenditures and tax policies, and the impact of the international sector on the US economy. Topics include inflation, unemployment, interest rates, fiscal policy and the public debt, monetary policy, international trade, and finance.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Semester Offered**

All semesters

**Notes**

(Fulfills Social Science requirement.)

## **ECON235G : Microeconomics**

This course equips the student with an understanding of fundamental economic principles and tools. It presents economic analysis with respect to demand and supply, consumer utility theory, elasticity, costs of production, perfect competition and imperfect competition, and resource markets.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Prerequisite Courses**

ECON234G: Macroeconomics

**Semester Offered**

All semesters

**Notes**

(Fulfills Social Science requirement.)

**ECON237G : Entrepreneurship-Launching Your Business**

Entrepreneurship - Launching Your Business is designed for degree candidates and non-matriculating students who have always wanted to launch a business but are not sure where to begin. This highly experiential course will take students through the components that are required in a business plan to receive funding from sources such as angel investment, commercial funding and social media platforms. The final deliverable will be a business plan that the student has created, and is ready to launch, and which will be reviewed by a panel of experts.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Prerequisites**

Successful completion of [CIS110G](#) or [CIS107G](#) or placement into [CIS156G](#) or higher, and permission of instructor or Department of Business Administration and Information Technologies chair

**Notes**

(Fulfills Social Science requirement).

## Education Preparation

**EDUP101G : Introduction to Exceptionalities**

This course will provide students with an overview of the special education process in today's public schools. The special education process involves working effectively with school personnel and parents, and acquiring a general knowledge of various disabilities and needs of students. A comprehensive examination of inclusion and its effects on the classroom environment will be covered. This course will provide teachers and paraprofessionals with the basic knowledge to begin to successfully meet the needs of a variety of students in the classroom. This course requires 25 hours of field observation in a K-12 educational setting. This course will also provide a foundation for further courses in the area of special education. \*Students will be required to complete a total of 50 hours of field observation/experience prior to graduation.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Semester Offered**

Fall/Summer semesters

**EDUP104G : Foundations of Education**

This course will provide students with an overview of education in the United States and an overview of the many dimensions of the teaching profession. There are many factors that influence the teaching profession, from the students in the classroom to the political climate. This course will engage students in the examination of these influences and their effects on education in the K-12 setting. Students will be encouraged to reflect on the art of teaching. This course requires 25 hours of observations in a classroom setting. \*Students will be required to complete a total of 50 hours of field observation prior to graduation.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Semester Offered**

Fall/Spring

**EDUP201G : The Teaching & Learning Process**

This course will provide students with an overview of the teaching and learning process. The teaching process is multidimensional. Each component of the process is essential to the success of the learners. Students must develop an understanding of this process and the factors that lead to the success of the K-12 student. Students will be engaged in the material throughout the course as work will be designed for classroom implementation.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Prerequisite Courses**

EDUP104G: Foundations of Education

**Semester Offered**

Spring semester

**EDUP215G : Behavioral Challenges in the Classroom**

This course will provide students with an overview of behaviors that can hinder the educational process. It is essential that educators plan for behavior issues in the classrooms. An overview of the behavior issues related to a variety of disabilities will be provided. The course will provide students with a broad theoretical foundation of behavioral management strategies that can be used to support children with emotional, behavioral, and social challenges. An emphasis on observation skills, record keeping, and parental support will be provided.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Prerequisites**

EDUP101G or EDUP104G or ECE100G or permission of instructor or Program Coordinator

**Semester Offered**

Fall semester

## English

**ENGL095G : Developing College Writing**

This course places the development of composition skills in the context of the reading and writing process. Students will examine a variety of texts for idea development and analysis of the organizational patterns that underlie personal and academic writing. (This course may not be applied to meet certificate or degree requirements.)

**Credits** 5

**Theory Hours** 5

**Lab Hours** 0

**Prerequisites**

Placement Testing

**Semester Offered**

Fall/Spring semesters

**ENGL097G : Developing College Reading Skills**

This competency-based course is designed for developmental readers, that is, for those who are not remedial but who are not reading at a level at which most college textbooks are written. The course emphasizes comprehending main ideas, details, and inferences; developing vocabulary; and understanding the logical relationships among the parts of a paragraph.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Semester Offered**

All semesters

**ENGL099G : Developmental College Writing II**

This course places the development of composition skills in the context of the reading and writing process. Students will examine a variety of texts for idea development and analysis of the organizational patterns that underlie personal and academic writing.

**Credits** 4

**Theory Hours** 4

**Lab Hours** 0

**Prerequisites**

placement testing. This course may not be applied to meet Certificate or degree requirements

**Semester Offered**

All semesters

**ENGL110G : College Composition I**

In this course students learn to write clearly and effectively for defined audiences through a variety of strategies. Emphasis is on the writing process, from drafting through pre-writing, revision and editing. This course places reading at the core of the writing curriculum by including interaction with reading selections as the vehicle for idea development, analytical and interpretive skills, and research, and to serve as writing models.

**Credits** 4

**Theory Hours** 4

**Lab Hours** 0

**Prerequisites**

Placement testing or a minimum grade of C or better in [ENGL099G](#) or [ENGL095G](#)

**Semester Offered**

All semesters

**Notes**

\*COLLEGE COMPOSITION I POLICY Students must pass the research component of ENGL110G College Composition I in order to pass the course. Students cannot receive credit for both English 110G and English 111G.

**ENGL111G : College Composition I with Lab**

In this course students learn to write clearly and effectively for defined audiences through a variety of strategies. Emphasis is on the writing process, from drafting through pre-writing, revision, and editing. This course places reading at the core of the writing curriculum by including interaction with reading selections as the vehicle for idea development, analytical and interpretive skill, and research, and to serve as writing models. The lab component will incorporate additional lessons on college reading, sentence structure, and writing essentials. A portion of lab time will also be given to one-on-one essay instruction and feedback. Students cannot receive credit for both English 110G and English 111G. \*COLLEGE COMPOSITION I POLICY Students must pass the research component of ENGL110G College Composition I in order to pass the course.

**Credits** 5

**Theory Hours** 4

**Lab Hours** 2

**Prerequisites**

Placement Testing or grade of C or better in English 095G or 099G

**ENGL114G : Introduction to Poetry**

In this course, students will examine poetry in personal, historical and sociological contexts.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Prerequisite or Corequisite**

[ENGL110G](#) or [ENGL111G](#) or equivalent

**Semester Offered**

Spring semester

**Notes**

(Fulfills English or Humanities requirement; meets 100-level course requirement for the English major.)

**ENGL115G : Introduction to Film Studies**

This class is an introduction to film—its form, aesthetics, and criticism. We will view a variety of films to see how they function as commercial, entertainment, and artistic artifacts, as well as place them within their historical and cultural contexts. We will discuss how the elements of film production reflect the visions and beliefs of various filmmakers at different times and places. In addition, students will discover how viewers' responses reflect their own visions and beliefs. By employing key concepts from the history of film production and theory, students will be able to engage in critical discussion of a film's merits. Finally, this course serves as a gateway for future film studies at the college level.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Prerequisite or Corequisite**

[ENGL110G](#) or [ENGL111G](#) or equivalent

**Semester Offered**

Fall semester

**Notes**

(Fulfills English or Humanities General Education requirement; meets 100-level course requirement for the English major).

**ENGL117G : Introduction to Literature**

An introduction to the study, appreciation, and understanding of literature. Students will read a variety of types of literature--fiction, drama, and poetry--from a variety of time periods. Emphasis will be placed on the variety of ways in which one can relate to a literary text.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Prerequisites**

[ENGL110G](#) or [ENGL111G](#) or equivalent

**Semester Offered**

Fall/Summer semesters

**Notes**

(Fulfills English or Humanities requirement.)

**ENGL120G : Introduction to African American Literature and Culture**

A survey of African American literature and culture in which students encounter a variety of texts and performances ranging from traditional types of literature including fiction, nonfiction, drama, and poetry, to standup comedy, film, music, and dance. The goal is to gain a broader understanding of the profound impact African Americans and their cultural/artistic contributions have had on American society, politics, culture, and the American soul.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Prerequisite or Corequisite**

[ENGL110G](#) or [ENGL111G](#) or equivalent

**Semester Offered**

Fall semester

**Notes**

(Fulfills English or Humanities requirement; meets 100-level course requirement for the English major.)

**ENGL127G : Introduction to Literary Analysis**

An introduction to the practice of analyzing literature. The course will provide a basic understanding of the forms of fiction, poetry, and drama, as well as a brief introduction to critical approaches. The main emphasis of the course, however, will be on developing close reading skills.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Prerequisites**

[ENGL110G](#) or [ENGL111G](#) or equivalent

**Semester Offered**

Spring semester

**Notes**

(Fulfills English or Humanities requirement.)



**ENGL201G : Film and Society**

This course will study American film as an expression of American society. Film as a reflection of social trends and changes in America will be emphasized. The influence of film on social and cultural values will be discussed. Course may be organized by genre, time period, or theme.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Prerequisites**

[ENGL110G](#) or [ENGL111G](#)

**Semester Offered**

Spring semester

**Notes**

(Fulfills English or Humanities requirement.)

**ENGL209G : American Literature through the Civil War**

This course samples American literature from its beginnings through the Civil War period, emphasizing themes that have left their mark on American consciousness and discusses how socio-economic themes relate to literature (as cause and as subject matter). Formal literary criticism is included, as well as analysis of structure.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Prerequisites**

[ENGL110G](#) or [ENGL111G](#) or equivalent

**Semester Offered**

Fall semester

**Notes**

(Fulfills English or Humanities requirement.)

**ENGL210G : Oral Communications**

In this course, students develop interpersonal and public communication skills, using informative and persuasive modes of both written and oral presentations. This course builds upon the skills developed in College Composition.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Prerequisites**

[ENGL110G](#) or [ENGL111G](#) or equivalent

**Semester Offered**

All semesters

**Notes**

(Fulfills English or Humanities requirement.)

**ENGL212G : Women's Literature**

This course features the writing of women from a variety of genres. Students examine how various works voice similar and/or differing concerns depending on each writer's race, class, nationality, gender identity, and sexual orientation. Reading selections focus on various subjects represented in women's literature from different historical periods (concentrated on the twentieth century through the present). Film selections may be included to accompany the literary texts.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Prerequisites**

[ENGL110G](#) or [ENGL111G](#)

**Semester Offered**

Fall semester

**Notes**

(Fulfills English or Humanities requirement.)

**ENGL213G : Creative Writing**

In this course, the student will learn the techniques of creative writing. These techniques will run the gamut from brainstorming exercises to revising and editing. The student will learn these techniques through a combination of lecture, in-class exercises, and workshops.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Prerequisites**

[ENGL110G](#) or [ENGL111G](#)

**Semester Offered**

Fall/Summer semesters

**Notes**

(Fulfills English or Humanities requirement.)

**ENGL214G : Introduction to Creative Nonfiction**

This course is designed to engage students in a reading and writing exploration of nonfiction. It will build on the skills developed in College Composition I to generate works written in a lively personal voice that are based on the active integration of experience and inquiry. Effective writing skills and research techniques are practiced in addition to creative approaches to scholarly writing.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Prerequisites**

[ENGL110G](#) or [ENGL111G](#) or equivalent

**Semester Offered**

All semesters

**Notes**

(Fulfills English or Humanities requirement.)

**ENGL215G : Writing Technical Documents**

This course is designed to help students develop professionalism and the ability to produce documents that can communicate technical information effectively and efficiently while fostering a critical analysis of discourse and technology. This course emphasizes the importance of rhetorical analysis, audience, document design, and visual rhetoric as well as the use of technology in designing, developing, and delivering documents. Extra attention to universal design principles will be incorporated into course projects.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Prerequisites**

[ENGL110G](#) or [ENGL111G](#) or equivalent

**Semester Offered**

Fall/Spring semesters

**Notes**

(Fulfills English requirement.)

**ENGL220G : American Literature after the Civil War**

This course samples post-Civil-War American literature, emphasizing themes that have left their mark on American consciousness, and discusses how writers explore socio-economic themes (especially the American Dream). Formal literary criticism is included as well as analysis of structure.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Prerequisites**

[ENGL110G](#) or [ENGL111G](#) or equivalent

**Semester Offered**

Fall semester

**Notes**

(Fulfills English or Humanities requirement.)

**ENGL222AG : Major Writers: American Literary Realism**

A selection of readings in American Realism and Naturalism from the late nineteenth and early twentieth centuries. Short stories and novels from authors that might include Howells, Garland, Dreiser, Crane, Norris, Wharton, Alger, James, Twain, London, and others.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Prerequisite or Corequisite**

[ENGL110G](#) or [ENGL111G](#)

**Semester Offered**

Spring semester

**Notes**

(Fulfills English or Humanities requirement.)

**ENGL222BG : Major Writers: Irish Literature**

This course will provide an introduction to Irish literature from the 19th century to present day. Reading selections will focus on the Irish Literary Revival. We will read poetry, short fiction, and plays throughout the semester, as well as critical writings and short primary historical documents. The literature will be read with reference to Irish history, culture, and politics as both inspiration and subject matter. We will also explore how the literature contributes to an Irish identity. We will examine Irish literature as a distinct national literature.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Prerequisite or Corequisite**

[ENGL110G](#) or [ENGL111G](#)

**Semester Offered**

Spring semester

**Notes**

(Fulfills English or Humanities requirement.)

**ENGL223G : British Literature to 1800**

A survey of the major works of British literature from its Anglo-Saxon origins to 1800 in their cultural, social, historical, political, and literary contexts. The course will also provide students with practice using the critical tools and vocabulary required for the study of literature.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Prerequisites**

[ENGL110G](#) or [ENGL111G](#) or equivalent

**Semester Offered**

Spring semester

**Notes**

(Fulfills English or Humanities requirement.)

**ENGL224G : British Literature from 1800 to the present**

This course is a chronological exploration of British literature of the late 18th century through the present. Students read and discuss literature from the periods literary critics have called "Romantic," "Victorian," "Modern," and "Postmodern." Topics of particular focus will be historical and social issues with which British writers have engaged, including: the rise and decline of Empire, the movement to abolish slavery, the New Woman movement, the crises of two world wars, and various civil rights struggles of the 20th and 21st centuries.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Prerequisites**

[ENGL110G](#) or [ENGL111G](#)

**Semester Offered**

Spring semester

**Notes**

(Fulfills English or Humanities requirement.)

**ENGL289G : Internship in the Humanities**

Offering students an opportunity to put what they learn in English, arts and humanities courses into practice in the world of work, this internship course will help to answer the question: “What can I do with my humanities degree”? An internship experience and related curriculum will allow our students to put into practice the skills they have developed in writing, communication, and critical thinking in their humanities courses. In addition to meeting course objectives, jointly developed specific learning outcomes will be selected and evaluated by English faculty, the worksite supervisor, and the student. Internship placements will be directly related to the student’s English or humanities program of study and provide learning experiences not available in the classroom setting.

**Credits** 3

**Theory Hours** 2

**Lab Hours** 3

**Prerequisites**

[ENGL110G](#) or [ENGL111G](#) or equivalent; completion of 12 credits at Great Bay; GPA of 2.5 or greater; permission from English Department faculty

**Semester Offered**

Spring semester

**Notes**

(Fulfills English or Humanities elective meets 200-level course requirement for the English major).

**Special topics courses listed under ENGL222G Major Writers**

This course is an–depth study and discussion of a few American and/or British writers. In studying works paired by theme, genre, or topic, students can enrich their sense of each author's distinctive methods, gain a deeper sense of the development of those writers’ careers, and examine preconceptions about what makes an author or a work “great.” Topics and approaches vary depending on the instructor. Film selections may be included to accompany the literary texts.

**Prerequisite or Corequisite**

[ENGL110G](#) or [ENGL111G](#)

**Semester Offered**

Spring semester

**Notes**

(Fulfills English or Humanities requirement.)

## First Year Seminar

**FYE101G : First Year Seminar**

The First Year Experience (FYE) course at Great Bay is dedicated to helping students affirm their career goals, clarify the professional skills aligned with their chosen career, and practice the academic skills required of the major associated with the career. By connecting aspirations to expectations, students will develop a greater sense of purpose for, and commitment to, being in college. Student retention and completion are the guiding forces behind this course. Also included in FYE are discussions on financial literacy and growth mind-set.

**Credits** 1

**Theory Hours** 1

**Lab Hours** 0

**Semester Offered**

All semesters

**FYE111G : First Year Seminar-BUS/HOSP**

The First Year Experience (FYE) course at Great Bay is dedicated to helping students affirm their career goals, clarify the professional skills aligned with their chosen career, and practice the academic skills required of the major associated with the career. By connecting aspirations to expectations, students will develop a greater sense of purpose for, and commitment to, being in college. Student retention and completion are the guiding forces behind this course. Also included in FYE are discussions on financial literacy and growth mind-set.

**Credits** 1

**Theory Hours** 1

**Lab Hours** 0

**Semester Offered**

All semesters

**FYE114G : First Year Seminar Engineering**

The First Year Experience (FYE) course at Great Bay is dedicated to helping students affirm their career goals, clarify the professional skills aligned with their chosen career, and practice the academic skills required of the major associated with the career. By connecting aspirations to expectations, students will develop a greater sense of purpose for, and commitment to, being in college. Student retention and completion are the guiding forces behind this course. Also included in FYE are discussions on financial literacy and growth mind-set.

**Credits** 1

**Theory Hours** 1

**Lab Hours** 0

**Semester Offered**

Fall/Spring semester

**FYE115G : First Year Seminar Fine Arts**

The First Year Experience (FYE) course at Great Bay is dedicated to helping students affirm their career goals, clarify the professional skills aligned with their chosen career, and practice the academic skills required of the major associated with the career. By connecting aspirations to expectations, students will develop a greater sense of purpose for, and commitment to, being in college. Student retention and completion are the guiding forces behind this course. Also included in FYE are discussions on financial literacy and growth mind-set.

**Credits** 1

**Theory Hours** 1

**Lab Hours** 0

**Semester Offered**

Fall/Spring semester

**FYE150G : Essential Skills for College Success**

The Essential Skills for College Success course at Great Bay is dedicated to helping students affirm their career goals, clarify the professional skills aligned with their chosen career, and practice the academic skills required of the major associated with the career. By connecting aspirations to expectations, students will develop a greater sense of purpose for, and commitment to, being in college. Student retention and completion are the guiding forces behind this course. Also included in FYE150G are exercises to improve learning strategies and discussions on financial literacy and growth mind-set.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Semester Offered**

All semesters

# French

## **FREN110G : French I**

A fully integrated introductory French course. The course is designed for beginning French students, with little or no prior knowledge of French. It is directed for students whose learning objectives and needs are in any of the following categories: for French language students, for business purposes as well as for travelers. The emphasis is to develop proficiency in basic communicative skills concentrating on the dynamic application of the living language taught through dialogue, phonetics, and vocabulary. A strong grammar foundation and other basic language skills are taught through actual phrases and sentences. These objectives will be achieved through the following approaches: speaking, listening, reading, writing, and cultural appreciation.

**Credits** 4

**Theory Hours** 4

**Lab Hours** 0

### **Notes**

(Fulfills Foreign Language requirement.)

## **FREN120G : French II**

A fully integrated introductory French course. This second semester course is designed for beginning French students, with one previous semester of French. It is directed for students whose learning objectives and needs are in any of the following categories: for French language students, for business purposes as well as for travelers. The emphasis is to develop proficiency in basic communicative skills concentrating on the dynamic application of the living language taught through dialogue, phonetics, and vocabulary. A strong grammar foundation and other basic language skills are taught through actual phrases and sentences. These objectives will be achieved through the following approaches: speaking, listening, reading, writing, and cultural appreciation.

**Credits** 4

**Theory Hours** 4

**Lab Hours** 0

### **Prerequisite Courses**

FREN110G: French I

### **Notes**

(Fulfills Foreign Language requirement.)

# Geography

## **GEOG110G : World Geography**

The course is an introduction to the geographic and cultural elements of the world's major regions. Demographics, origins, language, religion, geopolitics, and agricultural features of the regions will be covered. The importance of place (geography) and how it shapes the character of the neighborhood, city, country and world will be emphasized as students examine key issues from a geographic perspective.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

### **Semester Offered**

Spring/Summer semesters

### **Notes**

(Fulfills Social Science requirement.)

# History

## **HIST120G : Western Civilization through 1500**

The course surveys the development of civilization in the western world from the beginning of Mesopotamian culture through the Protestant reformation of the 16th century. Social, political, economic, and spiritual forces and patterns that shaped the eras of western history will be discussed. History as the record of human struggle and achievement, change and continuity will be emphasized.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Semester Offered**

All semesters

**Notes**

(Fulfills Social Science or Humanities requirement.)

## **HIST130G : Western Civilization-1500 to the Present**

The course surveys the development of civilization in the western world from the 16th century to the present. Social, political, economic, and spiritual forces and patterns that shaped the eras of western history will be discussed. History as the record of human struggle and achievement, change and continuity will be emphasized.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Semester Offered**

All semesters

**Notes**

(Fulfills Social Science or Humanities requirement.)

## **HIST201G : History of New England**

This course is a regional history of New England and New Hampshire, covering pre-contact Native American culture, the separatists and Puritan migrations, role of New England in the American Revolution, and the process of early industrialization. Various aspects of New England social life and cultural contribution will be examined, as well as the urbanization and diversification of New England and New Hampshire in the 20th century.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Semester Offered**

Fall semester

**Notes**

(Fulfills Social Science requirement.)



**HIST202G : United States History through 1870**

The political, social, and cultural development of the United States from settlement to 1870 is studied. Emphasis will be on the development of nationalism, political institutions, sectional rivalry, and slavery, and on the cultural development of the American people. The course will conclude with the period of Reconstruction.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Semester Offered**

All semesters

**Notes**

(Fulfills Social Science requirement.)

**HIST204G : United States History - 1870 to the Present**

The political, social, and cultural development of the United States from the period following Reconstruction to the present is covered. Emphasis will be on the urban industrial age, America as a world power, and the challenges to, and advances of, human rights and cultural pluralism.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Semester Offered**

All semesters

**Notes**

(Fulfills Social Science requirement.)

**HIST210G : History of China**

This course is a survey of the history of China from the Opium Wars to the present. It explores the political, economic, social, and intellectual upheavals which constitute recurrent elements in Chinese history.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Semester Offered**

Fall or Spring semester

**Notes**

(Fulfills Social Science requirement.)

**HIST211G : Modern Middle East History**

This course is a survey of the main political, economic, religious, and social currents in the region of the world known as the Middle East. The emphasis will be on events since World War II. Topics will include colonialism, the rise of nationalism, the creation of modern nation-states, and the role of the state in an Islamic society. The relationship of the Middle East to the rest of the world, the United States in particular, will be discussed. The geographic and historical roots of many current issues will be emphasized.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Semester Offered**

Fall or Spring semester

**Notes**

(Fulfills Social Science requirement.)

**HIST212G : U.S. History Since 1945**

This course examines the 20th Century, reviewing major events from different perspectives. The goals of the course include: a fundamental understanding of major events that shaped the century, a sense of the sources of contemporary problems, exposure to artistic and cultural developments and their historical context, the development of a chronological sense of the century, and an extension of the world view beyond ethnocentric limitations.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Notes**

(Fulfills Social Science requirement.)

**HIST281G : History Internship**

This course will provide students with the opportunity to experience real world application of Social Science theory. Students will complete a minimum of 135 hours of fieldwork that builds upon previously learned concepts in the Social Sciences. Students need Department Chair approval to register for this course.

**Credits** 3

**Theory Hours** 0

**Lab Hours** 9

**Prerequisites**

Permission of Department Chair

## Homeland Security

**HSEM110G : Introduction to Homeland Security**

This course will encompass the study of and relationship between those entities and institutions necessary for the protection of the United States. Course instructional material will examine the components of Federal, State, and Local Police Agencies, as well as the role of Private Security and Emergency Responders needed to facilitate the implementation of the Homeland Security Act.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Semester Offered**

Fall/Spring semesters

**HSEM111G : Intro to Emergency Management**

This course introduces students to the emergency management field. This course will discuss the history of emergency management. Students will learn about the four phases of emergency management (mitigation, preparedness, response, and recovery). The course concludes with a discussion on the future of emergency management.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Semester Offered**

Fall/Spring semesters

**HSEM112G : National Incident Mgt. Systems**

This course examines the comprehensive approach guiding the whole community - all levels of government (federal, state, county, and town), nongovernmental organizations (NGOs), and the private sector - to work together seamlessly to prevent, protect against, mitigate, respond to, and recover from the effects of emergency incidents. The course provides students with an understanding of National Incident Management Systems (NIMS) concepts, principles, and components.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Semester Offered**

Spring semester

**HSEM115G : Crisis Planning, Operations, and Management**

Concepts, issues, and problems of crisis and emergency management are introduced. The development of crisis and contingency plans and systems, such as the National Response Plan and the National Incident Management System, are described. Topics include organizing for response, managing the response organization, managing in a turbulent high-stress environment, crisis decision making, and crisis communication.

**Credits** 4

**Theory Hours** 4

**Lab Hours** 0

**Semester Offered**

Spring semester

**HSEM120G : Terrorism & Political Extremism**

This course provides an interdisciplinary approach to studying political violence and terrorism. It explores the nature of terrorism, the motivations of terrorists, and the tactics that terrorists use. It surveys domestic and international terrorist groups and several leading past and current radical groups. The course's final weeks will assess different methods of countering terrorism, ranging from law enforcement to covert action.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Semester Offered**

Fall semester

**HSEM211G : Critical Infrastructure Protection**

This class provides students with the ability to identify and analyze critical infrastructure systems, including security and threat assessments. Includes mitigation of threats as well as evaluation and revision of security measures to protect critical infrastructures. Topics include the history and evolution of critical infrastructure protection. This class will examine public-private partnerships and sector-specific plans.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Semester Offered**

Fall semester

**HSEM212G : Tech in Homeland Security & Emergency Management**

This course will provide homeland security and emergency management students with a fundamental understanding of current and emergent technologies within the homeland security and emergency management field. Students will become familiar with the application of technologies to help prevent, mitigate, respond to, and recover from threats and hazards impacting national security.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Semester Offered**

Spring semester

**HSEM270G : Homeland Security & Emergency Management Internship**

This course prepares students to enter the homeland security and emergency management field by applying theoretical knowledge to practical experience. Students will complete a minimum of 120 hours at an agency provided by the internship coordinator and assist in activities deemed appropriate by the agency. The agency will also evaluate the student. Students must maintain an internship log and prepare an extensive paper that relates previous homeland security & emergency management coursework to the internship experience.

**Credits** 3

**Theory Hours** 0

**Lab Hours** 9

**Prerequisites**

Permission of Department Chair.

**Semester Offered**

All semesters

**HSEM275G : Homeland Security & Emergency Management Senior Project**

This course presents an opportunity for students to focus on a specific issue or topic in homeland security and emergency management with a primary emphasis on completion of a major independent research project and topic paper analyzing an agency or significant concept/issue in homeland security and emergency management.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Prerequisites**

Permission of Department Chair.

**Semester Offered**

All semesters

# Hospitality Management

## **HOS110G : Introduction to Hospitality Management**

This course will introduce students to the specialty area of business called hospitality management. Students will learn about basic operations, industry challenges, and current trends in tourism, recreation, restaurants, food service, lodging, resorts, spas, special events, conventions, travel, casinos, cruise lines, airlines, theme parks, and more. Students will gain an understanding of the foundation skills and knowledge needed for a successful career in the world's largest industry. Opportunities to explore specific industry segments in more depth are offered through field experiences and interactions with hospitality professionals.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Semester Offered**

Fall semester

## **HOS111G : Tourism & Sustainable Practices**

The history, growth, and expansion of the tourism industry will be discussed as it relates to the evolution of more responsible and sustainable tourism. Students will become familiar with local, national, and international tourism destinations. Major components of the tourism system will be studied including attractions, entertainment, cruise lines, and airlines. Emerging trends such as eco-tourism, adventure tourism, voluntourism, culinary tourism, agritourism, and cultural tourism will be examined. A service-learning component of 10 volunteer hours to give back to a local tourism related organization will be required of all students.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Notes**

(SL)

## **HOS150G : Hotel Operations**

This course focuses on the roles and duties of the general manager and front office manager of a full-service hotel. With an emphasis on front office operations, this course will focus on the interdepartmental flow of operational procedures for the total hotel organization. The student will examine all elements of effective hotel operations management including planning, staffing, revenue management, cost controls, reservations and sales.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Semester Offered**

Fall semester

**HOS175G : Hospitality Marketing and Sales**

This course applies basic marketing principles and sales techniques to the unique environment of the hospitality industry. Students will learn how to develop a strategic marketing plan integrating key elements of market segmentation, targeting, and branding. Current trends in global marketplace distribution and promotional strategies will also be examined. With a focus on understanding consumer behavior, this course will provide students with an understanding of sales management theories and practices used by hospitality professionals. Through case studies, lectures, guest speakers, and projects, students will apply techniques and strategies to a variety of service businesses including hotels, resorts, spas, and restaurants.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Prerequisite Courses**

HOS110G: Introduction to Hospitality Management

**Semester Offered**

Spring semester

**HOS201G : Tour & Cruise Operations**

This course will introduce students to tour and cruise operations. Cruise lines, products, ports, and amenities will be examined. In addition, students will become familiar with the various types of tours, tour operators, and steps in the itinerary planning process. The cruise and tour sales process will also be covered. Students will research, develop, plan, cost, and promote a customized group tour. Group dynamics and the skills required to manage and lead a group tour will also be explored.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Prerequisite or Corequisite**

[HOS110G](#) or [HOS111G](#)

**HOS202G : Educational Travel Experience**

This course focuses on developing and executing a student designed educational travel experience to a select destination. In addition to planning trip sightseeing and events, students will also research several characteristics of the destination which may include the history, film, geography, architecture, food, culture and traditions of the destination. The course culminates in a faculty-led, short term, educational travel experience where students will have an opportunity to experience and evaluate several segments of the travel and tourism industry firsthand (additional travel fees apply).

**Credits** 3

**Theory Hours** 2

**Lab Hours** 2

**Prerequisites**

2.0 CGPA & HOS Chair approval

**HOS210G : Customer Service**

This course examines the principles of customer service and its significance in a service-driven industry. Topics covered include: the service strategy; internal and external customers' wants & needs, communicating customer service; profiles of successful companies; and service people - motivation, communication, and reward.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Semester Offered**

Fall/Spring semester

**HOS211G : Sports & Recreation Tourism**

This course explores the role of sports tourism as one of the fastest growing niche markets in the global tourism industry. Sports tourism simply combines sports, recreation, leisure, and fitness activities with travel and tourism. These travelers may either participate or spectate. Students will examine the economic, environmental, and sociological impacts of sports tourism on a host community. Students will also develop an understanding of the fundamentals of planning, developing, marketing, and managing competitive and recreational sporting events. Additional key topics include securing sponsorships and understanding the role of various stakeholders as well as the media.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Prerequisite or Corequisite**

[SPTS101G](#) or [HOS110G](#) or [HOS111G](#)

**HOS215G : Planning Meetings & Conventions**

This course introduces the various types of events and activities that can be planned for resort management hotels and convention centers. Students will learn how to work with business convention coordinators, recruit speakers and performers, plan menus, deal with catering departments and talent companies, and plan special events. Negotiation skills, creativity, liability issues, and risk management will be emphasized.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Semester Offered**

Fall semester

**HOS225G : Hospitality Law**

This course provides a basic understanding of the legal principles and precedents related to hospitality industries with a concentration on hospitality management. Topics include employee relations, compliance with the Americans with Disabilities Act, contracts, liability, negligence, health and safety issues, discrimination, questions of jurisdiction, competition and anti-trust issues, and international relations. Case studies will be examined and the concept of ethics within the industry will be explored.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Semester Offered**

Spring semester

**HOS230G : Restaurant Development & Strategic Planning**

This course will introduce students to the basic skills of effective restaurant administration. This includes supervising personnel, problem solving, forecasting and operational analysis. There is training in menu planning and food and beverage cost control. Students will acquire firsthand knowledge of developing a restaurant from concept to operation.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Semester Offered**

Fall semester

**HOS235G : Food and Beverage Operations**

This course is designed to introduce the student to managing front-of-the-house operations with a focus on providing superior service. Management topics include food and beverage product knowledge, sales forecasting, cost control, and basic human resource management. Distilled beverages and wines and the impact they have on resorts and restaurants in generating sales and planning menus will be examined. The course will also include the laws and procedures related to responsible alcohol service.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Semester Offered**

Spring semester

**HOS244G : Introduction to the Spa Industry**

This course will examine the growing segment of spas and spa services. The evolution of the spa industry will be detailed from ancient civilizations to today with an emphasis on the interrelatedness of spas, medicine, healthcare, tourism and hospitality. Students will learn the unique aspects of a variety of spa categories including day, resort, medical, destination, hospital, and lifestyle management spa programs. Students will learn resume writing and interview skills. This course will provide the knowledge base necessary for students to successfully attain a position in Spa Management or for the Massage Therapy student to successfully apply for a position in the massage therapy field or establish a private practice. The student should be able to use these preparatory skills to facilitate the attainment of his/her career goals.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Semester Offered**

Summer semester

**HOS250G : Event Planning**

This course is designed to provide an introduction to the principles of event management. The student will examine event planning models and focus on the details required to plan special events. Emphasis is on the planning stage with research in selecting event themes and sites. Specific topics include event administration, detailed tasks and responsibilities, negotiations, staff management, budgeting, finance, advertising and promotion. Students will have the opportunity to volunteer and participate in a variety of area cultural, business, and tourism related events.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Semester Offered**

Spring semester



**HOS255G : Catering Sales & Event Management**

This course is designed to introduce students to the world of on-premise catering by delving into the different aspects of catering sales and event management from the venue's perspective. Students will learn about the different types of events and meals beginning with the sale and marketing of the venue. Understanding how to plan and execute an event from start to finish will be the core emphasis of this course. Students will apply the basic principles of working with an event planner by initiating and executing all of the steps required in planning the event including meal functions, room setup, production & solicitation. Students will also have the opportunity to learn the Delphi Sales and Catering system which is used by catering and sales professionals worldwide.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Semester Offered**

Fall semester

**HOS275G : Professional Development**

Regardless of the career path a student chooses, developing career goals, demonstrating professional practices, and managing effective workplace relationships will all play an integral role in career success. Some key topics addressed in this course include professional business communication practices via e-mail, text, face to face, and phone, appropriate business dress, business lunch etiquette, managing your online image, leading productive meetings, resolving conflict, and developing essential interviewing, networking, and negotiating skills. This course will provide students with the professional development skills and knowledge needed for successful transition onto the next stage of his or her career.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Semester Offered**

Fall/Spring semesters

**HOS280G : Hospitality Industry Internship**

This course is designed to enrich the student's academic learning experience by integrating classroom theory and on-the-job experience in the hospitality industry. With coordinator assistance, the student will self-place into an internship site at which practical experience related to the hospitality industry can be acquired. Students must work at least 100 hours and complete an internship portfolio as part of final requirements for this course.

**Credits** 3

**Theory Hours** 0

**Lab Hours** 9

**Prerequisites**

[HOS110G](#), [HOS210G](#), and coordinator approval

**Semester Offered**

All semesters

# Information Systems Technology

## **IST112G : Applied Logic**

The course will present formal logic with a concentration on Classical and Symbolic Logic. Control flow, data manipulation and planning methods will be discussed, including diagramming and pseudo-coding. This course will emphasize systems thinking as an approach to solving will emphasize systems thinking as an approach to solving problems and understanding formal logic. Programming theory and logic will be presented with a hands-on practice in model environments, while students are provided with essential problem-solving methods, techniques and essential problem-solving methods, techniques and disciplines using digital semiconductors and micro-controllers. Students will develop confidence in applying programming solutions, will be exposed to pertinent technology, and will learn the effective use of reference material.

**Credits** 3

**Theory Hours** 2

**Lab Hours** 2

**Semester Offered**

Fall semester

## **IST113G : IT Essentials: PC Hardware and Software**

This course presents exposure to computer peripherals and operating systems. Students learn the functionality of hardware components as well as suggested best practices in maintenance and safety issues. Through hands-on activities and laboratory exercises, students learn how to assemble and configure a computer, install operating systems and software, and troubleshoot hardware and software problems. The primary objective of this course is to provide the student with a general understanding of computer hardware and system software. The material covered in this course is intended to form a foundation of technical knowledge for system analysis, design, configuration, procurement, and management. This course helps prepare students for the industry recognized CompTIA's A+ certification.

**Credits** 3

**Theory Hours** 2

**Lab Hours** 2

**Semester Offered**

Fall/Spring semesters

## **IST122G : Introduction to Networks**

As an introduction to local area networking systems and protocols, this course is the first of a three-course sequence within the Cisco Academy program. Based on the Exploration I curriculum, an introduction to networks in the modern world explores network models, applications, fundamental protocols, and data communications. Laboratory experiences involve both simulation and implementation of Ethernet local area network systems.

**Credits** 3

**Theory Hours** 2

**Lab Hours** 2

**Semester Offered**

Fall/Spring semesters

**IST123G : Switching, Routing, and Wireless Essentials (SRWE)**

Switching, Routing, and Wireless Essentials (SRWE) is the 2nd of 3 courses in the version 7 CCNA track and covers the architecture, components, and operations of routers and switches in small networks and introduces wireless local area networks (WLAN) and security concepts. Students learn how to configure and troubleshoot routers and switches for advanced functionality using security best practices and resolve common issues with protocols in both IPv4 and IPv6 networks.

**Credits** 3

**Theory Hours** 2

**Lab Hours** 2

**Prerequisites**

[IST122G](#) or permission of the Instructor

**Semester Offered**

Fall/Spring semesters

**IST142G : Virtualization Essentials**

This course in the IST Cloud path focuses on concepts surrounding virtualization with emphasis on the Desktop Virtualization. Virtualization and its components will be examined. Subsections will include managing CPUs, memory, storage, and other peripherals. Specific labs include basic installation, setup and configuration of a PC Virtual Machine. Required knowledge includes PC experience, PC architecture, and how programs use PC resources.

**Credits** 3

**Theory Hours** 2

**Lab Hours** 2

**Prerequisites**

[IST113G](#) or [IST122G](#) or permission of the Instructor

**Semester Offered**

Spring semester

**IST150G : Network Operating System Fundamentals**

This course is an introduction to Windows Operating System in general. Basic Concepts in both user and server configuration are explored. Concepts explored will involve topics such as Configuration tools, the use of the MMC to administer a network, adding a new library, and configuring user rights on a PC and Server. This course is part of the Microsoft Technology Associate (MTA) Certification Program which is an entry level certification program focused at individuals wishing to gain introductory knowledge of Microsoft.

**Credits** 3

**Theory Hours** 2

**Lab Hours** 2

**Semester Offered**

Summer semester

**IST161G : Fundamentals of Networking/Security**

This course will provide information system users with the basic knowledge of their role and responsibilities towards protecting information systems resources. Discussions will include workstation and office security, types of malicious programs such as viruses, access control schemes, and management. This will provide a foundation for further study of systems security and protection issues such as terminology, threats to information resources, computer abuse, and system vulnerabilities. This course maps to much of the Security+ Certification.

**Credits** 3

**Theory Hours** 2

**Lab Hours** 2

**Semester Offered**

Spring semester

**IST163G : Legal Issues in Information Security**

This course provides an in-depth study of the legal issues affecting the selection, design, and implementation of internal security controls in business and government organizations. Students will study security policies, standards, procedures, guidelines, laws, regulations, industry best practices, and related concepts in order to apply this information for selecting the proper security control framework to meet business and government objectives. An understanding of the legal issues affecting internal control is critical to understanding appropriate security measures used to meet business and government objectives.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Semester Offered**

Fall semester

**IST200G : Communication Electro-Optics**

As informational systems approach physical limitations in performance, understanding electronics, optics, and electromagnetic propagation is critical for IST professionals. In this course, physical layer operations including communications theories, guided and unguided signal propagation, and physical layer phenomena are explored using intuitive, modeled, and experimental approaches.

**Credits** 3

**Theory Hours** 2

**Lab Hours** 2

**Prerequisites**

[IST113G](#) or [IST122G](#) or equivalent competencies

**Semester Offered**

Spring semester

**IST212G : Mobile Systems Architecture**

This course will focus on Computer Systems for Mobile and imbedded processing. System on a Chip (SoC) architectures will be examined in an integrated approach that combines hardware and software functions of the CPU. To support this study the components of the ARM architecture and its programming environment will be thoroughly explored. Basic microControllers and multicore processors will be used in the lab exercises to support the study of the interplay between the hardware & software.

**Credits** 3

**Theory Hours** 2

**Lab Hours** 2

**Semester Offered**

Spring semester

**IST222G : Enterprise Networking, Security, and Automation (ENSA)**

The third class in a three-course sequence focusing on the CCNA within the Cisco Academy program that is based on the Version 7 curriculum. LAN switching protocols and concepts are explored including VLANs, NAT, ACL's, QoS, Security, NTP, SNMP and Coding Data Structures. Laboratory experiences involve advanced LAN configuration and testing with an emphasis on OSPF routing protocol, ACL writing, and NAT configuration.

**Credits** 3

**Theory Hours** 2

**Lab Hours** 2

**Prerequisites**

[IST122G](#) or permission of the Instructor

**Semester Offered**

Fall/Spring semesters

**IST242G : Advanced Virtualization**

This course in the IST Cloud path focuses on concepts surrounding enterprise virtualization with emphasis on VMware vSphere. Enterprise and cloud-based application delivery through virtualization will be examined. Subsections will include configuring storage, networking, high availability, and systems management for virtual infrastructures. Specific labs include: the installation and configuration of vSphere hosts, configuring iSCSI and NFS storage area networks, configuring virtual switches, and the maintenance and deployment of virtual machines. Required knowledge includes PC experience, PC and server architecture, Windows servers and Active Directory, storage technologies, and a thorough understanding of TCP/IP networking.

**Credits** 3

**Theory Hours** 2

**Lab Hours** 2

**Prerequisites**

[IST142G](#) or Permission from Instructor

**Semester Offered**

Summer semester

**IST245G : Enterprise Data Management**

This course introduces storage technology including Storage Area Networks (SANs) and file sharing appliances (NAS) that will enable the student to make informed decisions concerning the selection and implementation of storage systems in a complex IT environment. The student will define the architectures, features, and benefits of an intelligent storage system. Topics include networked storage technologies, long-term archiving solutions, information security, cloud services, and the emerging field of storage virtualization technologies. This course focuses on storage technology concepts and principles that are reinforced with examples of actual solutions. Realistic case studies enable you to design the most appropriate solution for given sets of criteria.

**Credits** 3

**Theory Hours** 2

**Lab Hours** 2

**Semester Offered**

Fall semester

**IST251G : Windows Network Operating Systems Services**

Windows networking services including DHCP, DNS, WINS, remote access and security features are explored, installed, and configured in this strong laboratory experience course. The services are explored with respect to standard protocols and their impact on the operation of the network.

**Credits** 3

**Theory Hours** 2

**Lab Hours** 2

**Prerequisites**

[IST150G](#) or permission of the Instructor

**Semester Offered**

Spring semester

**IST253G : Windows Server 2008 Active Directory**

Windows 8 Server is a course in the Microsoft MTA path. Topics include configuring, maintenance and troubleshooting of Active Directory on a 2008 Server. Organizational Unit structure in relation to security will be explored. Define and configure Group Policy as a security tool will be examined.

**Credits** 3

**Theory Hours** 2

**Lab Hours** 2

**Prerequisites**

[IST150G](#) or permission of the Instructor

**Semester Offered**

Fall semester

**IST262G : Advanced Network Security**

This course in the IST Security track focuses on the overall security processes with an emphasis on secure perimeter, secure connectivity, security management, identity services, and intrusion detection. Specific labs include data encryption technology, VPNs including L2TP, PPTP, GRE, and IKE, AAA Security, TACACS+, IPSec, Perimeter routers & advanced ACL/CBAC/PAM, TCP Intercept & Denial of Service attacks, NAT/PAT. Some knowledge of TCP/IP protocol is assumed. This course covers many of the Security+ Certification Domains of Knowledge and is recognized as CNSS 4011.

**Credits** 3

**Theory Hours** 2

**Lab Hours** 2

**Prerequisites**

[IST123G](#) or permission of Instructor

**Semester Offered**

Spring semester

**IST263G : Information Assurance/Information Risk Management**

This course provides an in-depth study of information assurance and information risk management covering risk management business challenges; implementing risk mitigation; and, developing risk mitigation plans. Part 1 lays the foundation for understanding risk management terms and techniques including how to recognize cyber-security threats, security vulnerabilities and vulnerability exploits. Part 2 covers defining risk assessment approaches, performing risk assessments, identifying and analyzing security threats, vulnerabilities, and exploits as well as identifying administrative, technical and physical controls that mitigate both information and technology risk; and, most importantly, how to turn risk assessments into executable risk mitigation plans. Part 3 offers direction on creating and implementing several different risk mitigation plans - Business Impact Analysis, Business Continuity, Disaster Recovery, and Computer Incident Response.

**Credits** 3

**Theory Hours** 2

**Lab Hours** 2

**Semester Offered**

Spring semester

**IST264G : Configuration Security Appliance**

This course in the IST Security track focuses on the configuration of the Cisco PIX Security Appliance, with a major emphasis on hands-on skills in the areas of secure perimeter, secure connectivity, security management, identity services, and intrusion detection. Specific labs include basic configuration, DHCP server, NAT/PAT, conduits, multiple interfaces, advanced ACL/CBAC/PAM, object groups, AAA Security, CSACS, advanced protocols and intrusion detection systems, failover and system maintenance. Some knowledge of TCP/IP protocol is assumed. This course covers many of the Security+ Certification Domains of Knowledge.

**Credits** 3

**Theory Hours** 2

**Lab Hours** 2

**Prerequisites**

[IST123G](#) or permission of the Instructor

**Semester Offered**

Fall semester

**IST265G : CCNA Cybersecurity Operations**

The CCNA Cybersecurity Operations curriculum provides an introduction to the knowledge and skills needed for a Security Analyst working with a Security Operations Center team. It teaches core security skills needed for monitoring, detecting, investigating, analyzing and responding to security events, thus protecting systems and organizations from cybersecurity risks, threats and vulnerabilities.

**Credits** 3

**Theory Hours** 2

**Lab Hours** 2

**Prerequisite Courses**

IST122G: Introduction to Networks

**Semester Offered**

Spring semester

**IST266G : Security+**

This course provides an in-depth study of the security requirements in a business enterprise environment. The core material is based on the Security+ SY-401 exam. Students will study risk related concepts and apply appropriate risk mitigation strategies. An understanding of the types of equipment found in a network is critical to understanding appropriate security measures used to protect network assets. The end result of this class is to be ready to take the CompTia Security+ exam proctored by a third party.

**Credits** 3

**Theory Hours** 2

**Lab Hours** 2

**Prerequisites**

[IST122G](#) or Permission from Instructor

**Semester Offered**

Summer semester

**IST275G : Network Protocols and Services**

Understanding network protocols and services is essential for a working with network systems. This course provides in depth coverage of key protocols and services that are key ingredients in network systems. A primary focus on TCP/IP will include explorations of other Layer 3 and 4 protocols including TCP/IP, IPX, SNMP and ICMP. Upper layer protocols such as HTTP, SMTP, Telnet and FTP will also be investigated.

**Credits** 3

**Theory Hours** 2

**Lab Hours** 2

**Prerequisite or Corequisite**

[IST123G](#) or [IST113G](#) or equivalent competencies

**Semester Offered**

Summer semester

**IST281G : Internship**

This capstone course will allow students to receive on-the-job experience at an off-site location related to their specific area of academic concentration. Students are required to work eight hours per week at paid/unpaid positions that meet the criteria established by the Internship Manual. A seminar meeting one period per week will review internship progress and discuss issues related to successful employment. Outside work and research concerning the weekly topic will be required.

**Credits** 3

**Theory Hours** 1

**Lab Hours** 8

**Prerequisites**

Completion of coursework for the first three semesters of the student's program of study and approval of the Department Chair and/or Program Advisor



# Insurance

## **INSR120G : Introduction to Risk Management & Insurance**

This course will examine the field of insurance, risk and risk management and provide an overview of the various types of insurance – accident, casualty, health and life. This course looks at insurance principles and risk management with consumer considerations and the legal principles in the industry.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

### **Prerequisites**

[BUS110G](#) or permission of Dept. Chair

## **INSR122G : Personal Insurance**

This course provides students with a basic understanding of the property and liability loss exposures that individuals face. The course discusses the types of insurance coverage used for those exposures. The courses introduces students to areas that personal insurance professionals assist individuals with life insurance planning, retirement planning, and health and disability insurance planning.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

### **Prerequisites**

[INSR120G](#) Intro to Risk Management & Insurance

## **INSR123G : Commercial Insurance**

This course provides students with a basic understanding of the property and liability loss exposures faced by most organizations and the types of commercial insurance that can be used for covering those exposures. This course will examine the major types of commercial insurance.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

### **Prerequisites**

[INSR120G](#) Intro to Risk Management & Insurance

## **INSR124G : Agency Operations**

This course will provide students with an understanding of the different departments needed to run an effective insurance agency. Students will review operations, marketing, customer relationships, public relations, financial management and the supporting organizational structures.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

### **Prerequisites**

[INSR120G](#) Intro to Risk Management & Insurance

**INSR125G : Introduction to Claims**

This course will provide students the opportunity to explore insurance basics within the insurance claim environment, claim process and first party automobile and property claims in addition to liability claims for worker's compensation. Students will understand the process for liability claim investigation, evaluating and settlement techniques.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Prerequisites**

[INSR120G](#) Intro to Risk Management & Insurance

## Manufacturing

**MANF112G : Topics in Manufacturing**

This course is designed to prepare students for jobs in advanced manufacturing. Topics include an introduction to safety; workplace skills; Lean manufacturing concepts; quality; understanding metals and other materials; heat treating and grinding, hand tool use; precision machining technology; careers in machining and related careers. Students will identify a career goal and create a personal resume as part of this course.

**Credits** 3

**Theory Hours** 2

**Lab Hours** 2

**MANF120G : Technical Blueprint Reading**

Students will learn to read blueprints and develop an understanding of how blueprints provide information necessary to control the manufacturing operation and quality outputs. Topics include terminology, standard abbreviations, the different types of lines on a blueprint, and reading different views. The course covers geometric definitions, including profiles, parallelism, and position. Both paper and electronic formats are included, students are introduced to CAD environment processes, and the English inch and Metric dimensional examples are included.

**Credits** 2

**Theory Hours** 1

**Lab Hours** 2

**Prerequisites**

Accuplacer level testing of QAS 241 or higher in math

**MANF135G : Technical Math for Manufacturing**

This course will cover mathematic concepts frequently used in manufacturing, including some review of fractions, decimals, algebra, ratios, data visualization and statistical measures, plane and solid geometry and applications, Cartesian coordinate system, and right triangle trigonometry with applications including vectors. Students will be introduced to semi-precision measurement and precision measurement, using both Metric and English Standard systems.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Prerequisites**

Accuplacer level testing of QAS 241 or higher in math or approval by the department chair

**MANF225G : Solid Modeling (CAD/CAM)**

Building on the introduction to Computer Aided Design (CAD) students received in [MANF120](#), this course will give students the opportunity to create and modify more complicated computer models of parts and assemblies. They will then use these models to produce blueprints of parts and assemblies and run simulations to test the parts in a digital model of their intended working environment. The course will also introduce students to Computer Aided Manufacturing (CAM). Finally students will use CAM software to define milling operations, tooling and toolpaths that will instruct a CNC machine to cut a part from a block of material.

**Credits** 3

**Theory Hours** 2

**Lab Hours** 2

**Prerequisites**

[MANF120G](#) with a C or better

**MANF230G : Manufacturing Ethics**

Ethics in manufacturing is meant to maintain high standards needed to ensure consumer safety. Compromise of process, standards, or conduct can threaten the welfare of consumers and society. In this course, students will explore how in some manufacturing processes even a slight error can cause danger, why standards are in place, and the importance of following a code of conduct.

**Credits** 1

**Theory Hours** 1

**Lab Hours** 0

**MANF254G : Quality Inspection and CMM Operator**

This hands-on course prepares students for jobs as quality inspectors and CMM operators where they will inspect, test, or measure materials, products, or work for conformance to specifications. Students will use precision measuring instruments as they apply advanced quality inspection methods, processes, and standards. Students will be required to read and prepare technical documents and will use mathematical formulas to collect data and prepare reports. They will use critical thinking skills to use logic and reason to identify the strengths and weaknesses of alternative approaches to problems.

**Credits** 3

**Theory Hours** 2

**Lab Hours** 2

**Prerequisites**

Accuplacer level testing into [CIS110G](#) and [MANF120G](#) Technical Blueprint Reading with a grade of C or better

**MANF255G : CNC Milling and Set-up Operator**

This hands-on course prepares students for jobs where they will successfully operate a milling machine on CNC FANUC and Siemens controller, under the direction of the CNC supervisor. Focus is on developing the skills needed to use computer numerical control (CNC) to run a milling machine efficiently and within required quality standards. Students will be introduced to Solidworks and Mastercam, will learn the basics of writing CNC code, and will set up and run CNC milling machines. They will maintain cutting tools dedicated to composite manufacturing and perform machine maintenance.

**Credits** 6

**Theory Hours** 4

**Lab Hours** 4

**Prerequisites**

[MANF120G](#) with a C or better; or permission of department chair

# Marketing

## **MKTG101G : Principles of Marketing**

This course is designed to serve as an introduction to the basic principles of marketing, practices, and the application of these practices. This course examines our present-day marketing system from a managerial point of view and has a current events component to help emphasize the marketing principles in today's business world. Subjects covered include consumer behavior, market research and target markets, supply chains, products, promotion, channels of distribution, pricing, international marketing and use of technology in marketing.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Semester Offered**

All semesters

## **MKTG135G : Consumer Behavior**

An in-depth analysis of the internal and external forces in the consumer decision-making process as it relates to marketing. Areas of study include consumer reaction, personal selling, product positioning, brand loyalty, and image management. Applications in non-profit and government areas are also discussed.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Prerequisite Courses**

MKTG101G: Principles of Marketing

## **MKTG201G : Business Relationship Management**

Relationship Management provides students with theoretical knowledge and practical skills in building business relationships and the technologies associated with marketing, such as Customer Relationship Management (CRM) tools and software.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Prerequisites**

MKTG101G or HOS175G

**Semester Offered**

Spring semester

**MKTG224G : Sales and Sales Management**

This course will focus on the dynamic changes taking place in sales and sales management. Critical areas of sales organizations will be examined: building long-term relationships with customers; creating sales organizations that are more nimble and adaptive to the changing customer base; gaining greater job ownership and commitment from sales personnel; shifting sales management style from commanding to coaching; leveraging available technology for sales success; and better integrating salesperson performance to incorporate the full range of activities and outcomes relevant within sales jobs today. Case method will be employed.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Prerequisite Courses**

MKTG101G: Principles of Marketing

**Semester Offered**

Spring semester

## Massage Therapy

**MASS150G : Physiology of Wellness**

Students in this course develop strategies for self-care needed for longevity in the field of Massage Therapy as well as strategies for working with clients to promote change that will complement massage in creating optimal health and wellness. Students will define stress and stress factors and identify the impact it has on an individual physically and psychologically. Students will explore the nature of stress and how it can be the cause of disease. Students will identify stress factors and patterns of stress that cause dysfunction as well as strategies to reduce and manage stress. A variety of stress reducing/relaxation techniques will be discussed or experienced.

**Credits** 2

**Theory Hours** 2

**Lab Hours** 0

**Prerequisites**

Permission of the Massage Therapy Program Coordinator

**Corequisites**

[MASS161G](#), [MASS162G](#), [MASS171G](#) (or [BIOL110G](#)), and [MASS181G](#)

**Semester Offered**

Fall semester

**MASS161G : Principles of Massage Therapy**

This course is designed to provide the student with entry level information about the history and theory of massage therapy. Material covered includes principles of professional touch, history of massage including pertinent people who helped develop massage into what it is today, therapy room set up, hygiene and sanitation, proper record keeping procedure including intake procedures, postural assessment, SOAP charting and devising a treatment plan, endangerment sites and contraindications, and the physiological effects of massage therapy on the body's systems including the autonomic nervous system. The student will learn how to determine if a client is a candidate for therapeutic change, condition management or palliative care. Students will be exposed to recent articles and studies on the effects of massage on the body.

**Credits** 2

**Theory Hours** 2

**Lab Hours** 0

**Prerequisites**

Permission of the Massage Therapy Program Coordinator and placement into college level reading

**Corequisites**

[MASS150G](#) and [MASS171G](#) (or [BIOL110G](#))

**Semester Offered**

Fall semester

**MASS162G : Essentials of Massage Application**

This course is designed to provide the student with entry level practical massage therapy skills. Material covered includes ethics of touch, appropriate practitioner body mechanics and proper draping technique. Students will learn the basics of providing a full body Swedish Massage, seated massage and range of motion with instruction on massage strokes, and application of oils, creams, lotions and gels. The student will continue practice in identifying contraindications, sanitation procedures, proper record keeping including intake procedures, postural assessment, SOAP charting and devising a treatment plan. The students will assess the muscle tissue and fascia both pre- and post-massage and observe the physiological effects of massage therapy, both reflexive and mechanical, on the body's systems. Massage for special populations will also be included.

**Credits** 2

**Theory Hours** 0

**Lab Hours** 4

**Prerequisites**

Permission of the Massage Therapy Program Coordinator, [MASS161G](#), and [MASS171G](#)

**Corequisites**

[MASS150G](#) and [MASS181G](#)

**Semester Offered**

Fall semester

**MASS171G : Structural Anatomy and Physiology**

This course will give Massage Therapy students a thorough background in anatomy and physiology stressing the importance of the therapists' knowledge of muscles bones and nerves. In-depth information is presented on the structure and function of human cells, tissues, and organ systems including the skeletal, muscular and nervous, systems. Laboratory work augments lecture topics and the use of student models to explore body orientation and planes, bony landmarks, etc.

**Credits** 4

**Theory Hours** 3

**Lab Hours** 2

**Prerequisites**

Permission of the Massage Therapy Program Coordinator and placement into college level reading

**Corequisites**

[MASS150G](#) and [MASS161G](#)

**Semester Offered**

Fall semester

**MASS172G : Visceral Anatomy and Physiology**

This course includes in depth information of the structure and function of the integumentary, endocrine, digestive, respiratory, cardiovascular, respiratory, urinary, and reproductive systems with discussions of how massage therapy may affect and enhance the function of these systems while supporting the body's immune system and hormone production. Laboratory work augments lecture topics.

**Credits** 4

**Theory Hours** 3

**Lab Hours** 2

**Prerequisites**

Permission of the Massage Therapy Program Coordinator, complete [MASS251G](#), [MASS261G](#), [MASS191G](#) and [MASS281G](#) with a grade of C or better

**Corequisites**

[MASS271G](#), [MASS192G](#), and HOSP244G

**Semester Offered**

Summer semester

**MASS181G : Pathology and Massage I**

Pathology and Massage I is a course designed to teach the massage therapist the benefits of massage on the skeletal, muscular and nervous system as well as when it is safe to perform massage on individuals with specific diseases, syndromes or conditions of these systems. This course will further instruct students when and how to make adjustments to accommodate clients with these diseases, conditions or syndromes and when massage is contraindicated.

**Credits** 2

**Theory Hours** 2

**Lab Hours** 0

**Prerequisites**

Permission of the Massage Therapy Program Coordinator, placement into college level reading and [MASS171G](#)

**Corequisites**

[MASS150G](#) and [MASS162G](#)

**Semester Offered**

Fall semester

**MASS182G : Pathology and Massage II**

Pathology and Massage II is a course designed to teach the massage therapist the benefits of massage on the circulatory, urinary, lymphatic, reproductive, integumentary, respiratory, and lymphatic systems as well as when it is safe to perform massage on individuals with specific diseases, syndromes or conditions of these systems. This course will further instruct students when and how to make adjustments to accommodate clients with these diseases, conditions or syndromes and when massage is contraindicated.

**Credits** 2

**Theory Hours** 2

**Lab Hours** 0

**Prerequisites**

Permission of the Massage Therapy Program Coordinator, complete [MASS251G](#), [MASS261G](#), [MASS191G](#) and [MASS281G](#) with a grade of C or better

**Corequisites**

[MASS271G](#), [MASS192G](#), [MASS172](#) and HOSP244G

**Semester Offered**

Summer semester

**MASS191G : Clinical Experience I**

Clinical Experience I is the first exposure the students have to a working clinical setting. They will learn the operations, policies and procedures of a massage clinic. In addition, they will treat clients based on their scope of practice and training from past courses as well as incorporating theory, technique and knowledge from current courses including MASS251G. Students will practice client consultation, devising a treatment and plan, SOAP charting and the art of the therapeutic conversation with each client. 64 one-hour sessions are required for course completion.

**Credits** 1

**Theory Hours** 0

**Lab Hours** 4

**Prerequisites**

Permission of the Massage Therapy Program Coordinator, complete [MASS150G](#), [MASS161G](#), [MASS162G](#), [MASS171G](#) and [MASS181G](#) with a grade of C or better

**Corequisites**

[MASS251G](#), [MASS261G](#) and [MASS281G](#)

**Semester Offered**

Spring semester

**MASS192G : Clinical Experience II**

Clinical Experience II is designed to provide the students an opportunity to continue to refine the advanced skills learned in MASS251G and to incorporate new therapies based on their scope of practice and training from past courses as well as incorporating theory, technique and knowledge from current courses as they are learned including in MASS271G. They will continue to participate in the operations, policies and procedures of a massage clinic. Students will further develop SOAP charting and the art of the therapeutic conversation. 64 one-hour sessions are required for course completion.

**Credits** 1

**Theory Hours** 0

**Lab Hours** 4

**Prerequisites**

Permission of the Massage Therapy Program Coordinator, complete [MASS251G](#), [MASS261G](#), [MASS191G](#), and [MASS281G](#) with a grade of C or better

**Corequisites**

[MASS271G](#), [MASS172G](#), [MASS182G](#) and HOSP244G

**Semester Offered**

Summer semester



**MASS251G : Advanced Theory and Techniques**

This course covers the theory and application of advanced massage therapy techniques including Neuro-muscular Reeducation, Myofascial Release and Trigger Point Therapy for the purpose of finding and treating myofascial syndromes throughout the deep and postural muscles as well as prime movers. Theory and application of techniques for treatment of commonly encountered conditions will also be learned. Continued theory in support of client evaluation, treatment plan preparation, charting and the use of heat and cold will be presented.

**Credits** 5

**Theory Hours** 3

**Lab Hours** 4

**Prerequisites**

Permission of the Massage Therapy Program Coordinator, complete [MASS150G](#), [MASS161G](#), [MASS162G](#), [MASS171G](#) and [MASS181G](#) with a grade of C or better

**Corequisites**

[MASS261G](#), [MASS191G](#) and [MASS281G](#)

**Semester Offered**

Spring semester

**MASS261G : Kinesiology for Massage Therapists**

This course is an introduction to the science of muscles, body motions and biomechanics. Course concentration will include structure, origin, insertion, and function of muscles with patho-mechanical considerations. Emphasis will be placed on the movements of the head, neck, and face, upper and lower limbs, spine, abdomen, and pelvic girdle. Laboratory investigations will concentrate on palpation and motions produced by these muscles using movement exercise. Students will develop proficiency with both static and motion palpation and muscle tracing with emphasis on muscles in a relaxed state and in motion.

**Credits** 5

**Theory Hours** 3

**Lab Hours** 4

**Prerequisites**

Permission of the Massage Therapy Program Coordinator, complete [MASS150G](#), [MASS161G](#), [MASS162G](#), [MASS171G](#), and [MASS181G](#) with a grade of C or better

**Corequisites**

[MASS251G](#), [MASS191G](#) and [MASS281G](#)

**Semester Offered**

Spring semester

**MASS271G : Therapeutic Massage Specialties**

This course introduces the student to other modalities of massage such as Sports, Maternity, Hot Stone and Orthopedic Massage. Additional content may include, but is not limited to Energy Modalities, Spa Therapies, Eastern Theory and Technique and other alternative health modalities. Theory in support of client evaluation, treatment plan preparation, and SOAP notes will be continued in this course.

**Credits** 3

**Theory Hours** 2

**Lab Hours** 2

**Prerequisites**

Permission of the Massage Therapy Program Coordinator, complete [MASS251G](#), [MASS261G](#), [MASS191G](#), and [MASS281G](#) with a grade of C or better

**Corequisites**

[MASS192G](#), [MASS172G](#), [MASS182G](#) and HOSP244G

**Semester Offered**

Summer semester

**MASS281G : Ethics for Massage Therapists**

This course will include discussions on personal and professional ethics as they pertain to the massage therapy industry, as well as business and medical ethics based on the fundamentals of establishing a successful practice, conducting the day-to-day operation of a that practice and maintaining client confidentiality.

**Credits** 1

**Theory Hours** 1

**Lab Hours** 0

**Prerequisites**

Permission of the Massage Therapy Program Coordinator, complete [MASS150G](#), [MASS161G](#), [MASS162G](#), [MASS171G](#) and [MASS181G](#) with a grade of C or better

**Corequisites**

[MASS251G](#), [MASS261G](#) and [MASS191G](#)

**Semester Offered**

Spring semester

## Mathematics

**MATH085G : Skills for College Math Plus**

This course is for students who need a refresher in basic math concepts and skills as well as those who have never taken an algebra course. Topics covered are operations of whole numbers, operations with signed numbers; algebraic expressions; linear equations/inequalities; exponents; square roots; understanding and manipulating formulas; translating and solving word problems; interpreting/analyzing data and graphing simple linear equations. Offered every semester.

**Credits** 4

**Theory Hours** 4

**Lab Hours** 0

**Semester Offered**

All semesters

**Notes**

(This course carries 4 credits, which apply to the GPA; however, the credits do not count toward degree requirements.)

**MATH145G : Quantitative Reasoning**

Quantitative Reasoning course. This course focuses on quantitative thinking and methods with real- world applications. Some topics covered are algebraic expressions with applications, graphing and modeling linear, quadratic, polynomial, exponential and logarithmic equations, systems of linear equations and linear programming, simple and compound interest, annuities, probability and measures of central tendency of a data distribution. Students cannot receive credit for both MATH145G and MATH147G. (See catalog description for MATH147G).

**Credits** 4

**Theory Hours** 4

**Lab Hours** 0

**Prerequisites**

Satisfactory placement test scores as defined by the mathematics faculty, or grade of B or better in [MATH085G](#), or by permission of the math department chair

**Semester Offered**

All semesters

**MATH147G : Quantitative Reasoning Plus**

Quantitative Reasoning course. This course satisfies an entry-level college mathematics requirement and acts as an alternative or replacement for [MATH145G](#) but with some added class time for review. Some careful attention is given as the course progresses to review high school algebra/arithmetic and is intended for students who do not quite place into [MATH145G](#). Students cannot receive credit for both [MATH145G](#) and MATH147G.

**Credits** 5

**Theory Hours** 5

**Lab Hours** 0

**Prerequisites**

Satisfactory placement test scores as defined by the mathematics faculty or successful completion (grade of C or Better) of MATH 085G or higher, or by permission of the math department chair

**Semester Offered**

All semesters

**Notes**

(See catalog description for [MATH145G](#)).

**MATH150G : College Algebra**

This course prepares the student for higher-level mathematics. Some topics covered are factoring, rational exponents, solving linear and quadratic equations, rational expressions and functions, polynomial functions, composite and inverse functions, systems of linear and quadratic functions, logarithmic functions, and exponential functions. This course also prepares the student for higher-level mathematics. Graphing of trigonometric functions is in Pre-Calculus.

**Credits** 4

**Theory Hours** 4

**Lab Hours** 0

**Prerequisites**

Satisfactory placement test scores as defined by mathematics faculty, grade of B or better in [MATH085G](#), or by permission of the math department approval. Students cannot receive credit for both [MATH150G](#) and [MATH152G](#)

**Semester Offered**

All semesters

**MATH152G : College Algebra Plus**

This course prepares the student for higher-level mathematics and acts as an alternative or replacement for [MATH150G](#) but with some added class time for review. Some careful attention is given during the first few weeks to review high school intermediate algebra and is intended for students who do not quite place into [MATH150G](#).

**Credits** 5

**Theory Hours** 5

**Lab Hours** 0

**Prerequisites**

Satisfactory placement test scores as defined by the mathematics faculty, or grade of C or better in [MATH085G](#), or by permission of the math department approval. Students cannot receive credit for both [MATH150G](#) and [MATH152G](#)

**Semester Offered**

All semesters

**MATH170G : Discrete Mathematics**

Discrete mathematics describes processes that consist of a sequence of individual steps and is based on the ideas underlying the science and technology of the computer age. The main themes of this course are: logic and proof: induction and recursion; discrete structures such as number sets, general sets, Boolean algebras, functions, relations, graphs, trees, regular expressions and finite-state automata; combinatorics and discrete probability; algorithms and their analysis; and applications and modeling.

**Credits** 4

**Theory Hours** 4

**Lab Hours** 0

**Prerequisites**

Satisfactory placement test scores as defined by mathematics faculty or successful completion (grade of C or better) of [MATH145G](#)/147G

**Semester Offered**

All semesters

**MATH210G : Pre-Calculus**

This course prepares the student for higher-level mathematics. Some topics covered are solving polynomial equations, rational expressions and functions, polynomial functions, composite and inverse functions, logarithmic functions, and exponential functions. This course also prepares the student for Calculus with trigonometric functions, their inverses and solving problems involving trigonometric identities. Some topics include right triangle trigonometry, Law of Sines, Law of Cosines and the geometry of vectors in the 2-D plane.

**Credits** 4

**Theory Hours** 4

**Lab Hours** 0

**Prerequisites**

Satisfactory placement test scores as defined by mathematics faculty or successful completion (grade of C or better) of [MATH150G](#) or [MATH152G](#) or with math department approval

**Semester Offered**

All semesters

**MATH215G : Finite Mathematics**

This course begins with a review of linear equations, inequalities, and systems of equations emphasizing graphing methods. Topics include matrices, linear programming, sets, an introduction to probability, the mathematics of finance, and the simplex method. Applications include Input-Output analysis, Sensitivity Analysis and Markov Chains.

**Credits** 4

**Theory Hours** 4

**Lab Hours** 0

**Prerequisites**

Satisfactory placement test scores as defined by mathematics faculty or successful completion (grade of C or better) of [MATH145G](#) or [MATH147G](#) or with math department approval

**Semester Offered**

All semesters

**MATH225G : Probability and Statistics**

Topics include basic measures of central tendency and variability; frequency distributions; probability; the binomial distribution; the normal distribution; sampling of distributions; estimation of parameters; confidence levels and hypothesis testing; non-parametric tests; simple regression and correlation.

**Credits** 4

**Theory Hours** 4

**Lab Hours** 0

**Prerequisites**

satisfactory placement scores as defined by mathematics faculty or successful completion (grade of C or better) of [MATH145G](#) or [MATH147G](#) or with math department approval

**Semester Offered**

All semesters

**MATH230G : Calculus I**

Calculus I is a first calculus course that is designed to explore functions, limits, continuity, derivatives; rules for differentiating algebraic, trigonometric, exponential and logarithmic functions; chain rule; implicit differentiation; related rate problems; max-min problems; curve sketching; integrals, areas and volumes.

**Credits** 4

**Theory Hours** 4

**Lab Hours** 0

**Prerequisites**

[MATH210G](#) with a grade of C or better

**Semester Offered**

All semesters

**MATH235G : Statistics for Engineers and Scientists**

This course is Probability and Statistics intended to focus on exploratory data analysis inferential statistics, regression techniques and design of experiments with large data sets. Major topics include inference testing for population standard deviations, inferences for two population proportions, descriptive & inferential methods in regression and correlation, multiple regression analysis, ANOVA and Two-Way ANOVA. Use of statistical software is included.

**Credits** 4

**Theory Hours** 4

**Lab Hours** 0

**Prerequisites**

Successful completion of [MATH210G](#) or higher (grade of C or better) or with math department approval

**Semester Offered**

Spring semester

**MATH245G : Introduction to Linear Algebra**

This course explores the linear systems of equations, matrix operations, determinants, linear dependency, vector spaces, linear transformations, eigenvalues and orthogonality. Construction of mathematical reasoning using induction and contradiction are integrated into the course curriculum.

**Credits** 4

**Theory Hours** 4

**Lab Hours** 0

**Prerequisites**

Satisfactory placement test scores as defined by mathematics faculty, or [MATH230G](#) with a grade of "C" or better, or with math department approval

**Semester Offered**

Fall semester

**MATH250G : Calculus II**

This is a second course in calculus. Topics to be investigated include area, volume, arc length, surface area, pressure force; integration of trigonometric, exponential and logarithmic functions; differentiation and integration of inverse trigonometric and hyperbolic functions; methods of integration; improper integration; infinite series, Taylor and MacLaurin series; and polar coordinates.

**Credits** 4

**Theory Hours** 4

**Lab Hours** 0

**Prerequisites**

[MATH230G](#) with a grade of C or better

**Semester Offered**

All semesters

**MATH265G : Differential Equations**

This first course in differential equations will include introductory theory, solutions methods and selected applications of ordinary differential equations. Topics include fundamental methods of solving ordinary first- and second- order differential equations, essentials of linear algebra, Laplace transforms, and series solutions.

**Credits** 4

**Theory Hours** 4

**Lab Hours** 0

**Prerequisites**

[MATH250G](#) with a grade of "C" or higher or with math department approval

**Semester Offered**

Spring semester

**MATH270G : Calculus of Several Variables**

Extends the study of calculus to several variables. Topics include a study of vectors, vector algebra, and vector functions; partial differentiation; chain rule; extrema; transformations; gradient, moments of inertia, divergence, and curl; curves and surfaces; multiple, line, and surface integrals; Green's and Stoke's theorem. A graphing calculator will be required

**Credits** 4

**Theory Hours** 4

**Lab Hours** 0

**Prerequisites**

[MATH250G](#) with a grade of "C" or higher or with math department approval

**Semester Offered**

Fall semester

# Motorcycle Repair & Maintenance

## **MOTR110G : Product, PDI, and Dealer Experience**

The purpose of this course is for students to be introduced to basic processes related to preparation and delivery of motorcycles, and to understand basic procedures involved in the set-up and delivery process. Students will learn and apply procedures, use reference materials, become familiar with shop practices relevant to set-up and delivery. In addition, students will be introduced to basic organizational practices and receive an overview of maintenance workflow from intake and service writing, set-up, and delivery.

**Credits** 4

**Theory Hours** 2

**Lab Hours** 4

### **Prerequisites**

Acceptance to program

### **Corequisites**

[MOTR120G](#) and [MOTR130G](#)

### **Semester Offered**

Fall semester

## **MOTR120G : Powertrains: Engine, Drivetrain, and Transmission**

This course introduces students to internal combustion engines, transmissions, fuel systems, and provides students with opportunities to use and apply references information to understanding, diagnosing, and resolving basic powertrain problems. Students will learn, practice, and demonstrate mastery of making accurate measurements using precision tools, and work on all basic aspects of the drivetrain. Students will disassemble and reassemble drivetrain components to understand the function and potential problems with these components. Students will focus on shop safety, and review and practice professional communication skills throughout the course.

**Credits** 4

**Theory Hours** 2

**Lab Hours** 4

### **Prerequisites**

Acceptance to program

### **Corequisites**

[MOTR110G](#) and [MOTR130G](#)

### **Semester Offered**

Fall semester

## **MOTR130G : Electrical Systems and Electrical Service Procedures**

In this course, learn basic aspects of electrical system diagnosis and service, as well as relevant theoretical understanding of electrical system theory. In addition, students will learn, practice, explain, and demonstrate mastery of electrical service procedures.

**Credits** 4

**Theory Hours** 2

**Lab Hours** 4

### **Prerequisites**

Acceptance to program

### **Corequisites**

[MOTR110G](#) and [MOTR120G](#)

### **Semester Offered**

Fall semester

**MOTR140G : Wheels, Tires, and Brakes**

In this course, students will learn inspection procedures, service, and repair of wheels, tires, and brakes for various models of motorcycles. In addition, students will learn, practice, explain, and demonstrate mastery of the recommended service procedures and preventative maintenance of wheels, tires, and brakes at specified intervals.

**Credits** 4

**Theory Hours** 2

**Lab Hours** 4

**Prerequisites**

Successful completion of [MOTR110G](#), 120G, and 130G, or permission of program coordinator

**Semester Offered**

Spring semester

**MOTR150G : Capstone: Servicing Motorcycle Families**

This course will focus on the procedures and knowledge required to service contemporary models of motorcycles, including: Sportster, Dyna, Softail, Street, FL, and Trike. Students will integrate and apply knowledge from previous courses to all aspects of each type of motorcycle. Areas of focus will include inspection and maintenance of powertrain elements, electrical systems, scheduled service procedures, wheels, tire, and brakes, preparing motorcycles for service, and delivering motorcycles when service is completed. Students will periodically observe professional technicians working in similar circumstances in the maintenance shop of the dealership.

**Credits** 8

**Theory Hours** 4

**Lab Hours** 8

**Prerequisites**

Successful completion of MOTR 110G, 120G, and 130G, or permission of program coordinator

**Co-Requisite Courses**

MOTR140G: Wheels, Tires, and Brakes

**Semester Offered**

Spring semester

## Natural Resources

**NATR100G : Natural Resources Stewardship**

This course focuses on New Hampshire's natural resources and the relationship between healthy ecosystems and healthy communities. Specialists from the field will engage students to focus on particular aspects of NH's natural resources and history. The course emphasizes hands-on, experiential learning in both outdoor and classroom settings and offers techniques for applying scientific and horticultural skills in real-world service-learning projects. Students will gain an understanding of stewardship from awareness to activism, across topics that include native plant identification, ecological landscaping, sustainable living, NH's wildlife and their habitats. They will also acquire skills in presentation, public outreach and local government access.

**Credits** 4

**Theory Hours** 3

**Lab Hours** 2

**Semester Offered**

Fall semester

**Notes**

(Will not fulfill science elective requirements.) This is a Service-Learning Course (SL).



**NATR105G : Sustainable Agriculture & Food Systems**

This course emphasizes the importance of comprehending the current global food system as a way to make a positive impact on our local food production here in New Hampshire. Students will learn the fundamentals of organic, sustainable agriculture techniques while contrasting them with large-scale conventional farming practices. Classroom discussions in small groups, student-initiated research projects and presentations will occur weekly. Field trips to local farms will be conducted later in the season.

**Credits** 4

**Theory Hours** 3

**Lab Hours** 2

**Semester Offered**

Fall/Spring semesters

**NATR299G : Contemporary Conservation Issues and Environmental Awareness**

This course explores the impacts of technology and human activity on our environment and natural resources. Key conservation issues are used as examples of past and present biological, social, and environmental conflicts. Each week we will explore a range of themes that help you analyze and interpret the work of local leaders and their organizations. The ultimate goal of the course experience is to help you explore your own leadership style and chart out a professional course for your future work academic and professional. Students will work collaboratively on a current environmental problem. Tasks will include characterizing the problem, analyzing possible solutions and publicly presenting the results.

**Credits** 4

**Theory Hours** 3

**Lab Hours** 3

**Prerequisites**

Admission to Environmental Studies Program or Instructor Signature

**Semester Offered**

Spring semester

## Nondestructive Testing

**NDT110G : Introduction to Nondestructive Testing**

This course covers an introduction to the fundamental principles of non-destructive testing, the processes of examining materials without damaging them. Content will include an overview of career opportunities, training requirements, and certification programs for the NDT profession. Manufacturing processes, materials, and equipment will be covered as they relate to potential product flaws. Students will be introduced to various testing methods, including the benefits, limitations, and applications of each. Labs will include introduction to the NDT lab equipment, safety in the lab, visual inspection, interpretation of results, and reporting. Applied math will be included in this course. In addition to scheduled classes, students will be required to attend field trips organized by instructors.

**Credits** 3

**Theory Hours** 2

**Lab Hours** 2

**Prerequisites**

Accuplacer level testing into college reading or permission of department chair

**NDT205G : Visual Testing**

Visual Testing (VT), often the first method used during an NDT inspection, includes direct examination with the eyes as well as the use of mechanical or optical tools to locate discontinuities and potential defects. This course will cover material required for the classroom training portion for level 1 and 2 certification of NDT personnel in the visual testing methods and will cover ASNT SNT- TC-1a requirements and the AWS B5.1 requirements (required for Visual Weld Inspectors). The following topics will be included: applications, equipment, principles and theory of optics, and environmental factors. Final exams will be given for each level, and students with an individual test score of 70% or greater will receive a course certificate verifying successful completion of theory training for that level.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Prerequisites**

[NDT110G](#) with a grade of C or better or approval of Department Chair

**NDT210G : Liquid Penetrant Testing**

Penetrant Testing (PT), used for detecting cracks and other surface defects on nonporous solid materials, is one of the most commonly used nondestructive testing methods. This course covers theory and principles as well as procedures and techniques using a range of materials. Applied mathematics will be included. Labs will focus on water-removable penetrants with a variety of developers. Quality control will be stressed.

**Credits** 2

**Theory Hours** 1

**Lab Hours** 2

**Prerequisites**

[NDT110G](#) with a grade of C or higher; Accuplacer level testing of QAS 241 or higher in math and college level reading or permission of department chair

**NDT211G : Magnetic Particle Testing**

Magnetic particle testing (MT) allows an inspector to locate discontinuities in ferromagnetic materials. This course will cover material required for the classroom training portion for level 1 and 2 certification of NDT personnel in the magnetic particle testing method. The following topics will be included: principles of magnetism, testing equipment, types of discontinuities, quality control, and evaluation techniques. Final exams will be given for each level, and students with an individual test score of 70% or greater will receive a course certificate verifying successful completion of theory training for that level.

**Credits** 2

**Theory Hours** 2

**Lab Hours** 0

**Prerequisites**

[NDT110G](#) with a grade of C or better or approval of Department Chair

**NDT212G : Ultrasonic Inspection**

Ultrasound, a term used to describe mechanical vibrations above the audible range, is commonly used in nondestructive testing of metals and nonmetal materials to measure thickness or to examine the internal structure. Abnormalities such as cracks, boundaries, or inclusions can be detected as sound waves are scattered or reflected. In this class, students will learn the physics of sound, the use of sound waves for measurement, and technical aspects of ultrasonic testing. This course will cover math, including basic trigonometry, to help the student understand ultrasound principles in terms of velocity, distance and angles.

**Credits** 4

**Theory Hours** 3

**Lab Hours** 2

**Prerequisites**

[NDT110G](#) with a grade of C or better; Accuplacer level testing of QAS 241 or higher in math and college level reading or permission of department chair

**NDT214G : Radiographic Testing**

Radiographic inspection is based on the principles of physics that x-ray and gamma ray absorption indicates thickness and density of matter to examine material for internal discontinuities. Radiography is one of the most common and effective methods of inspecting products without damaging them (nondestructive testing or NDT). This course will cover material required for the classroom training portion for level 1 and II certification of NDT personnel in the radiographic testing method. This includes radiography testing principles, equipment, safety considerations, and the interpretation and evaluation of results. Applied math will include basic algebra and geometry.

**Credits** 4

**Theory Hours** 3

**Lab Hours** 2

**Prerequisites**

[NDT110G](#) with grade of C or better; Accuplacer level testing of QAS 241 or higher in math and college level reading or permission of department chair

**NDT215G : Digital Radiographic Testing**

Radioscopic digital imaging, related to radioscopy, uses digitization of analog electronic data. This course will meet the requirements for non-film radiography per NAS-410 and ASNT SNT-TC-1a, and will include an introduction to the theory of computed radiography (CR) as well as digital detector array systems (DDA or DR). Topics will also include a review of radiology physics and radiation safety. Final exams will be given for levels 1 and 2, and students with an individual test score of 70% or greater will receive a course certificate verifying successful completion of theory training for that level.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Prerequisites**

[NDT214G](#), Radiographic Testing with a C or better, successful completion of an RT level 1 course, or currently certified as an RT level 1

**Semester Offered**

Fall semester

**NDT220G : Eddy Current Testing**

Eddy current testing (ET), the most widely used sub method of electromagnetic testing, is used to detect discontinuities and measurements on parts made of materials with significant electrical conductivity. This course will cover content required for the classroom-training portion for level 1 and 2 certification of NDT personnel in the eddy current testing method, including electromagnetic theory, basic physics principles, techniques, and applications. Final exams will be given for each level, and students with an individual test score of 70% or greater will receive a course certificate verifying successful completion of theory training for that level.

**Credits** 4

**Theory Hours** 3

**Lab Hours** 2

**Prerequisites**

[NDT110G](#) with a grade of C or better or approval of Department Chair

## Nursing

**NURS111G : Nursing I**

Students begin learning the roles of the Associate Degree Nurse as a provider and manager of care and a member within the discipline of nursing. Students develop introductory knowledge, attitudes, as well as interpersonal and psychomotor skills to provide care to patients with actual or possible health problems who are in a state of wellness. The organizing curricular concepts of Person, Health, Environment, and Nursing and their interrelationships are introduced. Students learn to respect the patient and family as central members of the health care team and develop commitment to advocacy, and provision of safe, high quality, holistic, and evidenced-based practice. Nursing care content includes the nursing process, health promotion, safe medication administration, communication/documentation, teamwork/interdisciplinary collaboration, effective utilization of resources, and patient/family education. Students learn to apply a systematic approach to health assessment. Additional nursing concepts that are integral to the nursing role such as professionalism, leadership, systems-based practice, informatics and technology, and quality improvement are presented. Students are introduced to nursing research and conduct an article critique. Students participate in a Learning Lab group project and poster presentation. The Learning Laboratory provides opportunities to practice nursing skills in simulated activities. Clinical Learning provides experiences to practice nursing by caring for well patients or patients with common basic health problems in protected favorable environments such as nursing homes, rehabilitation and transitional care.

**Credits** 9

**Theory Hours** 6

**Lab Hours** 9

**Corequisites**

[BIOL110G](#), [PSYC110G](#), and [FYE116G](#)

**Semester Offered**

Fall semester

**NURS112G : Nursing II**

Students develop competence to provide and manage care as a member within the discipline of nursing for patients and their families with common health problems in protected, favorable environments. The delivery of patient centered care across the life span is emphasized with a special focus on adults, children in childbearing and childrearing families, and psychiatric/mental health care settings. Nursing knowledge, attitudes, as well as interpersonal, and psychomotor competencies are further developed. Nursing content establishes the relationship between common health problems and their contributing factors; pathophysiology; assessments/diagnostic and lab testing; evidenced based practice and collaborative care. The nursing concepts of safety/prevention of injury, systems-based practice, leadership, professionalism, and ethical decision making are further explored in theory and developed in practice within the legal, political, regulatory and economic context of health care. Students further their understanding of nursing research by reviewing nursing literature and writing a research paper. Students participate in a group Community Health Project and poster presentation. The Learning Laboratory provides opportunities to practice more complex nursing skills in simulated activities. Clinical Learning provides experiences to practice nursing care in perinatal/pediatric or psychiatric/mental health, and adult health acute care settings.

**Credits** 9

**Theory Hours** 4

**Lab Hours** 15

**Prerequisites**

Both [NURS111G](#) and [BIOL110G](#) with grades of "C+" or better, [PSYC110G](#)

**Corequisites**

[BIOL120G](#), [PSYC210G](#), and [FYE116G](#)

**Semester Offered**

Spring semester

**NURS200G : Advanced Placement Seminar**

Licensed Practical Nurses develop the knowledge, attitudes and interpersonal and psychomotor skills to succeed in advanced placement entry into the Associate Degree Nurse Program. The philosophy, objectives, and organizing curricular concepts of Person, Health, Environment, and Nursing and their interrelationships are introduced. Students develop competence to provide and manage care as members within the discipline of nursing for patients and their families with common health problems in protected, favorable environments. Students learn to respect the patient and family as central members of the health care team and develop commitment to advocacy, and provision of safe, high quality, holistic, and evidenced-based practice. Nursing care content includes the nursing process, health promotion, safe medication administration, communication/documentation, teamwork/interdisciplinary collaboration, effective utilization of resources, and patient/family education. Students learn to apply a systematic approach to health assessment. The nursing concepts of safety/prevention of injury, systems-based practice, leadership, professionalism, and ethical decision making are explored in theory within the legal, political, regulatory and economic context of health care. Students are introduced to nursing research, review nursing literature, and write a research paper. The Learning Laboratory provides opportunities to practice more complex nursing skills in simulated activities. Students apply the nursing process to online case studies in pediatric, psychiatric/mental health, and adult health acute care settings.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Prerequisites**

Admission to Nursing Program Advanced Placement; [BIOL110G](#) and [BIOL120G](#) in the past 5 years with a "C+" or better, [PSYC110G](#), [PSYC210G](#), [FYE116G](#)

**Semester Offered**

Summer semester

### **NURS211G : Nursing III**

Students develop competence to provide and manage care as a member within the discipline of nursing for patients and their families with common health problems and in favorable environments. The delivery of patient centered care across the life span is emphasized with a special focus on adults, children in childbearing and childrearing families, and psychiatric/mental health care settings. Nursing knowledge, attitudes, as well as interpersonal, and psychomotor competencies are further developed. Nursing content establishes the relationship between common health problems and their contributing factors; pathophysiology; assessments/diagnostic and lab testing; evidenced based practice and collaborative care. The nursing concepts of safety/prevention of injury, systems-based practice, leadership, professionalism, and ethical decision making are further explored in theory and developed and applied in practice within the legal, political, regulatory and economic context of health care. Students utilize nursing research to create a Proposal Paper exploring divergent perspectives on a contemporary issue or trend that impacts nursing practice. Students participate in the Cooperative Learning Lab group presentation. The Learning Laboratory provides opportunities to practice more complex nursing skills in simulated activities. Clinical Learning provides experiences to practice nursing care in perinatal/pediatric or psychiatric/mental health, and adult health acute care settings.

**Credits** 9

**Theory Hours** 4

**Lab Hours** 15

#### **Prerequisites**

Both [NURS112G](#) and [BIOL120G](#) with grades of “C+” or better, as well as completion of all other first level courses per the Nursing program, and [FYE116G](#)

#### **Corequisites**

[BIOL210G](#) and [ENGL110G](#) or [ENGL111G](#)

#### **Semester Offered**

Fall semester

### **NURS212G : Nursing IV**

Students develop competence and independence to provide and manage care as members within the discipline of nursing as well as the interdisciplinary team for patients and their families with multi-system health problems across the life span in structured health care settings. Nursing knowledge, attitudes, as well as interpersonal, and psychomotor competencies are further developed and refined. Nursing content establishes the relationship between common multi-system health problems and their contributing factors; pathophysiology; assessments/diagnostic and lab testing; evidenced based practice and collaborative care. Professional standards of practice, research, and the nursing concepts of safety/prevention of injury, systems-based practice, leadership, professionalism, quality improvement and risk management, culturally competent care, and ethical decision making within the legal, political, regulatory and economic context of health care are further discussed and explored in theory and developed and applied in practice. Students analyze the nursing research and create a Position Paper exploring divergent perspectives on a contemporary issue or trend that impacts nursing practice. Students participate in the Senior Seminar group presentations. The Laboratory Learning includes simulated learning activities to care for complex patients with multisystem health problems. Clinical Learning provides experiences to practice nursing care in advanced medical-surgical, extended care and/or acute rehabilitation, and various community health settings. At the conclusion of the course, the student is prepared to transition to the role of registered nurse.

**Credits** 9

**Theory Hours** 3

**Lab Hours** 18

#### **Prerequisites**

Both [NURS211G](#) and [BIOL210G](#) with grades of “C+” or better, and [ENGL110G](#) or [ENGL111G](#)

#### **Corequisites**

[MATH145G](#) or higher, ENGL elective, Humanities/Fine Arts/Foreign Language elective

#### **Semester Offered**

Spring semester

# Philosophy

## **PHIL110G : Introduction to Philosophy**

In this course, students will be introduced to the important ideas in Western philosophy. The course will emphasize the Greek origins of philosophy, the transformation of philosophy by Enlightenment thought in the 17th and 18th centuries, and the postmodern reaction to Enlightenment thought. The course will relate philosophical ideas to contemporary issues.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Semester Offered**

Fall semester

**Notes**

(Fulfills Humanities requirement.)

## **PHIL215G : World Religions**

The course is an introduction to the major religions of the world. The origins, core beliefs, traditions, and practices will be discussed. The purpose of the course is to understand and appreciate the various religious theories and practices by focusing on key texts, figures and ideas. The approach will strive to be descriptive, not prescriptive. Students will gain initial exposure to the structure and worldview of the religions covered: Christianity, Islam, Judaism, Hinduism and Buddhism. Additional religions may also be included based on instructor and student interest (African, Native American and new wave, Taoism, Confucianism, Baha'i, Zoroastrianism, Sikhism, etc.).

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Semester Offered**

Spring semester

**Notes**

(Fulfills Humanities requirement.)

## **PHIL240G : Ethics**

This course is designed to introduce students to general ethical theories, philosophies and decision-making models. The goal of the course is to relate theory to practice. Throughout the course, this general knowledge will be applied to specific problems and cases. Applications may include general ethical issues and more career-specific issues determined by student interest.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Semester Offered**

All semesters

**Notes**

(Fulfills Humanities requirement.)

# Physics

## **PHYS135G : College Physics I**

This course is an introduction to the basic principles of Newtonian mechanics with emphasis on the application of these principles when solving problems. Topics to be covered include kinematics of motion, vectors, Newton's laws, friction, work energy, impulse-momentum for both translational and rotational motion, and the mechanical properties of matter. Dimensional (unit) analysis and critical thinking are stressed.

**Credits** 4

**Theory Hours** 3

**Lab Hours** 3

### **Prerequisites**

"C" or better in [MATH150G](#)/152G or equivalent

### **Semester Offered**

Fall/Spring semesters

## **PHYS136G : College Physics II**

This course is a continuation of the study of elementary physics that began in College Physics I. Special emphasis is placed on the principles introduced when solving problems. Topics to be investigated include the fundamentals and the applications of Coulomb's Law, electrical fields and potentials, capacitance, electric current and resistance, DC circuits, magnetism, electromagnetic induction, AC circuits, oscillating systems and waves, and geometric optics.

**Credits** 4

**Theory Hours** 3

**Lab Hours** 3

### **Prerequisites**

"C" or better in [MATH210](#) or equivalent and [PHYS135G](#)

### **Semester Offered**

Spring semester

## **PHYS290G : University Physics I**

This course is an introduction to the basic principles of physics including motion in one and two dimensions, force, statics, translational and rotational equilibrium, work, energy, power, and mechanical properties of matter. Dimensional (unit) analysis and critical thinking are stressed.

**Credits** 4

**Theory Hours** 3

**Lab Hours** 3

### **Prerequisites**

Grade of "C" or better in [MATH230G](#) or equivalent

### **Semester Offered**

Fall semester



**PHYS295G : University Physics II**

This course is a continuation of University Physics I, investigating the fundamental properties of solids, liquids, simple harmonic motion, mechanical waves, energy transfer, electromagnetic waves, field theory, heat, temperature, temperature effects on solids and fluids, heat transfer, geometric optics, and electricity. Special emphasis is placed on problem-solving skills, developing solutions based on the application of integration, polar coordinates and series to the solution of realistic problems. Dimensional (unit) analysis and critical thinking are stressed.

**Credits** 4

**Theory Hours** 3

**Lab Hours** 3

**Prerequisites**

Grade of "C" or better in [PHYS290G](#)

**Semester Offered**

Spring semester

## Political Science

**POLS101G : Politics and Society**

This course is an introduction to political theory and philosophies, from the classical and medieval periods to modern times. Students will examine the development of the philosophies through history, with an emphasis on how those philosophies impact and shape the way people behave and interpret their societies. Students will also explore how the ideas act as responses to the predecessors and introduce new variations and interpretations. This will provide context for discussions of modern political philosophies and institutions during the latter part of the course.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Semester Offered**

Spring semester

**Notes**

(Fulfills Social Science requirement.)

**POLS103G : The United States in the World**

This course is an introduction to the Political Science subfield: US Foreign Relations. Students will examine objectives and outcomes of major American foreign policy actions throughout its history. This will provide context for modern US foreign policy decisions, which will be the focus in the latter part of the semester.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Semester Offered**

Fall semester

**Notes**

(Fulfills Social Science requirement.)

**POLS110G : American Government**

This course provides a functional approach to the study of American government on the national, state, and local level. The structure, functions, operations, and problems of the American system will be explored in lectures, discussions, readings, and papers.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Semester Offered**

Fall or Spring semester

**Notes**

(Fulfills Social Science requirement.)

**POLS210G : Introduction to Political Science**

This course is an introduction to the field of political science. Political ideologies, nationalism, cultures, and institutions will be discussed. Public opinion, political parties, interest groups, and voting behavior will also be covered. Throughout the course, the concepts of power and legitimacy, elitism and pluralism will guide discussion. American and comparative examples will be utilized.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Notes**

(Fulfills Social Science requirement.)

**POLS220G : Public Administration**

This course discusses the growth of the public sector and the methods by which this sector can be managed. Topics include public management techniques, effective decision making, civil service, budgeting, public organizations, and the politics of public-sector administration.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Semester Offered**

Spring and summer semesters

**Notes**

(Fulfills Social Science requirement.)

# Psychology

## **PSYC110G : Introduction to Psychology**

This course is an introduction to various areas of psychology: scientific investigation, critical thinking, and leading theories. Topics include, but are not limited to: motivation, emotions, personality, physiological foundations of behavior, psychological disorders and therapy, perception, learning, and human development.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

### **Prerequisites**

[ENGL110G](#) or [ENGL111g](#) (may be co-requisite) or placement into [ENGL110G](#) or [ENGL111G](#)

### **Semester Offered**

All semesters

### **Notes**

(Fulfills Social Science requirement.)

## **PSYC140G : Introduction to Social Work**

This course will introduce students to the profession of social work within the context of the social welfare system. It will provide an overview of an integrative approach to generalist social work practice, which emphasizes intervention on individual, environmental and societal levels.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

### **Semester Offered**

Fall/Summer semesters

### **Notes**

(Fulfills Social Science requirement.)

## **PSYC150G : Social Welfare & Policy**

This course examines the values and norms that underlie social welfare services; the historical roots of current approaches to social services; the overt and covert functions of social welfare; and the political, social, cultural and economic forces that shape social welfare policy and services in the United States. Throughout the course, the parallel historical development of the profession of social work, including ways in which it responded to the demands of social problems across key periods of social welfare policy transformation will be considered. Students will also gain an understanding of the interrelated nature of global events and domestic social policy as it affects individuals and families across diverse practice settings.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

### **Semester Offered**

Spring semester

### **Notes**

(Fulfills Social Science requirement.)

**PSYC205G : Crisis Intervention**

This course focuses on crisis theory methods of crisis intervention, and specific crises that occur with individuals and families such as suicide, unemployment, criminal victimization, natural disasters, illness, divorce, and death.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Prerequisite Courses**

PSYC110G: Introduction to Psychology

**Semester Offered**

All semesters

**Notes**

(Fulfills Social Science requirement.)

**PSYC210G : Human Growth and Development**

This course is a study of psychological implications for the growth and development of humans with a specific emphasis on the physical, cognitive, social, emotional, and ethical dimensions during the prenatal period through later adulthood. A review of, and an introduction to, major theorists is presented on a continuing basis throughout the course.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Prerequisite Courses**

PSYC110G: Introduction to Psychology

**Semester Offered**

All semesters

**Notes**

(Fulfills Social Science requirement.)

**PSYC215G : Pathopsychology**

This course provides a comprehensive overview of the field of abnormal psychology and mental illness from a biopsychosocial perspective. Focus will be on the complexities and consequences of labeling as well as the diagnostic techniques and research methods used. Contemporary approaches to psychological and biological interventions will be introduced.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Prerequisite Courses**

PSYC110G: Introduction to Psychology

**Semester Offered**

All semesters

**Notes**

(Fulfills Social Science requirement.)

**PSYC220G : Counseling Theory & Interpersonal Communication**

This course is designed to provide the student with an overview of counseling psychology as a profession. Information is provided about the basic educational, historical, philosophical and psychological foundations of counseling as well as specific traits and skills of professional counselors. Several broad theoretical perspectives will be studied and applied in role-play situations.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Prerequisites**

[ENGL110G](#)/[111G](#) (may be co-requisite) or placement into [ENGL110G](#)/[111G](#) and [PSYC110G](#)

**Semester Offered**

Fall semester

**Notes**

(Fulfills Social Science requirement.)

**PSYC230G : Educational Psychology**

This course reviews the application of psychological principles to the educational environment. Theories of cognitive processes and development, learning, and social and moral development are discussed as they apply to learning and teaching. Issues involving assessment, classroom management, individual differences, and socioeconomic and developmental influences on learning are also presented. Application of theoretical perspectives to classroom teaching will be emphasized.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Prerequisite Courses**

PSYC110G: Introduction to Psychology

**Semester Offered**

Fall/Spring semesters

**Notes**

(Fulfills Social Science requirement.)

**PSYC235G : Health Psychology**

This course focuses on use of psychological and behavioral theory to address behaviors impacting health, wellness and health seeking behavior. It is designed to meet the needs of health professionals, significant others and individuals themselves who seek to enhance health, quality of life or manage conditions such as stress, addiction, pain, and chronic disease.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Prerequisite Courses**

PSYC110G: Introduction to Psychology

**Semester Offered**

Fall/Spring semesters

**Notes**

(Fulfills Social Science requirement.)

**PSYC241G : Social Science Research Methods**

This course provides an overview of the research design process in the social sciences. Students will design and implement their own research study in an area related to the social sciences. All aspects of a research study will be explored and developed by the students. Ethical issues in research will also be investigated.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Prerequisites**

[PSYC110G](#) and [MATH225G](#) (may be co-req); or permission of Program Advisor

**Semester Offered**

Fall/Spring semesters

**Notes**

(Fulfills Social Science requirement.)

**PSYC281G : Psychology Internship**

This course will provide students with the opportunity to experience real world application of Social Science theory. Students will complete a minimum of 135 hours of fieldwork that builds upon previously learned concepts in the Social Sciences. Students need Department Chair approval to register for this course.

**Credits** 3

**Theory Hours** 0

**Lab Hours** 9

**Prerequisites**

[PSYC110G](#) & Permission of Department Chair

**Notes**

(Fulfills Social Science requirement.)

## Sociology

**SOCI110G : Sociology**

This course provides an introduction to the development of sociological thought and the theories and methods used to study social structure and interaction. Students will learn how people's location in society and its institutions shape their experiences and life chances, and how individuals and groups can influence the process. It will relate the contributions of sociology to the field of social behavior through the study of the basic social units of society. The course emphasizes the influence of culture on human behavior, social relationships, and the cause and effect of social changes.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Semester Offered**

All semesters

**Notes**

(Fulfills Social Science requirement.)

**SOCI120G : Society and Technological Change**

This course is a study of the relationship between technology and humankind and the attempt to link, decipher and evaluate technological systems to all human life and to prove that all of them are interrelated.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Semester Offered**

All semesters

**Notes**

(Fulfills Social Science requirement.)

**SOCI250G : Cross-Cultural Conflict Resolution**

This course is designed to introduce students to ethnic and cross-cultural differences in the norms, values, perceptions, and behaviors as they impact personal lives in interpersonal skills. Introducing students to these differences will facilitate communication and cooperation within relationships where the participants come from very different backgrounds and/or ethnic cultures. This course is appropriate and will serve as an elective for professionals and paraprofessionals in business, human services, nursing, early childhood education, gerontology, and criminal justice.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Semester Offered**

Spring semester

**Notes**

(Fulfills Social Science requirement.)

**SOCI255G : Societal Approaches to Health Care Systems**

Today's health care providers must not only be competent in the skills required by their role in health care delivery role; they must also understand and function adaptively in the complex system(s) within which they work. A large proportion of health-related decisions are made not by the patient and/or care provider, but by legislators, insurers, institutions, and others who lack the information available from those delivering direct and indirect health care. Care providers need a background in public policy and the U.S. health care system in order to understand how it has evolved, how it affects health care delivery, and how to influence its future course.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Prerequisites**

College level reading and writing.

# Spanish

## **SPAN110G : Spanish I**

This course is a fully integrated, introductory Spanish course. The course is designed for beginning Spanish students with little or no prior knowledge of Spanish. It is directed to students whose learning objectives and needs are in any of the following categories: for Spanish-language students, for business purposes, as well as for travelers. The emphasis is to develop a proficiency in basic communicative skills concentrating on the dynamic application of the living language taught through dialogue, phonetics, and vocabulary. A strong grammar foundation and other basic language skills are taught through actual phrases and sentences helping the student develop an instinctive sense of the correct usage. Language laboratory activities are part of the course reinforcing class content. These objectives will be achieved through the following approaches: speaking, listening, reading, writing, and cultural appreciation. *Effective Fall 2023: this is a CCSNH Access course and will display on transcripts, count as credits attempted, and count towards the cumulative grade point average for all seven colleges: Great Bay, Lakes Region, Manchester, Nashua, NHTI, River Valley, and White Mountains. Students cannot receive credit for more than one of the CCSNH Access courses or equivalents and the most recent course on the college transcript will be used in the cumulative grade point average (CGPA) calculation. For graduation residency purposes, only Access courses owned by the campus where the student is matriculated will be used to meet the requirements.*

**Credits** 4

**Theory Hours** 4

**Lab Hours** 0

**Semester Offered**

Fall semester

**Notes**

Fulfills Foreign Language requirement

## **SPAN120G : Spanish II**

This course is a continuation of the introductory Spanish course. For students who have had the equivalent of one year of high-school Spanish or one semester of college Spanish. The course is designed for students whose learning objectives and needs are in any of the following categories: for Spanish-language students, for business purposes, as well as for travelers. The emphasis is to consolidate and reinforce the language skills acquired in Spanish I, or equivalent, and to continue building communicative skills and cultural competency. The course continues to offer a comprehensive review of basic first-term grammar structures, while developing proficiency and advancement in communicative skills concentrating on the dynamic application of the living language taught through dialogue, phonetics, and vocabulary. A strong grammar foundation and other essential language skills are taught through actual phrases and sentences, helping the student develop an instinctive sense of the correct usage. Language laboratory activities are part of the course reinforcing class content. These objectives will be achieved through the following approaches: speaking, listening, reading, writing, and culture.

**Credits** 4

**Theory Hours** 4

**Lab Hours** 0

**Prerequisites**

[SPAN110G](#) or equivalent

**Semester Offered**

Spring semester

**Notes**

(Fulfills Foreign Language requirement.)



# Surgical Technology

## **SURG115G : Basic Instrumentation, Supplies and Equipment**

Overview of instruments, supplies and equipment used in the operating room and specifically for General and Gynecological Surgeries. Course includes instrument classifications, care and cleaning. Suture, mechanical stapling devices and other methods of hemostasis along with supplies and equipment will be discussed.

**Credits** 1

**Theory Hours** 0

**Lab Hours** 3

### **Prerequisites**

Admission to Surgical Technology Program

### **Corequisites**

[SURG118G](#), [SURG119G](#), [AHLT110G](#), and [BIOL110G](#)

### **Semester Offered**

Fall semester

## **SURG116G : Advanced Instrumentation, Supplies and Equipment**

A continuation of instruments, supplies and equipment used in the operating room and specifically for Genitourinary, Plastics, Ophthalmology, Otolaryngology, Orthopedics, Neurological, Cardiothoracic, and Peripheral Vascular Surgeries. Each specialty will include an in-depth procedure demonstration.

**Credits** 1

**Theory Hours** 0

**Lab Hours** 3

### **Prerequisites**

Admission to Surgical Technology Program, C or better in SURG 115G, [SURG118G](#), [SURG119G](#), [AHLT110G](#), and [BIOL110G](#)

### **Corequisites**

[SURG121G](#), [SURG122G](#), [BIOL120G](#), and [ENGL110G](#) or [ENGL111G](#)

### **Semester Offered**

Spring semester

## **SURG118G : Surgical Technology Fundamentals Lecture**

This course focuses on surgical technology and the roles in which it plays in the areas of the operating room environment, the operating room staff, hospital facilities, and the surgical patient, legal, ethical and moral principles, aseptic technique, wound healing, pharmacology and anesthesia.

**Credits** 6

**Theory Hours** 6

**Lab Hours** 0

### **Prerequisites**

Admission to Surgical Technology Program

### **Corequisites**

[AHLT110G](#), [BIOL110G](#), [SURG119G](#), and [SURG115G](#)

### **Semester Offered**

Fall semester

**SURG119G : Surgical Technology Fundamentals Lab**

The core of this course consists of the role of the scrub during the preoperative and intraoperative phase of surgery, sterilization, disinfection, asepsis, and the principles of sterile technique and sterile conscience, leading into a detailed study of combining; procedures, instrumentation, equipment, and supplies needed for specific surgeries.

**Credits** 1

**Theory Hours** 0

**Lab Hours** 3

**Prerequisites**

Admission to Surgical Technology Program

**Corequisites**

[AHLT110G](#), [BIOL110G](#), [SURG118G](#), and [SURG115G](#)

**Semester Offered**

Fall semester

**SURG121G : Surgical Procedure I Lecture**

This course builds on information acquired in the freshman fall course work. Surgical procedures are studied in a unit-by-unit basis according to surgical categories. Students are expected to research and review anatomy for each unit. Emphasis is placed on variations of principles as applied to surgery in different body parts, detailed study of instrumentation, and the technologist's role in each procedure. Pharmacology and drugs related to specialties will also be studied.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Prerequisites**

Admission to Surgical Technology Program, C or better in AH110G, [SURG115G](#), [SURG118G](#), [SURG119G](#), and [BIOL110G](#)

**Corequisites**

[SURG116G](#), [SURG122G](#), [BIOL120G](#), and [ENGL110G](#) or [ENGL111G](#)

**Semester Offered**

Spring semester

**SURG122G : Surgical Procedure I Lab**

The core of this course enhances on the role of the scrub during the preoperative and intraoperative phase of surgery, sterilization, disinfection, asepsis, and the principles of sterile technique and sterile conscience, leading into a detailed study of combining; procedures, instrumentation, equipment, and supplies needed for specific surgeries, preparing the student for senior clinical rotation.

**Credits** 1

**Theory Hours** 0

**Lab Hours** 3

**Prerequisites**

Admission to Surgical Technology Program, C or better in AH110G, [SURG115G](#), [SURG118G](#), [SURG119G](#), and [BIOL110G](#)

**Corequisites**

[SURG116G](#), [SURG121G](#), [BIOL120G](#) and [ENGL110G](#) or [ENGL111G](#)

**Semester Offered**

Spring semester

**SURG123G : Orientation to Surgical Clinical**

Orientation to Surgical Clinical is a continuous correlation of theoretical content and clinical performance. The student is expected to focus clinical performances with corresponding units covered in [SURG121G](#), Surgical Procedures I. Forty hours are spent for two weeks in assigned clinical areas. The student is expected to document learning experiences daily utilizing a journal, Surgical Case Logs, Typhon Surgical Case Tracking System, Preceptor Evaluations and Case Study Reports.

**Credits** 2

**Theory Hours** 0

**Lab Hours** 6

**Prerequisites**

Admission to Surgical Technology Program, C or better in [SURG116G](#), [SURG121G](#), [SURG122G](#), [BIOL120G](#), and [ENGL110G](#) or [ENGL111G](#)

**Corequisites**

[MATH145-147G](#), and [BIOL210G](#)

**Semester Offered**

Summer semester

**SURG210G : Surgical Procedures II**

This course is a continuation of Surgical Procedures I. The more complex surgical specialties are presented including Orthopedics, Peripheral Vascular, Cardiothoracic, and Neurology. Care of high-risk patient populations will be included in each area.

**Credits** 3

**Theory Hours** 3

**Lab Hours** 0

**Prerequisites**

Admission to Surgical Technology Program, Pass in [SURG123G](#), and a C or better in both [MATH145G/147G](#) and [BIOL210G](#)

**Corequisites**

[SURG215G](#), and [PSYC110G](#)

**Semester Offered**

Fall semester

**SURG215G : Surgical Clinical I**

Surgical Clinical I is a continuous correlation of theoretical content and clinical performance. The student is expected to concentrate clinical performances with corresponding units covered in Surgical Procedures I, [SURG121](#). Thirty-Two hours are spent each week in assigned clinical areas. The student is expected to document learning experiences daily utilizing a journal, Surgical Case Logs, Preceptor Evaluations and Case Study Reports. All assigned cases must be documented weekly on the Surgical Case Log sheet which needs to be signed by their Preceptor and entered into the Typhon Surgical Case Tracking System to be approved by their Clinical Coordinator.

**Credits** 8

**Theory Hours** 0

**Lab Hours** 32

**Prerequisites**

Admission to Surgical Technology Program, Pass in [SURG123G](#), C or better in both [MATH145G/147G](#) and [BIOL210G](#)

**Corequisites**

[SURG210G](#), and [PSYC110G](#)

**Semester Offered**

Fall semester

**SURG224G : Surgical Procedures III/Special Considerations in Surgery**

A continuation of Surgical Procedures II. Students complete the theory portion of their clinical specialties with management of emergency and trauma situations, ENT, Ophthalmology, Pediatric, Oral and Maxillofacial procedures, resume writing and tips for a successful job interview.

**Credits** 4

**Theory Hours** 4

**Lab Hours** 0

**Prerequisites**

Admission to Surgical Technology program, Pass in [SURG215G](#) and C or better in following courses: [SURG210G](#), and [PSYC110G](#)

**Corequisites**

[SURG225G](#), English Elective, and Foreign Language/Humanities/Fine Arts Elective

**Semester Offered**

Spring semester

**SURG225G : Surgical Clinical II**

Surgical Clinical II is a continuous correlation of theoretical content and clinical performance. The student is expected to concentrate clinical performances with corresponding units covered in Surgical Procedures II, [SURG210G](#). Thirty-Two hours are spent each week in assigned clinical areas. The student is expected to document learning experiences daily utilizing a journal, Surgical Case Logs, Preceptor Evaluations and Case Study Reports. All assigned cases must be documented weekly on the Surgical Case Log sheet which needs to be signed by their Preceptor and entered into the Typhon Surgical Case Tracking System to be approved by their Clinical Coordinator.

**Credits** 8

**Theory Hours** 0

**Lab Hours** 32

**Prerequisites**

Admission to Surgical Technology program, Pass in [SURG215G](#) and C or better in following courses: [SURG210G](#), and [PSYC110G](#)

**Corequisites**

[SURG224G](#), English Elective, and Foreign Language/Humanities/Fine Arts Elective

**Semester Offered**

Spring semester

## Veterinary Technology

**BIOL111G : Veterinary Anatomy and Physiology I**

This course offers an in-depth study of the normal anatomy and physiology of domestic mammals with emphasis on the dog and cat. Major differences with respect to the larger domestic species are also covered. This is the first semester of a two-semester course and covers basic organization, cells, tissues, the integument, skeletal, muscular, and nervous systems. Lab work augments lecture topics and includes the study of microscope slides as well as preserved specimens and models.

**Credits** 4

**Theory Hours** 3

**Lab Hours** 3

**Prerequisites**

Admission to the Veterinary Technology program

**Semester Offered**

Fall semester

**BIOL121G : Veterinary A&P II**

This course offers an in-depth study of the normal anatomy and physiology of domestic mammals with emphasis on the dog and cat. Major differences with respect to the larger domestic species are also covered. This course is a continuation of [BIOL111G](#) and covers the endocrine, reproductive, cardiovascular, respiratory, urinary, and digestive systems. Lab work augments lecture topics and includes the study of microscope slides as well as preserved specimens and models.

**Credits** 4

**Theory Hours** 3

**Lab Hours** 3

**Prerequisites**

C+ or better in [BIOL111G](#) and [VETN110G](#)

**Semester Offered**

Spring semester

**VETN110G : Introduction to Veterinary Technology**

This course will introduce the student to the field of Veterinary Technology. Animal behavior, species and breed identification, medical terminology and occupational safety will be covered. In addition, students will get an overview of managing the reception area of a veterinary hospital including how to maintain medical records, organize inventory and dispense prescription medications. Handling various client situations will be emphasized. Ethical and legal issues in veterinary medicine will also be discussed. This course will include lecture material, class discussions and student presentations.

**Credits** 2

**Theory Hours** 2

**Lab Hours** 0

**Prerequisites**

Acceptance into the Veterinary Technology program or acceptance in the Veterinary Practice Management certificate program

**Semester Offered**

Fall semester

**Notes**

(For Veterinary Technology program).

**VETN114G : Veterinary Pharmacology**

This course will cover basic pharmacology for the veterinary technician with focus in private practices. It will cover basic classes of drugs with an emphasis on pharmacodynamics, client education, side effects and dosage calculations. This is the first semester of a two-semester course. Lab work will augment lecture material.

**Credits** 3

**Theory Hours** 2

**Lab Hours** 2

**Prerequisites**

C+ or better in [BIOL111G](#), and [VETN110G](#)

**Corequisites**

[BIOL121G](#) and [VETN121G](#)

**Semester Offered**

Spring semester

**VETN115G : Veterinary Parasitology**

This course will cover common parasites found in both companion and food animals. Life cycles, identification, prevention and treatment for endoparasites, ectoparasites and blood parasites will be presented. Diagnostic testing for these parasites will be discussed and will be performed in VETN 220G.

**Credits** 2

**Theory Hours** 2

**Lab Hours** 0

**Prerequisites**

C+ or better in [VETN 110G](#) and [BIOL 111G](#)

**Semester Offered**

Spring semester

**VETN121G : Veterinary Clinical Methods I**

Small animal medical nursing procedures are introduced. Elements include handling and restraint, aspects of the history and physical exam, specimen collection, administration of medications and treatments, diseases, nutritional supplementation, the basics of preventative health care, first aid and emergencies. The lab provides hands-on practice using models and the animal patient. This course will provide the foundation by which the student will progress to their summer clinical affiliations. This course includes a service-learning requirement to volunteer two days at spay/neuter clinics run by rescues, at veterinary clinics or at animal rescues. Instructors will choose the volunteer opportunities and will accompany the students.

**Credits** 4

**Theory Hours** 3

**Lab Hours** 3

**Prerequisites**

C+ or better in [VETN110G](#) and [BIOL111G](#)

**Corequisites**

[VETN114G](#) and [BIOL121G](#)

**Semester Offered**

Spring semester

**Notes**

(SL)

**VETN130G : Veterinary Clinical Affiliation I**

The objectives for the clinical affiliation are correlated with the basic course content of VETN 110G, 114G, 115G and 121G. The course generally follows sequential steps from basic to more complex tasks, adding components each week to enable the student to gradually function in a technical position with added skill and confidence. Physical limitations may hinder the student's ability to succeed in this course. Students will be expected to lift and restrain animals. Sufficient manual dexterity, hearing and vision are necessary to accurately perform many clinical procedures. Students will be expected to establish priorities, function effectively in emergency situations, comply with safety regulations and communicate in a professional manner.

**Credits** 4

**Theory Hours** 0

**Lab Hours** 24

**Prerequisites**

"C+" or better in [VETN110G](#), [VETN114G](#), [VETN115G](#), [VETN121G](#), [BIOL111G](#), [BIOL121G](#)

**Semester Offered**

Summer semester

**VETN210G : Veterinary Clinical Methods II**

This course is designed to provide the student with a strong background in veterinary surgical nursing and assistance. Surgical interventions, as well as sterilization, disinfection, and aseptic technique are covered. Anesthesia and monitoring the surgical patient is emphasized. Specialized clinical procedures are also covered that build on techniques learned during [VETN121G](#) and the student's Clinical Affiliation I.

**Credits** 4

**Theory Hours** 3

**Lab Hours** 3

**Prerequisites**

Complete [VETN110G](#), [VETN114G](#), [VETN121G](#) with a C+ or better and successfully complete [VETN130G](#) Clinical Affiliation I

**Semester Offered**

Fall semester

**VETN212G : Laboratory Animal Science**

This course provides students with an understanding of the principles and practices of laboratory animal science. Research methods, care and handling of laboratory animals, and legal regulations pertaining to animal welfare and research procedures are incorporated. Students also become familiar with handling, basic care, and diseases of the popular small pets including guinea pigs, rabbits, ferrets, hamsters, birds and reptiles.

**Credits** 3

**Theory Hours** 2

**Lab Hours** 2

**Prerequisite Courses**

VETN130G: Veterinary Clinical Affiliation I

**Semester Offered**

Fall semester

**VETN214G : Veterinary Pharmacology II**

This course will cover basic pharmacology for the veterinary technician with focus in private practice. It will cover basic classes of drugs with an emphasis on anesthetic, pain medications, emergency medications and pharmacodynamics.

**Credits** 1

**Theory Hours** 1

**Lab Hours** 0

**Prerequisites**

[VETN114G](#), [BIOL121G](#) and [VETN121G](#) with a C+ or better

**Semester Offered**

Fall semester

**VETN215G : Large Animal Management**

This course is designed to familiarize the student with the care, handling, and restraint of large animals commonly encountered in veterinary practice. Preventive medicine, nutritional requirements, injury and wound care, and common medical and surgical interventions in the care of equine, dairy, and other large animals are explored. Laboratory sessions provide hands-on opportunities at local dairy and horse farms.

**Credits** 3

**Theory Hours** 2

**Lab Hours** 2

**Prerequisite Courses**

VETN130G: Veterinary Clinical Affiliation I

**Semester Offered**

Fall semester

**VETN220G : Veterinary Clinical Pathology I**

This course is the first of two parts, designed to provide the student with a practical and working knowledge of diagnostic tests, and their interpretation, in the veterinary clinical pathology laboratory to diagnose common veterinary diseases. Hematology, clinical chemistry, urinalysis, parasitology, and cytology are stressed. Hands-on laboratory experience is gained in areas of hematology, blood transfusions, clinical chemistry, parasitology, urinalysis and cytology.

**Credits** 3

**Theory Hours** 2

**Lab Hours** 3

**Prerequisites**

[VETN130G](#), [CHEM110G](#) (or [CHEM115G](#)); or permission of the Instructor

**Semester Offered**

Fall semester

**VETN221G : Veterinary Clinical Pathology II**

This course is a continuation of [VETN220](#). The student will continue to develop skills utilized in the veterinary clinical laboratory. Elements of clinical microbiology, cytology, and specialized diagnostic tests are covered. Laboratory sessions focus on clinical microbiology, but also offer exposure to serology, cytology, and necropsy.

**Credits** 3

**Theory Hours** 2

**Lab Hours** 3

**Prerequisites**

C+ or better in [VETN220G](#)

**Semester Offered**

Spring semester

**VETN222G : Veterinary Clinical Affiliation II**

This course is a continuation of [VETN130G](#), Clinical Affiliation I. The objective of this course is to provide the student with practical application and hands-on experience of procedures learned in [VETN210G](#) and [VETN220G](#). This course provides supervised clinical experiences in which the learner can incorporate and build upon knowledge and increase skills and self confidence in the veterinary technician role. Students are expected to select, contact, and interview with their potential clinical site before the start of the semester.

**Credits** 5

**Theory Hours** 0

**Lab Hours** 15

**Prerequisites**

"C+" or better in following courses [VETN210G](#), [VETN212G](#), [VETN215G](#), [VETN220G](#) and [VETN214G](#)

**Semester Offered**

Spring semester



**VETN224G : Veterinary Diagnostic Imaging**

This course will provide the student with an in-depth study and hands-on practice in veterinary medical radiology including radiographic exposure techniques, both traditional and digital, film processing and contrast radiography. In addition, the fields of ultrasound, CT and MRI, as used in veterinary medicine, will be introduced.

**Credits** 2

**Theory Hours** 1

**Lab Hours** 3

**Prerequisite Courses**

VETN130G: Veterinary Clinical Affiliation I

**Semester Offered**

Spring semester

**VETN225G : Veterinary Practice Law**

This course is a business law course focused on legal and ethical issues of interest to a veterinary practice. Areas of law to be considered will be Veterinary Practice Acts, controlled substance and other pharmaceutical laws, Veterinary client patient relationships, contracts and employment law. Students will be able to utilize case studies and briefs to enhance their working knowledge of these topics.

**Credits** 2

**Theory Hours** 2

**Lab Hours** 0

**Prerequisites**

Completion of [VETN110G](#), [VETN114G](#) and [VETN121G](#) with a C+ or better; or fulfill criteria required for admission to the Veterinary Practice Management Certificate

**Semester Offered**

Summer semester

**VETN226G : Small Animal Behavior**

An understanding of normal animal behavior can lead to better understanding and management of the patients in the clinical setting. Human-animal interactions can be enhanced through the use of learning theory and scientifically and humane training, restraint, and behavior modification techniques.

**Credits** 2

**Theory Hours** 2

**Lab Hours** 0

**Prerequisites**

Complete [VETN110G](#), [VETN114G](#), and [VETN121G](#) with a C+ or better or permission of Dept. Chair

**Semester Offered**

Summer semester

**VETN227G : Veterinary Emergency Medicine**

This course will delve into the area of emergency medicine and critical care of the small animal patient, reinforcing and building on material covered in the prerequisite courses (i.e. anatomy and physiology, pharmacology, nursing care, and emergency medicine).

**Credits** 2

**Theory Hours** 2

**Lab Hours** 0

**Prerequisites**

Complete [VETN110G](#), [VETN114G](#), [VETN121G](#), [BIOL111G](#) and [BIOL121G](#) with a C+ or better or permission of Dept. Chair

**Semester Offered**

Summer semester

# Welding Technology

## **WELD100G : Basic Welding Technologies**

The purpose of the Basic Welding Technologies Course is to provide the student with techniques and manipulative skills required for basic electric arc and fuel gas welding. This course will provide an entry level of technical understanding of basic welding processes as well as power supplies, electrode classifications, joint designs, material identification, blue print reading, numerical geometry and welding safety. This course will provide the training to develop the skills necessary to make basic fillet and square groove welds in the flat position on mild steel material following the American Welding Society standards found throughout the industrial workforce.

**Credits** 6

**Theory Hours** 5

**Lab Hours** 3

**Semester Offered**

Fall semester

## **WELD150G : Intermediate Welding Technologies**

The purpose of the Intermediate Welding Technologies course is to build on the skills learned from Basic level by adding horizontal, vertical, and overhead welding positions to electric arc and gas welding. This course will also provide the student with techniques and manipulative skills required for gas metal arc welding (MIG) and gas tungsten arc welding (TIG) on mild steel material in the flat only position. Intermediate Welding will increase the student's knowledge area with welding blueprint reading, field sketching, numerical geometry, units of measure, and other associated areas of welding including flux cored arc welding (FCAW), torch brazing and soldering. This course will provide the training to develop the skills necessary to make out-of-position fillet and square groove welds on mild steel material with arc and gas welding as well as basic fillet and square groove welds in the flat position on the mild steel with the MIG and TIG process by following the standards set forth by the American Welding Society used throughout the industrial workforce.

**Credits** 6

**Theory Hours** 3

**Lab Hours** 6

**Prerequisite Courses**

WELD100G: Basic Welding Technologies

**Semester Offered**

Spring semester

**WELD200G : Advanced Welding Technologies**

The purpose of the Advanced Welding Technologies course is to utilize the student's skills that were created in the Intermediate Welding course for certification opportunities as well as in manufacturing and repair situations. This course will provide the student with the techniques and manipulative skills for welding pipe and plate to code requirements as well as incorporate fabrication techniques, equipment, specifications, and basic metallurgy, use of associated cutting processes such as Plasma Arc, Air Carbon Arc, mechanized equipment, material identification on alloys, destructive and non-destructive testing methods, welding defects and discontinuities, and distortion control methods. This course will provide the training necessary to weld exotic materials such as aluminum, fabricate to code environments, and proper repair practices following the American Welding Society standards and specifications used throughout the industrial workforce. This course will create the desired advanced employability skills that are required in today's manufacturing job market.

**Credits** 6

**Theory Hours** 3

**Lab Hours** 6

**Prerequisites**

Intermediate Welding Technologies

**Semester Offered**

Summer semester