Great Bay Community College

Great Bay Community College

2016-2017 College Catalog

Revised: December 9, 2016

College Mission and Vision

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.

TABLE OF CONTENTS

Disclaimer 8
Notice of Non-discrimination 8
Accreditation Statement 8
College Mission and Vision Statement 2
Message from the President 7
Academic Calendar 5
Admission Requirements 8
Financial Aid 16
Tuition Rates and Fees 22
Academic Policies 28
I. Student Academic Classifications 28
II. Degree Requirements 28
III. Certificate Requirements 30
IV. Graduation Requirements 30
V. Student Rights 31
VI. Academic Records 31
VII. Adding/Dropping Courses 34
VIII. Academic Placement Policy 36
IX. English Department Policies 37
X. Completion Of Course Credits 37
XI. Residency Requirement 41
XII. Transfer To Other Institutions 41
XIII. Academic Honor Classifications 41
XIV. Academic Standing Classifications 42
XV. Academic Honesty 44
XVI. Academic Privacy 44
XVII. Immunization Policy 45
XVIII. Information Technology Acceptable Use 45
XIX. Service Learning 49
Academic Support Services 51
I. Center for Academic Planning and Support 51
II. Academic Advising 53
III. Library 54
Student Services 56
Student Life 58
Business and Training Center 60
WorkReady NH 63
Dual Enrollment Programs 64
General Degree Information 66
Core Attributes 69
Programs of Study 70
Accounting (AS Degree, Certificate) 70
Advanced Composites Manufacturing (Certificate) 73
Aviation Technology Helicopter (AS Degree) 76
Biotechnology (AS Degree, Certificates) 81
Business Administration (AS Degree) 84
Computer Technologies (AS Degree, Certificates) 87
LINUX (Certificate) 89
Programming (Certificate) 90
Software Development (Certificate) 92
Criminal Justice (AS Degree) 93
Data - Practical Data Science (Certificate) 96
Digital Media Communications (AS Degree) 97
Digital Design and Animation (Certificate) 99

Early Childhood Education (AS Degree, Certificates) 101
Early Childhood Education (Certificate) 104
Early Childhood Education (Advanced Certificate) 104
Education - Liberal Arts/Teacher Preparation (AA Degree, Certificate) 105
Special Education (Certificate) 107
Engineering 108
Bioengineering (AS Degree) 108
Engineering Science (AS Degree) 111
English – Liberal Arts/English (AA Degree) 114
Homeland Security (Certificate) 116
Hospitality Management (AS Degrees, Certificates) 118
Event & Meeting Planning Management (Certificate) 121
Hotel/Restaurant Management (Certificate) 122
Spa Management (Certificate) 122
Information Systems Technology (AS Degree, Certificate) 124
Information Systems Technology (Certificate) 126
Liberal Arts (AA Degree) 127
Liberal Arts/American Studies (AA Degree) 129
Liberal Arts/Biological Sciences (AA Degree) 131
Liberal Arts/Biological Sciences University Transfer (AA Degree) 132
Liberal Arts/Biological Sciences General Biology (AA Degree) 132
Liberal Arts/Chemistry (AA Degree) 134
Liberal Arts/Environmental Studies (AA Degree) 136
Liberal Arts/Fine Arts (AA Degree) 139
Liberal Arts/History (AA Degree) 141
Management (Certificate) 142
Marketing (Certificate) 144
Massage Therapy (Certificate) 146
Medical Office Administrative Assistant (Certificate) 149
Nondestructive Testing (Certificate) 151
Nursing (AS Degree) 153
Psychology (AA Degree) 158
Surgical Technology (AS Degree) 160
Technical Studies (AS Degree) 165
Veterinary Practice Management (Certificate) 167
Veterinary Technology (AS Degree) 169
Welding Technologies (Certificate) 173
Course Descriptions 175
Personnel Directory 235

2016-2017 ACADEMIC CALENDAR

2016

August 15	Summer Link class begins (2-weeks) Last Day to Add/Drop Summer Link with Full Refund
August 22	Last Day to Drop Summer Link with Grade of W (60% point)
August 25	Last Day to Drop Summer Link with a WP or WF
August 29	Fall Semester Classes Begin for classes: 1st Half (8-weeks) Full Term (16-weeks)
September 1	Last Day to Add 1st Half (8-weeks) Class Without Instructor Permission
September 5	Labor Day Holiday – No Classes, College Closed
September 6	Last Day to Add Full Term (16-weeks) Class Without Instructor Permission Last Day to Drop a 1st Half (8-weeks) Class with Full Refund
September 9	Last Day to Add 1st Half (8-weeks) Class With Instructor Permission
September 12	Last Day to Drop a Full Term (16-weeks) Class with Full Refund
September 16	Last Day to Resolve I Grades from Summer Term Last Day to Add Full Term (16-weeks) classes With Instructor Permission
September 19	Welding (13-weeks) Class Begins
September 26	Late Start (12-weeks) Classes Begin Last Day to Drop Welding Class (13-weeks) with Full Refund
September 29	Last Day to Drop 1st Half (8-weeks) Class with Grade of W (60% point)
September 30	Last Day to Add Late Start (12-weeks) Class Without Instructor Permission Last Day to Add Welding (13-weeks) classes With Instructor Permission
October 3	Last Day to Drop a Late Start (12-weeks) Class with Full Refund
October 7	Last Day to Drop 1st Half (8-weeks) class with a WP or WF (Instructor signature required) Last Day to Add Late Start (12-weeks) Class With Instructor Permission
October 17	Nine weeks October Start (Advanced Composites Manufacturing program's CIS110G) Class Begins
October 24	2nd Half (8-weeks) Classes Begin Last Day to Drop Nine weeks October Start (Advanced Composites Manufacturing program's CIS110G) Class with Full Refund
October 27	Last Day to Add 2nd Half (8-weeks) Classes Without Instructor Permission
October 28	Last Day to Add Nine weeks October Start (Advanced Composites Manufacturing program's CIS110G) Class With Instructor Permission
October 31	Last Day to Drop a 2nd Half (8-weeks) Class with Full Refund
November 3	Last Day to Drop Full Term (16-weeks) Classes with Grade of W (60% point)
November 4	Last Day to Add 2nd Half (8-weeks) Classes With Instructor Permission
November 10	Last Day to Drop Welding (13-weeks) Class with Grade of W (60% point)
November 11	Veterans' Day – No Classes, College Closed
November 14	Last Day to Drop Late Start (12-weeks) Class with Grade of W (60% point)
November 22	Last Day to Drop Welding (13-weeks) Class with Grade of W (60% point)
November 23	Last Day to Drop 2nd Half (8-weeks) classes with Grade of W (60% point)

Thursday, Nov. 24-Sunday, Nov. 27	Thanksgiving Holiday – No Classes, College Closed
November 29	Last Day to Drop Welding (13-weeks) Class with a WP or WF (Instructor signature required)
December 4	Last Day to Drop with a WP or WF (Instructor signature required) for classes: Full Term (16-weeks) Late Start (12-weeks) 2nd Half (8-weeks) Nine weeks October Start (Advanced Composites Manufacturing program's CIS110G) Class
December 16	Last Day of Classes for Fall Semester
December 19	Grades Due

2017

January 2	New Year Holiday– No Classes, College Closed
January 3	Spring Semester Winterim Classes Begin Last Day to Add/Drop Winterim Classes with Full Refund
January 9	Last Day to Drop Winterim Classes with a Grade of W (60% point) Welding Classes Begin
January 12	Last Day to Drop Winterim Classes with a WP or WF
January 16	Martin Luther King Jr./Civil Rights Day Holiday – No Classes, College Closed
January 17	Spring Semester Classes Begin for: 1st Half (8-weeks) Full Term (15-weeks) Last Day to Drop Welding Classes with Full Refund
January 20	Last Day to Add a 1st Half (8-weeks) Class without Instructor Permission Last Day to Add Welding Classes with Instructor Permission
January 23	Last Day to Add a Full Term (15-weeks) Class without Instructor Permission Last Day to Drop a 1st Half (8-weeks) Class with Full Refund
January 27	Last Day to Add 1st Half (8-weeks)with Instructor Permission
January 30	Last Day to Drop a Full Term (15-weeks) Class with Full Refund
February 3	Last Day to Resolve I Grades From Fall Semester Last Day to Add a Full Term (15-weeks) Class with Instructor Permission
February 13	Late Start (11-weeks) Classes Begin
February 20	Presidents' Day Holiday – No Classes, College Closed
February 17	Last Day to Add Late Start (11-weeks) without Instructor Permission Last Day to Drop a 1st Half (8-weeks) Class with a Grade of W (60% point)
February 21	Last Day to Drop Late Start (11-weeks) with Full Refund
February 24	Last Day to Add Late Start (11-weeks) with Instructor Permission Last Day to Drop a 1st Half (8-weeks) Class with a WP or WF (instructor signature required)
March 2	Last Day to Drop Welding Classes with a Grade of W (60% point)
March 13-19	Spring Break – No Classes
March 20	2nd Half (7-weeks) Classes Begin
March 23	Last Day to Add a 2nd Half (7-weeks) Class without Instructor Permission
March 27	Last day to Drop a 2nd Half (7-weeks) Class with Full Refund
March 28	Last Day to Drop a Full Term (15-weeks) with a Grade of W (60% point)
March 31	Last Day to Add a 2nd Half (7-weeks) Class with Instructor Permission Last Day to Drop Welding Classes with a WP or WF (Instructor signature required)

April 5	Last Day to Drop a Late Start (11-weeks) Class with a Grade of W (60% point)
April 17	Last Day to Drop a 2nd Half (7-weeks) Class with a Grade of W (60% point)
April 24	Last Day to Drop with a WP or WF (Instructor signature required) for classes: Full Term (15-weeks) Late Start (11-weeks) 2nd Half (7-weeks)
April 29	Last Day to Drop a Twelve Weeks Feb start Class with a WP or WF (Instructor signature required)
May 8	Last Day of Classes for Spring Semester
May 9	Grades Due
May 13	Commencement (Tentative)
May 29	Memorial Day Holiday - No Classes, College Closed
July 4	Independence Day Holiday - No Classes, College Closed
August 3	Last Day of 2016-2017 Academic Year

DISCLAIMER

Great Bay Community College provides it's 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 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 students 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

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, religion, national origin, age, sex, disability, genetic information, veteran status, sexual orientation, political affiliation or marital status. This statement is a reflection of 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: Title VI and Title VII of the Civil Rights Act of 1964, as amended; The Age Discrimination Act of 1967 (ADEA); Title IX of the Education Amendment of 1972; Section 504 of the Rehabilitation Act of 1973; The Americans with Disabilities Act of 1990 (ADA); Section 402 of the Vietnam Era Veterans' Readjustment Assistance Act of 1974; NH Law Against Discrimination RSA 354-A; Genetic Information Nondiscrimination Act of 2008. Inquiries regarding discrimination may be directed to Fran Chickering, Title IX Coordinator, Great Bay Community College at 603-427-7629 or fchickering@ccsnh.edu , to Sara Sawyer, Director of Human Resources for the Community College System of New Hampshire, 26 College Drive, Concord, NH 03301, 603-230-3503. Inquiries may also be directed to the US Department of Education, Office of Civil Rights, 5 Post Office Square, Boston, MA 02109-3921, 617-289-0111, Fax: 617-289-0150, TDD: 800-877-8339, or email: OCR.Boston@ed.gov ; the New Hampshire Commission for Human Rights, 2 Industrial Park, Concord, NH 03301, 603-271-2767, Fax: 603-271-6339; and/or the Equal Employment Opportunity Commission, 475 Government Center, Boston, MA 02203, 1-800-669-4000, Fax: 617-565-3196, TTY: 1-800-669-6820.

ACCREDITATION STATEMENT

Great Bay Community College is accredited by the New England Association of Schools and Colleges, through its Commission on Institutions of Higher Education.

NEASC is an independent, voluntary, nonprofit membership organization which connects and serves colleges and universities in New England. A globally recognized standard of excellence, NEASC Accreditation attests to a college's high quality and integrity. An accredited college 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

MESSAGE FROM THE PRESIDENT

Great Bay is more than just a college; we are a COMMUNITY. From your first day at Great Bay Community College, you will meet people who will support, inspire, and challenge you to be the best person you can be. Because of our unique community, we can promise that when you leave, you will experience tremendous growth. You will have developed into a new, more advanced more self-assured version of yourself.

At GBCC, we pride ourselves on our reputation for being a "caring college", one that takes particular pride in assisting our students. Our faculty and staff are dedicated to helping students achieve their goals and will work with you daily to ensure a successful educational experience. Our student body is equally as welcoming, offering an environment of support, encouragement and friendship like no other.

As an accredited institution, uniquely aligned with business and industry, we also pride ourselves on being a center for academic excellence. Once you begin at Great Bay, you will be exposed to a rigorous learning experience both in and out of the classroom. We will challenge you like you have not been challenged before, but the prize will be a better you. Get inspired and control your destiny.

Great Bay can serve as a path to UNH, or any of the other New Hampshire University System colleges as well as many other four-year institutions in New Hampshire and throughout the United States. Or, if you are seeking direct pathway to a career, we can train you for opportunities with a local New Hampshire company. With over 50 programs, we offer degree and certificates in such areas as Advanced Composites, Biotechnology, Business, Criminal Justice, Digital Media, Early Childhood Education, Hospitality, Insurance, IT, Massage, Nursing, Surgical Technology, Veterinary Technology, Welding and many more. Great Bay will help you to develop the core aptitudes that both employers and four-year colleges are looking for. Some of these include: math, communication, and computer, technical, analytical, problem-solving, and team-building skills.

Whether you want to gain an Associate Degree to start on a career path, transfer to one of our many four-year partner colleges, or just upgrade your skills, we offer a rich learning environment, flexible schedules and high quality, affordable programs and services to help you succeed. Perhaps more importantly however, we provide you with tools to continue to evolve as a person and lead a richer and more rewarding life.

Imagine the possibilities and start something great with us today.

Sincerely,
Wildolfo Arvelo, Ed.D.
President

ADMISSION REQUIREMENTS

Admissions Policy
Admission to the College is based on a number of considerations; no one of which is the determining factor of acceptance. Applicants will not be barred from admission because of race, age, sexual orientation, gender, handicap, religion, or national origin.

Application Procedures
The following procedure 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

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

Program	Deadline
Aviation Technology Helicopter – Fall/Spring/ Summer	August 1st/ December 15th/ April 15th
Nursing	February 28th
Surgical Technology	April 30th
Veterinary Technology	April 30th

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

1. An application for admission with a nonrefundable $20.00 application fee. Applications can be submitted in person, via mail or online at: www.greatbay.edu
   *Former Running Start students who apply may waive the $20.00 application fee.
2. Documentation of High School graduation or equivalent. Completion of high school, or equivalent, may be documented by producing one of the following documents:
   - Official High School diploma/transcript with a date of graduation.
   - Original Foreign High School diploma/transcript with a date of graduation translated if not in English.
   - Official High school equivalency certificate or GED, including scores.
3. Satisfactory completion of high school course requirements 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. Arrange for a personal interview as required by certain academic programs.
6. Submit recommendations from school personnel, employers, or other professionals, if required.

7. Permanent Residents must submit proof of resident status: temporary evidence or actual Alien Registration Receipt Card (I-551 or I-151).

Homeschooled applicants

Great Bay Community College encourages applications from students who are home-schooled. 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 taken and grades earned, and/or portfolio of work accomplished with completion/graduation date indicated.
- GED or other testing, if applicable.

Contact the Admissions Department with any questions.

Transfer Students

Applicants with previous college credit should furnish official transcripts from post-secondary institutions previously attended. Course descriptions may be requested if necessary for the determination of transfer credit which is explained on page 41.

New Hampshire Transfer Connections Program

Students who originally applied and were not accepted at University System of New Hampshire (USNH) schools: (UNH, UNH-Manchester, Plymouth State, Keene State, or Granite State College) can enroll full-time for a year at Great Bay Community College complete 24 credits in English, Math and specific electives, earn a C or better in all college level courses, and be automatically accepted into the University System of New Hampshire institution where they originally applied with no fees or reapplication. Additionally, students who never applied to a USNH school may opt in to the program. Visit www.nhtransfer.org for more information.

Great Bay Community College has developed many wonderful transfer pathway programs. See front inside cover for additional details.

Dual Admissions Program

The dual admission program is an agreement between the Community College System of NH and the University System of NH that allows students to complete their Associate's degree at a CCSNH institution and then transition to an institution within the University System to complete their Bachelor's degree. Students enrolled in the dual admissions program will receive special invitations to events throughout their time at Great Bay to help build their connection to the University of their choice prior to their transition.

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 Admissions Office. Students currently enrolled who wish to be considered for admission for Advanced Composites Manufacturing, Nursing, Massage Therapy, Surgical Technology, or Veterinary Technology Associate Degree Programs and the Veterinary Practice Management Certificate Program, 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. Non-matriculated students are not eligible for financial aid. Those interested in registering for coursework as a non-matriculating student must:

- Meet with a counselor in the Advising Center.
- Provide proof of successful prerequisite completion as determined by college catalog course description.

Eligible Non-Citizens

Students who are not Citizens or Permanent Residents of the United States but who are in process of obtaining residency may matriculate once Legal Documentation of their pending status (letter from court with pending court date, I797-C form, etc.) documentation is provided.

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 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 a term in addition to the regular admission application process:

1. International students pay a non-refundable International admission Fee of $100.00
2. 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) and earn a paper-based score of 500 or better, a computerized test score of 173 or an Internet based score of 61 or better. If the student is currently in the United States, Accuplacer scores that are comparable to the TOEFL may be used to determine English proficiency. A student must score on the Accuplacer into the developmental English level. For information regarding the test contact: TOEFL, Educational Testing Service, Rosedale Road, Princeton, NJ 08541 USA, (609) 921-9000, 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. 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 of 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 Diversity Programming 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 strongly encouraged to maintain adequate health insurance coverage during their studies. Information on health insurance is available through the Diversity Programming Coordinator.

FOREIGN TRANSCRIPTS

1. Students with foreign transcripts must submit 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.

   AND

2. Official Course-by-Course Evaluation by a third party agency. Example agencies include, but are not limited to:
   - World Education Services (WES) www.wes.org
   - Center for Educational Documentation (CED) www.cedevaluations.com
   - Educational Credential Evaluators (ECE) www.ece.org

STUDENTS WITH DISABILITIES ADMISSIONS POLICY

The college shall not discriminate against otherwise qualified handicapped persons solely by reason of his/her handicap. 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 in spite of 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 workshops for learning and study strategies, note-taking and organizational skills. For more information, contact Karen Frisbie at 603-427-7625 or kfrisbie@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.

- 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 Status
Students qualify for in-state tuition rate only after twelve consecutive months of domicile in New Hampshire, i.e. purchasing/renting property, obtaining a NH driver's license, vehicle registration and/or voter registration. Any request for a change of residency status must be received in writing in the Admissions Office 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.

Out-of-State Status
The determination of residency is made by the Admissions Office 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-time out-of-state tuition). Certain eligibility requirements apply, see admissions for more information.

PLACEMENT TESTING & ADVISING
Prior to registering for courses, students matriculating to an associate degree or certificate program must complete a placement test 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 tests are also required for admittance to certain courses and programs. The Academic Placement Policy is described on page 36 of this catalog.

After completing the placement tests, students will schedule an advising session to develop an academic plan for the semester. Students who are eligible to waive all placement testing requirements should contact the advising center to schedule an appointment. Included in this advising session are instructions on how to use the Student Information System (SIS) to look up courses, how to fill out a registration form, and information on college programs and services.

Waiving 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:

- Earned a minimum score of 550 on the SAT Critical Reasoning, SAT Math, and/or SAT Writing (with an essay score of 8 or higher) within the past five years.
- Earned a minimum ACT score of 24 Reading, 24 English, 8 Essay, and 23 Math within the past five years.

- Completed a computer-based placement test (CBT) at Great Bay Community College or another accredited postsecondary institution within the past two years.
- Completed a college-level computer course (within 5 years), math or English course at an accredited institution with a C or better.
- Completed an Advanced Placement English and/or math class with a College Board test score of 3 or above.

TUITION DEPOSIT

Students admitted into a Nursing, Surgical Technology, or Veterinary Technology, and Welding degree or certificate program 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 Scheduler. 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

The Financial Aid Office at Great Bay Community College 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) 427-7610 - Fax: (603) 334-6308 - Email: askgreatbay@ccsnh.edu - website: www.greatbay.edu/faoverview

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 any or all of these forms of aid.

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

The 2016-2017 FAFSA is the application for aid for Summer 2016, Fall 2016 and Spring 2017.

The 2017-2018 FAFSA is the application for aid for Summer 2017, Fall 2017 and Spring 2018

A new FAFSA must be filed each year. The financial aid year begins with the summer term at Great Bay Community College. The preferred filing date is March 15 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 2016	2016-17	March 15, 2016
Fall 2016	2016-17	June 1, 2016
Spring 2017	2016-17	October 1, 2016
Summer 2017	2017-18	March 15, 2017
Fall 2017	2017-18	June 1, 2017
Spring 2018	2017-18	October 1, 2016

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 Great Bay Community College
- Be a U.S. citizen or an eligible non-citizen
- Be enrolled for a minimum of six eligible credits for student loans, Supplemental Educational Opportunity Grants, and Federal Work-Study employment.
- Be enrolled for 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)

- Be registered with Selective Service (male students only)
- Not be in default on a student loan
- Not owe a refund on any federal (Title IV) financial aid
- Not have aid eligibility suspended or terminated due to a drug-related conviction that occurred while receiving Title IV assistance
- Not be receiving federal or state financial aid from another institution for the same enrollment period
- For Pell Grants and Supplemental Educational Opportunity Grants, not have a prior baccalaureate degree

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, Perkins Loans, Federal Work-Study and for 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.

For some grants and most loans, a student must be enrolled at least half-time (6 credits.)

Students who accept loans must complete loan counseling and sign a promissory note.

To receive aid in future semesters, a student must meet 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: http://greatbay.edu/admissions-aid/financial-aid/policies. This website address is mailed to every student who receiving a financial aid award.

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. Awards range from $590 to $5815 per year in 2016-2017. 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 monies 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 an 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). Awards range from $100 to $400 per year. 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, the 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 December 31 of the current award year. In 2016-2017, Unique Scholarships are $700 for full-time students (12 or more credits), and $350 for part-time students (6 to 11 credits.)

Federal Work-Study Program (FWSP) gives students an opportunity 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 are also 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.)

Perkins Loans are low-interest (5%) loans made directly through the College with funds from the repayments of previous borrowers. Students may borrow up to $3000, depending on the availability of funds. Repayment begins and interest accrues nine months after the borrower is no longer at least a half-time student. Perkins recipients must meet all the eligibility requirements listed above, demonstrate financial need, and be enrolled at least half-time (6 eligible credits per semester.) Students receiving a Perkins loan will be required to do loan counseling and to sign a promissory note. If a student receiving a Perkins loan withdraws from school before the semester is completed, the student may be required to repay monies to The College.

William D. Ford Federal Direct Student Loans, also known as Stafford Loans, are low-interest loans (4.29% in 2015-2016) made to students by the United States Department of Education. First year students (31 or fewer credits earned) may borrow up to $5,500 ($9500 for independent students) per financial aid year. Second year students (32 or more credits earned) may borrow up to $6,500 ($10,500 for independent students) per financial aid year. Repayment begins six months after the borrower is no longer at least a half-time student.

- **Direct Subsidized Loans** do not accrue interest while the student attends college. Interest (4.29% for loans disbursed in the 2015-2016 financial aid year) begins to accrue after the borrower is no longer at least a half-time student.
- **Direct Unsubsidized Loans** accrue interest (4.29% for loans disbursed in the 2015-2016 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 Entrance Loan 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 monies to the Department of Education.

Additional information, including current interest rates, Master Promissory Notes and Loan Entrance Counseling, is available at https://studentloans.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 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 borrower will be required to sign a Promissory Note. The 2015-2016 interest rate for PLUS loans is 6.84%.

Additional information, including applications, current interest rates, and Master Promissory Notes, is available at https://studentloans.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 will perform a credit check and inform 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.Elmselect.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 greatbay.edu/admissions-aid/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 of their 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 will vary depending on the amount of grant and loan funds the student received and at what point in the semester the student withdrew. In addition, the student will be liable for the balance owed the College for tuition and fees.
- **Courses Covered:** Financial aid is available only for courses within a student's current eligible program of study.
- **Repeating Courses:** Financial Aid will cover only one repeat of a course for which a grade above "F" has been issued.
- **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. This includes enrollment periods during which the student did not receive financial aid and enrollment periods during which the student did receive financial aid, and enrollment periods during which the student was matriculated and enrollment periods during which the student was not matriculated. Approval under the college's academic amnesty policy does not remove that academic history from the SAPFA review. All academic history at Great Bay is included in this review. SAPFA is reviewed by the Financial Aid Office at the end of 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):

Credits earned	Certificate or Diploma Program Minimum CGPA	Associate Degree Program Minimum CGPA
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 (66.67%) 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 enrolled in 36 credits throughout his or her academic career at The College must pass at least 24 credits in order 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 as long as his or her 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 he or she has not attempted more than 36 credits. A student enrolled in a program of study that requires 64 credits to earn the degree may receive financial aid. If he or she has not attempted more than 96 credits.

Completion Rate Component	**Must complete at least 66.67% of the credits attempted**
Maximum Timeframe Component	**May receive financial aid for up to 150% of the number of credits required for the degree or certificate**

Review Schedule:

The qualitative and quantitative components of the SAPFA policy will be reviewed at the end of 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 taken into account 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.

	Cumulative GPA Component	Completion Rate Component	Maximum Timeframe Component
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

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 will be reviewed. If the student meets SAPFA standards, the student will once again be making Satisfactory Academic Progress for Financial Aid, and will be eligible for student financial aid for the following semester.

If the student is still unable to meet SAPFA standards, he or she will be ineligible to receive financial aid.

Appeals
The student may appeal an ineligible decision by submitting the Appeal and Academic Plan form, carefully following the instructions on the form to include the following information:

- Student name and ID#
- Circumstances which prevented the student from making Satisfactory Progress for Financial Aid in the past
- An Academic Plan which describes how the student will regain Satisfactory Academic Progress for Financial Aid in the future, and complete his or her academic program within the maximum timeframe component (see above),
- Financial Aid Appeal/Academic Plan forms are available at the College Services One Stop counter, from the Financial Aid Office, online at http://greatbay.edu/admissions-aid/financial-aid/policies and by email request to askgreatbay@ccsnh.edu

If the appeal is granted, the student will be eligible for student financial aid for the following semester, but will be on SAPFA probation

Students on SAPFA Probation:
At the end of the probationary period, the student's record will be reviewed again. Students meeting SAPFA standards will be eligible for student financial aid for the following semester.

Students not meeting the standards for SAPFA 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

IN-STATE STUDENTS (New Hampshire Residents)
* $200.00 per credit

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 NH, 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 NH as their residence within 90 days of being discharged from the military will be considered NH residents and charged in-state tuition.

VA students 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.

Students matriculated in the Aviation Technology Helicopter A.S. Degree will be charged New Hampshire In-State tuition for courses required for the program.

Out-of-State students newly matriculated in the Surgical Technology Degree, who live within a 50 mile radius of the Portsmouth and Rochester campuses, will be charged New Hampshire In-State tuition for courses required for the program beginning in the fall of 2016.

Out-of-State students newly matriculated in the Advanced Composite Manufacturing Certificate program, who live within a 50 mile radius of the Portsmouth and Rochester campuses, will be charged New Hampshire In-State tuition for courses required for the program beginning in the February 2016.

Out-of-State students newly matriculated in the Massage Therapy Certificate program, who live within a 50 mile radius of the Portsmouth and Rochester campuses, will be charged New Hampshire In-State tuition for courses required for the program beginning in the fall of 2016.

NEW ENGLAND REGIONAL STUDENTS (CT, MA, ME, RI, VT)
Student must be matriculated in a program, and must indicate eligibility on the application for admission to the College.
* $300.00 per credit

OUT OF STATE STUDENTS
* $455.00 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, on his/her first admission to the system, 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 on or before September 1 for the subsequent Fall semester, on or before January 1 for the subsequent Spring semester, and on or before June 1 for the subsequent summer term provided that the student satisfies NH residency requirements.

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 x current tuition rate x 12 credits).

NURSING CLINICAL SURCHARGE: All nursing students taking clinical courses will be charged a nursing clinical surcharge of $350 per semester. This surcharge is designed to assist in covering the expenses associated with clinical classes due to The New Hampshire Board of Nursing requirements of a student/faculty ratio of 8:1. This fee is in addition to the academic instruction fee.

PROTESTED CHECKS: A fee of $35.00 will 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 $60. 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.

EXAMPLE	Lec	Lab	Credit
BIOL110G A&P I (4 credits - 3 lecture hours = 1 x 60 = $60)	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

$22 per credit - This fee is charged for every credit in each credit-bearing course regardless of the number of credits taken.

COLLEGE COSTS/EXPENSES 2016-2017

Day Tuition Rates	
New Hampshire Resident	$ 200.00 per credit
New England Regional Student Program (NERSP)	$ 300.00 per credit
Out-of-State or International Students	$ 455.00 per credit
Evening/Weekend/100% Online Tuition Rate	
Evening Courses (classes beginning 5pm or later)	$ 200.00 per credit
Weekend Courses	$ 200.00 per credit
100% Online Courses (does not include Hybrid courses)	$ 200.00 per credit
Fees (required)	

Placement Testing (Accuplacer)	$ 20.00
Orientation Fee	$ 30.00
Application Fee (per application)	$ 20.00
International Admissions Fee	$100.00
Nursing Clinical Surcharge (per semester)	$ 350.00
Academic Instruction Fee	See formula above
Student Comprehensive Fee (per credit)	$ 22.00
Graduation Fee Each additional degree or certificate in the same semester	$ 100.00 $ 10.00
Transcript Fee	FREE
Deferred Payment Fee – FACTS Payment Plans (per semester)	$ 25.00
Late Payment Fee – Students dropped for non-payment who are re-registered	$ 50.00
Payment Plan - Missed Scheduled Payment Fee (per semester)	$50.00
OTHER FEES	
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
Student Insurance (Based on 2015-16 Academic Year prices)	
Student Accident Only Coverage / 12 Months	$ 280.00
Student Accident Only Coverage / Spring only	$ 186.00
OTHER COSTS (These required costs are estimated and vary depending on program.)	
Textbooks and other Materials – estimated per semester	$ 600.00
Criminal Background Check Fee	$ 60.00
Adv. Composites Mfg. - ACM110G Introduction to Advanced Composites Supply Pack	$ 614.00
Adv. Composites Mfg. - ACM103G Supply Pack	$260.00
Adv. Composites Mfg. - ACM210G Fundamentals of Composites Manufacturing Supply Pack	$ 120.00
Adv. Composites Mfg. - ACM215G Supply Pack	$ 400.00
Adv. Composites Mfg. - ACM250G Paint Operator Supply Pack	$ 120.00
Adv. Composites Mfg. - ACM251G Weaving Technician and Preform Finishing Supply Pack	$ 120.00
Adv. Composites Mfg. - ACM252G Resin Transfer Molding Technician Supply Pack	$ 120.00
Adv. Composites Mfg. - ACM253G Bonding and Finishing Operator Supply Pack	$ 120.00
Adv. Composites Mfg. - ACM254G Supply Pack	$ 120.00
Adv. Composites Mfg. - ACM255G Composites CNC Milling and Set-up Operator Supply Pack	$ 120.00
Adv. Composites Mfg. - ACM256G Composites Repair Technician Supply Pack	$ 120.00
Adv. Composites Mfg. - ACM265G Multi Axis CNC Milling Supply Pack	$ 120.00
Adv. Composites Mfg. - ACM257G High Performance Composites Fabrication Supply Pack	$ 120.00
Intro to Nondestructive Testing (NDT110G)Materials Fee	$120.00
Liquid Penetrant Testing (NDT210G)Materials Fee	$120.00
Helicopter Program Aviation Flight Fees - All students in the Aviation Program are charged at the New Hampshire In-State tuition rate. Tuition and Fees below are for students using both the R22 and R44 helicopters. The VA only pays for the minimum flight hours.	Effective Fall 2016
AVTN150G Private Pilot I Ground	$1,178.00
AVTN151G Private Pilot I Flight	$14,320.00
AVTN160G Private Pilot II Ground	$1,178.00
AVTN161G Private Pilot II Flight	$16,672.00
AVTN170G Instrument Pilot Ground	$1,758.00

AVTN171G Instrument Pilot Flight	$24,016.00
AVTN250G Commercial Pilot Ground	$1,506.00
AVTN251G Commercial Pilot Flight	$26,394.00
AVTN252G Certified Flight Instructor Ground	$1,131.00
AVTN253G Certified Flight Instructor Flight	$11,280.00
AVTN254G Certified Flight Instructor Instrument Ground	$1,131.00
AVTN255G Certified Flight Instructor Instrument Flight	$6,996.00
Helicopter Program Aviation Flight Fees - All students in the Aviation Program are charged at the New Hampshire In-State tuition rate. Tuition and Fees below are for students using the R44 helicopters only. The VA only pays for the minimum flight hours.	Effective Fall 2016
AVTN150G Private Pilot I Ground	$1,178.00
AVTN151G Private Pilot I Flight	$19,276.00
AVTN160G Private Pilot II Ground	$1,178.00
AVTN161G Private Pilot II Flight	$22,636.00
AVTN170G Instrument Pilot Ground	$1,758.00
AVTN171G Instrument Pilot Flight	$24,016.00
AVTN250G Commercial Pilot Ground	$1,506.00
AVTN251G Commercial Pilot Flight	$35,074.00
AVTN252G Certified Flight Instructor Ground	$1,131.00
AVTN253G Certified Flight Instructor Flight	$15,060.00
AVTN254G Certified Flight Instructor Instrument Ground	$1,131.00
AVTN255G Certified Flight Instructor Instrument Flight	$6,996.00
Helicopter - Other out-of-pocket expenses: Second-class Medical Certificate (required annually)	$120.00
Helicopter - Other out-of-pocket expenses: Miscellaneous Expenses	$3,000.00
Helicopter - Other out-of-pocket expenses: FAA Certification Exam Fees	$3,990.00
Hospitality - Intro to Hospitality (HOSP110G) Travel Fee)	$60.00
Hospitality – Restaurant Week Fee(HOSP230G)	$50.00
Liberal Arts Class – ARTS103G and ARTS203G Theatre Fee	$50.00
Massage Therapy - Student Liability Insurance	$ 20.00
Massage Therapy - Supplies - Portable Table, Uniform, Sheets, Lotions, etc.	$ 800.00
Massage Therapy - Massage Therapy State Licensing Exam	$ 125.00
Massage Therapy - Massage Therapy National Exam (NCETMB)	$ 225.00
Nursing - Preadmission RN Examination	$ 75.00
Nursing - Nursing Uniforms, Accessories, Supplies	$ 150.00
Nursing - Nursing Lab Pack	$ 125.00
Nursing - Student Liability Insurance	$ 20.00
Nursing - ATI Nursing Testing ($195.00/per semester)	$ 390.00
Nursing - NCLEX (Nursing) Licensing Exam Fourth Semester	$ 380.00
Surgical Technology - Student Liability Insurance	$ 20.00
Surgical Technology - Surgical Technology Tool Kit /per semester	$ 125.00
Surgical Technology - National Board of Surgical Technologist and Surgical Assisting - CST Examination	$ 190.00
Veterinary Technology - Radiation Badge Fee Lost Badge Fee	$ 50.00 $ 10.00
Veterinary Technology - Technology Student Liability Insurance	$ 20.00
Veterinary Technology - Rabies Vaccine (variable based on availability)	$ 1,025.00
Welding - Weld100G Materials Fee	$ 300.00
Welding - Weld150G Materials Fee	$ 300.00
Welding - Weld200G Materials Fee	$ 300.00

Payment of Tuition Deposit and Orientation Fee

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. An Orientation fee of $30.00 is required of all students in the semester that the student matriculates.

Senior Citizens

Adult learners aged 65 and over and who are NH residents 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. Reminders are mailed approximately 30 days prior to the beginning of each semester. In addition, electronic billing reminders are periodically emailed to the student's Great Bay Community College email account. Payment or arrangement for payment must be made ten (10) business days before the semester starts to be officially considered registered. For late registration, payment in full must be made upon registration. Discover, Diners Club, JCB, Visa, MasterCard, check, or cash are accepted as payment. Students awaiting scholarships or financial aid awards to cover tuition may request a deferred payment through the Business Office subject to the approval of the President. Payment plans are available at the College Services One Stop through Nelnet/FACTS Tuition Management. If payment or arrangement for payment is not made by the established payment deadline, students are not considered officially registered and will be administratively withdrawn. 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. A late payment fee of $50 may be charged.

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."*

Veterans

The Registrar verifies veteran registrations after the Add/Drop period of the semester. Veterans are responsible for payment of tuition and fees pending the receipt of benefits.

TUITION REFUND POLICY

Credit and Non-Credit Courses

All refunds require that the student complete an official withdrawal form. Effective Fall Semester, 2011, 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. Exception: students in courses that meet for two weeks or fewer must drop by the end of the first day of the class in order to get a 100% refund. Students registered for non-credit workshops/ professional training must withdraw in writing at least three business days prior to the first session to receive a full refund of tuition and fees. 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 credit, supporting information such as physician's note, hospital confirmation, military assignment, etc. must be provided. Students wishing to be considered for an exception must still complete the add/drop form. The complete procedures for students with extenuating circumstances can be obtained in the Office of the Vice President of Student Affairs.

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

I. 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 less 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.

II. DEGREE REQUIREMENTS

The College offers Associate in Arts and Associate in Science Degrees. All Associate degree programs require a minimum of 64 credits. There are two types of Associate in Arts Degrees: One that focuses on a general liberal arts education and the other that is developed for specialized transfer.

Associate in Arts Degree (A.A.)

Associate in Arts Degree: Liberal Arts

(See Program of Study section within Liberal Arts for specific Great Bay degree requirements)

English Composition	3-4	credits
English Electives	3-4	credits
Humanities/Fine Arts/Foreign Language	9	credits
Mathematics	6-8	credits
Lab Science	8	credits
Social Science	9	credits
Liberal Arts Electives	15	credits
Open Electives*	9-12	credits
Total Credits	**64**	**credits**
**A computer literacy course may be included within the open elective area.*		

Associate in Arts Degree: Specialized Transfers

Great Bay offers Liberal Arts Specialized Transfers in American Studies, Business Studies, Engineering Science, and Teacher Preparation. (See the Program of Study section for specific degree requirements.)

English Composition	3-4	credits
English Electives	3-4	credits
Foreign Language/Humanities/Fine Arts	9	credits
Mathematics	6-8	credits
Lab Science	8	credits
Social Science	9	credits
Electives in specialized area of study	20	credits

Liberal Arts or Open Electives*	2-5	credits
Total Credits	**64**	**credits**
** A computer literacy course may be included within the open elective area.*		

Associate in Science Degree (A.S.)
The Associate in Science (A.S. Degree) programs provide a minimum of 32 credits of specialized study in courses that incorporate technical skills, proficiency, and knowledge required for career competency. A minimum of 24 credits in General Education are required.

Courses fall into the following areas:

1. English Composition and Literature or Communication	6	credits
2. Science	3-4	credits
3. Math	3	credits
4. Social Science	3	credits
5. Foreign Language/Humanities/Fine Arts	3	credits
6. Liberal Arts Electives	6	credits

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.

Math and English Requirements for Graduation
To earn an Associate degree, students are required to complete successfully one or more college-level math classes and two 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 Services (page 51) 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. The following information will acquaint students with the variety of elective categories and the selection of elective courses. All academic subject codes and course numbers refer only to Great Bay courses.

Business Elective: Any course with the academic subject code of ACCT, BUS, ECON, MKTG, HOSP 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, HIST120G, HIST130G, HUMA, PHIL, SPAN, and a course number of at least 100. ENGL Literature courses, other ENGL courses: ENGL210G, ENGL213G, ENGL214G.

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.

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

Open Elective: 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.

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

Social Science Elective: Any course with the academic subject code of AN, ECON, GEOG, HIST, POL, PSYC, SOC, and a course number of at least 100.

Technical Elective: Any course designation determined by the program of at least the 100, provided the student has met the prerequisite; exceptions are courses which have admission to the program as a prerequisite to the course.

III. CERTIFICATE REQUIREMENTS

Professional Certificates

Professional Certificates are granted in selected programs with a defined curriculum having a minimum of 32 credits. A professional certificate consists of a minimum of 12 credits of general education credits and is designed to facilitate transfer into an Associate Degree if the student decides to continue.

Certificates

Regardless of their duration or composition, certificate programs emphasize specific skills and outcomes required for employment or career advancement. There are no specific General Education requirements, except to meet the stated competencies. More information regarding specific certificate requirements can be found in individual programs of study descriptions.

IV. GRADUATION REQUIREMENTS

1. Matriculation into the program is required prior to graduation.
2. A minimum cumulative grade point average (CGPA) of 2.0 for degrees. All courses taken at the institution will be used to calculate the CGPA.
3. A minimum grade point average (GPA) of 2.0 of courses required in a certificate program. Only those courses required in the Certificate will be used to calculate the GPA.
4. Complete the program of study as identified by each program.

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.

Intent to Graduate

Matriculated candidates for graduation from all programs need to complete an Intent to Graduate form and submit the form to the College Services One Stop with payment of the graduation fee. After payment

is received, the Registrar's Office processes a program audit to determine eligibility to graduate. Certain restrictions may apply; please check the program section. Each student will be charged a graduation fee of $100.00 once the student files an Intent to Graduate Form. The fee will be used to cover the costs associated with program completion and will be assessed to all students who have completed their program requirements, regardless of participation in the commencement ceremony. The fee will be charged also to individuals who will be within six credits of completion, and to whom the College has given permission to participate in the spring commencement ceremony.

This fee is non-refundable, unless students scheduled to graduate, including students eligible under the six-credit rule, fail to meet mandatory requirements at the time of commencement. However, a student eligible under the six-credit rule who participates in the commencement ceremony, and who fails to complete program requirements, will not be entitled to a refund.

Any students who completes a certificate of 12 credits or less is required to submit an Intent to Graduate form. However, the student is not required to pay the graduation fee and does not participate in commencement.

V. STUDENT RIGHTS

The College shall provide an environment that fosters academic freedom, ensures the integrity of the academic process, and protects the principle of intellectual diversity. The classroom is a forum for exposing students to scholarly viewpoints. 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. Please refer to the full policy in the Student Handbook.

VI. 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
Please see Change of Major page 11.

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, including failure to meet attendance requirements, as published in the instructor's syllabus, etc. The AF grade may 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 or agency supervisor, in accordance with department criteria and procedures. 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, and before the final 10 days of the semester; 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, and before the last 10 days of the semester; student has a failing grade at time of drop, 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. Refer to the Student Handbook for additional information pertaining to calculating GPAs and CGPAs. 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

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.

VII. 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 remain financially responsible for the classes in which they were enrolled, but receive no grades.

Attendance is defined as:

- Physical attendance in a live or hybrid class.
- Participation in a class assignment in a 100-percent online or hybrid class

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 non-refundable fees. Non-refundable fees include the advanced tuition deposit, application fee, and orientation fee. Students in classes that meet in a format shorter than the traditional, 15-16 week semester have seven (7) calendar days from the start of the shorter 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 have 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:

A. 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.
B. 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 complete the established process, which includes completion of an official Withdrawal Form from the College Services One Stop. 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.

VIII. 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, mathematics, and computer skills. 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. Testing requirements are located in Admissions, Academic Affairs, and the Center for Academic Planning and Support (CAPS) as well as http://greatbay.edu/sites/default/files/media/certificate_accuplacer_requirements.pdf.

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:

- Earned a minimum score of 550 on the SAT Critical Reasoning, SAT Math, and/or SAT Writing (with an essay score of 8 or higher) within the past five years.
- Earned a minimum ACT score of 24 Reading, 24 English, 8 Essay, and 23 Math within the past five years.
- Completed a computer-based placement test (CBT) at Great Bay Community College or another accredited institution within the past two years.
- Completed a college-level computer course (within 5 years), math or English course at an accredited institution with a C or better.
- Completed an Advanced Placement English and/or math class with a College Board test score of 3 or above.

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.

Any student with a documented disability may request appropriate testing accommodations from the Coordinator for Disability Services. Students who are nonnative speakers of the English language may access a variation of the placement test (LOEP) 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

** ACCUPLACER is a product of The College Board, a division of the Educational Testing Service (ETS)*

IX. ENGLISH DEPARTMENT POLICIES

DEVELOPMENTAL WRITING

ENGL099G is the developmental writing course designed to build the requisite skills for success in ENGL110G. The prerequisite for placement in ENGL099G is a score of 4 on the Accuplacer test.

COLLEGE COMPOSITION I POLICY

Students must pass the research component of ENGL110G College Composition I to pass the course.

X. 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 64 credits to complete a degree, and must complete all required courses for his or her academic program. A students who transfers in three credit math 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:
   - World Education Services (WES) www.wes.org
   - Center for Educational Documentation (CED) www.cedevaluations.com
   - Educational Credential Evaluators (ECE) 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. The 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).

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 interpreted as a grade. Additionally, CLEP credits may not be applied towards the residency requirement of the College. Students may not transfer CLEP credits for a course they have successfully completed, or that is more advanced than the subject of the exam. Any student who fails a Great Bay course and wishes to take a CLEP exam in lieu of retaking the course must realize that the original grade received will remain on his or her transcript and will be counted in the CGPA. The CLEP exam score does not replace a grade for a course at the College. Any student interested in CLEP should speak with an academic advisor. CLEP exams are administered on the computer (CLEP CBT) through the Center for Academic Planning and Support (CAPS). Individuals needing testing accommodations or optional essays must allow a minimum of two weeks prior to testing to process the requests. For more information, contact CAPS: (603) 427-7621.

4. Credit by Examination (Challenge Exam)

Not all courses are appropriate for credit by examination. Individual colleges and 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 by credit given by other agencies recognized by national associations offering college level course, National Occupational Competency Testing Institute (NOCTI) Assessments, or 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 most 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.

Please Note: There is no equivalency for FYE103G Essential Skills for College Success, unless 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 CGPA 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.

XI. RESIDENCY REQUIREMENT

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

1. For an Associate Degree, a minimum of sixteen (16) 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 Diploma or Professional Certificate, a student must complete at least nine (9) credits or 25 percent of the credits, whichever is larger, required for the Diploma or Professional Certificate at the institution from which it is awarded. Whichever is larger required for the Certificate at the institution from which it is awarded.
3. 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.

XII. 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

Requests for transcripts must be made in writing to the college Registrar or made via the Student Information System at the appropriate CCSNH College(s). Transcripts for courses taken among the CCSNH colleges by matriculated students will be sent automatically at the end of each semester to the student's home CCSNH college.

There is no transcript fee or transcript fax fee. 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 view the transcript in the Registrar's office on request or may receive an unofficial transcript copy if they are incapable of inspecting the transcript in person.

In accordance with FERPA regulations, if a student has a hold on an account because of outstanding financial obligations, the student will be able to view the final grades at the conclusion of the semester through the Student Information System (SIS). However, the student will be unable to view his or her entire transcript on SIS, and may view the entire transcript in the Registrar's office on request. No official transcript will be released until all outstanding financial obligations are resolved.

XIII. ACADEMIC HONOR CLASSIFICATIONS

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: 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)

XIV. ACADEMIC STANDING CLASSIFICATIONS

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, including: 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 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) work days. **
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) work days 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 1, the student has three (3) work days 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 an academic warning at any time if the student is failing or in danger of failing a course.

XV. 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 must refuse to allow plagiarism and cheating. We must work to create an environment in which intellectual curiosity and honesty are valued.

Refer to the Student Handbook for definitions of cheating and plagiarism. Instructors are empowered to impose sanctions as outlined in the Student Handbook. Violations will be referred to the Academic Affairs office.

XVI. ACADEMIC PRIVACY

All records shall be maintained in accordance with the Family Education Rights and Privacy Act and shall be kept in fireproof files.

Family Education Rights and Privacy Act (FERPA) In compliance with the Family Rights and Privacy Act of 1974 (The Buckley Amendment), it is the policy of The College to protect the educational/academic records of its learners, former learners, and alumni. All personally identifiable information in a learner's educational record is considered confidential. 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.

The federal law includes provisions for disclosure of Directory Information by educational institutions. The College considers the following to be Directory Information: Name, address, email address (college), telephone number, major field of study, dates of attendance, enrollment status (e.g. full-time or part-time), and degrees/honors/awards. IF YOU DO NOT WISH DISCLOSURE OF ANY OR ALL OF THE CATEGORIES OF IDENTIFIABLE DIRECTORY INFORMATION, YOU MUST NOTIFY THE REGISTRAR IN WRITING PRIOR TO THE CLOSE OF THE LAST DAY TO ADD.

Please consider very carefully the consequences of any decision by you to withhold any category of general Directory Information. Should you decide not to release general Directory Information, any future requests for such information from non-institutional persons or organizations will be refused, except as provided by law.

The College will honor your request to withhold general Directory Information, but cannot assume responsibility to get in touch with you for subsequent permission to release it. Regardless of the effect

upon you, The College assumes no liability for honoring your instructions that such information be withheld.

Copies of the Family Educational Rights and Privacy Act of 1974, Part 99 of Title 45, dealing with Privacy Rights of Parents and Students, may be obtained from the Vice President of Student Affairs or the Office of the Vice President of Academic Affairs.

Student Records

A. Students have the right to review the contents of their records. Students will be given access to their own records within a reasonable period of time, but in no case shall access be withheld for more than 45 days after the request has been made. The Registrar is authorized to release this information. Students wishing access to their records must contact the Registrar personally. In cases involving the possibility of misinterpretation of data, the Vice President of Academic Affairs or his/her qualified designee shall interpret the data to the student.
B. Students shall have the opportunity for a hearing to challenge the contents of their college records to ensure that they are not inaccurate, misleading, or in violation of their privacy or rights. This challenge must be made in writing to the Vice President of Academic Affairs.
C. Students may authorize the release of their records to intended persons or institutions by completing the Authorization to Release Records form. No access or release of any personally identifiable records or files on students will be allowed to any individual, agency or organization without prior written consent of the student, except as follows:
    1. To internal and external officials directly involved with a legitimate educational interest.
    2. To authorize Federal and State officers as identified in Section 438 (b) 3) of Public Law 93-380.

XVII. 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 programs requirements.

XVIII. INFORMATION TECHNOLOGY ACCEPTABLE USE

1. Purpose:

The purpose of this policy is to encourage the responsible use of CCSNH and member campus technology resources consistent with expectations for the appropriate conduct of the members of our campus communities. This policy is intended to provide guidance to CCSNH technology users. While this policy and Addendum-A (Examples of Violations) are intended to provide guidance, it is impossible to contemplate all potential applications since technology and applications consistently change. If unsure whether any use or action would constitute a violation of this policy, contact your campus Information Technology department or the System Office for assistance. In cases not covered explicitly by the CCSNH Acceptable Use policy, the System Office determination will prevail. In addition to this policy, information on how to use CCSNH technology, resources and services can be found at www.ccsnh.edu .

Access to CCSNH technology resources is a privilege, not a right. This privilege is extended to all users including faculty, staff, students, alumni/ae, and affiliated individuals and organizations. CCSNH's technology resources include computing facilities, telecommunications and network services, video

network services, web page servers, equipment, software, applications, information resources, printing and scanning services, and user and technical support provided by Information Technology staff. Accepting access to these technology resources carries an associated expectation of responsible and acceptable use. Failure to abide by the responsibilities articulated below may result in loss of privileges.

2. Responsibilities

Users of CCSNH technology resources have a shared responsibility with our Information Technology staff to maintain the integrity of our systems, services, and information so that high quality and secure services can be provided to everyone. Toward this end, all users shall:

A. Comply with posted policies governing use of computing and printing facilities.
B. Respect all contractual and license agreements, privacy of information, and the intellectual property of others.
C. Comply with federal, state, and local regulations regarding access and use of information resources (e.g., policies regarding Federal Copyright Act, The Family Education Rights and Privacy Act, Gramm-Leach-Bliley Act, codes of professional conduct and responsibility, etc.).
D. Maintain and secure your own system accounts (including files and data associated with those accounts); this includes taking action to back up your files and data as appropriate.
E. Exercise due diligence in protecting any computer you use to connect (either through dial-up, VPN or any other means) to the CCSNH network from viruses, worms, and security vulnerabilities by maintaining and regularly using anti-virus software, installing available security updates/patches for your operating system and any applications you use, and avoiding the installation of un-trusted programs on your computer.
F. Take precautions to keep your technology accounts (computer, network, Blackboard, Banner, etc.) secure.
G. Do not share privileges with others. Your access to technology resources is not transferable to other members of the CCSNH community, to family members, or to outside individuals or organizations. If someone wishes access to CCSNH's technology resources, s/he should contact the CCSNH Information Technology Office by sending email to ITSupport@ccsnh.edu
H. Ensure that any and all of your web pages and blogs reflect the highest standards of quality and responsibility. As page or blog owner, you are responsible both for the content of your web page or blog and for ensuring that all links and references from these are consistent with this and other policies, copyright laws, and applicable local, state, federal laws. CCSNH hosted web pages and blogs are not to be used for commercial purposes or for activities unrelated to the educational mission of the college without written authorization from the CCSNH.
I. Ensure that any contributions of information to WIKIS reflect the highest standards of quality, accuracy, and responsibility.
J. Understand the implications of sharing information or data via the Internet, e-mail, Instant Messaging, social networks or other services that are either open to access by others, or that can be viewed and/or forwarded to others.
K. Report violations or suspected violations of this policy. Please report violations as follows:
    - College Personnel: Report violations to your immediate supervisor, Vice-President of Academic Affairs or President.
    - System Office Personnel: Report violations to your immediate supervisor, Vice-Chancellor or Chancellor.
    - Students: Report violations to your College Vice-President of Academic Affairs or President.

3. Enforcement of this Policy

CCSNH reserves the right to monitor the System network and systems attached to it, and to take actions to protect the security of the CCSNH systems, information, and users.

A. Reporting Violations or Suspected Violations: Reports of violations or suspected violations as follows:
    - College Personnel: Report violations to your immediate supervisor, Vice-President of Academic Affairs or President.
    - System Office Personnel: Report violations to your immediate supervisor, Vice-Chancellor or Chancellor.
    - Students: Report violations to your College Vice-President of Academic Affairs or President.
B. Response to Violations: The CCSNH Information Technology office will investigate and respond to reports of violations or suspected violations and include appropriate CCSNH offices as necessary. As part of this response, Information Technology reserves the right to immediately disconnect any system or terminate user access to protect the security of the CCSNH systems, information, and users.
C. Sanctions: Violation of this policy may result in the immediate termination of access and/or disciplinary action by CCSNH including, but not limited to restriction to all CCSNH technology resources and/or denial of employment opportunities with CCSNH. As a recognized agent under the Digital Millennium Copyright Act, CCSNH will act in accord with the provisions of this act in the event of notification of alleged copyright infringement by any user.
D. Compliance: All users who access or use CCSNH Information Technology resources must agree to comply with the CCSNH Acceptable Use Policy. (Also referenced in Human Resources Section 321.01)

Addendum A: Example Violations of Acceptable Use Policy

The purpose of this addendum is to provide examples of violations of CCSNH's Acceptable Use Policy. The following is not an exhaustive list and if you are unsure whether any use or action would constitute a violation of this policy, please contact your campus Information Technology department or the System Office for assistance. In cases not covered explicitly by the CCSNH Acceptable Use policy the System Office determination will prevail.

Examples that Apply to ALL Users (Students, Faculty, Staff and Contract Employees): Authorized Access/Accounts

1. Attempting to obtain unauthorized access or circumventing user authentication or security of any host, network or account. This includes accessing data not intended for the user, logging into a server or account you are not expressly authorized to access, or probing the security of systems or networks.
2. Supplying or attempting to supply false or misleading information or identification in order to access CCSNH's technology resources.
3. Sharing your passwords or authorization codes with others (computing, e-mail, Blackboard, Banner, etc.).
4. Using technology resources for unauthorized uses.
5. Logging onto another user's account (without the permission of the account owner)
6. Sending e-mail, messages, etc. from another individual's or from an anonymous account.
7. Unauthorized use of CCSNH registered Internet domain name(s).
8. Changing your issued machine name to a name that is different from that assigned by CCSNH or campus Information Technology departments without authorization.
9. Connecting computers or other devices to the CCSNH network that have not been registered with, or approved by, CCSNH.

Services

1. Attempting to interfere with service to any user, host, or network. This includes “denial of service” attacks, “flooding” of networks, deliberate attempts to overload a service, port scans and attempts to “crash” a host.
2. Use of any kind of program/script/command designed to interfere with a user’s computer or network session or collect, use or distribute another user’s personal information.
3. Damaging a computer or part of a computer or networking system.
4. Knowingly spreading computer viruses.
5. Modifying the software or hardware configuration of a CCSNH owned computer with malicious intent
6. Excessive use of technology resources for “frivolous” purposes unrelated to the academic or administrative work of the Colleges, Examples are game playing (local or networked), downloading of music/video media files, using peer to peer file sharing programs, listening/watching streaming audio/video feeds (Internet radio, Internet TV, YouTube, etc.). These examples can cause congestion of the campus network and Internet connection or may otherwise interfere with the academic and administrative work of others, especially those wanting to use public access PCs or network and Internet resources.
7. Violating copyright laws.
8. “Hacking” on computing and networking systems.
9. Using technology resources (networks, central computing systems, public access systems, voice and video systems) for new technologies research and development without review and authorization from the CCSNH Information Technology office.
10. Deployment of wireless access points (WAPs) without review and authorization from the CCSNH Information Technology office.

Software, Data & Information

1. Inspecting, modifying, distributing, or copying software or data without proper authorization, or attempting to do so.
2. Violating software licensing provisions.
3. Installing software on public access and other CCSNH owned computers without appropriate authorization from the CCSNH Information Technology office.
4. Installing any diagnostic, analyzer, “sniffer,” keystroke/data capture software or devices on CCSNH owned computer equipment or on the CCSNH network.
5. Breaching confidentiality agreements for software and applications; breaching confidentiality provisions for institutional or individual information.

Email/Internet Messaging/Voice Mail/Voice Services

1. Harassment or annoyance of others, whether through language, frequency or size of messages, or number and frequency of telephone calls.
2. Sending e-mail or voice mail to any person who does not wish to receive it, or with whom you have no legitimate reason to communicate.
3. Sending unsolicited bulk mail messages (“chain mail”, “junk mail” or “spam”). This includes bulk mailing of commercial advertising, informational announcements, political tracts, or other inappropriate use of system e-mail distribution lists. Forwarding or otherwise propagating chain e-mail and voice mail and pyramid schemes, whether or not the recipients wish to receive such mailings. This includes chain e-mail for charitable or socially responsible causes.
4. Malicious e-mail or voice mail, such as “mailbombing” or flooding a user or site with very large or numerous items of e-mail or voice mail.

5. Forging of e-mail header or voice mail envelope information. Forging e-mail from another's account. Sending malicious, harassing, or otherwise inappropriate voice mail from another's voice lines.
6. Falsely representing opinions or statements on behalf of CCSNH or others.

CCSNH Hosted, and personal Web Pages, Blogs, or other Social Media Web Sites

1. Posting content on personal Web Pages, Blogs, or other Social Networks that provides information on and/or encourages illegal activity, or is harassing and defaming to others.
2. Linking from personal Web Pages, Blogs, or other Social Networks, whose content violates CCSNH policies, local, state, and/or federal laws and regulations.
3. Running personal Web Pages, Blogs, or other Social Networks that support commercial activities or running server systems under the CCSNH registered domain name, CCSNH.EDU or variation thereof, without authorization.
4. The use of the CCSNH name, seals, images and text are the property of CCSNH and shall not be used without the written permission of CCSNH.

Listservs, Bulletin & Discussion Boards

1. Posting a message whose subject or content is considered unrelated to the subject matter of the listserv, bulletin or discussion board to which it is posted. For moderated listservs, the decision as to whether a post is unrelated will be made by the moderator. For listservs that are not moderated and discussion boards, we employ the practice of "self-policing" -- that is, members serve as moderators, commenting (to the sender, to the list) about inappropriate posts.
2. Posting chain letters of any type.
3. Forging header information on posts to listservs, bulletin or discussion boards.

For further information about the CCSNH Acceptable Use Policy please visit: http://www.ccsnh.edu/about-ccsnh/information-technology

XIX. 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

I. CENTER FOR ACADEMIC PLANNING AND SUPPORT

Academic planning and support services are available to both student and community members through the Center for Academic Planning and Support (CAPS). Services include: peer and professional tutoring; web-based instruction; workshops; disability, single parent, gender equity, and ESOL support services; international student advising; and academic counseling and assessment. In addition, the Center maintains a computer lab, study/tutoring space, a 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 through the purchase of a Community Access Card.

Hours of Operation*:	
Monday - Wednesday	8:00am to 6:00pm*
Thursday	8:00am to 7:00pm
Friday	8:00am to 4:00pm
**Hours may vary during the summer semester and/or when classes are not in session. Updated hours are posted throughout the Center and on the CAPS webpages.*	
Rochester hours are 8am-4pm Monday, Wednesday, and Friday, 8am – 7pm Tuesday and Thursda and 8am - 1:30pm Saturday	

For more information about any CAPS service, or to receive a brochure, email CAPS at greatbaycaps@ccsnh.edu, visit the website at www.greatbay.edu/caps , call 603-427-7621, or drop in during open hours. CAPS is located in Room 210 in Portsmouth and services may be accessed through Jenna Anand in Rochester.

Academic Counseling

CAPS counselors in Portsmouth and Rochester work with students at any point in their program in developing academic skills and strategies, as well as organizational and other life management techniques. Specialty advising is available in the areas described below, and students may work collaboratively with faculty and CAPS counselors around these topics. When appropriate, students are referred to outside agencies for further assistance. Students referred to CAPS through an Academic Alert Form from a faculty member or advisor 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: Math and Writing, Drop-In Centers; tutor-facilitated study groups; one-to-one tutoring; small group tutoring; online tutoring; as well as multimedia, web-based tutorials and software applications. Schedules for tutoring on the Portsmouth and Rochester campuses are posted each semester in CAPS and on the website at www.greatbay.edu/tutoring . The tutor program trains and certifies its tutors via the College Reading & Learning Association (CRLA) national standards. For more information about receiving tutoring or becoming a tutor, contact the Coordinator of Tutoring and College Readiness Services.

College Readiness 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. Specialized assistance is provided in managing the process of becoming enrolled, getting connected with college resources, and improving skills for success and confidence in the classroom. For more information, contact the Coordinator of Tutoring and Developmental Education Services.

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 the college's Disabilities Services Office. 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 in a collaborative way 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 individually each semester. Reasonable accommodations are determined by the nature of the disability, requirements of the curriculum and specific classes, and timeliness of the request.

To access services students must provide recent documentation of their disability to the Coordinator of Disability Support Services. All information is kept confidential. **For more information or to schedule an appointment, contact the Coordinator of Disability Services or visit our website at** www.greatbay.edu/caps .

Additional support is available to students with documented disabilities in career and technical programs through the Carl D. Perkins Vocational Educational Grant, and may include financial scholarships as well as coaching. For more information contact the Student Success Mentor at (603) 427-7673

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 to the Vice President of Academic Affairs (VPAA) within ten (10) working days of receipt of the decision from the Disabilities Counselor. 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 does not agree 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 Disabilities Counselor 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, 33 Arch Street, Suite 900, Boston, MA 02110-1491; (617) 289-0111; TDD: (877) 521-2172; email: ocrboston@ed.gov .

English for Speakers of Other Languages (ESL/ESOL) and International Student Services

ESL 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 Diversity Programming Coordinator.

Gender equity / Nontraditional fields of study
Nontraditional fields of study are occupations or fields of work in which individuals from one gender comprises less than 25 percent of the total number. Examples include computer science, criminal justice, and several other emerging high skill occupations. Support, resources and scholarships may be available for students studying in nontraditional fields. For information regarding these services and which programs are considered to be nontraditional, please contact the Student Success Mentor in CAPS.

Project Success
Project Success is a program designed to provide career assessment, personal and academic support, and community access to needed services for single parents, displaced homemakers, and single pregnant women enrolled in career and technical programs at Great Bay Community College. Funded by the Carl D. Perkins Vocational Educational Grant, eligible students may receive funds to help with books, tuition, fees, and supplies. For more information regarding the application process, contact the Student Success Mentor at 603-427-7724.

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, and placement testing for new students. CLEP exams and placement testing (ACCUPLACER) are both described in more detail under Academic Policies. See page 38 for CLEP and page 36 for Accuplacer.

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 by purchasing a Community Access Card.

II. 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. This is done using 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, certificate, transfer to another institution, or just take a few classes, the advisor will assist in developing a plan to achieve the goal.

The Advising Center
The Advising Center is staffed by professional advisors. They work with all students who are new to the college, regardless of major, to select classes for their first semester. In subsequent semesters, the Advising Center advisors work with a variety of majors including Liberal Arts and non-matriculated students. Other students are advised by the program faculty in the specific discipline. A complete list of faculty advisors can be found in the Advising Center or online at www.greatbay.edu/advising. All students, regardless of major, should feel welcome to contact the Advising Center with any academic advising questions or concerns.

Transfer Advising
Advising services include assistance with exploring colleges for transfer, the transfer application process and course selection based on future transfer goals. For more information contact the Advising Center.

III. 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 is available, including: circulation of our 10,000 + volume library and 100 + current periodical subscriptions for browsing and research, remote access to information provided by 64 databases and 153,285 over 180,000electronic books, instructor reserves, research/ reference support, information literacy training, photocopying, fully loaded media carts, information via free access to the Internet and interlibrary loan.

Hours and Locations
The Library is open Monday through Thursday from 8 am to 6 pm and on Friday from 8 am to 4 pm. Hours may change during holidays and summer. Please call the Library for current hours.

Reference Help
Librarians have professional expertise in helping students find and use information. Librarians are familiar with library assignments handed out in classes and also offer instruction in the print and electronic research process. Students can access assistance at the Library circulation desk, by phone, or via email. Questions can be e-mailed to 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. Only current students can access electronic resources from off campus. Call the Library for further assistance in remote use.

Electronic Resources
There are several electronic resources available through the Library for students' use. There are laptops that can be checked out for 2 weeks at a time for research use at home. There are Nook ereaders that can also be used at home and there are iPads for use in the Library only.

Academic Programs Material
Library materials include: reference resources, circulating books; electronic books; online full-text databases of periodicals and reference materials, print periodicals, local, state, and national newspapers, and a wide variety of audiovisual materials such as videos, DVDs, and CDs. 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 Blackboard, web email, and the Internet. Thousands of periodicals and newspapers are available in print or 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.

Saving Documents, Printing, E-mailing, and Copying
Current Great Bay Community College students may print 10 pages per day from Library workstations; however, students are encouraged to bring jump drives to the Library for downloading information. Students may also email information from many Library resources to themselves. The Library also has a photocopier for use.

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 (laptops and Nooks are $10 per day). 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

Bookstore – Pease Campus
The college contracts with Follet to run an on-campus bookstore at the Pease Campus. The bookstore is stocked with textbooks, supplies, novelty items, and college clothing articles. Students who have questions about pricing, books or any issues should direct their inquiries directly to the bookstore at (603) 427-0891. Students can also purchase text books online. The bookstore can be accessed through the college web site.

Fitness Center – Pease Campus
The Pease location has a fitness center with cardio, circuit and free weight equipment. Registered students may utilize the Center by signing a waiver at the Help Desk that is located in the Library.

Gymnasium – Pease Campus
The Pease location has a gymnasium that students can use when events are not scheduled. Registered students may utilize the Center by signing a waiver at the Help Desk that is located in the Library.

Student Identification Cards
Students may obtain a college ID at the Help Desk 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 Help Desk 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 $10 (payable at College Services One Stop).

Help Desk
The Help Desk is a vital information and trouble ticket center for all students, faculty, and staff at Great Bay Community College. This service helps resolve problems with SIS, Blackboard, Email, Computer issues, or general college FAQs. The Helpdesk also has a physical location, inside the College Library at the Pease Location. Hours of operation are Monday – Thursday 10am to 6:30pm and Fridays 10am to 4pm. The Help Desk is closed on Saturday and Sunday, however tickets are still received. If the Help Desk is unable to resolve an issue on the weekend, it will be resolved first thing Monday morning. Visit the website at: 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 Blackboard. Information Technology specialists also partner with Disability Services to review, purchase, and implement assistive technology for students with disabilities.

Cafeteria – Pease Location

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 – Pease Location
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.

GBCC Alerts
An emergency notification system has been developed whereby members of the Great Bay community will be notified by telephone, e-mail and text of any emergencies that may occur. Most commonly these notices will be related to weather related cancellations and closings, but 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 the front desk.

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
A special accident and illness insurance policy is available to all students enrolled with the CCSNH. Enrollment information is provided through a mailing during the summer months or at new student orientation. Brochures are also available at the front desk. The basic policy covers illness and accidents occurring in and out of school. Other details are available within the brochure. 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 an accident insurance policy.

Student Handbook
The college's student handbook is available to all students on the college website. The student handbook documents academic and student policies and procedures. Students are responsible for being familiar with the information in the student handbook.

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 under the "About Us" tab on the front page.

STUDENT LIFE

Great Bay Community College believes in the value of providing students with the comprehensive skills needed to be successful upon graduation. The Student Life office strives to promote student growth and development for learning, involvement, leadership, and community building 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, 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.

Mentor Programs

- Women In Business Mentor Program – Students attend monthly luncheons with a variety of leaders from the Seacoast community. Students explore a variety of topics and develop practical networking skills while learning what it means to be a professional.
- Executive Mentor Program – Students work one on one with a business professional in the Seacoast community to gain insight on networking, effective communication and what it means to be a professional.

Civic Engagement

- 100 Hour Program - Students become self-aware of their community and the importance of civic engagement. This program requires students to complete 100 hours of community service during their time at the college and reflect on how the experience has impacted their perspective as a member of society.
- Clubs for a Cause - Student club and organizations actively engage in community service to see the impact volunteering has on a community.

Campus Involvement

- Student Clubs and Organizations - Students have the opportunity to experience success in the classroom and take advantage of a wide range of activities to further enhance life skills. Our student clubs and organizations offer the chance to be a part of a team, gain a head start on a career, build leadership skills, and get involved in community service.
- Orientation Leaders - Students have the chance to hone their public speaking and facilitation skills and to develop as a campus leader.
- President's Council - Students meet in a small group with President Will Arvelo on a bi-monthly basis to share and discuss their thoughts and ideas about the college. Students learn how to professionally communicate ideas.

Intercollegiate Athletics

The College participate in the Yankee Small College Conference and is a member of the United States Collegiate Athletic Association. 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.

- Men's Golf
- Women's Golf
- Women's Volleyball
- Women's Basketball
- Men's Basketball
- Bowling

BUSINESS & TRAINING CENTER

The Business & Training Center is focused on building the skills and aptitudes needed by employers of the Seacoast region. Programs provide short term training solutions for entry level positions as well as professional development for mid and upper 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 of both credit and non-credit programming can be offered on-site and on campus. The College is authorized to award Continuing Education Units (CEU) for those courses not eligible for credit toward a degree.

CURRENT COMMUNITY AND CORPORATE EDUCATION COURSES AND PROGRAMS

BUSINESS

INSURANCE INDUSTRY PROGRAM

Designed in collaboration with leading insurance industry professionals, this program develops skills for high demand entry-level positions. These courses, from The Institutes, a nationally recognized leader in risk management and property casualty education, prepares students for The Institutes exams that lead to insurance designations.

NCBU120G	Introduction to Property- Casualty Insurance	Non-Credit
NCBU121G	Ethics of Insurance Professionals	Non-Credit
NCBU124G	Property and Liability Insurance Principles	Non-Credit
NCBU122G	Personal Insurance	Non-Credit
NCBU123G	Commercial Insurance	Non-Credit
	Internship in the Insurance Industry	Non-Credit
NCBU160G	Commercial Underwriting	Non-Credit
NCBU161G	Underwriting Commercial Property	Non-Credit
NCBU162G	Underwriting Commercial Liability	Non-Credit
NCBU163G	Strategic Underwriting Techniques	Non-Credit

MICROSOFT® OFFICE

Transition courses to the newer versions of Microsoft ® Office and Beginner, Intermediate and Advanced courses in EXCEL.

NCBU121G	Introduction to Excel	Non-Credit
NCBU122G	Intermediate Excel	Non-Credit
NCBU123G	Advanced Excel	Non-Credit

OFFICE ADMINSTRATION PROGRAM

This five-course program provides work-readiness training and supports transition to an office environment. This program includes both credit and non-credit courses. Upon completion of the program, participants have the skills needed to perform the tasks of an entry level office administrator, including:

- Business organization and terminology
- Introductory MS Office computer skills
- Office equipment operation
- Professional and interpersonal skills

Required Courses:		
NCPD246G	WorkReadyNH	Non-Credit
CIS110G	Introduction to Computers	3 credits
CIS156G	Computer Applications for Business	3 credits
NCBU113G	Office Skills and Technology	Non-Credit

Electives – select one:		
ACCT113G	Accounting and Financial Reporting I	3 credits
AH110G	Medical Terminology	3 credits
BUS110G	Introduction to Business	3 credits

PRODUCTION & INVENTORY MANAGEMENT PROGRAM

Delivered in collaboration with APICS Granite State Chapter #85, this five course program prepares students for the Certificate in Production &Inventory Management (CPIM) exams. A CPIM Certification is essential for professionals in production and inventory management, operations, supply chain management, procurement, materials management and purchasing. The program covers essential terminology, concepts and strategies related to demand management and planning. APICS certified instructors conduct all classes.

NCBU098G	Basics of Supply Chain Management	Non-Credit
NCBU102G	Detailed Scheduling and Planning	Non-Credit
NCBU105G	Execution and Control	Non-Credit
NCBU106G	Master Planning of Resources	Non-Credit
NCBU110G	Strategic Management of Resources	Non-Credit

SOCIAL MEDIA

GBCC offers short two-hour workshops to get you started or take your social media marketing to the next level.

NCBU150G	Social Media for Beginners	Non-Credit
NCBU151G	Social Media in 15 Minutes a Day	Non-Credit
NCBU152G	Developing Creative Content in Social Media	Non-Credit
NCBU153G	Social Media Strategy	Non-Credit
NCBU154G	Social Media on the Go	Non-Credit
NCBU155G	Effective E-Mail Marketing	Non-Credit

SUPERVISION

Skill development in interactive courses for new and seasoned supervisors as well as those aspiring to a supervisory position.

NCBU126G	Frontline Supervision	Non-Credit
NCBU127G	Smart Supervision for Managers	Non-Credit

ONLINE PROFESSIONAL DEVELOPMENT

Great Bay Community College partners with UGotClass to offer current and relevant short-term online professional development courses in a variety of areas including Business, New Media Marketing and Social Media. Visit www.greatbay.edu/btconline .

TECHNOLOGY TRAINING

COMPUTER NUMERICAL CONTROL (CNC) PRODUCTION TECHNOLOGY CERTIFICATE

Prepare to enter a career in the manufacturing industry by becoming an in-demand, skilled CNC operator. Gain in-depth knowledge and understanding of the machine tool trade and learn marketable skills for employment in manufacturing. This is a full-time, 320-hour, eight-week boot camp.

NCAM300G	Computer Numerical Control Production Technology	Non-Credit

PRECISION MACHINING AND COMPUTER NUMERICAL CONTROL (CNC) TECHNOLOGY

Beginning and intermediate courses in manual machine tooling and advanced courses in CNC technology include reading and understanding blueprints and, G code and software skills necessary for successful machinists in today's industry.

NCBU100G	Introduction to Precision Machining	Non-Credit
NCBU150G	Intermediate Precision Machining	Non-Credit

OUTDOOR POWER EQUIPMENT REPAIR PROGRAM

This program offers classroom and hands-on experience help to build an understanding of theory, as well as troubleshooting, repair and maintenance skills. The program is designed for the homeowner and those considering a career in outdoor power equipment repair.

NCPE001G	Small Engine Repair	Non-Credit

SOLIDWORKS

The Introduction to Solidworks course provides students with the opportunity to become proficient in creating 3D models from a simple to an advanced blueprint. The course includes preparation for the Certified Solidworks Associate Exam (CSWS) which indicates a foundation in and apprentice knowledge of 3D CAD and engineering practices and principles.

NCAM320G	Introduction to Solidworks	Non-Credit

HEALTHCARE

MEDICAL ASSISTANT TRAINING PROGRAM

This program trains students to assist physicians by performing functions related to the the administrative and clinical responsibilities of a medical office. This is a full time, 480 hour, 12 week boot camp delivered in collaboration with local medical practices.

NCHC140G	Medical Assistant	Non-Credit
NCHC141G	Medical Assistant Practicum	Non-Credit

VETERINARY TECHNOLOGY NATIONAL EXAMINATION (VTNE) PREPARATION

Meet with your peers in an eight week study group instructed by Great Bay Community College faculty. The material review follows the breakdown of the VTNE. Each class focuses on a different topic and will employ mini-tests, games, and other techniques to help retain key material. Test taking strategies are emphasized.

NCHC026G	Vet Tech National Exam Preparation	Non-Credit

TRANSITION PROGRAMS

Project SEARCH Seacoast NH PROGRAM

This two semester school-to-work program for students with cognitive and physical disabilities is a total workplace immersion training model. Project SEARCH facilitates a seamless combination of classroom

instruction, career exploration and on-the-job training and support. Project SEARCH – Healthcare is hosted at Portsmouth Regional Hospital and is one of many programs world-wide.

NCHC33G	SEARCH Healthcare I	Non-Credit
NCHC34G	SEARCH Healthcare II	Non-Credit

WORKREADY New Hampshire PROGRAM

This tuition-free program offers professional development training for career builders and job seekers looking to improve their skills and employment opportunities. Participants will develop the skills employers are looking for and add the National Career Readiness Certificate credential to their resume.

Skill-building modules for Applied Math, Reading for Information, and Locating Information are fully online, self-paced and convenient. Completing the assessment leads to the National Career Readiness Certificate, a portable, evidence-based national credential that measures essential workplace skills and is a reliable predictor of employee success in the workplace.

Core and interpersonal skills are developed through a 60-hour workplace simulated course. Instructor facilitated activities develop and refine workplace behaviors such as communication, conflict resolution, job keeping, and team membership skills. New Hampshire employers look for mastery of these skills. Those who possess them increase their earning power and stand out from other applicants.

WorkReadyNH is offered at both the Portsmouth and Rochester campuses.

NCPD246G	WorkReadyNH Soft Skills	Non-Credit

Contact the WorkReadyNH Center at (603) 427-7636(Portsmouth) or (603)-427-7776 (Rochester) or workreadygbcc@ccsnh.edu

Non-Credit Tuition Payment and Refund Policy

Tuition is required at the time of registration. Students registered for non-credit workshops/professional training must withdraw in writing at least three business days prior to the first session to receive a full refund of tuition and fees. 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 lab 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 .

Trade Act

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

NH Job Training Fund (NHJTF) Grant

The NHJTF Grant is awarded to NH businesses to improve the capability of their workforce. This grant can reimburse employers up to on-half of the cost of training. The member colleges of the Community College System of NH are the preferred training vendors. To find out more about the NHJTF Grant, go to www.nhjobtrainingfund.org and contact the Business & Training Center staff to discuss training solutions.

DUAL ENROLLMENT PROGRAMS

Running Start eStart Early College

Dual Enrolment, 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 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

Students will have the opportunity to take the Accuplacer assessment offered at the high school or college. This assessment is required of any student who wishes to enroll in a College Composition or Math course.

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 tuition for one three credit 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 post secondary 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 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.

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 $250 per course. Students are responsible for lab fees, textbooks, and course materials.

GENERAL DEGREE INFORMATION

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.

INTERNSHIP - DEFINITION

An internship is an educational program that combines classroom studies with on-site work experience in a field of interest related to the student's major or career. Typically, an internship is a maximum of one semester, may be paid or unpaid, requires the student to be at the work site for a part of the week, and is usually taken concurrently with classes. Depending on the college department, one credit is awarded for every 3-6 hours of internship per week for a 15/16 week semester. Summer internships are prorated accordingly. Individual departments must approve internship sites and will determine requirements (papers, journals, etc.) that must be met during the internship. Individual departments will set minimum standards for student eligibility for an internship.

COURSE CREDIT 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 8 week schedule meets 6 hours per week and earns the same 3 credits.

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 *	Topics in Applied College Mathematics	4-0-4
CIS110G * (or CIS107G*)	Introduction to Computers (or Essentials of Computer Literacy)	2-2-3 (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, MKTG 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, HUMA, PHIL, SPAN, 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, 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.

TRANSFER CREDIT POLICY

In addition to the Great Bay Transfer Credit Policy on page 41, 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 5pm or later. Students completing program requirements may need to take classes at any of those times.

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.

- **Human Relationship Skills:** The application of values, collaboration skills, standards, ethical judgment , and appreciation of diversity required for personal and professional interaction.
- **Communication Skills:** The ability to express ideas and share knowledge in a clear, focused, and organized manner.
- **Critical Thinking:** The ability to analyze, synthesize, and evaluate information in a logical and coherent manner.
- **Global Perspectives:** The ability to examine a concept in contexts and from perspectives other than one's own.
- **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 and biological phenomena.
- **Technical Skills:** The theoretical and applied knowledge for career entry and continued professional development
- **Study Skills:** The application of strategies, resources, and attitudes to find solutions and gain knowledge.

PROGRAMS OF STUDY

ACCOUNTING

ASSOCIATE IN SCIENCE
CERTIFICATE

Program Description
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.

The Accounting degree transfers to many four-year colleges. The Accounting program is accredited by the Accreditation Council for Business Schools and Programs (ACBSP) which supports transfers to many four year institutions.

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.

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.

Technical Standards
Students should be able 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.

DEGREE PROGRAM - FIRST YEAR

Fall Semester		TH	LAB	CR
FYE111G	First Year Seminar	1	0	1
ACCT113G	Accounting and Financial Reporting I	3	0	3
BUS114G	Management	3	0	3
ENGL110G	College Composition I	4	0	4
MATH145G	Topics in Applied College Mathematics	4	0	4
CIS156G	Computer Applications in Business*	2	2	3
	Total	17	2	18
** Prerequisite: placement in CIS156G or successful completion of CIS110G (or CIS107G)*				

Spring Semester		TH	LAB	CR
ACCT123G	Accounting and Financial Reporting II	3	0	3
ECON234G	Macroeconomics	3	0	3
MATH225G	Probability and Statistics	4	0	4
ENGL210G or ENGL214G	Introduction to Creative Nonfiction or Oral Communications	3	0	3
	Science Elective*	3	0	3
	Total	16	0	16
**A 3-4 credit science elective may be accepted in transfer to fulfill this requirement*				

DEGREE PROGRAM - SECOND YEAR

Fall Semester		TH	LAB	CR
ACCT213G	Cost Accounting I	3	0	3
ACCT243G	Federal Income Taxes-Individual	3	0	3
ACCT223G	Intermediate Accounting I	3	0	3
BUS211G	Business Law	3	0	3
ECON235G	Microeconomics	3	0	3
	Total	15	2	15

Spring Semester		TH	LAB	CR
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
PHIL240G	Ethics	3	0	3
	Total	14	2	15
				TOTAL CREDITS – 64

ACCOUNTING CERTIFICATE

		TH	LAB	CR
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
CIS156G	Computer Applications in Business*	2	2	3
** Prerequisite: placement in CIS156G or successful completion of CIS110G (or CIS107G)*				
			TOTAL CREDITS – 27	

Gainful Employment disclosure information is available at:
http://greatbay.edu/sites/default/files/media/Accounting%20GE%20Disclosure.pdf

ADVANCED COMPOSITES MANUFACTURING

CERTIFICATE

Advanced manufacturing is part of the state's largest industry sector, making up 19% of New Hampshire's economy. The economic impact of jobs in advanced manufacturing far exceeds that of jobs in other industries. The Advanced Composites Manufacturing program at Great Bay prepares participants with skills and knowledge required for jobs in the high growth fields of composites manufacturing and aerospace.

The program is offered at the College's Advanced Technology & Academic Center in Rochester, NH. Introductory courses provide opportunities for students to experience working in modern, clean, hands-on training labs while learning and applying skills critical for success. In addition to a mechanical aptitude, students interested in the program should have keen attention to detail and demonstrate a desire for quality. They must also enjoy learning in a hands-on way and working as part of a team.

The program consists of two levels and can be completed in 6 months in the full time schedule. A part time, evening and weekend option is also available, which can be completed in a year. The introductory level is designed to provide students with an overview of advanced composites manufacturing and to help them select an area of specialization based on interest, ability, and job outlook. During Level 2 training, students will complete general fundamental manufacturing courses and concentrated courses of study leading to machine operator certificates with one of 8 specializations:

1. Paint Operator
2. Weaving Technician and Preform Finishing Technician
3. Resin Transfer Molding Technician
4. Bonding and Finishing Operator
5. Quality Inspection and Coordinate Measuring Machine (CMM) Technician
6. Composites CNC Milling and Set-Up Operator

Many students will enter the workforce after completing level 2. They may continue to learn as they earn by studying in either technical or leadership tracks. A leadership path could provide opportunities to be become a team leader within their specialization. A technical path could lead to increased skill level and potential certification by the Society of Manufacturing Engineers as a Certified Manufacturing Technologist.

Dual enrollment: Students enrolled in the ACM 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 ACM certificate satisfies the requirement for the technical specialty core (24 credits) of the Technical Studies degree.

Program Outcomes

The goal of the Advanced Composites Manufacturing program is to prepare the student to work in the advanced composites manufacturing industry, including aerospace, automotive, wind energy, and others. After successful completion of the program, students will be able to:

- Define the processes and materials used in advanced composites manufacturing.
- Illustrate the flow of materials and resources within the manufacturing process for advanced composite materials.
- Apply terminology used in aerospace, explain regulatory compliance, and describe quality concepts.
- Demonstrate the ability to solve mathematical problems that affect composite part design and manufacture.
- Understand the fundamental science concepts behind composites manufacturing.

- Apply techniques for observing, gathering, and recording data.
- Anticipate or recognize the existence of a problem or nonconformity.
- Demonstrate ability to recognize safety issues and to observe all safety procedures.
- Demonstrate the ability to successfully meet the requirements of a machine operator position in advanced composites manufacturing.
- Demonstrate the ability to follow written instructions with particular attention to detail and quality.

Technical Standards

This program includes work in a manufacturing lab and requires participants to physically perform the functions of reaching, walking and standing, safely lifting up to 20 lbs. and more for some specializations, hearing sounds of equipment, ability to visually inspect parts for quality, and ability to pass a fitting test and to wear a dust mask for extended periods of time. Students will be specializing in one of eight areas, some requiring additional physical demands.

- The weaving specialization also requires ability to be able to work seated for extended periods of time, reaching with a steady hand, and climbing steps, bending, and stooping to visually inspect the weaving process. Manual dexterity in both hands is required for trimming.
- The resin transfer molding specialization requires ability to handle heated tools and sufficient pulmonary function to wear respirators and full face masks. This specialization also requires reaching, bending, and lifting up to 35 lbs. to attach and handle overhead lifting equipment and attachments.
- The bonding/finishing specialization requires manual dexterity for precision work; visual acuity to the standard of 20/15; and sufficient pulmonary function to wear respirators and full face masks for extended periods of time.
- The paint technician specialization requires manual dexterity and sufficient pulmonary function to wear respirators and full face masks for extended periods of time.
- The quality inspection and coordinate measuring machine operator specialization requires repetitive reaching with hands and arms, standing and walking, occasional lifting or moving up to 35 lbs. and visual acuity to the standard of 20/15.
- In order to successfully satisfy course objectives and the requirements of the field, students must be able to meet all standards stated above.

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. ACM information session or admissions appointment.
5. Place into MATH080G, CIS110G (or CIS107G) or higher and college level Reading.

Health and Safety Considerations

This program includes work in a composites 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.

Transfer Credit Policy

In addition to Great Bay transfer credit policies, transfer of courses in the Advanced Composites Manufacturing program will be evaluated by the program coordinator on an individual basis.

CURRICULUM

Course		TH	LAB	CR
ACM110G	Introduction to Advanced Composites	2	3	3
ACM115G	Applied Math & Measurement for Manufacturing	1	2	2
ACM120G	Technical Blueprint Reading	1	2	2
ACM210G	Fundamentals of Composites Manufacturing	3	2	4
ACM230G	Manufacturing Ethics	1	0	1
BUS210G	Organizational Communication	3	0	3
CIS110G (or CIS107G)	Introduction to Computers* (or Essentials of Computer Literacy)	2 (2)	2 (4)	3 (4)
	Total	13	11(13)	18(19)

**Students may substitute a higher level CIS course. Recommended substitutes are CIS111G Computer Technologies and CIS156G Computer Applications in Business.*

CURRICULUM

Students must select one elective below for Concentration:

Course		TH	LAB	CR
ACM250G	Paint Operator	0	3	1
ACM251G	Weaving Technician and Preform Finishing	1	3	2
ACM252G	Resin Transfer Molding Technician	0	4	2
ACM253G	Bonding and Finishing Operator	0	4	2
ACM254G	Quality Inspection and CMM Operator	2	2	3
ACM255G	Composites CNC Milling and Set-up Operator	4	4	6
			TOTAL CREDITS - 19-~~24~~25	

ACM Certificate students continuing with the Technical Studies A.S. Degree may select Technical Electives including, but not limited to:

ACM TECHNICAL ELECTIVES

Course		TH	LAB	CR
ACM256G	Composites Repair Technician	1	3	2
ACM257G	High Performance Composites Fabrication	0	4	2
ACM265G	Multi Axis CNC Milling	2	4	4
ACM103G	Project Based Composites Based Manufacturing	2	2	3
ACM215G	Applied Composites: Science and Technology	2	4	4
NDT110G	Introduction to Nondestructive Testing	2	2	3
NDT210G	Liquid Penetrant Inspection	1	2	2

Gainful Employment disclosure information is available at:
http://greatbay.edu/sites/default/files/media/ACM%20GE%20Disclosure.pdf

Curriculum Recommendations

A higher level CIS course may be substituted for CIS110G Introduction to Computers (or CIS107G Essentials of Computer Literacy). Recommended substitutes are CIS111G Computer Technologies and CIS156G Computer Applications in Business.

AVIATION TECHNOLOGY HELICOPTER

ASSOCIATE IN SCIENCE

Program Description

Many professional helicopter pilots flying today received training from the US Army during the Vietnam conflict. These pilots are approaching mandatory retirement age and as a result there is a growing need for qualified helicopter pilots. Demand in helicopter pilot career paths such as Search & Rescue, Emergency Medical Services (EMS), Oil Exploration, Charter Services, Flight Instruction, Heavy Lift, Tourism, Law Enforcement, News Reporting and Executive Transport is increasing. The Aviation Technology Helicopter Pilot Program provides the graduate with the Federal Aviation Administration (FAA) certifications required to start your career as a professional helicopter pilot in addition to providing foundational education in the Science, Mathematics and Liberal Arts.

Instruction is provided by FAA-certified flight and ground instructors in primary, instrument, commercial and instructor ratings. Students must complete certification within the semester of that course.

The goal of the program is to provide our students with a comprehensive academic and aviation foundation, emphasizing technical/flying skills, integrity, decision-making, leadership, dedication and professionalism. The program provides students the skills, FAA ratings and academic degree to be highly competitive as they enter the employment market in pursuit of a position as a professional helicopter pilot. The program can admit students with absolutely no experience in helicopter piloting and is completed on a full-time basis in two years (summer session is required). Students matriculated in the Aviation Technology Helicopter A.S. Degree will be charged New Hampshire In-State tuition for courses required for the program.

Students will be able to:

Students graduate with all of the certifications and licenses necessary to immediately start a career as a helicopter pilot. Graduates will hold a Commercial Pilot License/Helicopter with an Instrument Rating/Helicopter and Instructor-Instrument Certification/Helicopter. In addition to the Professional Pilot career path, the program provides a good starting place for entry into such career fields as Airport Management, Aircraft Maintenance, Airport Line Management, Fixed-Base Operation Management and Airport Maintenance.

Admissions Requirements

1. Complete an application to the college.
2. Provide proof of high school completion or equivalent.
3. Take placement test in reading, writing, computers, and math; place into math 084 or higher
4. Interview with program chair.
5. Second-Class Medical Certificate

Applicants will be contacted by Admissions to set up interviews with the program director once the first three requirements have been met.

DEGREE PROGRAM - FIRST YEAR

Semester 1		TH	LAB	CR
AVTN150G	Private Pilot I Ground	3	0	3

AVTN151G	Private Pilot I Flight**	0	8	4
FYE101G	First Year Seminar	1	0	1
ENGL110G	College Composition I	4	0	4
	Total	8	8	12

Semester 2		**TH**	**LAB**	**CR**
AVTN160G	Private Pilot II Ground	3	0	3
AVTN161G	Private Pilot II Flight**	0	8	4
ENGL210G	Oral Communications	3	0	3
MATH150G	College Algebra	4	0	4
	Total	10	8	14

Semester 3		**TH**	**LAB**	**CR**
AVTN170G	Instrument Pilot Ground	3	0	3
AVTN171G	Instrument Pilot Flight***	0	8	4
	Social Science elective	3	0	3
	Liberal Arts Elective*	3	0	3
	Total	9	8	13

DEGREE PROGRAM - SECOND YEAR

Semester 4		**TH**	**LAB**	**CR**
AVTN250G	Commercial Pilot Ground	3	0	3
AVTN251G	Commercial Pilot Flight**	0	10	5
PHYS135G	College Physics	3	3	4
HUMA150G	Critical Thinking	3	0	3
	Total	9	13	15

Semester 5		**TH**	**LAB**	**CR**
AVTN252G	Certified Flight Instructor Ground	1.5	0	1.5
AVTN253G	Certified Flight Instructor Flight**	0	4	2
AVTN254G	Certified Flight Instructor Instrument Ground	1.5	0	1.5
AVTN255G	Certified Flight Instructor Instrument Flight***	0	4	2
	Liberal Arts elective*	3	0	3
	Total	6	8	10
		TOTAL CREDITS – 64		

** Can be fulfilled by MATH145G Prerequisite to MATH150G or other Liberal Arts Electives*

*** Either R22 or R44 helicopter*

**** R44 helicopter required*

MISCELLANEOUS EXPENSES

Semester	**Item**	**Item Description**	**Est.Low Price**	**Est. High Price**	**Vendor Option 1**	**Vendor Option 2**	**Vendor option 3**
Purchase first week of Semester 1	iPad	common	$500	$1,500	Amazon	Best Buy	Walmart
Purchase first week of Semester 1	ForeFlight Software	Required proprietary flight planning software, cost is for annual subscription	$100/year	-	foreflight.com	n/a	n/a
Purchase first week of Semester 1	Flight Suit	Nomex Military Standard flight suit model # CWU 27/P	$174.99	$228.99	TacticalGear.com	Gibson & Barnes	Propper.com
Purchase first week of Semester 1	Noise cancellation headset	"Active cancellation" is considered the better product when compared to "nonactive	$300 (for nonactive)	$1500 (for high-end active)	Bose	LightSpeed	David-Clark

		cancellation" headset					
Purchase in Semester 2	Flight Computer	E6B circular slide rule, industry standard	$6	$30	Sporty's Pilot Shop	Aviall	Sky Geek
Purchase in Semester 2	Plotter	combination ruler and protractor, hand tool used for ETA calculations	$9	$17	Sporty's Pilot Shop	Aviall	Sky Geek
Purchase in Semester 2	VFR Sectional Charts	paper charts used to plot courses, 2-3 needed for program	$12/ea	-	mypilotstore.com	pilotshop.com	marvgolden.com
Purchase in Semester 3	Instrument Charts	paper charts used to plan, file and fly instrument flights. 2-3 needed for program	$12/ea	-	mypilotstore.com	pilotshop.com	marvgolden.com
Purchase spread over Semesters 1 - 5	Books, DVDs, Study Guides	Various reading material will be assigned by instructors. Some material is available free from the FAA. Other materials may be purchased.	$150/semester	-	assigned by instructor	assigned by instructor	assigned by instructor

HELICOPTER RATES FOR STUDENTS – BOTH R22 AND SOME R44

Rates for students using both R22 and some required R44. R22 for students 220 lb. and under. The VA only pays for the minimum flight hours.

Course	Sem	R22 Dual Instruction $300.00/hr PVT Pilot $325/hr ALL others	R22 Solo Flight $300.00/hr	R44 Dual Instruction $450.00/hr Required	Flight Simulator $80.00/hr	Pre/Post Briefings $45.00/hr	Ground School $40.00/hr PVT Pilot $45.00/hr ALL others	FAA Exam Flight Fees	Admin Fee	= Total
AVTN150G Private Pilot I Ground	1						15 hrs (15x40 =$600)		$578.00	$1,178.00
AVTN151G Private Pilot I Flight	1	27 hrs (27X300= $8,100)	3 hrs (3X300= $900)		10 hrs (10X80 =$800)	20 hrs (20X45= $900)			$3,620.00	$14,320.00
AVTN160G Private Pilot II Ground	2						15 hrs (15x40 =$600)		$578.00	$1,178.00
AVTN161G Private Pilot II Flight	2	28 hrs (28X300= $8,400)	7 hrs (7X300= $2,100)		10 hrs (10X80 =$800)	20 hrs (20X45= $900)		$600.00	$3,872.00	$16,672.00
AVTN170G Instrument Pilot Ground	3						20 hrs (20X45 =$900)		$858.00	$1,758.00
AVTN171G Instrument Pilot Flight (Note: R44 required)	3			40 hrs (40X450= $18,000)	10 hrs (10X80 =$800)	20 hrs (20X45= $900)		$850.00	$3,466.00	$24,016.00
AVTN250G Commercial Pilot Ground	4						15 hrs (15X45 =$675)		$831.00	$1,506.00
AVTN251G Commercial Pilot Flight	4	50 hrs (50X325= $16,250)	10 hrs (10X300 =$3,000)		10 hrs (10X80 =$800)	40 hrs (40X45= $1,800)		$600.00	$3,944.00	$26,394.00

AVTN252G Certified Flight Instructor Ground	5						15 hrs (15X45 =$675)		$456.00	$1,131.00
AVTN253G Certified Flight Instructor Flight	5	25 hrs (25X325= $8,125)				20 hrs (20X45= $900)		$600.00	$1,655.00	$11,280.00
AVTN254G Certified Flight Instructor Instrument Ground	5						15 hrs (15X45 =$675)		$456.00	$1,131.00
AVTN255G Certified Flight Instructor Instrument Flight	5			10 hrs (10X450= $4,500)		10 hrs (10X45= $450)		$850.00	$1,196.00	$6,996.00

HELICOPTER RATES FOR STUDENTS – USING ONLY R44

Rates for students using only R44. For students over 220 lb. – 300 lb. The VA only pays for the minimum flight hours.

Course	Sem	R44 Dual Instruction $450.00/hr	R44 Solo Flight $425.00/hr	Flight Simulator $80.00/hr	Pre/Post Briefings $45.00/hr	Ground School $40.00/hr PVT Pilot $45.00/hr ALL others	FAA Exam Flight Fees	Admin Fee	= Total
AVTN150G Private Pilot I Ground	1					15 hrs (15x40 =$600)		$578.00	$1,178.00
AVTN151G Private Pilot I Flight	1	27 hrs (27X450= $12,150)	3 hrs (3X425= $1,275)	10 hrs (10X80 =$800)	20 hrs (20X45= $900)			$4,151.00	$19,276.00
AVTN160G Private Pilot II Ground	2					15 hrs (15x40 =$600)		$578.00	$1,178.00
AVTN161G Private Pilot II Flight	2	28 hrs (28X450= $12,600)	7 hrs (7X425= $2,975)	10 hrs (10X80 =$800)	20 hrs (20X45= $900)		$850.00	$4,511.00	$22,636.00
AVTN170G Instrument Pilot Ground	3					20 hrs (20X45 =$900)		$858.00	$1,758.00
AVTN171G Instrument Pilot Flight	3	40 hrs (40X450= $18,000)		10 hrs (10X80 =$800)	20 hrs (20X45= $900)		$850.00	$3,466.00	$24,016.00
AVTN250G Commercial Pilot Ground	4					15 hrs (15X45 =$675)		$831.00	$1,506.00
AVTN251G Commercial Pilot Flight	4	50 hrs (50X450= $22,500)	10 hrs (10X425 =$4,250)	10 hrs (10X80 =$800)	40 hrs (40X45= $1,800)		$850.00	$4,874.00	$35,074.00
AVTN252G Certified Flight Instructor Ground	5					15 hrs (15X45 =$675)		$456.00	$1,131.00
AVTN253G Certified Flight Instructor Flight	5	25 hrs (25X450= $11,250)			20 hrs (20X45= $900)		$850.00	$2,060.00	$15,060.00
AVTN254G Certified Flight Instructor Instrument	5					15 hrs (15X45 =$675)		$456.00	$1,131.00

Ground									
AVTN255G Certified Flight Instructor Instrument Flight	5	10 hrs (10X450= $4,500)			10 hrs (10X45= $900)		$850.00	$746.00	$6,996.00

FAA CERTIFICATION EXAM FEES (Out of Pocket) **$165.00 per FAA written test (6 total)** **$600.00 per FAA practical test (5 total)**	
Semester 1	Not applicable
Semester 2	$765.00
Semester 3	$765.00
Semester 4	$765.00
Semester 5	$1,695.00
Total	**$3,990.00**

BIOTECHNOLOGY

ASSOCIATE IN SCIENCE
CERTIFICATES

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 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 in the 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 log books
- 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 of university with the necessary foundation in biology, chemistry and mathematics for upper level study in a wide variety of biological disciplines.

Health and Internship Considerations
The Biotechnology program offers an optional externship. Participation in this externship requires the student to follow the college's immunization policy. See page 45. 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. See page 57 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 pre-requisite 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.

DEGREE PROGRAM - FIRST YEAR

Fall Semester		TH	LAB	CR
BTEC105G	Introduction to Biotechnology	3	3	4
BIOL108G	General Biology I	3	3	4
MATH150G	College Algebra*	4	0	4
ENGL110G	College Composition I	4	0	4
CIS110G (or CIS107G)	Introduction to Computers** (or Essentials of Computer Literacy)	2 (2)	2 (2)	3 (4)
	Total	16	8 (10)	19 (20)

** Students may substitute a higher level math course*

***Students may substitute a higher level CIS course or DGMT115G, 135 or 142.*

Spring Semester		TH	LAB	CR
BTEC205G	Bioethics*	3	0	3
BIOL109G	General Biology II	3	3	4
CHEM115G	General Chemistry I	3	3	4
BIOL220G	Principles of Genetics**	3	3	4
	Foreign Language/Humanities/ Fine Arts Elective	3	0	3
	Total	15	9	18

** PHIL240G Ethics may be substituted for BTEC205G Bioethics*

*** A technical elective may be substituted for BIOL220G Principles of Genetics*

DEGREE PROGRAM - SECOND YEAR

Fall Semester		TH	LAB	CR
BTEC210G	Biotechnology Research	2	6	4
CHEM116G	General Chemistry II	3	3	4
BIOL210G	Microbiology	3	3	4
ENGL215G	Writing Technical Documents	3	0	3
	Total	11	12	15

Spring Semester		TH	LAB	CR
BTEC220G	Biomanufacturing	2	6	4
CHEM205G	Biochemistry*	3	3	4
MATH225G	Probability and Statistics	4	0	4

	Social Science Elective	3	0	3
	Total	12	9	15
			TOTAL CREDITS – 67-68	

**CHEM200G Organic Chemistry may be substituted for CHEM205G Biochemistry*

Note: Technical Electives for the A.S. degree in Biotechnology are defined as any BIOL, BTEC, MATH, PHYS, CHEM, IST, CIS or BUS courses not already part of the A.S. Degree in Biotechnology.

BIOTECHNOLOGY 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 or higher

		TH	LAB	CR
BTEC105G	Introduction to Biotechnology	3	3	4
CIS110G (or CIS107G)	Introduction to Computers* (or Essentials of Computer Literacy)	2 (2)	2 (2)	3 (4)
MATH150G	College Algebra I**	4	0	4
BIOL108G	General Biology I (or Microbiology)	3	3	4
CHEM110G	Introduction to Chemistry (or CHEM115)	3	3	4
BTEC210G	Biotechnology Research	2	6	4
BTEC220G	Biomanufacturing	2	6	4
			TOTAL CREDITS – 27-28	

**Higher level CIS course may be substituted*

*** Higher level MATH class may be substituted*

Gainful Employment disclosure information is available at:
http://greatbay.edu/sites/default/files/media/Biotech%20GE%20DIsclosure.pdf

BIOTECHNOLOGY 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

		TH	LAB	CR
BTEC105G	Introduction to Biotechnology*	3	3	4
BTEC210G	Biotechnology Research	2	6	4
BTEC220G	Biomanufacturing	2	6	4
			TOTAL CREDITS – 12	

**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.

BUSINESS ADMINISTRATION

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 pursue employment upon completion of the program. Students seeking to transfer may choose the A.S. in Business Administration, while students seeking direct-to-career opportunities may prefer one of the concentrations in Leadership & Management or Sales & Digital Marketing. 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 ~~management and overall~~ business studies foundation.
- Be prepared to enter the workforce with entry-level skills for Business Administration.
- Possess a solid curricular foundation for transfer.
- Understand the need for life-long 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 and Internship Considerations
Participation in an internship requires the student to follow the college's immunization policy. See page 45. 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. See page 57 for purchase options available through the college.

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.

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.

Business Administration Core Requirements

		TH	LAB	CR
FYE111G	First Year Seminar	1	0	1
BUS110G	Introduction to Business	3	0	3
ACCT113G	Accounting and Financial Reporting I	3	0	3
CIS156G	Computer Applications in Business	3	0	3
ENGL110G	College Composition I	3	0	4
MATHXXX	Math Elective (May be fulfilled by MATH145G, MATH150G, MATH152G, MATH215G, MATH225G, MATH230G)			4
ACCT123G	Accounting and Financial Reporting II	3	0	3
BUS114G	Management	3	0	3
ECON234G	Macroeconomics	3	0	3
HUMA150G	Critical Thinking or MATH215G, MATH225G, or MATH230G	3	0	3
OR				
MATH215G, 225G, or 230G	Finite Math, Probability and Statistics or Calculus I	4	0	4
ENGL214G	Introduction to Creative Nonfiction	3	0	3

One of the following 3 sequences must be chosen:

Business Administration		**TH**	**LAB**	**CR**
	Transferable BUS elective (or Liberal Arts elective)			3
	Transferable BUS elective (or Liberal Arts elective)			3
BIOL160G	Intro to Environmental Science (or BIOL 106, 109, or 150)	3	3	4
ECON235G	Microeconomics	3	0	3
PHIL240G	Ethics	3	0	3
	BUS, ACCT, MKTG, HOSP elective	3	0	3
	BUS, ACCT, MKTG, HOSP elective	3	0	3
	Transferable BUS elective (or Liberal Arts elective)	3	0	3
	Transferable BUS elective (or Liberal Arts elective)	3	0	3
	Transferable BUS elective (or Liberal Arts elective)	3	0	3
Leadership & Management				
BUS210G or BUS200G	Organizational Communication or Teambuilding	3	0	3
BUS 224G or BUS116G	Human Resources or Organizational Behavior	3	0	3
BIOL160G	Intro to Environmental Science (or 106, 109, or 150)	3	3	4
ECON235G	Microeconomics	3	0	3
PHIL240G	Ethics	3	0	3
BUS211G	Business Law	3	0	3
BUS221G	Business Finance	3	0	3
BUS205G	Small Business Management	3	0	3

MKTG101G	Introduction to Marketing	3	0	3
BUS206G	Principles Global Business	3	0	3
Sales & Digital Marketing				
BUS210G or BUS200G	Organizational Communication or Teambuilding	3	0	3
BUS205G	Small Business Management	3	0	3
BIOL160G	Intro to Environmental Science (or 106, 109, or 150)	3	3	4
PSYC110G or SOCI110G	Intro to Psychology or Sociology			3
PHIL240G	Ethics	3	0	3
MKTG224G	Sales & Sales Management	3	0	3
MKTG201G	Marketing 101: Introduction to Marketing	3	0	3
	New course: Marketing 102 - Business Relationship Management	3	0	3
	Updated course: Marketing Capstone	3	0	3
BUS206G	New course: Principles Global Business	3	0	3
			TOTAL CREDITS – 64 - 65	

COMPUTER TECHNOLOGIES

ASSOCIATE IN SCIENCE
CERTIFICATES

The Department of Computer Technologies offers an Associate Degree program for either full-time or part-time study. The 67 credit degree consists of 30 credits of General Education Core courses, 13 credits of a Technical Core of courses, and a minimum of 24 credits of Computer Technical electives. It is recommended that students use the Computer 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.

Technical Requirements
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.

Health and Internship Considerations
Participation in an internship requires the student to follow the college’s immunization policy. See page 45. 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. See page 57

Computer Technologies 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.

GENERAL EDUCATION CORE COURSES

Course		TH	LAB	CR
ENGL110G	College Composition I	4	0	4
FYE151G	Essential Skills / College Success-Computer Tech.	3	0	3
MATH170G	Discrete Mathematics	4	0	4
	English Elective	3	0	3
	Science Elective *	4	0	4
SOCI120G	Society & Technological Change	3	0	3
	Foreign Language/Humanities/Fine Arts Elective	3	0	3
	Liberal Arts Electives	6	0	6
			TOTAL CREDITS -	**30**

**A 3 credit science elective may be accepted in transfer to fulfill this requirement*

COMPUTER TECHNICAL CORE COURSES

Course		TH	LAB	CR
CIS111G	Computer Technologies	2	2	3
CIS112G	Introduction to Object Oriented Programming	2	2	3
CIS113G	Database Design & Management	2	2	3
IST122G	Introduction to Networks	2	2	3
CIS292G	Portfolio Preparation & Presentation	1	0	1
			TOTAL CREDITS -	**13**

COMPUTER TECHNICAL ELECTIVE COURSES

The 24 credits of elective computer courses must be taken primarily with a designation of Computer Technologies (CIS). A limit of 4 courses (12 credits) within the DGMT, IST, ACCT, BUS, MKTG designations may be used for Computer Technical Electives. At least 3 computer technical elective courses (9 credits) must be at the 200 level.

TOTAL COMPUTER TECHNICAL ELECTIVE COURSES - MIN. CREDITS	**24**
TOTAL CREDITS -	**67**

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. MATH150G 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.

LINUX

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.

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.

CERTIFICATE REQUIREMENTS

Course		TH	LAB	CR
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
			TOTAL CREDITS - 21	

Gainful Employment disclosure information is available at:
http://greatbay.edu/sites/default/files/media/Linux%20Cert%20GE%20Disclosure.pdf

PROGRAMMING

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 logic and database design. Students can focus on Java, C++, or Microsoft .NET 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.

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 CIS1X8G course.

CORE COURSES

Course		TH	LAB	CR
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
			TOTAL CREDITS - 15	

**Programming languages include .NET, Java, and C++.*

ELECTIVE COURSES - 9 CREDITS (choose a min. of 3)

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 towards an elective.

Course		TH	LAB	CR
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	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	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
			TOTAL CREDITS - 24	

Gainful Employment disclosure information is available at:
http://greatbay.edu/sites/default/files/media/Comp%20Programming%20GE%20Disclosure.pdf

SOFTWARE DEVELOPMENT

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.

- Students are prepared for careers such as:
- Software Developers
- Software Project Managers
- Java Developers
- Android Developers
- iOS Developers
- .NET Developers

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

- ENG110G
- MATH150G/170G
- CIS110G (or CIS107G)

CERTIFICATE REQUIREMENTS

Course		TH	LAB	CR
CIS112G	Introduction to Object Oriented Programming	2	2	3
CIS113G	Database Design & 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	Web Development II Advanced Java Programming	2	2	3
IST150G	Network Operating Systems 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
				TOTAL CREDITS - 34

Gainful Employment disclosure information is available at:
http://greatbay.edu/sites/default/files/media/Software%20Developmenmt%20GE%20Disclosure.pdf

CRIMINAL JUSTICE

ASSOCIATE IN SCIENCE

The Criminal Justice degree is designed to prepare students for careers in Law Enforcement, Corrections, Juvenile Justice, or Courts. In addition, it also serves as the academic foundation to transfer on to complete a baccalaureate degree. For those already in service the program provides educational progress for promotion and other career development purposes. The degree of Associate in Science with a major in Criminal Justice will be awarded upon completion of all requirements.

NOW OFFERED 100% ONLINE - students will have the option of enrolling in the Criminal Justice program in its original 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 after graduation to become certified.

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 in order 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 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 department member prior to admission. The College must ensure that individuals (customers, employees, etc.) at internship and service learning sites are not adversely effected 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. See page 40.

Technical Standards

Applicants should be aware that thorough background checks are completed by potential employers prior to obtaining any position with arrest or detention powers, and typically, even before being accepted for an internship. Applicants who have had involvement with the law 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 prior to applying to the program.

To be successful in the Criminal Justice field, one must demonstrate the emotional stability required to exercise sound judgment, 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 Criminal Justice 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 program coordinator on an individual basis.

DEGREE PROGRAM - FIRST YEAR

Fall Semester		TH	LAB	CR
CRMJ101G	Introduction to Criminal Justice	3	0	3
CRMJ121G	Criminal Procedure	4	0	4
ENGL110G	College Composition I	4	0	4
CIS110G (or CIS107G)	Introduction to Computers (or Essentials of Computer Literacy)	2 (2)	2 (4)	3 (4)
PHIL240G	Ethics	3	0	3
	Total	16	2(4)	17(18)

Spring Semester		TH	LAB	CR
CRMJ123G	Criminal Law	4	0	4
CRMJ210G	Juvenile Justice Administration	3	0	3
PSYC110G	Introduction to Psychology	3	0	3
POLS220G	Public Administration	3	0	3
SOCI110G	Sociology	3	0	3
	Total	16	0	16

DEGREE PROGRAM - SECOND YEAR

Fall Semester		TH	LAB	CR
CRMJ150G	Criminology	3	0	3
CRMJ205G	Police Operations	3	0	3
CRMJ215G	Corrections Operations	3	0	3
MATH145G	Topics in Applied College Mathematics	4	0	4
PSYC205G	Crisis Intervention	3	0	3
	Open Elective	3	0	3
	Total	19	0	19

Spring Semester	TH	LAB	CR

BIOL106G	Human Body	3	2	4
CRMJ225G	Drug Abuse and the Law	3	0	3
CRMJ230G	Justice and the Community	3	0	3
ENGL210G	Oral Communications or English Elective	3	0	3
CRMJ270G or CRMJ275G	Criminal Justice Internship or Senior Project		(0-9-3) or (3-0-3)	
	Total			16
				TOTAL CREDITS – 68-69

Curriculum Recommendations:

It is highly recommended that all students enroll in a minimum of one Criminal Justice course during the first semester of attendance.

DATA - PRACTICAL DATA SCIENCE

CERTIFICATE

Program Description
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 how to conduct 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, students will be able to apply data analysis skills in any career or job that requires reporting from quantitative and qualitative sources of information.

Students will :

- 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 pre-cursor 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

CERTIFICATE REQUIREMENTS

Course		CR
MATH225G	Probability and Statistics	4
DATA210G	Elements of Data Science	3
MATH235G	Statistics for Engineers and Scientists	4
DATA220G	Data Analysis w/ R	3
Electives: Select two (2) courses from the following		
CIS111G	Computer Technologies	3
CIS124G	Web Development I	3
CIS224G	Web Development II	3
	TOTAL CREDITS - 20	

Gainful Employment disclosure information is available at:
http://greatbay.edu/sites/default/files/media/Practical%20Data%20Science%20GE%20Disclosure.pdf

DIGITAL MEDIA COMMUNICATIONS

ASSOCIATE IN SCIENCE

The Associate Degree of Science in Digital Media Communications requires core computer technology and general education courses. Students will gain a depth of knowledge and hands-on experience in a variety of graphic design, web design and animation courses using industry standard software. 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 offer 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 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.

Program Objectives:
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 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.

GENERAL EDUCATION COURSES

Course		CR
FYE101G	First Year Seminar	1
ENGL110G	College Composition I	4
SOC120G	Society and Technological Change	3
ARTS124G	Arts, Design, and Color	3
	English Elective	3
	Lab Science	4
	Liberal Arts Electives	3
	Liberal Arts Electives	3
	Math 150G College Algebra	4
		TOTAL CREDITS - 28

TECHNICAL CORE COURSES

Course		TH	LAB	CR
CIS112G	Introduction to Object Oriented Programming	2	2	3
DGMT115G	Introduction to Graphic Design	2	2	3
CIS124G	Web Development I	2	2	3
DGMT125G	Introduction to Animation	2	2	3
CIS292G	Portfolio Preparation & Presentation	1	0	1
	Total	9	8	13

ELECTIVE COURSES (choose 9 courses for 27/28 credits)

Course		TH	LAB	CR
CIS134G	Web Style and Design	2	2	3
DGMT135G	Introduction to Photoshop	2	2	3
DGMT142G	Publication Design	2	4	4
DGMT175G	Adobe Illustrator	2	2	3
DGMT215G	Advanced Graphic Design	2	2	3
ARTS126G	Typography	2	2	3
DGMT225G	Introduction to Print Technology	2	2	3
DGMT205G	Advanced Photoshop	2	2	3
DGMT265G	3D Design and Animation	2	2	3
DGMT120G	Intro to Digital Photography	2	2	3
DGMT165G	Intro to Video Production	2	2	3
CIS148G	Introduction to Java Programming	2	2	3
CIS158G	Introduction to C++ Programming	2	2	3
CIS248G	Advanced Java Programming	2	2	3
CIS258G	Advanced C++ Programming	2	2	3
DGMT264G	Expressive Web Animation	2	2	3
			Total	27/28

DIGITAL DESIGN & ANIMATION

CERTIFICATE

The Computer Technologies Department offers a Digital Design & Animation Certificate that integrates video, graphics, sound, animation, and programming in a studio-oriented environment. This hands-on program will introduce the individual components and enable students to develop a portfolio using interactive communication tools and state-of-the-art software. Each student will acquire a well-rounded background while focusing on individual strengths and creativity. Collaboration among students and instructors will heighten the classroom and studio experience. This workshop approach will include interactive group projects enhanced by professional assessment, with emphasis on preparation for career placement.

This certificate program is recommended for students who have a degree in a related field with a desire to update their technology skills. Those seeking a degree to meet the requirements of this competitive field should explore the Digital Media Communications Associate in Science Degree program.

Admissions Requirement: Placement into CIS110G (or CIS107G)
Note: The Digital Design & Animation 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 prior to enrollment.

CORE REQUIREMENTS

		TH	LAB	CR
DGMT115G	Introduction to Graphic Design	2	2	3
CIS124G	Web Development I	2	2	3
DGMT125G	Introduction to Animation	2	2	3
DGMT135G	Introduction to Photoshop	2	2	3
DGMT264G	Expressive Web Animation	2	2	3
	TOTAL CORE REQUIREMENTS: 15 CREDITS			

Electives: Select 3 courses from below

CIS134G	Web Style and Design	2	2	3
DGMT142G	Publication Design	2	4	4
DGMT165G	Introduction to Video Production	2	2	3
DGMT166G	Scriptwriting for Film & Video	2	2	3
DGMT167G	Single Camera Production	2	2	3
DGMT168G	Multi-Camera Production	2	2	3
DGMT169G	Lighting for Video Production	2	2	3
DGMT170G	Production Management	2	2	3
DGMT175G	Adobe Illustrator	2	2	3
DGMT201G	Digital Editing	2	2	3
DGMT202G	Digital Post Effects	2	2	3
DGMT205G	Advanced Photoshop	2	2	3
DGMT215G	Advanced Graphic Design	2	2	3
CIS224G	Web Programming II	2	2	3
DGMT225G	Introduction to Print Technology	2	2	3
CIS254G	PHP and MySQL	2	2	3
DGMT261G	Video Production Field Study	2	2	3
DGMT265G	3D Design and Animation	2	2	3
DGMT275G	Advanced Video Production	2	2	3
	TOTAL CREDITS - 24			

Gainful Employment disclosure information is available at:
http://greatbay.edu/sites/default/files/media/ProgramSheet_DigitalDesign-Cert.pdf

EARLY CHILDHOOD EDUCATION

ASSOCIATE IN SCIENCE
CERTIFICATES

The Early Childhood Education (ECE) program provides students with the knowledge and skills necessary to create a positive learning environment for young children. Teachers who work in high quality programs for children understand how young children grow and learn and are able to provide materials and activities that are developmentally and interest appropriate. 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 also expected to have the maturity to accept direction and guidance, exercise sound judgment, 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 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.

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
The Early Childhood Education program meets the standards for teacher preparation according to the National Association for the Education of Young Children (NAEYC).

Standard 1: Promoting Child Development and Learning
GBCC Program Goal: Students will explain and demonstrate the ability to support children in their development and learning by providing appropriate opportunities for physical, social, emotional, language and cognitive development.

Standard 2: Building Family and Community Relationships
GBCC Program Goal: Students will establish and maintain positive, productive and reciprocal relationships with colleagues, families and other professionals, work effectively as a member of an instructional team and communicate effectively with others to support development, learning and well-being.

Standard 3: Observing, Documenting, and Assessing to Support Young Children and Families
GBCC Program Goal: Students will be reflective practitioners who understand the goals, benefits and purposes of assessment. They will be able to utilize a variety of assessment and evaluative strategies and tools, in partnership with families and other professionals in order to positively influence child development, including overall and individualized curriculum.

Standard 4: Using Developmentally Effective Approaches to Connect with Children and Families
GBCC Program Goal: Students will be able to establish and maintain positive, productive relationships with families, respect family choices and goals for children, communicate effectively and meaningfully with families and use families as a primary source of information in planning and meeting the needs of individual children and families.

Standard 5: Using Content Knowledge to Build Meaningful Curriculum
GBCC Program Goal: Students will design, implement and evaluate a meaningful, challenging and developmentally appropriate curriculum that demonstrates a wide array of teaching practices that reflect multiple content areas and academic subject as well as the child's and family's needs and interests.

Standard 6: Becoming a Professional
GBCC Program Goal: Students will be active practitioners who continually evaluate their choices and actions on others, seek out opportunities to grow professionally, serve as advocates for young children and their families, improve quality of programs and service for young children, and demonstrate an awareness of and follow the NAEYC Code of Ethical Conduct.

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. Stand 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 skills 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 http://www.naeyc.org/positionstatements/ethical_conduct.

Health and Practicum Considerations

1. Required GBCC Health Form on file prior to ECE112G or senior practicum placements.
2. Required New Hampshire Child Care Personnel Health Form on file that indicates that the student is in good physical health and has no mental or emotional disturbances 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 backgrounds requirements will not be able to successfully complete the program.

Participation in an internship requires the student to follow the college's immunization policy. See page 45 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. See page 57 for purchase options available through the college.

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.

GENERAL EDUCATION REQUIREMENTS

Course		TH	LAB	CR
FYE101G	First Year Seminar	1	0	1
ENGL110G	College Composition I	4	0	4
	Math Elective	4	0	4
	Social Science Elective	3	0	3
PHIL240G	Ethics	3	0	3
	Liberal Arts Elective	3	0	3
	English Elective	3	0	3
	Science Elective*	4	0	4
	Foreign Language/Humanities/ Fine Arts Elective	3	0	3
			TOTAL CREDITS - 28	

**A 3 credit science elective may be accepted in transfer to fulfill this requirement*

EARLY CHILDHOOD EDUCATION REQUIREMENTS

		TH	LAB	CR
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
ECE200G	Math & Science in Early Childhood Ed.	3	0	3
ECE203G	Language Arts In Early Childhood	3	0	3
ECE210G	Child, Family, and Community Relationships	3	0	3
			TOTAL CREDITS - 19	

EARLY CHILDHOOD EDUCATION ELECTIVE COURSES

(Choose two)		TH	LAB	CR
ECE109G	Art, Music, Drama, Movement in Early Childhood Education	3	0	3
ECE204G	Developmentally Appropriate Curriculum for Infants and Toddlers	3	0	3
ECE250G	Child Care Administration	3	0	3
(Choose one)				
ECE206G	Supporting the Special Needs Child	3	0	3
TCHP101G	Introduction to Exceptionality	3	0	3
(Choose one)				
ECE214G	Appropriate Guidance and Discipline for Young Children	3	0	3
TCHP215G	Behavioral Challenges in the Classroom	3	0	3
			TOTAL CREDITS - 12	

EARLY CHILDHOOD EDUCATION PRACTICUM REQUIREMENTS

Course		TH	LAB	CR
ECE202G	Practicum I: Student Teaching	2	6	4
ECE212G	Practicum II: Professional Development	1	6	3
			TOTAL CREDITS - 66	

EARLY CHILDHOOD EDUCATION CERTIFICATE

		TH	LAB	CR
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
ECE206G	Supporting the Special Needs Child	3	0	3
ECE210G	Child, Family, and Community Relationships	3	0	3
ECEXXXG	Early Childhood Education Elective	3	0	3
ENGL110G	College Composition I	4	0	4
			TOTAL CREDITS – 23	

Gainful Employment disclosure information is available at:
http://greatbay.edu/sites/default/files/media/ProgramSheet_ECE-Cert.pdf

EARLY CHILDHOOD EDUCATION ADVANCED CERTIFICATE

		TH	LAB	CR
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	College Composition I	4	0	4
ECE210G	Child, Family, and Community Relationships	3	0	3
XXX	Electives	12	0	12
			TOTAL CREDITS – 29	
Elective options include any ECE course, TCHP215G, TCHP225G, TCHP101G, TCHP220G, or ASL 110G				

Gainful Employment disclosure information is available at:
http://greatbay.edu/sites/default/files/media/ProgramSheet_ECE-AdvCert.pdf

Curriculum Recommendations

- ECE students testing into developmental reading or writing should not enroll into more than one online course their first semester.
- Students testing into Developmental reading and/or writing should complete those courses during their first semester.
- Degree students are encouraged to enroll in FYE101 their first semester.
- Students should expect to take a combination of hybrid, online, day, and evening classes as part of their course work for the degree program. Basic computer skills, including word processing and internet navigation, are needed in order to successfully complete most courses.

EDUCATION
LIBERAL ARTS/TEACHER PREPARATION

ASSOCIATE IN ARTS
CERTIFICATE

The Liberal Arts/Teacher Preparation degree is designed to allow students to transfer to a four-year degree program to become teachers or prepares students to work in the field as a paraprofessional.. The program allows students to experience elementary, middle, and secondary education, and has a common first year of coursework. In the second year, students choose courses in any one of the following areas: math, science, social science, English, foreign languages, special education and elementary education. Completion of these elective courses will demonstrate the content expertise required to become eligible for certification once the baccalaureate degree is completed. Elective courses are selected in consultation with the student's advisor. 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 paraprofessionals seeking an Associate Degree in fulfillment of national and state guidelines. Students are encouraged to take the Praxis I exam prior to the completion of their work at Great Bay Community College. Applicants are recommended to meet with the department chair to discuss the program and career pathways.

1. Graduating students will develop an appreciation for the act of reflective practice and recognize the impact of ongoing reflection and professional development in order 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 in order to meet the individual needs of all children.
5. Graduating students will utilize technology to enhance their teaching skills.

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 in order to be successful in subsequent classes within the program.

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 state certification as an educator, students are required to pass the Praxis I and Praxis II exams; to undergo a criminal records check and fingerprinting. Individuals are encouraged to contact the State 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.

DEGREE PROGRAM - FIRST YEAR

Fall Semester		TH	LAB	CR
FYE101G	First Year Seminar	1	0	1
TCHP101G	Introduction to Exceptionalities	3	0	3
TCHP104G	Foundations of Education	3	0	3
ENGL110G	College Composition I	4	0	4
CIS110G (or CIS107G)	Introduction to Computers (or Essentials of Computer Literacy)	2 (2)	2 (4)	3 (4)
PSYC110G	Introduction to Psychology	3	0	3
	Total	16	2 (4)	17 (18)

Spring Semester		TH	LAB	CR
TCHP201G	The Teaching and Learning Process	3	0	3
	Educational Transfer Focus Elective*	3	0	3
	Educational Transfer Focus Elective*	3	0	3
	Social Science Elective	3	0	3
	English Literature Course	3	0	3
	Foreign Language/Humanities/Fine Arts Elective	3	0	3
	Total	18	0	18

DEGREE PROGRAM - SECOND YEAR

Fall Semester		TH	LAB	CR
	Educational Transfer Focus Elective*	3	0	3
	Social Science Elective	3	0	3
	Lab Science	3	3	4
	Math Elective	4	0	4
	Foreign Language/Humanities/Fine Arts Elective	3	0	3
	Total	16	3	17

Spring Semester		TH	LAB	CR
	Social Science Elective	3	0	3
	Educational Transfer Focus Elective*	3	0	3
	Lab Science	3	3	4
	Math Elective	4	0	4
	Foreign Language/Humanities/Fine Arts Elective	3	0	3
	Total	16	3	17
			TOTAL CREDITS – 69-70	

** Educational Transfer Focus Electives: Any course offered at The College with the exception of courses on the following list. These courses cannot be used for an Educational Transfer Focus elective: any course with an academic level less than 100, any cooperative course (Co-op), any internship, any practicum, any clinical or clinical affiliation, any externship, any self-assessment course, any senior project course, any internship seminar, any capstone course, any professional seminar, BTEC101G.*

SPECIAL EDUCATION CERTIFICATE

The Certificate in special education can be earned independently or as part of the Liberal Arts/Teacher Preparation Associate's Degree. This Certificate includes three courses that fulfill the requirements of the Education Focus Transfer electives described above. The Certificate is also useful for currently employed paraprofessionals seeking approval as highly qualified under federal No Child Left Behind requirements. Courses in this Certificate are:

School Age: K-12

Fall Semester		**TH**	**LAB**	**CR**
TCHP101G	Introduction to Exceptionalities	3	0	3
TCHP104G	Foundations of Education	3	0	3
PSYC110G	Introduction to Psychology	3	0	3
Spring Semester				
TCHP201G	The Teaching and Learning Process	3	0	3
PSYC210G	Human Growth and Development	3	0	3
TCHPXXXG	Education Elective**	3	0	3
Summer Semester				
TCHP215G	Behavior Challenges in the Classroom	3	0	3
TCHPXXXG	Education Elective**	3	0	3
			TOTAL CREDITS – 24	

***Education Elective (*TCHP*105G, 202, 203, 205, 207, 220, or 225).*

Gainful Employment disclosure information is available at:
http://greatbay.edu/sites/default/files/media/ProgramSheet_LiberalArts-SpecialEDCert.pdf

ENGINEERING

Bioengineering

Associate in Science

The bioengineering associate 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 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 prior Liberal Arts concentration degree 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, 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 Bioengineering program that are designated MAJOR courses more than 10 years old will be evaluated by the program coordinator on an individual basis.

General Education Core Courses

	CR
ENGL110G	4
English Elective	3
MATH210G or higher	4
BIOL108G	4
Social Science Elective	3
Foreign Language/Humanities/Fine Arts Elective	3
MATH230G	4
PHYS290G	4
Total	29

Bioengineering Major Courses

FYE 152G	3
CHEM115G	4
CHEM116G	4
MATH250G	4
MATH265G	4
MATH235G	4
Bioengineering elective (must be selected from BIOL210G, BIOL220G, BTEC220G	4
CHEM200G	4
Intro to Chem Engineering I (at UNH)	3
Intro to Chem Engineering II (at UNH)	3
Total	37
Total Degree Credits	**66**

SUGGESTED PATHWAY

DEGREE PROGRAM - FIRST YEAR

Fall Semester		TH	LAB	CR
FYE152G	Essential Skills for College Success - Engineering Science	3	0	3
BIOL108G	General Biology I	3	3	4
MATH210G	Precalulus (or higher)	4	0	4
CHEM115G	General Chemistry I	3	3	4
	Social Science Elective	3	0	3
	Total	16	6	18

Spring Semester		TH	LAB	CR
MATH230G	Calculus I	4	0	4
CHEM116G	General Chemistry II	3	3	4
ENGL110G	College Composition I	4	0	4
	Foreign Language/Humanities/Fine Arts Elective	3	0	3
	Total	14	3	15

DEGREE PROGRAM - SECOND YEAR

Fall Semester		TH	LAB	CR
PHYS290G	University Physics I	3	3	4
	Intro to Chemical Engineering I (at UNH)	3	0	3

MATH250G	Calculus II	4	0	4
CHEM200G	Organic Chemistry	3	3	4
	English Elective	3	0	3
	Total	16	6	18
Spring Semester		TH	LAB	CR
	Intro to Chemical Engineering II (at UNH)	3	0	3
MATH235G	Statistics for Engineers and Scientists	4	0	4
MATH265G	Differential Equations	4	0	4
	Bioengineering elective must be selected from BIOL210G, BIOL220G, BTEC220G	2 or 3	3 or 6	4
	Total	13/14	3/6	15
	Total Degree Credits			**66**

Note: The Bioengineering Degree 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.

Engineering Science

Associate in Science

The engineering science associate degree is a transfer program which meets a majority of the first and second year baccalaureate requirements for math, chemistry, biology and physics which 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. There are a wide variety of engineering-oriented programs that students have to choose from, however. This program offers students flexibility in the final year of the program to allow a direct path toward a career in the engineering disciplines or applied mathematics discipline.

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

4) 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
5) Students have greater flexibility in selecting engineering, engineering technology, math or computing science electives with a view toward the desired program for the next phase.
6) Students wishing to pursue a bachelor's degree in mathematics or applied mathematics can do so with this degree.
7) Students who place into 100-level or developmental mathematics may still complete the program but will require up to ten (10) additional math credits
8) 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 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, 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 Engineering Science program that are designated MAJOR courses more than 10 years old will be evaluated by the program coordinator on an individual basis.

Note: The Engineering Science Degree 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.

General Education Core Courses

	CR
ENGL110G	4
~~ENGL~~ English Elective	3
MATH210G or higher	4
Biology elective (must be selected from BIOL108G, BIOL109G, BIOL160G or BIOL210G)	4
Social Science Elective	3
Foreign Language/Humanities/Fine Arts Elective	3
MATH230G	4
PHYS290G	4
Total	29

Engineering Science Major Courses

	CR
FYE 152G	3
CHEM115G	4
CHEM116G	4
MATH250G	4
MATH electives: Choose two (2) from MATH235G, MATH245G, MATH265G, MATH270G	8
PHYS 295G	4
Major Electives*	10-12*
Total	37-39
Total Degree Credits	66-68
***Major Elective Sequences (choose one)**	
(1) ACM electives as approved by program advisors	10-12
(2) MATH electives (3) MATH 150G and higher (Applied Mathematics/Gen. Engineering Focus)	12
(3) MATH170G + CIS112G + CIS148G (Computer Engineering)	10
(4) DATA210G + CIS112G + CIS148G + (CIS210G or DATA220G) (Data Analytics Focus) Note: MATH235G must be chosen as a MATH elective for this sequence	12
(5) Students may transfer up to 3 electives from other CCSNH campuses among the following: Computer Aided Design (4-6 cr) + Statics (3 cr) + choice of Dynamics or Strength of Materials (3 cr) (Mechanical/Civil Eng)	10-12

SUGGESTED PATHWAY

DEGREE PROGRAM - FIRST YEAR

Fall Semester		**TH**	**LAB**	**CR**
FYE152G	Essential Skills for College Success - Engineering Science	3	0	3
MATH210G	Precalculus (or higher)	4	0	4
CHEM115G	General Chemistry I	3	3	4
	Social Science Elective	3	0	3
	Biology elective (must be selected from BIOL108G, BIOL109G, BIOL160G or BIOL210G)	3	3	4
	Total	16	6	18

Spring Semester		**TH**	**LAB**	**CR**
MATH230G	Calculus I	4	0	4
CHEM116G	General Chemistry II	3	3	4
ENGL110G	College Composition I	4	0	4
	Foreign Language/Humanities/Fine Arts Elective	3	0	3
	English Elective	3	0	3
	Total	17	3	18

DEGREE PROGRAM - SECOND YEAR

Fall Semester		**TH**	**LAB**	**CR**
PHYS290G	University I	3	3	4
MATH250G	Calculus II	4	0	4
	Major Electives*			variable
	Total			variable

Spring Semester		**TH**	**LAB**	**CR**
PHYS295G	University Physics II	3	3	4
	MATH electives , Choose two (2) of the following: MATH235G, MATH245G, MATH265G, Math270G	8	0	8
	Major Electives*			variable
	Total			variable
	Total Degree Credits			66-68

ENGLISH- Liberal Arts/English

ASSOCIATE IN ARTS

The English major, a concentration within Liberal Arts, is comprised of the study of a wide range of literary periods, styles, and genres through reading and writing intensive coursework. The concentration requirements provide students with a broad background in both American and continental literature written in English, as well as the analytical tools and skills necessary for the serious academic study of literature. Additionally, students have to flexibility to choose more specialized literary or writing interests with their concentration electives.

An English associate degree emphasizes solid, adaptable communication skills for students who love literature and language, and the exploration and development of complex ideas. As a liberal arts degree, the program provides a strong foundation for further study at the undergraduate level. The English concentration 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, education, and the law.

It is recommended that students take ENGL110G: College Composition I, FYE101G: First Year Seminar, HUMA 150: Critical Thinking, and an introductory literature course (such as ENGL114G: Introduction to Poetry 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 colleges' transfer requirements and general education cores.

Program Outcomes

Students graduating with the Associate degree in Liberal Arts 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 over the last two thousand years.
- 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.

CORE REQUIREMENTS

Course		CR
FYE101G	First Year Seminar	1
ENGL110G	College Composition I	4
ENGL214G	Introduction to Creative Nonfiction	3
HUMA150G	Critical Thinking	3
	Humanities/Foreign Language/Fine Arts Elective	3
	Humanities/Foreign Language/Fine Arts Elective	3
	MATH Elective	4
	MATH Elective	4
	LAB Science Elective	4
	LAB Science Elective	4
	Social Science Elective	3
	Social Science Elective	3
	Social Science Elective	3
	Total	42

ENGLISH CONCENTRATION

Course		CR
ENGL127G	Introduction to Literary Analysis	3
	100 level ENGL (except ENGL117G Intro to Literature)	3
	200 level ENGL Elective	3
	200 level ENGL Elective	3
	200 level ENGL Elective	3
	ENGL Survey Course Elective*	3
	ENGL Survey Course Elective*	3
	ENGL Survey Course Elective*	3
	Total	24
	TOTAL CREDITS	**66**

**ENGL Survey Course Electives choices are ENGL209G American Literature through the Civil War, ENGL220G American Literature after the Civil War, ENGL223G British Literature to 1800, and ENGL224G British Literature from 1800 to the present.*

HOMELAND SECURITY

CERTIFICATE

The market for homeland security jobs is growing at all levels in the public and private sectors. Earning a Certificate in Homeland Security at Great Bay can provide emergency response professionals the skills and expertise necessary to effectively plan, prepare, and respond for 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 man-made, 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 prior to obtaining any position with arrest or detention powers, and typically, even before being accepted for an internship. Applicants who have had involvement with the law 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 prior to applying to the program.

To be successful in the Homeland Security field, one must demonstrate the emotional stability required to exercise sound judgment, 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 10 years old will be evaluated by the program coordinator on an individual basis.

CORE REQUIREMENTS - 10 CREDITS				
		TH	LAB	CR
HMSC110G	Introduction to Homeland Security	3	0	3
HMSC115G	Crisis Planning, Operations, and Management	4	0	4

HMSC120G	Introduction to Terrorism	3	0	3
Students must select two additional courses from the following list:				
		TH	**LAB**	**CR**
CRMJ121G	Criminal Procedure	4	0	4
CRMJ123G	Criminal Law	4	0	4
CRMJ150G	Criminology	3	0	3
POLS220G	Public Administration	3	0	3
IST161G	Introduction to Information Assurance	2	2	3
		TOTAL CREDITS – 16		

Gainful Employment disclosure information is available at:
http://greatbay.edu/sites/default/files/media/ProgramSheet_HomelandSecurity-Cert.pdf

HOSPITALITY MANAGEMENT

ASSOCIATES IN SCIENCE
CERTIFICATES

The Hospitality industry serves an important role in the global economy and is one of the largest and fastest growing in the U.S. The Hospitality Management Associate in Science Degree and Certificate programs prepare students for a wide variety of positions with hotels, resorts, spas, country clubs, restaurants, catering operations, cruise lines, casinos, travel and tourism organizations convention services, event and wedding planners, recreation facilities, and more.

With Great Bay located in one of New Hampshire's premier tourism regions, students have access to a variety of internship and job placement opportunities. This direct access to hands on industry experience provides Great Bay hospitality students with a distinct advantage in the marketplace. A few of the Hospitality Management partners include: Wentworth by the Sea Hotel & Spa, Portsmouth and Dover Chambers of Commerce, Sheraton Portsmouth Harborside Hotel, Everyday Details-Professional Event and Wedding Planning, Strawbery Banke Museum, and One Liberty Lane Catering.

Students interested in Hospitality Management have two concentration options to choose from. The **Hospitality Management – *Direct Career*** option is recommended for students who plan to begin their career immediately after graduation from Great Bay. It is designed to provide students with more flexibility in sampling a variety of elective options in order to customize the program to fit their career needs and interests. The **Hospitality Management - *University Transfer*** option is specifically designed to prepare students for transfer to a Bachelor of Science in Hospitality Management at a four-year college or university. Developed in consultation with the Hospitality Management Department at the Peter T. Paul College of Business and Economics at the University of New Hampshire, this degree enables students to seamlessly transfer as a junior into the Bachelor of Science in Hospitality Management program at UNH or other universities.

Certificate programs in Event & Meeting Planning Management, Hotel/Restaurant Management, and Spa Management, offer students an opportunity to specialize in a particular area of hospitality. Most credits in each certificate program may be applied toward a degree in Hospitality Management or may serve as a stand-alone certificate for professionals preparing for a career change or advancement opportunities.

Great Bay Hospitality students may also earn several industry recognized certifications including the Cvent Certificate for event planners, the Delphi Certificate for sales and catering, and AHLEI's Managing Front Office Operations Certificate for hotel professionals.

Program Outcomes
Graduates of the Hospitality Management program will be able to:

- Identify the fundamental components, historical developments, and the 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.

Technical Standards
Students in the Hospitality 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.

Health and Internship Considerations
Participation in an internship requires the student to follow the college's immunization policy. See page 40. 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. See page 57 for purchase options available through the college.

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

DEGREE PROGRAM *Direct Career* - FIRST YEAR

Fall Semester		**TH**	**LAB**	**CR**
FYE111G	First Year Seminar-BUS/HOSP	1	0	1
HOS110G	Introduction to Hospitality Management	3	0	3
MATH145G*	Topics in Applied College Mathematics	4	0	4
CIS156G**	Computer Applications in Business	2	2	3
ENGL110G	College Composition I	4	0	4
HOS150G	Hotel Operations	3	0	3
	Total	17	2	18

** Prerequisite: placement in MATH145G or higher*
*** Prerequisite: placement in CIS156G or successful completion of CIS110G(or CIS107G)*

Spring Semester		**TH**	**LAB**	**CR**
ACCT113G	Accounting and Financial Reporting I	3	0	3
ENGL214G	College Comp II	3	0	3
HOS175G	Hospitality Marketing & Sales	3	0	3
	Hospitality Elective	3	0	3
GEOG110G	World Geography	3	0	3
	Total	15	0	15

DEGREE PROGRAM *Direct Career* - SECOND YEAR

Fall Semester		TH	LAB	CR
SOCI250G	Multi-Ethnic Cross Cultural Relations	3	0	3
HOS275G	Professional Development	3	0	3
BUS114G	Management	3	0	3
HOS210G	Customer Service	3	0	3
	Science Elective*	4	0	4
	Total	16	0	16
**A 3 credit science elective may be accepted in transfer to fulfill this requirement*				

Spring Semester		TH	LAB	CR
	Humanities/Fine Arts/Foreign Language Elective	3	0	3
	Business Elective (ACCT, BUS, ECON, HOS, or MKTG)	3	0	3
	Liberal Arts Elective	3	0	3
HOS225G	Hospitality Law	3	0	3
	HOSXXXG Hospitality Elective or HOS280G Hospitality Internship	3 0	0 9	3 3
	Total	15	9/0	15
			TOTAL CREDITS – 64	

Hospitality Management Associate Degree – Direct Career Elective Options

In order to complete the degree program, students may select up to three of the following elective course options. These electives may also apply to Hospitality Management Certificates. See below for more information.

- HOS250G Event Planning
- HOS215G Planning Meetings & Conventions
- HOS230G Restaurant Development & Strategic Planning
- HOS235G Food & Beverage Operations
- HOS244G Introduction to the Spa Industry
- HOS255 Catering Sales & Event Management

DEGREE PROGRAM *University Transfer* - FIRST YEAR

Fall Semester		TH	LAB	CR
FYE111G	First Year Seminar-BUS/HOSP	1	0	1
HOS110G	Introduction to Hospitality Management	3	0	3
MATH150G or MATH210G or LA Elective*	College Algebra or Pre-Calculus or Liberal Arts Elective	4/3	0	4/3
CIS110G (or CIS107G) or CIS156G**	Introduction to Computers (or Essentials of Computer Literacy) or Computer Applications in Business	2(2)	2(4)	3(4)
ENGL110G	College Composition I	4	0	4
HOS150G	Hotel Operations	3	0	3
	Total	17/16	2(4)	~~17/18~~17-19
**Students placing into MATH215G or 230, may take a transferable Liberal Arts elective in place of MATH150G or MATH210G. Otherwise, one of the following sequences must be chosen: MATH150G and MATH215G or MATH210G and MATH230G.*				

***CIS156G requires placement or successful completion of CIS110G (or CIS107G)*

Spring Semester		TH	LAB	CR
ACCT113G	Accounting and Financial Reporting I	3	0	3
ENG214G	College Comp II	3	0	3
HOS175G	Hospitality Marketing & Sales	3	0	3
HOS235G	Food & Beverage Operations	3	0	3
GEOG110G	World Geography	3	0	3
	Total	15	0	15

DEGREE PROGRAM *University Transfer* - SECOND YEAR

Fall Semester		TH	LAB	CR
SOCI120G	Society and Technological Change	3	0	3
MATH215G or MATH230G	Finite Mathematics or Calculus I or higher	4	0	4
ECON234G	Macroeconomics	3	0	3
HOS215G	Planning Meetings & Conventions	3	0	3
ACCT123G	Accounting & Financial Reporting II	3	0	3
	Total	16	0	16

Spring Semester		TH	LAB	CR
ECON235G	Microeconomics	3	0	3
HOS250G	Event Planning	3	0	3
HOS280G	Hospitality Internship	0	9	3
HUMA200G or any PHIL	Film & Society or Any Philosophy	3	0	3
BIO106G, 109, 150, 160	Transferrable Science Elective	4	0	4
	Total	13	9	16
			TOTAL CREDITS – 64/65	

HOSPITALITY MANAGEMENT CERTIFICATE PROGRAMS

These Certificate programs are designed for students wishing to specialize in one area of hospitality: Hotel/Restaurant Management, Spa Management, or Event & Meeting Planning Management. Most credits in each certificate program may be applied toward filling requirements for a degree in Hospitality Management or may serve as a stand-alone certificate for professionals preparing for a career change or advancement opportunities.

Event & Meeting Planning Management

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, private corporations 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.

Event & Meeting Planning Management		TH	LAB	CR
HOS110G	Introduction to Hospitality Management	3	0	3
HOS210G	Customer Service	3	0	3
HOS255G	Catering Sales & Event Management	3	0	3

HOS175G	Hospitality Marketing & Sales or HOS225G Hospitality Law	3	0	3
HOS215G	Planning Meetings & Conventions	3	0	3
HOS250G	Event Planning	3	0	3
HOS280G	Hospitality Internship or HOS275 Professional Development or HOS235G Food and Beverage Operations	3	0	3
				CREDITS - 21

Gainful Employment disclosure information is available at:
http://greatbay.edu/sites/default/files/media/Event%20and%20Meeting%20GE%20Disclosure.pdf

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.

Hotel/Restaurant Management Certificate		**TH**	**LAB**	**CR**
HOS110G	Introduction to Hospitality Management	3	0	3
HOS210G	Customer Service	3	0	3
HOS150G	Hotel Operations or HOS230G Restaurant Development & Strategic Planning	3	0	3
HOS235G	Food and Beverage Operations	3	0	3
HOS255G	Catering Sales & Event Management	3	0	3
HOS175G	Hospitality Marketing & Sales or HOS225G Hospitality Law	3	0	3
HOS280G	Hospitality Internship or HOS275 Professional Development or HOS215G Planning Meetings & Conventions	3	0	3
				CREDITS - 21

Gainful Employment disclosure information is available at:
http://greatbay.edu/sites/default/files/media/Hotel%20and%20Restaurant%20Cert%20GE%20Disclosure.pdf

Spa Management

The spa and wellness industry is growing rapidly as people focus more on healthy living. This certificate prepares students for career opportunities in a variety of spa facilities including hotels, resorts, cruise ships, day spas, salons, medical spas, 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 ensuring that clients feel pampered in a relaxed atmosphere. 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 industry.

Spa Management		**TH**	**LAB**	**CR**
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	Hospitality Marketing & Sales Or Hospitality Law	3 3	0 0	3 3
BIOL150G	Nutrition	3	3	4
	HOS280G Hospitality Internship or HOS275 Professional Development or HOS150G Hotel Operations	3	0	3
				CREDITS - 21

Gainful Employment disclosure information is available at:
http://greatbay.edu/sites/default/files/media/Spa%20Management%20Cert%20GE%20Disclosure.pdf

INFORMATION SYSTEMS TECHNOLOGY

ASSOCIATE IN SCIENCE
CERTIFICATE

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
- 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

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.

Health and Internship Considerations
Students participating in an internship are required to follow The College immunization policy. See page 40. 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. See page 40. 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. See page 57 for purchase options available through the college.

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.

DEGREE PROGRAM
GENERAL EDUCATION CORE COURSES 27 CREDITS

		TH	LAB	CR
ENGL110G	College Composition I	4	0	4
ENGL215G or ENGL214G	Writing Technical Documents or Introduction to Creative Nonfiction	3 3	0 0	3 3
MATH150G	College Algebra*	4	0	4
	MATH170G or MATH210G	4	0	4
	Science Elective	4	0	4
	Social Science Elective	3	0	3
	Foreign Language/Humanities/Fine Arts Elective	3	0	3
	Liberal Arts Electives	3	0	3
	Total	26	3	27

**Approved substitutions for MATH150G are MATH210G, MATH230G, MATH250G*

At least 18 credits must be at the 200 level. Up to 9 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 39 CREDITS

IST112G	Applied Logic	2	2	3
IST113G	IT Essentials PC Hardware & Software	2	2	3
IST122G	Introduction to Networks	2	2	3
IST123G	Routing and Switching Essentials	2	2	3
IST142G	Virtualization Essentials	2	2	3
IST150G	Network Operating Systems Fundamentals	2	2	3
IST151G	Windows Network Operating System	2	2	3
IST161G	Intro to Information Assurance	2	2	3
IST200G	Communications Electro-optics	2	2	3
IST211G	PC Technician	2	2	3
IST220G	Advanced Routing	2	2	3
IST221G	Advanced Switching	2	2	3
IST222G	Scaling Networks	2	2	3
IST223G	Connecting Networks	2	2	3
IST227G	Advanced Troubleshooting	2	2	3
IST228G	Network Implementation	2	2	3
IST242G	Advanced Virtualization	2	2	3
IST245G	Information Storage and Management	2	2	3
IST251G	Windows NOS Services	2	2	3
IST253G	Windows Server 2008 Active Directory	2	2	3
IST262G	Advanced Network Security	2	2	3
IST264G	Configuration of Security Appliance	2	2	3
IST266G	Security+	2	2	3
IST275G	Network Protocols & Services	2	2	3
IST281G	Internship	1	8	3
IST291G	IST Project	1	8	3

TOTAL CREDITS - 66

INFORMATION SYSTEMS TECHNOLOGY 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, IST222G, and IST223G 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, (see www.thefoa.org for details) certification exams as part of the course assessments. Other industry certification exams such as the Cisco (CCNA), Microsoft (MTA), CompTIA, and EMC2 ISM 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.

Gainful Employment disclosure information is available at:
http://greatbay.edu/sites/default/files/media/ProgramSheet_IST-Cert.pdf

LIBERAL ARTS
ASSOCIATE IN ARTS

The Associate of 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 exists 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. Math courses offer traditional theoretical and applied courses. Science selections can include biology, biotechnology, chemistry, physics, and photonics. Students wishing to focus their Liberal Arts studies in a specific discipline are able to concentrate their 24 Liberal Arts elective credits in that discipline. Each student's program is developed in consultation with a Liberal Arts faculty advisor.

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.

LIBERAL ARTS DEGREE
PROGRAM OF STUDY CORE REQUIREMENTS

Course		CR
FYE101G	First Year Seminar	1
ENGL110G	College Composition I	3-4
ENGL214G	College Composition II	3
HUMA150G	Critical Thinking	3
	Lab Science Electives (BIOL, BTEC, CHEM, PHYS)	8
	Math Electives	6-8
	Humanities/Foreign Language/Fine Arts Electives (AMER, ARTS, ENGL (except for ENGL215G), HUMA, PHIL, SPAN, ASL, HIST 120,130)	6
	Social Science Electives (ANTH, ECON, HIST, GEOG, POLS, PSYC, SOCI)	9
ELECTIVE REQUIREMENTS - 24 CREDITS Liberal Arts and Sciences Electives (American Studies, Art, English, Geography, History, Humanities, Languages, Math, Natural Resources, Social Sciences, or Sciences) and can include three Open Electives as appropriate to other programs' prerequisites. A computer literacy course can be included within the Open Electives area. Electives must include at least 3 Liberal Arts and Science courses at the 200-level.		24
	TOTAL CREDITS	**66**

LIBERAL ARTS/AMERICAN STUDIES

ASSOCIATE IN ARTS

American Studies, a concentration within Liberal Arts, 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.

CORE REQUIREMENTS

Course		CR
FYE101G	First Year Seminar	1
ENGL110G	College Composition I	3-4
ENGL214G	College Composition II	3
HUMA150G	Critical Thinking	3
	Lab Science Electives	8
	Math Electives	6-8
	Humanities/Foreign Language/Fine Arts Electives	6
	Social Science Electives	9
	Liberal Arts Electives	6

**It is recommended that students make elective choices based upon particular 4-year colleges' transfer requirements and general education cores.*

AMERICAN STUDIES CONCENTRATION		
Course		**CR**
AMER110G	Introduction to American Studies	3
AMER210G	American Studies Seminar	3
ANTH101G	Anthropology	3
ENGL209G or ENGL220G	American Literature through the Civil War or American Literature After the Civil War	3
HIST202G or HIST204G	US History Through 1870 or US History 1870 to the Present	3
POLS110G	American Government	3
	TOTAL CREDITS	**66**

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, ENGL110G College Composition I, and FYE101G First Year Seminar in the first semester.

LIBERAL ARTS / BIOLOGICAL SCIENCES

ASSOCIATE IN ARTS

Concentration Options

University Transfer

General Biology

The Department of Life Sciences and Chemistry offers two options for students interested in biological sciences. The Liberal Arts/Biological Science - University Transfer Option is specifically designed to prepare students for transfer to a Bachelor of Science program in biological science at a four-year college or university. Developed in consultation with the College of Life Science and Agriculture (COLSA) at the University of New Hampshire, this degree is designed to allow students to complete eight of the nine core science classes required for COLSA majors as well as a wide variety of general education courses while they are students at Great Bay Community College. The Liberal Arts/Biological Science - General Biology Option is designed to provide students with more flexibility in course selection, and is recommended for students who have broader interests in the biological sciences. The science courses in both degree programs are common to most biological sciences programs.

Program Outcomes

Students graduating with the Associates degree in Liberal Arts Biological Science 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 Liberal Arts/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.

UNIVERSITY TRANSFER OPTION
DEGREE PROGRAM - FIRST YEAR

Fall Semester		TH	LAB	CR
FYE101G	First Year Seminar	1	0	1
ENGL110G	College Composition I	4	0	4
BIOL108G	General Biology I	3	3	4
HUMA150G	Critical Thinking	3	0	3
CIS110G (or CIS107G)	Introduction to Computers* (or Essentials of Computer Literacy)	2 (2)	2 (4)	3 (4)
	Total	13	5(7)	15(16)

Spring Semester		TH	LAB	CR
BIOL109G	General Biology II	3	3	4
CHEM115G	General Chemistry I	3	3	4
MATH150G	College Algebra**	4	0	4
	Humanities/Language/Fine Arts Elective	3	0	3
	Social Science Elective	3	0	3
	Total	16	6	18

DEGREE PROGRAM - SECOND YEAR

Fall Semester		TH	LAB	CR
CHEM116G	General Chemistry II	3	3	4
BIOL210G	Microbiology	3	3	4
MATH210G	Pre-Calculus**	4	0	4
ENG214G	College Composition II	3	0	3
	Social Science Elective	3	0	3
	Total	16	6	18

Spring Semester		TH	LAB	CR
BIOL220G	Principles of Genetics	3	3	4
BIOL230G	General Ecology	3	3	4
CHEMXXX	Biochemistry or Organic Chemistry	3	3	4
XXX	Humanities/Language/Fine Arts Elective	3	0	3
XXX	Social Science Elective	3	0	3
	Total	15	9	18
			TOTAL CREDITS – 69-70	

Curriculum Recommendations

* Higher level CIS course may be substituted.

** Students with sufficient math skills may elect to take MATH210G (Pre-calculus) and MATH230G (Calculus I) or MATH230G (Calculus I) and another 200-level MATH course.

GENERAL BIOLOGY OPTION
DEGREE PROGRAM - FIRST YEAR

Fall Semester		TH	LAB	CR
FYE101G	First Year Seminar	1	0	1
ENGL110G	College Composition I	4	0	4
BIOL108G	General Biology I	3	3	4
HUMA150G	Critical Thinking	3	0	3
CIS110G	Introduction to Computers*	2	2	3

(or CIS107G)	(or Essentials of Computer Literacy)	(2)	(4)	(4)
	Total	13	5(7)	15(16)

Spring Semester		**TH**	**LAB**	**CR**
BIOL109G	General Biology II	3	3	4
CHEM115G	General Chemistry I	3	3	4
MATH150G	College Algebra**	4	0	4
	Humanities/Language/Fine Arts Elective	3	0	3
	Social Science Elective	3	0	3
	Total	16	6	18

DEGREE PROGRAM - SECOND YEAR

Fall Semester		**TH**	**LAB**	**CR**
	Life Science Elective	3	3	4
	Life Science Elective	3	3	4
MATHXXXG	200 Level Math Elective (210, 225, 230, 250)	4	0	4
ENG214G	College Composition II	3	0	3
	Social Science Elective	3	0	3
	Total	16	6	18

Spring Semester		**TH**	**LAB**	**CR**
	Life Science Elective	3	3	4
	Life Science Elective	3	3	4
	Humanities/Language/Fine Arts Elective	3	0	3
	Social Science Elective	3	0	3
	Total	12	6	14
			TOTAL CREDITS – 65-66	

Life Science Electives

All students in Liberal Arts Biological Sciences General Biology Option must select four courses from the following approved list of life science courses for this program. At least two need to be of the 200 level.

BIOL110G	BIOL150G	BTEC105G	BIOL210G	BIOL230G
BIOL120G	BIOL160G	CHEM116G	BIOL220G	CHEM205G
PHYS135G			BTEC210G	PHYS290G

Curriculum Recommendations

* Higher level CIS course may be substituted.

** Students with sufficient math skills may elect to replace this course with one of the following 200-level math courses: MATH210G (Pre-calculus), MATH225G (Probability and Statistics), MATH230G (Calculus I).

LIBERAL ARTS / CHEMISTRY

ASSOCIATE IN ARTS

The Liberal Arts/Chemistry is designed for Liberal Arts students who wish to transfer to a four-year institution to pursue a degree in chemistry, biochemistry or chemical engineering. In addition to the traditional Liberal Arts general education courses, 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 degree in Liberal Arts/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 Liberal Arts/Chemistry 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.

DEGREE PROGRAM - FIRST YEAR

Fall Semester		TH	LAB	CR
FYE101G	First Year Seminar	1	0	1
ENGL110G	College Composition I	4	0	4
CHEM115G	General Chemistry I	3	3	4
MATH210G	Pre-Calculus	4	0	4
CIS110G (or CIS107G)	Introduction to Computers* (or Essentials of Computer Literacy)	2 (2)	2 (4)	3 (4)

	Total	14	5(7)	16(17)

Spring Semester		**TH**	**LAB**	**CR**
BIOL108G	General Biology I	3	3	4
CHEM116G	General Chemistry II	3	3	4
MATH230G	Calculus I	4	0	4
	Social Science Elective	3	0	3
HUMA150G	Critical Thinking	3	0	3
	Total	16	6	18

DEGREE PROGRAM - SECOND YEAR

Fall Semester		**TH**	**LAB**	**CR**
PHYS290G	University Physics I	3	3	4
CHEM200G	Organic Chemistry	3	3	4
ENG214G	College Composition II	3	0	3
	Social Science Elective	3	0	3
	Humanities/Language/Fine Arts Elective	3	0	3
	Total	15	6	17

Spring Semester		**TH**	**LAB**	**CR**
CHEM205G	Biochemistry	3	3	4
	Math/Science Elective**	3	3	4
	Humanities/Language/Fine Arts Elective	3	0	3
	Social Science Elective	3	0	3
	Total	12	6	14
			TOTAL CREDITS – 65-66	

Curriculum Recommendations

* Higher level CIS course may be substituted.

** Students may take PHYS295G (University Physics II), MATH150G (College Algebra), MATH250G (Calculus II), or any 200-level BIOL, or BTEC course.

***Students needing to take MATH150G are advised to take this class during the first semester of the first year, followed by Pre-calculus and Calculus I in their second and third semesters respectively. These students will then take PHYS290G in their final semester.

LIBERAL ARTS / ENVIRONMENTAL STUDIES
ASSOCIATE IN ARTS

This program is designed to provide Liberal Arts A.A. students with a foundation in environmental studies, in addition to the broad range of general education courses associated with the Liberal Arts degree. It 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 an environmental studies concentration rather than a more narrowly focused environmental science concentration, and is designed to provide a solid scientific and social scientific foundation for students with a broad range of interests related to the environment.

Expected Student Outcomes
Students graduating with the A.A. degree in Liberal Arts/Environmental Studies 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 Liberal Arts Environmental Studies degree 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 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.

CURRICULUM

GENERAL EDUCATION CORE COURSES

Course		CR
FYE101G	First Year Seminar	1
ENGL110G	College Composition I	4
ENGL214G	College Composition II	3
HUMA150G	Critical Thinking	3
BIOL109G	General Biology II	4
CHEM115G	General Chemistry I**	4
MATH150G	College Algebra	4
MATH225G	Probability and Statistics	4
GEOG110G	World Geography	3
POLSXXX	Political Science Elective (POL 110, 210 or 220)	3
	Social Science Elective	3
	Foreign Language/Humanities/Fine Arts Elective	3
	Foreign Language/Humanities/Fine Arts Elective	3
	Total	42

ENVIRONMENTAL STUDIES CONCENTRATION

Course		CR
CIS110G Or (CIS107G)	Introduction to Computers* (or Essentials of Computer Literacy)	3 (4)
BIOL160G	Introduction to Environmental Science	4
NATR100G	Natural Resources Stewardship	4
NATR105G	Sustainable Agriculture and Food Systems	4
BIOL230G	General Ecology	4
BTEC205G	Bioethics	3
NATR299G	Contemporary Conservation Issues and Environmental Awareness	4
	Total	26(27)
	PROGRAM TOTAL – 68-69	
** Higher level computer course may be substituted*		
*** CHEM110G may be substituted for this course*		

SUGGESTED PATHWAY

DEGREE PROGRAM - FIRST YEAR

Fall Semester		TH	LAB	CR
FYE101G	First Year Seminar	1	0	1
BIOL160G	Introduction to Environmental Science	3	3	4
CIS110G (or CIS107G)	Introduction to Computers* (or Essentials of Computer Literacy)	2 (2)	2 (4)	3 (4)
ENG110G	College Composition I	4	0	4
GEOG110G	World Geography	3	0	3
	Total	13	5(7)	15(16)

Spring Semester		TH	LAB	CR
BIOL109G	General Biology II	3	3	4
NATR105G	Sustainable Agriculture	3	3	4
MATH150G	College Algebra*	4	0	4
POLXXX	Political Science Elective (POL 110, 210 or 220)	3	0	3

HUMA150G	Critical Thinking	3	0	3
	Total	16	6	18

DEGREE PROGRAM - SECOND YEAR

Fall Semester		**TH**	**LAB**	**CR**
NATR100G	Natural Resources Stewardship	3	3	4
CHEM115G	General Chemistry I	3	3	4
MATH225G	Probability and Statistics	4	0	4
ENG214G	College Composition II	3	0	3
	Humanities/Language/Fine Arts Elective	3	0	3
	Total	16	6	18

Spring Semester		**TH**	**LAB**	**CR**
BIOL230G	General Ecology	3	3	4
NATR299G	Contemporary Conservation Issues and Environmental Awareness	3	3	4
	Humanities/Language/Fine Arts Elective	3	0	3
	Social Science Elective	3	0	3
BTEC205G	Bioethics	3	0	3
	Total	15	6	17
		TOTAL CREDITS – 68-69		

LIBERAL ARTS / FINE ARTS

ASSOCIATE IN ARTS

The Concentration in Fine Arts offers Liberal Arts students with a foundation in fine arts, 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 and the inclusion of digital media electives. 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, art history or digital art. Several articulation agreements currently exist for transfer into four-year BFA programs at New England institutions. The student will responsible for purchasing the necessary art supplies, a list of which will be provided with the syllabi of each course.

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.

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.
- Explore and identify 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 such as but not limited to paintbrushes, pencils and x-acto knives.

- Have enough vision to safely use the materials noted as well as visually inspect their own work and that of other's.
- Remain seated or standing for focused activity at a work station for a minimum of 2 hours at a time.

GENERAL EDUCATION COURSES

Course		CR
FYE101G	First Year Seminar	1
ENG110G	College Comp I	4
ENG214G	College Comp II	4
	Two Lab Science electives	8
	Two Math electives	8
	Three Social Science Electives	9
	3 HUMA (HUMA choices are HUMA117G, HUMA127G, HUMA137G, ARTS225G, ARTS230G, ARTS124G, or ARTS235G)	
	Total	42

TECHNICAL CORE COURSES

Course		CR
ARTS123G	Drawing I	3
ARTS223G	Drawing II	3
	One Art History (Choose from HUMA 117G, 127G or 137G)	3
HUMA125G	Visual Language	3
	Total	12

CONCENTRATION ELECTIVE COURSES (choose 4)

Course		CR
HUMA117G	Art History I	3
HUMA127G	Art History II	3
HUMA137G	Contemporary Art History	3
ARTS225G	Watercolor Painting	3
ARTS220G	Painting I	3
ARTS230G	Introduction to Printmaking	3
ARTS124G	Art Color and Design	3
ARTS126G	Typography	3
ARTS235G	Sculpture and 3D Form	3
	One DGMT elective course	3
	Total	12

LIBERAL ARTS / HISTORY

ASSOCIATE IN ARTS

The Liberal Arts/History Concentration provides students with a broad range of historical and political perspectives. Courses allow students to explore various views and concepts from our own country and around the world. Students will develop research skills through the use of primary and secondary sources.

Program Outcomes

Graduates will demonstrate the following:

- Discuss historical and political perspectives and concepts.
- Develop strong communication skills that can be applied to a variety of situations.
- Use primary and secondary sources to complete research.
- Secure academic skills to prepare for transfer to other institutions or to work in the field.
- Experience history through interactive assessments, travel and guest speakers.

GENERAL EDUCATION CORE COURSES

Course		CR
FYE113G	First Year Seminar: History*	1
ENGL110G	College Composition I	4
	Math Elective	8
	Foreign Language/ Humanities/Fine Arts	9
	Lab Science Elective	8
	Social Science Elective	9
	English Elective	3
	Total	**42**

**Students are encouraged to take FYE History, but this specific section of the course is not required.*

HISTORY CONCENTRATION

Course		CR
HUMA117G	Open Elective	3
	Concentration Elective*	3
	Concentration Elective*	3
	Concentration Elective*	3
	Concentration Elective*	3
	Concentration Elective*	3
	Concentration Elective*	3
	Total	**24**

*Concentration Elective Courses: AMER110G, ENGL214G, GEOG110G, HIST120G, HIST130G, HIST202G ,HIST204G, HIST210G ,HIST211G, HIST281G, POL110G, POL210G, SOC120G, or any other HIST elective

MANAGEMENT

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 Management program is accredited by the Accreditation Council for Business Schools and Programs (ACBSP) which supports transfers to many four year institutions. 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:

- Know the fundamentals of management theory and practices.
- 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 management and overall business studies foundation.
- Be prepared to enter the workforce with entry-level management skills.
- Possess a solid management foundation for transfer.
- Understand the necessity for a commitment to life-long learning to ensure employability.
- Demonstrate competency in fundamental areas of business: accounting, marketing, human resources, finance, computers, economics, and business law.
- 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.

MANAGEMENT CERTIFICATE

		TH	LAB	CR
ACCT113G	Accounting and Financial Reporting I	3	0	3
ACCT123G	Accounting and Financial Reporting II	3	0	3
BUS114G	Management	3	0	3
BUS211G	Business Law	3	0	3
BUS224G	Human Resource Management	3	0	3
CIS156G	Computer Applications in Business *	2	2	3
	Business Elective (ACCT,BUS,ECON, MKTG,HOS)	6	0	6
			TOTAL CREDITS – 24	

** Prerequisite: placement in CIS156G or successful completion of CIS110G(or CIS107G)*

Gainful Employment disclosure information is available at:
http://greatbay.edu/sites/default/files/media/Management%20Cert%20GE%20Disclosure.pdf

MARKETING
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
Graduates with a degree in Marketing will:

- 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 mediums.
- 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.

MARKETING CERTIFICATE

		TH	LAB	CR
MKTG125G	Principles of Marketing	3	0	3
MKTG135G	Consumer Behavior	3	0	3
MKTG205G	International Marketing	3	0	3
MKTG210G	Advertising	3	0	3
MKTG224G	Sales & Sales Management	3	0	3
BUS282G	Capstone Research	3	0	3
CIS156G	Computer Applications in Business *	2	2	3
ACCT113G	Accounting and Financial Reporting I	3	0	3
	Business Elective (ACCT, BUS, ECON, MKTG,HOS)	3	0	3
			TOTAL CREDITS – 27	

** Prerequisite: placement in CIS156G or successful completion of CIS110G(or CIS107G)*

Gainful Employment disclosure information is available at:
http://greatbay.edu/sites/default/files/media/Marketing%20Cert%20GE%20Disclosure.pdf

MASSAGE THERAPY

CERTIFICATE

Over the years, 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 the chiropractic offices, spa/resort settings, gyms, and acupuncture clinics. Massage Therapy also complements the Spa Management Certificate by providing students with additional skills which will make them more valuable in the spa 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. Massage lecture teaches the theory of massage. The lab allows for direct application of the concepts covered in theory as well as proper posture and body positioning. Students will partner with each other to practice proper massage technique.

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).

Admissions Criteria
The application preferred deadline is July 1st for the fall semester, and December 1st for the spring semester. After the deadlines, 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. A personal interview with the program director is required.

Clinical 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 your Physician) stating they are in good physical condition and have no contraindications to giving or receiving massage prior to the first day of class. Hepatitis B immunizations are at the discretion of the physician but are highly recommended.
2. Complete a Level I criminal background check using our approved vendor ($60) 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.
5. Test into college level reading

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, briefly outline the reasons you were unable to continue in the program and identify the massage therapy course and level to which you are 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.

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 PROGRAM

1st Semester

Full Semester		TH	LAB	CR
MASS150G	Physiology of Wellness	2	0	2
MASS161G	Principles of Massage Therapy	2	0	2
MASS162G	MASS162Essentials of Massage Application	0	4	2
1st Half				
MASS171G	Structural Anatomy and Physiology	3	2	4
2nd Half				
MASS181G	Pathology and Massage I	2	0	2
	Total Semester	**9**	**6**	**12**

2nd Semester

Full Semester		TH	LAB	CR
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
	Total Semester	**7**	**12**	**12**

3rd Semester

Full Semester		TH	LAB	CR
MASS271G	Therapeutic Massage Specialties	2	2	3
HOSP244G	Intro to Spa Industry	3	0	3
MASS192G	Clinical Experience II	0	4	1
1st Half				
MASS172G	Visceral Anatomy and Physiology	3	2	4
2nd Half				
MASS182G	Pathology and Massage II	2	0	2
	Total Semester	**10**	**8**	**13**
	TOTAL CREDITS FOR CERTIFICATE - 37			

Curriculum Recommendations

- The Certificate Program is designed to be completed in 3 semesters during the day or evening. Part time attendance is not allowed.
- It is highly recommended that after the first week of MASS161G the student purchase a massage table and massage chair in order to practice at home.

Gainful Employment disclosure information is available at:
http://greatbay.edu/sites/default/files/media/Massage%20Rx%20Cert%20GE%20Disclosure.pdf

MEDICAL OFFICE ADMINISTRATIVE ASSISTANT
CERTIFICATE

Medical office assistants perform administrative tasks to keep the offices of health practitioners running smoothly. The duties of medical assistants vary from office to office, depending on the location and size of the practice and the practitioner's specialty. In small practices, medical assistants usually do many different kinds of tasks, handling administrative and clinical duties and reporting directly to an office manager, physician, or other health practitioner. Those in large practices tend to specialize in a particular area, under the supervision of department administrators. The Medical Office Administrative Assistant program focus is on the administrative duties.

Medical office administrative assistants update and file patients' medical records, fill out insurance forms, and arrange for hospital admissions and laboratory services. They also perform tasks less specific to medical settings, such as answering telephones, greeting patients, handling correspondence, scheduling appointments, and handling billing and bookkeeping.

Medical office administrative assistants deal with the public; therefore, they must be neat and well groomed and have a courteous, pleasant manner and they must be able to put patients at ease and explain physicians' instructions. They must respect the confidential nature of medical information.

According to the department of Labor, employment of medical assistants is expected to grow 34% between 2008 and 2018, much faster than the average for all occupations.

Program Outcomes
Students completing the program are prepared to work for doctors, hospitals and other healthcare facilities, medical billing companies or in related fields. They will develop skills in medical software, CPT-4, HCPCs and ICD-10 coding, medical terminology, medical insurance form preparation, and other related administrative office procedures. Successful completion of this Certificate will prepare students to take the Certified Professional Coder (CPC) Exam. This is an independent national certification exam and the cost is not included in the fees associated with the college.

Technical Standards

1. Basic computer skills
2. Good manual dexterity
3. Sufficient vision for reading information
4. Critical thinking ability
5. Ability to communicate well as a professional in a health facility
6. The ability to work independently

Admissions Criteria

1. Complete an application to the program.
2. Provide proof of high school completion or equivalent.
3. Take placement testing for computers and reading. Students must place into College Level reading.

Transfer Credit Policy
In addition to Great Bay transfer credit policies, transfer of courses in Medical Office Administrative Assistant program more than ten years old will be evaluated by the program coordinator on an individual basis.

CURRICULUM

		TH	LAB	CR
AHLT110G	Medical Terminology	3	0	3
AHLT112G	Pathophysiology	3	2	4
MOAA120G	Medical Office Administration	3	0	3
MOAA130G	Medical Coding 1	3	0	3
CIS110G (or CIS107G)	Intro to Computers (or Essentials of Computer Literacy)	2 (2)	2 (4)	3 (4)
MOAA210G	Medical Coding 2	3	0	3
MOAA212G	Insurance for the Medical Office	2	2	3
MOAA220G	Advanced Coding	2	0	2
	Total	22	4	24-25

Gainful Employment disclosure information is available at:
http://greatbay.edu/sites/default/files/media/MOAA%20Cert%20GE%20Disclosure.pdf

Nondestructive Testing

CERTIFICATE

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), as well as visual inspection. 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 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 1 certification. On the job experience must be completed after being hired by the company who will do the actual certification.

Note: the Nondestructive Technology Certificate Program is pending financial aid approval.

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.

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 20lbs, the ability to hear equipment and alarms, and ability to visually inspect parts.

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. MATH080G

5. CIS107G or higher.
6. College level reading.

Prior experience or knowledge of manufacturing is recommended.

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.

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.

CERTIFICATE PROGRAM - FIRST SEMESTER

		TH	LAB	CR
ACM120G	Technical Blueprint Reading	1	2	2
MATH145G	Topics in Applied College Math	4	0	4
NDT110G	Intro to Nondestructive Testing	2	2	3
CIS110G or CIS107G	Introduction to Computers or Essentials of Computer Literacy	2 2	2 4	3 4
ACM230G	Manufacturing Ethics	1	0	1
	Total	13-14		

ADDITONAL COURSEWORK

		TH	LAB	CR
ACM254G	Quality Inspection and CMM	2	2	3
	NDT methods (must take all three)			
NDT212G	Ultrasonic Inspection	3	2	4
NDT214G	Radiographic Testing	3	2	4
NDT210G	Liquid Penetrant Testing	1	2	2
	Total	13		

Curriculum Recommendations
A higher level CIS course may be substituted for CIS110G Introduction to Computers. Recommended substitutes are CIS111G Computer Technologies and CIS156G Computer Applications in Business.
A higher MATH course may be substituted for MATH145G Topics in Applied College Math.

NURSING

ASSOCIATE IN SCIENCE

The Associate Degree Nursing Program is accredited by the Accreditation Commission for Education in Nursing (ACEN) and approved by the New Hampshire Board of Nursing (NHBON). Upon satisfactory completion of the program, the graduate is eligible to apply to the Educational Testing Service (ETS) and the New Hampshire Board of Nursing (NHBON) for the National Council Licensing Examination for Registered Nurses (NCLEX-RN).

NCLEX Passage Rates: Program Performance 2010-2015

Performance on Licensure Exam: NCLEX-RN					
	2011	2012	2013	2014	2015
GBCC	95.8%	97.73%	90.7%	88.24%	93%
NH Pass Rate	91.85%	93.85%	83.17%	85.53%	87.02%
National Pass Rate	87.9%	90.34%	83.04%	81.78%	84.51%
GBCC Program Average x 5 years	93%				

Program Employment Rates	
Year	**% Employed (1 year of grad)**
2015	100%
2014	100%
2013	100%
2012	75%
2011	75%
Average x5 years	**90%**

Program Retention Rates	
Year	**% completed** (within 150% of the time of program stated length
2015	75%
2014	91%
2013	75%
2012	78%
2011	89%
Average x5 years	**82%**

Prior to meeting all program course requirements, the matriculated Nursing students may be eligible to apply to the NHBON for additional licensure after successful completion (defined as achieving a minimum course grade of "C+") of the following Nursing courses:

- Nursing I: Apply for additional licensure as a Licensed Nursing Assistant (LNA)
- Nursing III: Apply for additional licensure as a Licensed Practical Nurse (LPN)

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, 121 South Fruit Street, Concord, NH 03301. Questions about the status of accreditation for the Nursing program should be addressed to the Accreditation Commission for Education in Nursing (ACEN) 3343 Peachtree Road, NE, Suite 850, Atlanta, GA 30326. Phone: (404) 975-5000, Fax (404) 975-5020.

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 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 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 five year period from the time of acceptance into the Nursing program 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.

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.

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 in 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 TEAS V Pre-Entrance exam* with minimum or greater adjusted individual scores as indicated in each of the four areas of the test:

Reading	73.8
Math	70.0
Science	52.1
English and Language Usage	63.3
Applicants are permitted to take the TEAS V exam 3 times per 12 month period. Test dates must be at least 6 weeks apart. Exams must be taken no later than two weeks prior to the application deadline.	

6. Provide two professional references on the official form provided by The College (Alternative formats are not accepted).
7. Special Consideration points are given to applicants who:
   A. have 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
   B. are LNA's or Health Occupation students in a CTE high school program prior to the February 28th deadline.

**The ATI TEAS V Pre-Entrance Exam is designed to identify areas that may need strengthening before a prospective student begins the major course of study in Nursing. To receive information regarding the ATI TEAS V Pre-Entrance Exam or to register for a specific exam date, contact ATI at www.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 screening and immunizations.
2. Submit documentation of initial and/or annual testing for Tuberculosis (TB).
3. Submit documentation of Hepatitis B vaccine or a signed waiver.
4. Submit documentation of Influenza vaccine or a signed waiver by October.
5. Possess and maintain personal health and accident Insurance.
6. Possess and maintain professional liability insurance (purchased at The College).
7. Possess and maintain certification from either the American Red Cross: CPR for the Professional Rescuer Course or the American Heart Association equivalent. No other certifications will be considered.
8. 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 objectives and successfully complete the program.

9. 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.

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 written, dated letter requesting readmission consideration to the Chair of the Department of Nursing. In this letter, briefly and generally outline the reason(s) you were previously unable to continue in the program and identify the Nursing course to which you are requesting readmission. Students who have requested readmission consideration will be ranked according to their Nursing 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 their request, 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

Advanced Placement or Transfer

In addition to the admissions requirements (excluding item #5 the ATI TEAS V Preadmission Entrance Exam), students seeking Advanced Placement or Transfer must have completed all prerequisite coursework by examination, challenge or transfer credit. ATI examinations are available for the challenge process and are necessary to meet Nursing core course requirements.

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 Department of Nursing Chair for specific information about these exams.

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. 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 spot-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 Fundamentals

exam A minimum or greater adjusted individual score of 66.4% is required on this exam within the past two years in order to be granted credit. Nursing Transfer applications must be completed by December 1st to be considered for acceptance in the spring Nursing II class. In addition to meeting all requirements, admission is on a spot-available basis.

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.

DEGREE PROGRAM - FIRST YEAR

Fall Semester		**TH**	**LAB**	**CR**
FYE101G	First Year Seminar	1	0	1
NURS111G	Nursing I	6	9	9
BIOL110G	Human Anatomy & Physiology I	3	3	4
PSYC110G	Introduction to Psychology	3	0	3
	Total	13	12	17

Spring Semester		**TH**	**LAB**	**CR**
NURS112G	Nursing II	4	15	9
BIOL120G	Human Anatomy & Physiology II	3	3	4
PSYC210G	Human Growth & Development	3	0	3
	Total	10	18	16

DEGREE PROGRAM - SECOND YEAR

Fall Semester		**TH**	**LAB**	**CR**
NURS211G	Nursing III	4	15	9
BIOL210G	Microbiology	3	3	4
ENGL110G	College Composition I	4	0	4
	Total	11	18	17

Spring Semester		**TH**	**LAB**	**CR**
NURS212G	Nursing IV	3	18	9
MATH145G	Topics in Applied College Mathematics	4	0	4
	Foreign Language/Humanities/Fine Arts Elective	3	0	3
	English Elective	3	0	3
	Total	13	18	19
			TOTAL CREDITS – 69	

PSYCHOLOGY

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

1. Graduating students will develop strong communication skills that can be applied to a variety of situations in the field.
2. Graduating students will be provided a foundation of psychological theories and concepts.
3. Graduating students will analyze and apply psychological theories to real world situations.
4. Graduating students will gather and analyze data within their own research.

Internship Considerations

Students' completing an internship program will be required to submit proof of immunizations to the college along with any other information needed by the assigned site.

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.

Technical Standards

Technical Standards have been created as a guideline for completion of the Psychology Degree. Students' seeking a career in the area of Psychology or looking to transfer to a four-year institution, should possess strong written and verbal communication skills, collaborate effectively with others, adapt to a variety of situations, and use critical thinking skills to solve problems.

DEGREE PROGRAM - FIRST YEAR				
First Semester		**TH**	**LAB**	**CR**
ENGL110G	College Comp I	4	0	4
PSYC110G	Introduction to Psychology	3	0	3
FYE101G	First Year Seminar	1	0	1
CIS110G (or CIS107G)	Introduction to Computers (or Essentials of Computer Literacy)	2 (2)	2 (4)	3 (4)
	Math Elective			4
	Foreign Language/Humanities/Fine Arts/Elective			3
	Total	10	2(4)	18(19)

DEGREE PROGRAM - FIRST YEAR				
Second Semester		**TH**	**LAB**	**CR**
	Psychology Elective			3

	Psychology Elective	3	0	3
ENGL210G	Oral Communications	3	0	3
	Math Elective	3	3	4
	English Elective	3	0	3
	Total			16

DEGREE PROGRAM - SECOND YEAR

Third Semester		**TH**	**LAB**	**CR**
	Psychology Elective	3	0	3
	Psychology Elective	3	0	3
	Social Science Elective	3	0	3
	Science Elective	3	3	4
	Foreign Language/Humanities/Fine Arts/Elective	3	0	3
	Total			16

DEGREE PROGRAM - SECOND YEAR

Fourth Semester		**TH**	**LAB**	**CR**
PSYC241G	Social Science Research Methods	3	0	3
	Psychology Elective	3	0	3
	Social Science Elective	3	0	3
	Science Elective	3	3	4
	Foreign Language/Humanities/Fine Arts/Elective	3	0	3
	Total			16
	Total Credits			**66-67**

PSYCHOLOGY ELECTIVES

		TH	**LAB**	**CR**
PSYC205G	Crisis Intervention	3	0	3
PSYC210G	Human Growth and Development	3	0	3
PSYC215G	Abnormal Psychology	3	0	3
PSYC230G	Educational Psychology	3	0	3
PSYC235G	Health Psychology	3	0	3
PSYC281G	Psychology Internship	0	9	3

SURGICAL TECHNOLOGY

ASSOCIATE IN SCIENCE

The Surgical Technology Program at Great Bay Community College is the only Associate in Science degree program in the area. The program is accredited by the Accreditation Review Committee on Education in Surgical Technology – a collaborative effort of the Association of Surgical Technologists and the American College of Surgeon, under the auspices of the Commission on Accreditation of Allied Health Education Programs (CAAHEP) and approved by the Association of Surgical Technologists (AST). 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. Prior to graduation, students will sit for the national certification exam by taking a nationally administered written exam through the National Board of Surgical Technology and Surgical Assisting (NBSTSA).

Questions about the status of accreditation for the Surgical Technology program should be addressed to the Accreditation Review Council on Education in Surgical Technology and Surgical Assisting, 6 W. Dry Creek Circle, Suite #110 Littleton, CO 80120 Phone: 303-694-9262 Fax: 303-741-3655 Email: info@arcstsa.org Website: www.arcstsa.org

Commission on Accreditation of Allied Health Education Programs, 1361 Park Street Clearwater, Florida 33756 Phone: 727.210.2350 Fax: 727.210.2354 Website: caahep.org

Questions about certification should be addressed to the National Board of Surgical Technology and Surgical Assisting 6 West Dry Creek Circle, Ste. 100 Littleton, CO 80120 Toll Free: 1.800.707.0057 FAX: 303.325.2536 Website: 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 technologist 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 technique and combine the knowledge of human anatomy, surgical procedures, and implementation of tools and technologies to facilitate a physician's performance of invasive therapeutic and diagnostic procedures.

Surgical technologists have an understanding of 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 procedure, 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 surgical nurses or instructors. Some surgical technologists assume management positions in hospital 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 may enroll in Liberal Arts and Science courses prior to admission in the Surgical Technology program. Students admitted into the Surgical Technology program must take surgical technology courses in sequence. Students must be able to complete and successfully pass Competency Based Objectives embedded within Surgical Technology courses in order to continue with the program. In order to continue in the program all students must achieve a minimum of "C" in all major theory and science courses (Surgical Technology, Human Anatomy and Physiology I & II, and Microbiology) and a "Pass" in all clinical courses. Surgical Technology students must be CPR certified by the time of their first clinical practicum 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.

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
- Demonstrate surgical and aseptic safe practice at all times. Recognize unsafe practice in all aspects and immediately report it, per hospital policy
- Practice at all times 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

If at any time during the program the student does not demonstrate/practice the above, they may be placed on suspension from the program with the possibility of not being readmitted to the program.

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 quick, accurate and detailed oriented manner
- Follow orders and directions as instructed, regardless of the manner in which it was delivered

- Handle constructive criticism with a positive and professional attitude
- Be flexible both physically and mentally
- Be Honest and ethical
- Continue education after graduation to maintain continuing education credits for certification
- Develop effective strategies for controlling bodily functions (sweat, urination, etc.)
- Understand risks (physical and health) of job. (HIV, Hep C, etc.) Take necessary precautions to avoid these risks. Treat every patient as if they have some risks to pass on.
- 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 the above, 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 or does not follow the College's Code of Ethics, the student will be suspended from the program and will not be readmitted to the program. *(see below under Surgical Technology Students will be able to)*

Admission 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.

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)
    - Have a baseline eye exam before first clinical practicum and after last clinical practicum if they have worked with lasers.
2. Possess/maintain health/accident insurance.
3. Complete a Level I criminal background check and drug screen.
4. Submit and pass a 10 panel drug screen.

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 SURG Tech 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.

Requirement	Prior to Core Course Registration:

BIOL110G “C” or higher	SURG215G & SURG210G
BIOL120G & BIOL210G “C” or higher	SURG224G & SURG225G

Students who do not pass their Competency Based Objectives (CBO) will not be allowed to retake the CBO. A student who fails their CBO, will not be able to continue in the program.

Surgical Technology Readmission Policy
Students matriculated in the Surgical Tech Program who withdraw or are Program 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 may be suspended from the program without eligibility for readmission consideration. Unsafe practice includes actions or non-actions 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. In order to be reconsidered for admission, the student must:

- 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 need to have successfully completed with a C or better BIOL110G, BIOL120G, BIOL210G within the past five years from the time of re-admission to the program.
- Students who have requested readmission consideration will be ranked according to their surgical technology course average as space availability is determined. Students will then 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.

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 SURG114G and/or SURG120G lab syllabi. Students applying to the Surgical Technology Program will be required to have a personal interview with the program director.

Surgical Technology 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.

DEGREE PROGRAM - FIRST YEAR

Fall Semester		TH	LAB	CR
SURG118G	Introduction to Surgical Technology Fundamentals Theory	6	0	6
SURG119G	Introduction to Surgical Technology Fundamentals Lab	0	1	1
SURG115G	Basic Instruments, Supplies and Equipment	0	3	1
AHLT110G	Medical Terminology	3	0	3
BIOL110G	Human Anatomy & Physiology I	3	3	4
MATH145G	Topics in Applied College Mathematics	4	0	4
	Total	16	9	19

Spring Semester		TH	LAB	CR
SURG116G	Advanced Instruments, Supplies and Equipment	0	3	1
SURG121G	Surgical Procedures I Theory	3	0	3
SURG122G	Surgical Procedures I Lab	0	1	1
BIOL120G	Human Anatomy & Physiology II	3	3	4
ENGL110G	College Composition	4	0	4
PSYC110G	Introduction to Psychology	3	0	3
	Total	13	9	16

Summer Semester		TH	LAB	CR
SURG123G	Orientation to Surgical Clinical	0	6	2
	Total	0	6	2

DEGREE PROGRAM - SECOND YEAR

Fall Semester		TH	LAB	CR
SURG210G	Surgical Procedures II	3	0	3
SURG215G	Surgical Clinical I	0	32	8
BIOL210G	Microbiology	3	3	4
	Total	6	27	15

Spring Semester		TH	LAB	CR
SURG224G	Surgical Procedures III/Special Considerations	4	0	4
SURG225G	Surgical Clinical II	0	32	8
	English Elective	3	0	3
	Foreign Language/Humanities/Fine Arts Elective	3	0	3
	Total	10	24	18
			TOTAL CREDITS – 70	

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 the fall semester. Specific dates will be provided to each student.

TECHNICAL STUDIES
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 for which we do not offer degrees) may complete the Associate's degree in Technical Studies. Students with industry training and certifications equivalent in hours to 24 credits and documented by certification exams may be 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 the Vice President of Academic Affairs to participate in the Technical Studies program.

Complete a paper 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; CCSNH Certificate programs which are not in an area that we offer an Associate Degree.

Documented by Certification exams, certificates that show number of hours completed and grades, 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 pre-requisite 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

		CR
Technical Specialty		20-24
Related Technical Elective Courses		12-16
Open Elective		3
GENERAL EDUCATION REQUIREMENTS		
ENGL110G	College Composition I	3-4
ENGL210G or ENGL215G	Oral Communications or Writing Technical Documents	3
	Lab Science Elective	4
	Foreign Language/Humanities/Fine Arts Elective	3
	Social Science Elective	3
	Math Elective	3-4
	Liberal Arts Electives	6
		TOTAL CREDITS - 66

VETERINARY PRACTICE MANAGEMENT
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, Hospital Manager or Head Technician within the veterinary office. As well as business, management and accounting courses, the program offers 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, and complete 48 hours of continuing education to be able 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, 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. As well, 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 PROGRAM

		TH	LAB	CR
ACCT113G	Accounting and Financial Reporting I	3	0	3
BUS114G	Management	3	0	3
BUS224G	Human Resource Management	3	0	3
MKTG125G	Principles of Marketing	3	0	3
VETN110G	Introduction to Veterinary Technology	2	0	2
VETN112G	Computer Applications in Vet Med	1	0	1
VETN225G	Veterinary Practice Law	2	0	2
Choose one of the following:				
ACCT123G	Accounting and Financial Reporting II	3	0	3
BUS116G	Organizational Behavior	3	0	3
BUS205G	Small Business Management	3	0	3
ECON234G	Macroeconomics	3	0	3
MKTG210G	Advertising	3	0	3
			TOTAL CREDITS - 20	

Gainful Employment disclosure information is available at:
http://greatbay.edu/sites/default/files/media/Vet%20Practice%20Mgmt%20Cert%20GE%20Disclosure.pdf

VETERINARY TECHNOLOGY

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 (AVMA). The program provides education in the basic sciences and liberal arts as well as in veterinary technology.

Hands-on experience is obtained during clinical affiliations at local animal hospitals and spay/neuter clinics. Transportation to and from the clinical site 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 Clinical Affiliations and the following semesters.

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 the 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, 96 graduates were eligible first-time candidates for the VTNE. Of those 96, 89 graduates sat for the VTNE with a 3 year average pass rate of 64%. Nationally, the 3 year average pass rate on the VTNE was 72%. 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 American Veterinary Medical Association, 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

Because of increased interest in the program, completion of the application process by April 30th is strongly recommended. 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

Clinical Requirements
Prior to the first clinical affiliation, students must:

1. Possess and maintain health insurance and professional liability insurance (professional liability insurance is available at The College).
2. Have documentation showing current rabies, tetanus, measles, mumps and rubella vaccinations.
3. Provide proof of a negative TB skin test.
4. 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.

DEGREE PROGRAM - FIRST YEAR

Fall Semester		TH	LAB	CR
VETN110G	Introduction to Veterinary Technology	2	0	2
VETN112G	Computer Application in Vet Med	1	0	1
BIOL111G	Veterinary Anatomy & Physiology I	3	3	4
ENGL110G	College Composition I	4	0	4
MATH145G	Topics in Applied College Mathematics	4	0	4
	Total	14	3	15

Spring Semester		TH	LAB	CR
VETN121G	Veterinary Clinical Methods I	3	3	4
BIOL121G	Veterinary Anatomy & Physiology II	3	3	4
VETN114G	Veterinary Pharmacology I	2	0	2
*CHEM110G	Introduction to Chemistry	3	3	4
ENGL210G	Oral Communications	3	0	3
	Total	14	9	17

Summer Semester		TH	LAB	CR
VETN130G	Veterinary Clinical Affiliation I	0	24	4
Veterinary Elective:				
VETN225G	Veterinary Practice Law	2	0	2
or	or			
VETN226G	Small Animal Behavior	2	0	2
or	or			
VETN227G	Veterinary Emergency Medicine	1	2	2
	Total	2	24	6

DEGREE PROGRAM - SECOND YEAR

Fall Semester		TH	LAB	CR
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
PSYC110G	Introduction to Psychology	3	0	3
	Total	13	10	17

Spring Semester		TH	LAB	CR
VETN221G	Veterinary Clinical Pathology II	2	3	3
VETN224G	Veterinary Diagnostic Imaging	1	3	2
VETN222G	Veterinary Clinical Affiliation II	0	18	6
	Foreign Language/Humanities/Fine Arts Elective	3	0	3
	Total	6	24	14
			TOTAL CREDITS – 69	

**Students planning to transfer to a four-year college may substitute CHEM115G.*
Students must choose from one of the three VETN elective courses offered.

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. The student may not take the accrediting exam (VTNE) until all courses are complete and the student has graduated. *Health insurance is recommended for the entirety of the program.

WELDING TECHNOLOGIES

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 his 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, held at the Seacoast School of Technology in Exeter, New Hampshire, 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, blue print reading, electricity, and fabrication techniques. Upon completion of the program, students will also be prepared for AWS Certification Testing. The program, offered in the evening will consist of three 12 week semesters.

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.

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 pace makers are allowed in the welding shop.

Health and Safety 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 be worn in the shop at all times.

Admissions Criteria

- Complete an application to the program.
- Provide proof of high school completion or equivalent.

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 PROGRAM		**TH**	**LAB**	**CR**
WELD100G	Basic Welding	5	3	6
WELD150G	Intermediate Welding	3	6	6
WELD200G	Advanced Welding	3	6	6
	Total	11	15	18
			TOTAL CREDITS – 18	

Gainful Employment disclosure information is available at:
http://greatbay.edu/sites/default/files/media/Welding%20Technologies%20GE%20Disclosure.pdf

COURSE DESCRIPTIONS

All credit and noncredit courses at Great Bay are assigned a course number. Course numbers begin with a letter code designating the course's academic area. The following course descriptions are arranged alphabetically by academic code, beginning with "ACCT" (Accounting) and ending with "VETN" (Veterinary).

Courses with numbers between "0 – 99G" are considered developmental and any credit awarded cannot be used toward graduation requirements, but are included in Cumulative Grade Point Average (CGPA). Courses with numbers between "100 – 199G" are considered beginning-level courses and courses with numbers between "200 – 299G" are considered upper-level courses.

Prerequisites and Co-requisites for courses are identified after each description. Students may not waive courses within their program of study, but with Departmental Approval, students may waive course prerequisites. Course prerequisites may only be waived by the Department in which the actual course resides. A Prerequisite Waiver Form must be completed prior to registration. These forms can be obtained at College Services One Stop.

Prerequisite: A course that needs to be taken prior to registering for a designated course.
Co-requisite: A course that needs to be taken prior to or simultaneously with a designated course.

Please see page 60 for more information on the assignment of credits.

ACCT113G Accounting and Financial Reporting I **3-0-3**
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, payroll, cash receipts, disbursements, and banking procedures.

ACCT123G Accounting and Financial Reporting II **3-0-3**
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. The student will learn to use financial ratios to measure financial strength, profitability and liquidity. Prerequisite: ACCT113G.

ACCT213G Cost Accounting I **3-0-3**
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. Budgeting, standard cost, cost of goods sold, job order and process costing, cost-volume-profit formulas and equivalent topics are examined. Prerequisite: ACCT123G.

ACCT215G Cost Accounting II **3-0-3**
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. Prerequisite: ACCT213G.

ACCT216G Software Systems Applications **2-2-3**
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. Prerequisites: ACCT123G and CIS110G or CIS107G.

ACCT223G Intermediate Accounting I **3-0-3**
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, balance sheet, income statement, and retained earnings. Included are 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, asset purchase and disposal, depreciation, and time value of money. Prerequisite: ACCT123G.

ACCT233G Intermediate Accounting II **3-0-3**
Intermediate Accounting II is a continuation of the intensive examination begun in Intermediate Accounting I. It provides a closer look at investments, leases, statement of cash flows, bonds, stock, income taxes, intangible assets, current and long-term liabilities, earnings per share, and stockholders' equity. Guidelines of revenue recognition are discussed and an evaluation of accounting changes and error analysis. Prerequisite: ACCT223G.

ACCT243G Federal Income Taxes-Individual **3-0-3**
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. Prerequisite: ACCT123G.

ACM103G Project Based Composites Manufacturing **2-2-3**
In this hands-on class students will experience the full range of skills needed to manufacture a composite project, from design, to infusion, and finishing. Class objectives will include the use of current events and advancements in the field of advanced composites. Focus will be on quality, fabrication using infusion process, and finishing techniques. Students will learn tool use, measurement and quality inspection, basic composite fabrication techniques, and explore possible careers in the field.

ACM110G Introduction to Advanced Composites **2-3-3**
This course focuses on occupations in composites manufacturing today and examines critical skills required. Topics include materials, technology, and processes. A unit on composites for the aerospace industry will include topics in regulatory compliance and terminology. Technical documentation will be introduced and workplace safety will be stressed. Students will have an opportunity to earn the OSHA 10 hour certification at the end of the course. Instruction will incorporate hands-on lab work, discussion, demonstration, lecture, and assigned readings. Prerequisite: Acceptance into the Advanced Composites Manufacturing Certificate program. Co-requisite: ACM115G.

ACM115G Applied Math & Measurement for Manufacturing **1-2-2**

This course is designed to help students successfully transfer knowledge of math to the manufacturing floor. The focus will be on solving lab problems that require the use of math, including measurements and calculations. Students will work in both metric and U.S. standard measurement systems independently before learning conversions, building comfort with the language and instruments for measurement. Students will work in teams to find solutions to common plant problems and will work individually to advance math skills. Students will develop a course notebook that contains notes, formulas, and examples that will become a reference book as they proceed through lab courses in their training and to assist them on the job. Prerequisite: Acceptance into the Advanced Composites Manufacturing Certificate program. Co-requisite: ACM110G.

ACM120G Technical Blueprint Reading **1-2-2**

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. Major concentration will be towards ISO standards and geometric definitions, including profiles, parallelism, and true position. Focus will be on both paper and electronic formats. Students will be introduced to CAD environment processes throughout the course. The English inch and Metric dimensional examples will be included. Prerequisite: Placement into CIS110G or CIS107G or higher.

ACM210G Fundamentals of Composites Manufacturing **3-2-4**

This course provides a study of topics fundamental to manufacturing, with major focus on quality assurance processes and statistical process control; production effectiveness skills including time management and adapting to change. An introduction to polymer chemistry and the physics of strength of materials and thermodynamics will provide understanding of concepts required for students working with composites manufacturing. Additional topics will be introduced, providing students a broad awareness of advanced manufacturing topics. Prerequisites: C or better in ACM110G, C or better in ACM115G, and ACM120G. Co-requisite: One of 8 Manufacturing Operator Skills Courses.

ACM215G Applied Composites: Science & Technology **2-4-4**

This is an accelerated course designed for engineers and other manufacturing personnel to increase their knowledge of advanced composites materials, processes, and techniques. Instruction will incorporate hands-on lab work, discussion, demonstration, lecture, and assigned readings. Focus is on applying knowledge of polymer chemistry and the physics of strength of materials and thermodynamics through hands-on projects in the lab to explain the concepts of composites manufacturing. Activities include infusion and pre-preg; curing using ovens and autoclaves; and finishing using a variety of hand tools. Quality assurance processes are emphasized. Additional topics will be introduced to assure a broad awareness of advanced composites manufacturing. Prerequisites: MATH150G or higher, and PHYS135G or higher, and CHEM110G or higher.

ACM230G Manufacturing Ethics **1-0-1**

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.

ACM250G Paint Operator **0-3-1**

This hands-on course prepares students for jobs where they will paint parts using a handheld paint sprayer within an industrial spray booth. Students will also mix paint-related ingredients, apply masking techniques, and practice rework skills. They will practice basic preventive maintenance and care of all paint equipment and the paint booth. Focus will be on safety, attention to detail, and ability to follow operating procedures. Co-requisite: ACM210G.

ACM251G Weaving Technician and Preform Finishing **1-3-2**

This hands-on course prepares students for jobs where they will set up and operate equipment used in 3D composites fabric weaving, including a Jacquard loom. Topics will include loom operation and maintenance and troubleshooting. Students will learn proper use and documentation of measurement equipment, practice reading specialized engineered drawings and work instructions for weaving, and implement quality assurance procedures. Focus will be on safety, attention to detail, and ability to follow operating procedures.

ACM252G Resin Transfer Molding Technician **0-4-2**

This hands-on course prepares students for jobs where they will operate the processes of resin transfer molding. Students will learn RTM tool preparation, safe operation of the resin injector, safe operation of the press, and equipment care and maintenance. Students will apply polymer chemistry, physics, curing methods, and other theories presented in Fundamentals of Manufacturing, and will keep a course notebook linking process to theory. Focus will be on attention to detail, and ability to follow operating procedures. Inspection of parts and quality assurance will be included. Co-requisite: ACM210G.

ACM253G Bonding and Finishing Operator **0-4-2**

This hands-on course prepares students for jobs where they will operate equipment within the finishing processes for composites manufacturing. Students will learn to perform operations of bonding and vacuum bagging, to run an autoclave and record parameters, and to perform preventive maintenance on equipment. Students will be responsible for maintaining work area and equipment in clean and orderly condition. Tools include measurement tools such as micrometers and calipers. Focus will be on safety, attention to detail, and ability to follow operation procedures. Inspection of parts and quality assurance will be included. Co-requisite: ACM 210G.

ACM254G Quality Inspection and CMM Operator **3-2-4**

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. Prerequisite to Admission to ACM program, CIS107G or CIS110G or higher CIS (may also be a co-requisite), and ACM120G.

ACM255G Composites CNC Milling and Set-up Operator **4-4-6**

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. Co-requisite: ACM210G.

ACM256G Composites Repair Technician **0-4-2**

This course provides students with the comprehensive theoretical and hands-on skills to detect, analyze, and repair damage of composites structures. Students will be introduced to different typical failures of composites. Failures modes will be explored. NDT methods such as tap testing and light refraction will be used to detect damage and other NDT/NDI methods and equipment will be reviewed. Methodical deconstruction of laminates, core materials and substructures and the reconstruction of same will be taught. Selection of the right tools, abrasives, dust extraction and work area protection will be practiced. Reading and interpreting laminate plies, fiber orientations, core materials, will be reviewed. Students will

design and execute repair plans for different types of damage and bonding failures. The use of standard repair manuals, as well as structured reporting and documenting of repairs in accordance with ISO and other standards will be emphasized. Adherence to inspection and classification society rules will be covered. Finishing of repaired structures will be taught. Co-requisite: ACM210G.

ACM257G High Performance Composites Fabrication **0-4-2**

This course will teach students to use all the customary materials, tools and equipment for the manufacturing of high performance composites. The course covers composites processes, materials, equipment and supplies. Fundamentals of mechanical behavior of composites are taught. Processes covered in class room and hands-on setting will include vacuum bagging, resin infusion, wet pregging and prepreg lay-ups with ambient, oven and/or autoclave cures and post cures as well as concepts of filament winding and compression molding. Students will be introduced to the importance of fiber orientation, compaction, flow behavior, accessory materials and supplies for different processes. Basics of composite tool making, lost mold and bladder techniques will be reviewed. Co-requisite: ACM210G.

ACM265G Multi Axis CNC Milling **2-4-4**

In this course students will continue to develop their understanding of theory and machine tool processes in both classroom and hands-on work. After a review of basic 3 axis machinery, students will learn multi axis CNC machinery, including advanced tooling and problem solving. This course will cover the laws of physics pertaining to various rotational and linear forces. Students will demonstrate mathematics needed to successfully manufacture parts, and write advanced CNC code. They will develop increasingly complex projects using a variety of materials and maintain quality procedures. Focus will be on work related skills including problem solving, safety, ability to follow work instructions, and time management. Prerequisite: ACM255G.

AHLT110G Medical Terminology **3-0-3**

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.

AHLT112G Pathophysiology for Allied Health **3-2-4**

Pathophysiology is the branch of medicine which deals with any disturbances of body functions, caused by disease or the onset of symptoms. This is a one semester course that introduces the structure and function of the human body to the Allied Health student. It includes the anatomy and physiology of each of the organ systems of the human body and practical discussion of disease and health. Students will discuss and identify diseased tissue, the various mechanisms by which human disease develops, and the common disorders involving each of the major body systems. Prerequisite: Placement at College Level Reading.

AMER110G Introduction to American Studies **3-0-3**

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. (Fulfills Humanities requirement.)

AMER210G American Studies Seminar **3-0-3**

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.

ANTH101G Introduction to Anthropology **3-0-3**

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 to physical anthropology and linguistics. The course is designed to nurture students to develop a broader scope of understanding and respect for human variation. (Fulfills Social Science requirement.)

ANTH102G Introduction to Archaeology **3-0-3**

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 thru 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.

ARTS103G Fundamentals of Acting I **4-0-4**

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.

ARTS123G Drawing I **2-3-3**

Various drawing media and techniques are explored in this course. Assignments are designed to build drawing observation skills necessary for visual communications. (Fulfills Fine Arts requirement.)

ARTS124G Art, Design, and Color **2-3-3**

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.

ARTS126G Typography **2-3-3**

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.

ARTS203G Fundamentals of Acting II **4-0-4**
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. Prerequisite: ARTS103G or Permission of Instructor PERMXXXG.

ARTS220G Painting I **2-3-3**
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. Prerequisite: ARTS123G or permission from the Program Coordinator.

ARTS223G Drawing II **2-3-3**
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. Prerequisite: ARTS123G. (Fulfills Fine Arts requirement.)

ARTS225G Watercolor Painting **2-3-3**
Through the exploration of traditional artist watercolor techniques, students will learn and apply watercolor processes, procedures and techniques to selected compositions and motif as 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. Prerequisite: ARTS123G or ARTS124G or Permission of Instructor PERMXXXG.

ARTS230G Introduction to Printmaking **2-3-3**
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. Prerequisite: ARTS123G or permission from the Program Coordinator.

ARTS235G Sculpture and 3D Form **2-3-3**
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. Prerequisite: ARTS123G or ARTS124G.

ASL110G American Sign Language I **3-0-3**

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. (Fulfills Foreign Language requirement.)

ASL120G American Sign Language II **3-0-3**

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. Prerequisite: ASL110G. (Fulfills Foreign Language requirement.)

AVTN150G Private Pilot I Ground **3-0-3**

This course provides the student pilot with the knowledge necessary to understand the basic forces and aerodynamics that act on a helicopter in flight. Instruction will be provided that covers stability and control, helicopter systems, basic flight maneuvers, regulations and emergency and hazardous conditions. This course also provides an introduction to the flight planning and aeronautical chart use. Prerequisite: Admission to the Aviation Technology Helicopter Program. Co-requisite: AVTN151G.

AVTN151G Private Pilot I Flight **0-8-4**

This course provides the student pilot with the basic flight instruction necessary to safely control a helicopter in solo flight. Instruction will be provided that covers preflight inspections, taxiing, basic flight elements (straight and level, turns, climbs and descents), hovering, autorotation, use of sectional charts, airspace, collision avoidance, emergencies and steep turns. Prerequisite: Admission to the Aviation Technology Helicopter Program. Co-requisite: AVTN150G.

AVTN160G Private Pilot II Ground **3-0-3**

This course provides the student pilot with the basic knowledge necessary to pass the FAA written knowledge exam for Private Pilot. It includes instruction in cross country flying, range calculations, navigation, aeromedical factors, night flying, flight planning, radio navigation and enroute navigation. Prerequisite: AVTN150G. Co-requisites: AVTN161G and MATH150G.

AVTN161G Private Pilot II Flight **0-8-4**

This course provides the student pilot with the flight instruction necessary to perform cross-country maneuvers. The student will learn cross-country flight planning as well are receive the required dual and solo cross-country flight instruction required for the FAA Private Pilot certificate. Prerequisite: AVTN151G. Co-requisites: AVTN160G and MATH150G.

AVTN170G Instrument Pilot Ground **3-0-3**

This course provides the student pilot with the ground instruction necessary to perform helicopter operations and maneuvers with reference solely to instruments. Upon successful completion of this course, the student will have successfully passed the FAA written knowledge exam for the Rotorcraft Instrument Rating. Prerequisite: AVTN160G. Co-requisite: AVTN171G.

AVTN171G Instrument Pilot Flight **0-8-4**

This course provides the student pilot with the flight instruction necessary to control a helicopter in flight with reference solely to instruments. Instruction will be provided that covers instrument flight in straight-and-level, climbs, descents, acceleration, turns, steep turns, unusual attitudes, approaches, landings, holding, go-arounds, emergencies/loss of instruments, collision avoidance and cross-country navigation. Prerequisite: AVTN161G. Co-requisite: AVTN170G.

AVTN250G Commercial Pilot Ground **3-0-3**

This course provides the student pilot with the ground instruction necessary to perform helicopter operations and maneuvers at the commercial level. The Student will receive instruction in systems, instruments, aerodynamics, performance and limitations, weight and balance, FARs, ADM and CRM. Upon successful completion of this course, the student will have successfully passed the FAA written knowledge exam for the Rotorcraft Commercial Rating. Prerequisite: AVTN170G. Co-requisites: AVTN251G and PHYS135G.

AVTN251G Commercial Pilot Flight **0-10-5**

This course provides the student pilot with a review of the required private pilot helicopter maneuvers and improves precision of those maneuvers to the level necessary to meet FAA Commercial Pilot certification standards. Instruction is also provided in precision hovering, precision autorotations and simulated emergencies. Student also completes required instrument, cross-country and solo night flights. Prerequisite: AVTN171G. Co-requisites: AVTN250G and PHYS135G.

AVTN252G Certified Flight Instructor Ground **1.5-0-1.5**

This course provides the student pilot with the ground instruction necessary to instruct helicopter operations and maneuvers up to and including at the commercial level. The Student will also create and assemble a complete lesson plan curriculum notebook for Private, Instrument and Commercial certification which will serve as an instruction tool once they begin work as a flight instructor. In Stage 2, the student will create lesson plans and present them in an instructor's role. Upon successful completion of this course, the student will have successfully passed the FAA written knowledge exam for the CFI Rotorcraft/Helicopter Rating. Prerequisite: AVTN 250G. Co-requisite: AVNT253G.

AVTN253G Certified Flight Instructor Flight **0-4-2**

This course provides the student pilot with a review of helicopter maneuvers required of a commercial level pilot, precision hovering, precision auto rotations, simulated emergencies, cross-country flight and night flight. The course then teaches the students methods of teaching these skills and allows the student to demonstrate their ability to control the aircraft while teaching students to master these skills. Prerequisite: AVTN 251G. Co-requisite: AVNT252G.

AVTN254G Certified Flight Instructor Instrument Ground **1.5-0-1.5**

This course provides the student pilot with the ground instruction necessary to instruct helicopter operations and maneuvers up to and including at the commercial and instrument level. The Student will also complete the creation of a complete lesson plan curriculum notebook for Private, Instrument and Commercial certification which will serve as an instruction tool once they begin work as a flight instructor. The student will create lesson plans and present them in an instructor's role. Upon successful completion of this course, the student will have successfully passed the FAA written knowledge exam for the CFII Rotorcraft/Helicopter rating. Prerequisite: AVTN 252G. Co-requisite: AVNT255G.

AVTN255G Certified Flight Instructor Instrument Flight **0-4-2**

This course provides the student pilot with a review of helicopter maneuvers required of an instrument rated pilot to include attitude flying approach procedures and techniques, holding patterns, IFR cross country and inflight emergencies. The course then teaches the students methods of teaching these skills and allows the student to demonstrate their ability to control the aircraft while teaching students to master these skills. Prerequisite: AVTN 253G. Co-requisite: AVNT254G.

BIOL041G Developmental Biology **3-0-3**

This course will cover the main points of biology at the high school level. It is meant to replace or supplement a student's background in biology if those students either never passed high school biology, or

if they took the course so long ago as to be unprepared 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.

BIOL101G Human Disease **3-2-4**

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. Prerequisite: Successful completion of high school biology or BIOL041G.

BIOL106G Human Body **3-2-4**

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.

BIOL108G General Biology I **3-3-4**

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. Prerequisite: Successful completion of high school biology or BIOL041G; successful completion of high school chemistry or CHEM043G is recommended but not required.

BIOL109G General Biology II **3-3-4**

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. Prerequisite: Successful completion of high school biology or BIOL041G; successful completion of high school chemistry or CHEM043G is recommended but not required.

BIOL110G Human Anatomy and Physiology I **3-3-4**

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. Prerequisite: Placement into MATH145G; placement into college-level reading; C or better in high school biology or BIOL041G; successful completion of high school chemistry or CHEM043G is recommended.

BIOL111G Veterinary Anatomy and Physiology I **3-3-4**

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. Prerequisite: Admission to the Veterinary Technology program.

BIOL120G Human Anatomy and Physiology II **3-3-4**

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. Prerequisite: C or better in BIOL110G.

BIOL121G Veterinary A&P II **3-3-4**

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. Prerequisite: C+ or better in BIOL111G and VETN110G.

BIOL150G Nutrition **3-2-4**

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.

BIOL160G Introduction to Environmental Science **3-3-4**

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.

BIOL210G Microbiology **3-3-4**

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. Prerequisite: C or better in BIOL108G or C or better in BIOL110G or Permission of Department Chair.

BIOL220G Principles of Genetics **3-3-4**

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. Prerequisites: BIOL108G and C- or better in MATH145G (or higher level MATH course).

BIOL230G General Ecology **3-3-4**

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. Prerequisites: Successful completion of BIOL109G, and C- or better in MATH150G (or higher level MATH course).

BTEC105G Introduction to Biotechnology **3-3-4**

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, gene manipulation, and molecular cloning. Students will also gain an understanding of how the biotechnology industry operates, and will learn about options for careers and further education in biotechnology. Pre-requisites: Successful completion of high school biology or BIOL 041G and C or better in Math 090G or equivalent.

BTEC205G Bioethics **3-0-3**

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.

BTEC210G Biotechnology Research **2-6-4**

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 for biotechnology discovery research. Prerequisite: Successful completion of BTEC105G, BIOL108G (or BIOL210G), CHEM115G (or CHEM110G) and MATH 145G (or higher level MATH course). Exceptions by permission of department chair only.

BTEC220G Biomanufacturing **2-6-4**

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 bacteria, mammalian, and yeast cells to produce human proteins 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. Prerequisite: C- or better in BTEC210G. Exceptions by permission of department chair only.

BTEC223G Biotechnology Externship **0-9-3**

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. Prerequisites: BTEC210G, BTEC220G.

BUS110G Introduction to Business **3-0-3**

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.

BUS114G Management **3-0-3**

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.

BUS116G Organizational Behavior **3-0-3**

This course develops basic understanding of organizational behavior. The human relations approach is stressed. It includes management philosophy; the organizational climate; motivation, leadership and management; supervision; communication, group participation and other forces in the work environment. Students learn techniques for becoming more effective managers, subordinates, peers or people. Prerequisite: BUS114G.

BUS155G Retailing Management **3-0-3**

This course studies the principles of retailing with emphasis on the development of retail institutions, merchandising, pricing, and contemporary problems of retailers in today's business environment. Prerequisite or Co-requisite: MKTG125G.

BUS200G Teambuilding **3-0-3**

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.

BUS205G Small Business Management **3-0-3**

This course covers key concepts and skills critical to successfully launching, developing and managing a small business. A primary focus will be how to use the concepts. Prerequisite or Co-requisite: BUS114G.

BUS208G Leadership Theory & Practice **3-0-3**

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. Prerequisite: BUS110G or permission of Dept. Chair.

BUS209G Principles of Global Business **3-0-3**

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 in 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. Prerequisite: BUS110G.

BUS210G Organizational Communications **3-0-3**

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.

BUS211G Business Law **3-0-3**

Based on student input at the start of the course, the course will encompass some of the common topics in criminal and civil law. Likely areas to be taught and discussed include civil and criminal justice systems, contracts, consumer protection, real and personal property, insurance, employment, and wills.

BUS214G Entrepreneurship **3-0-3**

This course will focus on all aspects of starting a business: selecting promising ideas, initiating new ventures, and obtaining initial financing. The course will also concentrate on how ventures are begun, how venture ideas and other key ingredients for start-ups are derived, and how to evaluate new venture proposals. The course will also explore business plan development, legal and tax considerations. Prerequisites: BUS205G and MKTG125G.

BUS220G Operations Management **3-0-3**

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.

BUS221G Business Finance **3-0-3**

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. Prerequisite: ACCT113G and ACCT123G.

BUS224G Human Resource Management **3-0-3**

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.

BUS231G Self-Assessment **1-0-1**

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.

BUS282G Capstone Research **3-0-3**

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. Prerequisite: MKTG125G.

BUS291G Internship **0-9-3**
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.

CHEM043G Developmental Chemistry **3-0-3**
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.

CHEM110G Introduction to Chemistry **3-3-4**
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. Prerequisite: MATH084G, MATH090G, or sufficient Placement Scores. This course is not intended to be a prerequisite for CHEM115G.

CHEM115G General Chemistry I **3-3-4**
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, thermo chemistry, quantum theory and atomic structure, chemical periodicity, chemical bonding, and molecular geometry. Principles taught in lectures will be reinforced in laboratory experiments. Prerequisite: CHEM043G or High School Chemistry (or CHEM110G) AND MATH084G, MATH090G, or sufficient Placement Scores.

CHEM116G General Chemistry II **3-3-4**
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. Prerequisites: Completion of MATH150G or sufficient placement scores and successful completion of CHEM115G.

CHEM200G Organic Chemistry **3-3-4**
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. Prerequisite: CHEM115G and CHEM116G.

CHEM205G Biochemistry **3-3-4**
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. Prerequisites: BIOL108G, CHEM115G, CHEM116G and C- or better in MATH145G or higher level math class.

CIS107G Essentials of Computer Literacy **2-4-4**

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. Prerequisite: Placement Testing. Students cannot receive credit for both CIS107G and CIS110G.

CIS110G Introduction to Computers **2-2-3**

As a 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. Prerequisite: Placement Testing. Students cannot receive credit for both CIS107G and CIS110G.

CIS111G Computer Technologies **2-2-3**

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. Prerequisite: CIS110G or CIS107G or permission of Instructor.

CIS112G Introduction to Object Oriented Programming **2-2-3**

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. Prerequisite: CIS107G or higher.

CIS113G Database Design and Management **2-2-3**

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. Prerequisite: CIS110G or CIS107G.

CIS118G Introduction to .NET **2-2-3**

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. Prerequisite: CIS112G.

CIS124G Web Development I **2-2-3**
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. Prerequisite: CIS110G, CIS111G, or CIS107G or permission of instructor.

CIS134G Web Style and Design **2-2-3**
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. Prerequisites: DGMT115G, CIS124G.

CIS146G Linux I **2-2-3**
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. Prerequisite: CIS112G.

CIS148G Introduction to Java Programming **2-2-3**
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. Prerequisite: CIS112G.

CIS149G Linux Applications **2-2-3**
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.

CIS154G Comprehensive Business Computer Applications **2-4-4**
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 knowledgably and experienced in its many applications. **This course may be used in place of CIS156 to meet Business, Hospitality and Accounting Program requirements. (Students cannot receive credit for both CIS154G and CIS156G.) Prerequisite: Placement Testing or permission of instructor.

CIS156G Computer Applications in Business **2-2-3**

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. Prerequisite: CIS110G or CIS107G.

CIS158G Introduction to C++ **2-2-3**

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. Prerequisite: CIS112G.

CIS177G Introduction to Python **2-2-3**

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. Prerequisite: CIS110G or CIS107G.

CIS210G Data Structures and Elementary Algorithms **3-2-4**

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. Prerequisite: CIS118G, OR CIS148G, OR CIS158G, OR permission of the instructor.

CIS216G Web Server Administration **2-2-3**

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. Prerequisites: CIS146G, CIS224G.

CIS218G Advanced .NET **2-2-3**

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. Prerequisite: CIS118G.

CIS223G Advanced SQL **2-2-3**

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. Prerequisite: CIS113G.

CIS224G Web Development II **2-2-3**
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. Prerequisites: CIS112G, CIS124G.

CIS246G Linux II **2-2-3**
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. Prerequisite: CIS146G.

CIS248G Advanced Java Programming **2-2-3**
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. Prerequisite: CIS148G.

CIS249G Linux Databases **2-2-3**
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. Prerequisites: CIS113G, CIS146G.

CIS253G Data Sharing **2-2-3**
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. Prerequisites: CIS223G, CIS224G.

CIS254G PHP and MySQL **2-2-3**
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. Prerequisites: CIS113G, CIS224G.

CIS258G Advanced C++ **2-2-3**
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. Prerequisite: CIS158G.

CIS281G Internship **1-8-3**
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. Prerequisite:

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 **2-2-3**
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.

CIS292G Portfolio Preparation and Presentation **1-0-1**
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. Prerequisite: Approval of the Department Chair and/or Program Advisor upon completion of coursework entering final semester (Permission "PERMXXXG").

CRMJ101G Intro to Criminal Justice **3-0-3**
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 studies. Much of the focus will compare ideals with realities of the system. Law enforcement, the courts, and correctional aspects will be examined.

CRMJ121G Criminal Procedure **4-0-4**
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.

CRMJ123G Criminal Law **4-0-4**
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.

CRMJ150G Criminology **3-0-3**
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.

CRMJ205G Police Operations **3-0-3**
This course covers the principles of police organization and administration, along with 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.

CRMJ210G Juvenile Justice **3-0-3**
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.

CRMJ215G Corrections Operations **3-0-3**

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.

CRMJ225G Drug Abuse and the Law **3-0-3**
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.

CRMJ230G Justice and the Community **3-0-3**
This course deals with the interaction of the various components of the justice system with the community. It involves an analysis of the way 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.

CRMJ250G Criminal Investigations **4-0-4**
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. A 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. Prerequisite: Admission to the Criminal Justice or Homeland Security programs or permission from the program chairperson.

CRMJ270G Criminal Justice Internship **0-9-3**
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.

CRMJ275G Senior Project **3-0-3**
This course presents an opportunity for students to focus on a specific issue or topic in Criminal Justice with a primary emphasis on completion of 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.

DATA210G Elements of Data Science **3-0-3**
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. Prerequisites: C or better in MATH145G or higher and C or better in CIS111G or higher; or department approval. It is recommended to have some programming experience prior to this course but not required.

DATA220G Data Analysis with R **3-0-3**
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. Prerequisites: C or better in DATA210G (or by department approval) and MATH235G (may be co-requisite).

DATA225G Analytics Capstone **0-4-2**
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. Prerequisites: Successful completion of DATA220G and MATH235G with a C or better or by dept/program advisor approval.

DGMT115G Introduction to Graphic Design **2-2-3**
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 such as Macromedia Freehand and Adobe PhotoShop. Students will also experience hands-on drawing and design lessons to develop their own senses, 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. Prerequisite: CIS110G or CIS107G.

DGMT120G Intro to Digital Photography **2-2-3**
Students must supply their own digital SLR camera. 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. Prerequisites: DGMT115G and Permission of Program Coordinator.

DGMT125G Introduction to Animation **2-2-3**
In this course, students will 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 animation principles that will be expanded upon in DGMT264G. Prerequisite: DGMT115G.

DGMT135G Introduction to Photoshop **2-2-3**
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. Prerequisite: CIS110G or CIS107G.

DGMT142G Publication Design **2-4-4**
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; create business cards, brochures, display ads, newsletters, menus, logos

and announcements, while fulfilling in-class service learning objectives for community partners. Prerequisite: CIS110G or CIS111G or CIS107G. Prior experience using an Adobe application is recommended. This is a Service Learning Course (SL).

DGMT165G Introduction to Video Production **2-2-3**

In this course, the fundamentals of video production and editing will be studied through individual projects. A technical foundation will be established regarding rudimentary aspects of video engineering. All aspects of the production process including camera functions, lighting, shooting techniques (ENG and EFP), audio-for-video, and voice over acquisition will be presented. Editing concepts and aesthetics will be examined through an introduction to film history and current editing standards. A detailed introduction to Adobe Premiere and video editing concepts will provide students with the tools to assemble their acquired video elements into a final video project of their choice. Prerequisite: CIS110G or CIS107G.

DGMT166G Scriptwriting for Film & Video **2-2-3**

This course introduces students to the basic elements of scripting and storyboarding for both film and video production. Classic narrative film scripting and two-column video scripting will be covered. Students will produce their own scripts to demonstrate abilities in using a visual vocabulary to communicate visual ideas via the written word. Prerequisite: CIS110G or CIS107G and placement into ENGL110G.

DGMT167G Single Camera Production **2-2-3**

This course focuses on single camera production to build on student proficiencies in shooting, lighting, and editing. Students will learn camera functionality for properly shooting a story including managing shot coverage, conventional lighting techniques including lighting for an interview, and requisite on-location sound acquisition techniques and the audio equipment required to carry that out. Additionally, students will build on their introduction to editing in DGMT165 and learn principles of editing sequence-shots and conventional match cutting. Prerequisite: DGMT165G.

DGMT168G Multi-Camera Production **2-2-3**

This course centers on the multi-camera environment. Students will become proficient in broadcast studio production work including floor direction, technical direction, producing, audio studio lighting and camera work. Students will demonstrate multi-camera proficiency through the creation of broadcast-quality studio productions. Prerequisite: DGMT165G.

DGMT169G Lighting for Video Production **2-2-3**

This course covers technical issues of lighting as well as the art of lighting. Students will learn how to control and manipulate beans and shadows to create specific moods and effects. Principles of optics will be covered as they pertain to understanding lighting issues. Both studio and field lighting will be covered in detail. Prerequisites: DGMT167G and DGMT168G.

DGMT170G Production Management **2-2-3**

This course concentrates on the producer's role in film and video. Students will learn industry standards for gathering, organizing and directing resources towards production goals. Treatment and script interpretation for budget development, fundraising and project management will be covered as well as written proposals and oral presentations. Skills are developed for managing resources towards the successful completion and marketing of a video, film, or television program. Prerequisites: DGMT165G and DGMT166G.

DGMT175G Adobe Illustrator **2-2-3**

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. Prerequisite: DGMT115G.

DGMT201G Digital Editing **2-2-3**

In this course students will participate in exercises to edit various projects in Final Cut Pro. All aspects of editing will be covered including aesthetics, audio mixing, audio effects, video effects, compositing, animating, and color correction. This course covers technical aspects of video compression as it relates to the maintenance of image quality and explores the various formats for digital distribution including DVD authoring. Prerequisites: DGMT165G, DGMT167G, DGMT168G.

DGMT202G Digital Post Effects **2-2-3**

This course provides an in depth study of Adobe After Effects. Students will learn post production image manipulation for the creation of news graphics, animated logos, credits and titles, film effects and image treatments utilizing methods in composition, animation and masking. Additionally, students will learn about complex special effects used in major motion pictures. Prerequisite: DGMT201G.

DGMT205G Advanced Photoshop **2-2-3**

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. Prerequisite: DGMT135G.

DGMT215G Advanced Graphic Design **2-2-3**

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. Prerequisites: DGMT115G, DGMT135G and DGMT175G.

DGMT225G Introduction to Print Technology **2-2-3**

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. Pre-requisites: DGMT115G, DGMT135G, DGMT175G.

DGMT261G Video Production Field Study **2-2-3**

This course will provide an opportunity for students to implement a directed-study project that will focus their skills in specific areas of video/film/broadcast production. This course requires student-initiated project ideas and development prior to registration for this class. Examples of potential projects include promo/training videos for local companies, commercials for local businesses, independent narrative films, animation projects, writing a narrative film script, etc. Opportunities may be provided for Service Learning (SL) projects in the community whereby students can do video projects which benefit Great Bay

Community College partners. Prerequisite: Approval of the project by the instructor/program advisor prior to registration for this class. (PERMXXXG)

DGMT264G Expressive Web Animation **2-2-3**
Learn to use various web based applications and software to create interactive web sites, games, and applications. Building upon the skills learned in DGMT125G Introduction to Animation, students will learn advanced drawing, animation, and interactivity techniques. Students will also learn how to manipulate information, objects, text, and sound to create an interactive project. Prerequisites: CIS112G, CIS124G, and DGMT125G.

DGMT265G 3D Design and Animation **2-2-3**
Students will learn the fundamental principles that form the basis of effective 3D development. Discussion will involve the use of space, form, and color impact on computer games, computer graphics, animation, and demos. Topics will include architectural visualizations and fly-throughs, proportional systems, geometry and harmony. 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. Prerequisite: DGMT125G.

DGMT275G Advanced Video Production **2-2-3**
Continuing where DGMT165G leaves off, DGMT275G will examine various aspects of video production and editing in greater detail. Students will learn script writing, story boarding and production planning as a necessary precursor to successful video production. Production and editing issues regarding film, broadcast, commercials, corporate, event, and legal video will be discussed. Students will be required to go out into the community and provide production services for a client in the form of a commercial or business/product presentation. Advanced aspects of nonlinear editing with Adobe Premiere will be addressed in detail such as video motion manipulation, audio and video filters, and transparency keys. Prerequisite: DGMT165G.

ECE100G Early Childhood Growth and Development **3-0-3**
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.

ECE109G Art, Music, Drama and Movement in Childhood Education **3-0-3**
This course focuses on nurturing creativity in young children through the provision of developmentally-appropriate activities in the areas of art, music, dramatic play, and movement. The various methods and materials used to stimulate a young child's creative impulses will be explored.

ECE112G Curriculum Planning and Environments in ECE **3-3-4**
The emphasis of the course is planning, preparing and implementing appropriate activities and environments for preschool aged children. Students will observe the effects of space, equipment, materials, and its relationships on play, learning and discovery. There will be opportunities to plan and implement developmentally appropriate activities. Students will complete 30 hours of observation and assisting in a preschool setting as part of a lab requirement for this course. Prerequisites: ECE100G, place into ENGL110G, and permission of Program Coordinator or Course Instructor.

ECE116G Child Health, Safety, and Nutrition **3-0-3**

This course will provide the student with a variety of health, nutrition and safety concepts. These concepts will enable the individual to implement preventive health and safety practices based on New Hampshire Childcare Licensing Regulations. Students will be able to develop menus for meals and snacks which are nutritious, appealing, and age-appropriate for young children. Recognition and treatment of child-abuse victims will be addressed. It should be noted that CPR and First Aid are NOT part of this course.

ECE200G Math and Science Development in Childhood Education 3-0-3

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. Prerequisite: ECE100G, ECE112G, and 3 additional ECE credits or permission of the instructor or Program Coordinator.

ECE202G Senior Practicum: Student Teaching 2-6-4

This Practicum allows students to assume teacher responsibilities in an Early Childhood setting under guided supervision. Throughout the semester, students will practice developmentally appropriate methodology in their work with young children by planning and implementing activities and preparing an environment for their classroom. Students will complete Practicum hours at a college approved Early Childhood program. Students are usually placed with two different age groups in their senior year (i.e. infant/toddler; preschool; school-age). Prerequisites: ECE100G, 112G, 116G (ECE112G requires a C+ or better), Child Care Personnel Health Form on record with no physical or mental restrictions that indicate should not be around children; Successful background check as 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 Program Coordinator.

ECE203G Language Arts in Early Childhood Education 3-0-3

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. Prerequisite: ECE100G, 9 credits in ECE or permission of Program Coordinator.

ECE204G Developmentally-Appropriate Curriculum for Infants and Toddlers 3-0-3

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. Prerequisite: ECE100G or permission of the instructor or Program Coordinator.

ECE206G Supporting the Special Needs Child 3-0-3

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. Prerequisite: ECE100G.

ECE210G Child, Family and Community Relationships **3-0-3**
Young children's learning and development are integrally connected to their families and community. This course will use Bronfenbrenner's Ecological theory to examine the child's relationship as influenced by family composition and stress, language, and culture within their school, home and community. Students will explore ways to establish collaborative relationships with families based on trust and respect and how to use protective factors that strengthen and empower families. Appropriate methods of communication and family involvement in early childhood programs will be explored and community resources for support will be identified. Professional ethics and their role in working with children and families will be examined. Prerequisite: ECE100G and 3 additional ECE credits.

ECE212G Senior Practicum: Professional Development **1-6-3**
This Practicum allows students to continue to assume teacher responsibilities in a different Early Childhood setting than ECE202. Students will assume increasing responsibility throughout the semester by completing child observations, planning activities and preparing an appropriate environment. Students will complete Practicum hours at a college approved Early Childhood program. Students are usually placed with two different age groups in their senior year (i.e. infant/toddler; preschool; school-age). Students will complete their electronic professional portfolio as part of the final requirement for this course. Prerequisites: ECE 100G, 116G; 112G with a C+ or better; Child Care Personnel Health Form on record with no physical or mental restrictions that indicate should not be around children; Successful background check as 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 Program Coordinator.

ECE214G Appropriate Discipline and Guidance for Young Children **3-0-3**
The emphasis of the course is on the role of positive child guidance in preparing young children to become competent, confident, and cooperative individuals. Developmentally-appropriate methods of guiding children will be shared, along with effective strategies for preventing disruptive behaviors in the classroom. A recurring theme will be the impact of positive discipline on self-esteem. The influence of developmental, environmental, and health factors will be examined. Theories behind the approaches and techniques of discipline and guidance issues will be discussed. Prerequisites: ECE100G or permission of the instructor or the program coordinator.

ECE250G Childcare Administration and Management **3-0-3**
This course is designed to provide students with information on administering an early childhood education program. Students will examine diverse programs available to the community; 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. Prerequisite: 12 credits in ECE or permission of Program Coordinator.

ECON225G Personal Finance **3-0-3**
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.

ECON234G Macroeconomics **3-0-3**
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. (Fulfills Social Science requirement.)

ECON235G Microeconomics **3-0-3**
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. Prerequisite: ECON234G. (Fulfills Social Science requirement.)

ECON237G Entrepreneurship-Launching Your Business **3-0-3**
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. 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. (Fulfills Social Science requirement).

ENGL098G Developing College Writing Skills I **4-0-4**
Meeting individual needs is a primary goal of this course in which learners have the opportunity to strengthen their language skills in the unified context of the reading and writing process. Additional support is provided by structured writing workshops. Prerequisite: placement testing or a grade of C or better in ESOL100G or higher. This course may not be applied to meet Certificate or degree requirements.

ENGL099G Developing College Writing II **4-0-4**
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. Prerequisite: placement testing or a grade of C in either ENGL098G or ESOL120G or higher. This course may not be applied to meet Certificate or degree requirements.

ENGL110G College Composition I **4-0-4**
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. Prerequisite: placement testing or a grade of C or better in ENGL099G. *COLLEGE COMPOSITION I POLICY Students must pass the research component of ENGL110G College Composition I in order to pass the course.

ENGL114G Introduction to Poetry **3-0-3**
In this course, students will examine poetry in personal, historical and sociological contents. Prerequisite: ENGL110G (may be co-requisite) or equivalent. (Fulfills English or Humanities requirement.)

ENGL117G Introduction to Literature **3-0-3**
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 with which one can relate to a literary text. Prerequisites: ENGL 110G or equivalent. (Fulfills English or Humanities requirement.)

ENGL120G Introduction to African-American Literature and Culture **3-0-3**
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. Prerequisites or co-requisite: ENGL110G or equivalent. (Fulfills English or Humanities requirement.)

ENGL127G Introduction to Literary Analysis **3-0-3**
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. Prerequisite: ENGL110G or equivalent. (Fulfills English or Humanities requirement.)

ENGL200G Themes in Literature **3-0-3**
Explores topics of special or thematic interest determined on a semester basis, at a level appropriate for both students whose concentration is English, and others. Emphasis will be placed on close reading and critical writing on the substance and language of literature, literary techniques and genres. Prerequisites: ENGL 110G. (Fulfills English or Humanities requirement.)

ENGL209G American Literature through the Civil War **3-0-3**
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. Prerequisite: ENGL110G or equivalent. (Fulfills English or Humanities requirement.)

ENGL210G Oral Communications **3-0-3**
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. Prerequisite: ENGL110G or equivalent. (Fulfills English or Humanities requirement.)

ENGL212G Women's Literature **3-0-3**
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. Prerequisite: ENGL 110G College Composition I. (Fulfills English or Humanities requirement.)

ENGL213G Creative Writing **3-0-3**
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. Prerequisite: ENGL110G. (Fulfills English or Humanities requirement.)

ENGL214G Introduction to Creative Nonfiction **3-0-3**
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. Prerequisite: ENGL110G or equivalent. (Fulfills English or Humanities requirement.)

ENGL215G Writing Technical Documents **3-0-3**

An introductory course that deals with writing and speaking effectively on technical subjects. The course stresses frequent practice in planning, composing, and editing letters, memos, and reports. The course also provides practice in resume writing as well as researching, organizing and presenting material extemporaneously. Prerequisite: ENGL110G or equivalent. (Fulfills English requirement.)

ENGL220G American Literature after the Civil War **3-0-3**

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. Prerequisite: ENGL110G or equivalent. (Fulfills English or Humanities requirement.)

ENGL222G Major Writers **3-0-3**

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 co-requisite: ENGL110G: College Composition I. (Fulfills English or Humanities requirement.)

ENGL223G British Literature to 1800 **3-0-3**

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 with practice using the critical tools and vocabulary required for the study of literature. Prerequisite: ENGL110G or equivalent. (Fulfills English or Humanities requirement.)

ENGL224G British Literature from 1800 to the present **3-0-3**

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. Prerequisite: ENGL 110G: College Composition I. (Fulfills English or Humanities requirement.)

ESCI110G – Earth Science **3-3-4**

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.

FYE101G First Year Seminar **1-0-1**

This course is designed for Great Bay students during their intial year of enrollment. Pulling from the literature on best practices in student retention, the focus of this course will be on the cultivation of skills and behaviors necessary for college and career success. Course topics include study strategies, college survival, communication, self-awareness, engagement, technology, information literacy and 21st century skills, with an emphasis on habits of mind.

FYE111G First Year Seminar-BUS/HOSP **1-0-1**

This course is designed for Great Bay students during their initial year of enrollment. Pulling from the literature on best practices in student retention, the focus of this course will be on the cultivation of skills and behaviors necessary for college and career success. Course topics include study strategies, college

survival, communication, self-awareness, engagement, technology, information literacy and 21st century skills, with an emphasis on habits of mind.

FYE112G First Year Seminar Psychology **1-0-1**

This course is designed for Great Bay Psychology students during their initial year of enrollment. The focus of this course will be on the cultivation of skills and behaviors for both college and career. Course topics include study strategies, college survival, communication, self-awareness, engagement, technology, information literacy and 21st century work-place skills. An emphasis on historical research skills and citations will also be woven throughout the course.

FYE113G First Year Seminar History **1-0-1**

This course is designed for Great Bay Liberal Arts/History students during their initial year of enrollment. The focus of this course will be on the cultivation of skills and behaviors for both college and career. Course topics include study strategies, college survival, communication, self-awareness, engagement, technology, information literacy and 21st century work-place skills. An emphasis on historical research skills and citations will also be woven throughout the course.

FYE150G Essential Skills for College Success **3-0-3**

This course is designed for Great Bay students during their initial year of enrollment. The focus of this course will be on the cultivation of skills and behaviors necessary for both college and career success. Course topics include study strategies, college survival, communication, self-awareness, engagement, technology, information literacy and 21st century skills, with an emphasis on habits of mind. The difference between FYE103G and FYE101G is time devoted to study skill instruction and career exploration. FYE103G will fulfill the FYE101G requirement for GBCC programs.

FYE151G Essential Skills for College Success – Computer Technologies **3-0-3**

Similar to FYE152G, this course is designed for Great Bay students during their initial year of enrollment. The difference is that FYE104G will allow the student to spend more time exploring and practicing the skills and behaviors necessary for success in the Information Technologies field. Topics include study strategies, college survival, communication, self-awareness, engagement, technology, information literacy and 21st century skills. Prerequisite: Admission to the Computer Technologies program or permission of Program Coordinator.

FYE152G Essentials Skills for College Success - Engineering Science **3-0-3**

This course is designed for Great Bay Liberal Arts-Engineering Science students to be taken during their initial year of enrollment. Based on the Engineering profession, the focus of this course will be on the cultivation of skills and behaviors necessary for both college and career success. Topics include study strategies, college survival, communication, self-awareness, engagement, technology, information literacy and 21st century skills, with an emphasis on critical thinking. Prerequisite: Admission to the Liberal Arts-Engineering Science program. Co-requisite: First Math course taken in the program.

GEOG110G World Geography **3-0-3**

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 we look at key issues from a geographic perspective. (Fulfills Social Science requirement.)

HIST120G Western Civilization through 1500 **3-0-3**

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. (Fulfills Social Science or Humanities requirement.)

HIST130G Western Civilization-1500 to the Present **3-0-3**

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. (Fulfills Social Science or Humanities requirement.)

HIST201G History of New England **3-0-3**

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. (Fulfills Social Science requirement.)

HIST202G United States History through 1870 **3-0-3**

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 the cultural development of the American people. The course will conclude with the period of Reconstruction. (Fulfills Social Science requirement.)

HIST203G Topics in History **3-0-3**

This course will vary by semester. Historical topics will be chosen to reflect faculty and/or student interest and will then focus on an in-depth coverage of that topic. All courses will focus on historical events, forces, personalities, ideas, and values shaping the contemporary world. Critical thinking, speaking, and writing skills will be emphasized, as well as the ability to analyze historical sources. (Fulfills Social Science requirement.)

HIST204G United States History - 1870 to the Present **3-0-3**

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. (Fulfills Social Science requirement.)

HIST210G History of China **3-0-3**

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. (Fulfills Social Science requirement.)

HIST211G Modern Middle East History **3-0-3**

This course is a survey of the main political, economic, religious and political 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. (Fulfills Social Science requirement.)

HIST212G U.S. History Since 1945 **3-0-3**

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.

HIST281G History Internship **0-9-3**

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. Prerequisite: Permission of Department Chair.

HIT120G Intro to Health Information Technology **3-0-3**

This course describes the use of information technology and the role as a HIT professional in the development of the electronic health record. It provides clear understanding of health information infrastructure and systems along with health care informatics including technology, applications, and security. Prerequisites: Admission to Health Information Technology program and Placement at College Level Reading.

HIT125G Classification Systems **3-0-3**

HIT students will learn multiple terminologies, vocabularies, code set, and classification systems in detail. In addition, students will understand key systems to know how to prepare for the adoption of the electronic health record (EHR). Discover how the various data sets can be created, accessed, combined, manipulated, and shared. Prerequisites: Admission to the HIT program and C or better in the following classes AH110G, AH112G, MOAA130G.

HIT130G Electronic Health Record **2-2-3**

This course will introduce the basics of electronic health records through practical implementation; this course covers how the electronic health record impacts the job responsibilities of the medical office staff. Prerequisites: HIT120G, CIS11G, AH110G all with a grade of C or better, Admission to Health Information Technology Program and Placement at College Level Reading.

HIT140G Pharmacology for the HIT Professional **3-0-3**

This course provides the HIT student with the basic understanding of the principles and practice of pharmacology. Simulated problems and case scenarios will be based upon clinical situations documented by allied health professionals in a medical office or facility setting. Students must have an understanding of basic mathematical processes to perform practice problems with accuracy. Prerequisites: C o better in AHLT110G, C or better in AHLT112G, and acceptance into the HIT program.

HIT210G Quality Improvement **3-0-3**

Clinical documentation is the foundation of every patient health record. The HIT student will learn about clinical documentation, understand its importance, and will be able to apply documentation principles in any healthcare organization's clinical documentation improvement (CDI) program. The student will understand the key users of clinical documentation including patients, clinicians, coding professionals and reimbursement entities and how documentation affects all of these users. Prerequisites: Admission to the Medical Office Administrative Assistant or Health Information Technology program; and prerequisites/co-requisites of AH110G, AH112G, MOAA130G, HIT120G all with a C or better, and MATH145G.

HIT215G Computer Applications in Health Care **2-2-3**

This course covers the basic principles and mechanics of the electronic health record (EHR), data retrieval, software applications for healthcare and healthcare computer systems, healthcare security, and data quality. Prerequisites: Admission to the HIT program, C or better in all CIS111G, AH110G, MOAA130G (or may be co-req), and HIT130G (or may be co-req).

HIT220G Directed Practices I: PPE **0-6-2**

This course is to offer an introduction to health information technology in practice. The student will experience application issues specific to the health domain. This PPE (professional practice experience) is an opportunity for students to begin to apply theories, ideas, principles, and skills learned in the classroom to Health IT practice. Using the internship site as the organizational laboratory, the student will further develop skills for becoming a Health IT professional. This course will be offered in an 8-week format with a total of 96 hours of student/PPE site interaction. Prerequisites: HIT130G, HIT140G, HIT210G, MOAA130G, MOAA210G all with a grade of C or better. Admission to Health Information Technology program.

HIT240G Directed Practice II: PPE **0-6-2**

This course is the capstone to the Health Information Technology program. The purpose of the HIT PPE (professional practice experience) is to offer further information technology development experience for students that addresses significant application issues specific to the health domain. The internship is an opportunity for students to apply theories, ideas, principles, and skills learned in the classroom to Health IT practice. This course will be offered in an 8-week format with a total of 96 hours of student/PPE site interaction. Prerequisites: All core courses HIT120G, HIT130G, HIT140G, HIT210G, HIT215G, HIT230G, HIT220G, MOAA130G, MOAA210G and MOAA212G. Admission to Health Information Technology program.

HMSC110G Introduction to Homeland Security **3-0-3**

This course will encompass the study 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.

HMSC115G Crisis Planning, Operations, and Management **4-0-4**

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.

HMSC120G Introduction to Terrorism **3-0-3**

This course explores the nature of terrorism, the motivations of terrorists, and the tactics that terrorists use. It surveys state sponsored terrorist groups, as well as several leading past and current radical groups. The final weeks of the course will assess different methods of countering terrorism, ranging from law enforcement to covert action.

HOS110G Introduction to Hospitality Management **3-0-3**

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

HOS150G Hotel Operations **3-0-3**

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.

HOS175G Hospitality Marketing and Sales **3-0-3**

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. Prerequisite: HOS110G.

HOS210G Customer Service **3-0-3**

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.

HOS215G Planning Meetings & Conventions **3-0-3**

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.

HOS225G Hospitality Law **3-0-3**

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.

HOS230G Restaurant Development & Strategic Planning **3-0-3**

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.

HOS235G Food and Beverage Operations **3-0-3**

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.

HOS244G Introduction to the Spa Industry **3-0-3**

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.

HOS250G Event Planning **3-0-3**

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.

HOS255G Catering Sales & Event Management **3-0-3**

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.

HOS275G Professional Development **3-0-3**

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.

HOS280G Hospitality Internship **0-9-3**

The hospitality Industry internship is an opportunity for the student to experience on-the-job training at a business or professional job site. The student will self-place into an area (or sites) at which practical experience related to the hospitality industry can be acquired.

HUMA105G Introduction to Music **3-0-3**

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. (Fulfills Humanities requirement.)

HUMA117G Art History I **3-0-3**

This course surveys the history of art and design in western and non-western traditions from prehistoric to the Baroque period or 17th Century. 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. (Fulfills Humanities requirement.)

HUMA125G Visual Language **3-0-3**

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. Prerequisite: ENGL110G (may be co-requisite). (Fulfills Humanities requirement.)

HUMA127G Art History II **3-0-3**
This course surveys the history of art and design in western and non-western traditions from the 18th through the 20th century. 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. (Fulfills Humanities requirement.)

HUMA135G Children & the Media: Diversity Issues **3-0-3**
This course will explore the relationship of children to media in its social context. “Childhood” is a unique time where many images have a dramatic impact on the development of attitudes and perceptions about others. Impressions that may penetrate the subconscious are formed in children through media. This influence will be used to analyze diversity and the resulting stereotypes of religion, gender, age, race, ethnicity, disabilities, socio-economic status, and body image. Children have an innate capacity for empathy, respect, and compassion toward others; an examination of the relationship between these qualities and the perceptions of diverse issues created by the media will be completed. (Fulfills Humanities requirement.)

HUMA137G Contemporary Art History **3-0-3**
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. (Fulfills Humanities requirement.)

HUMA150G Critical Thinking **3-0-3**
This is a reading, writing, and speaking course that applies critical and creative thinking skills to controversial contemporary issues. Skills from asking incisive questions to making wise decisions are presented sequentially. The skills are then applied in analyzing and evaluating selected readings. Stress is also placed on having students develop greater confidence in their ability to make rational choices about social issues. (Fulfills Humanities requirement.)

HUMA200G Film and Society **3-0-3**
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. Prerequisite: ENGL110G. (Fulfills Humanities requirement.)

IST112G Applied Logic **2-2-3**
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.

IST113G IT Essentials: PC Hardware and Software **2-2-3**
This course presents ~~an in-depth~~ 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.

IST122G Introduction to Networks **2-2-3**
As an introduction to local area networking systems and protocols, this course is the first of a four 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.

IST123G Routing and Switching Essentials **2-2-3**
The second of a four course sequence within the Cisco Academy program is based on the Exploration 2 curriculum. A focus on the role of routing protocols within network systems explores both classful and classless distance vector and link state protocols including static, RIP, RIPv2, EIGRP, and OSPF. The impact of VLSM and CIDR on network systems is considered. Laboratory experiences include designing routed networks, configuring routing protocols for forwarding network traffic, route summarization, and route redistribution. Prerequisite: IST122G.

IST142G Virtualization Essentials **2-2-3**
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. Prerequisite: IST113G or IST122G or permission of the Instructor.

IST150G Network Operating System Fundamentals **2-2-3**
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.

IST151G Windows Network Operating Systems **2-2-3**
Windows operating systems are popular in the networking world. This course is aimed at developing competencies in installation, configuration, diagnosing and customizing Windows operating systems in networked environments. The relationship between Windows implementations and standard protocols and services as they relate to workstation systems will be emphasized.

IST161G Introduction to Information Assurance **2-2-3**

This course will provide information systems users with the basic knowledge of their role and responsibilities towards protecting information systems resources. Discussion 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.

IST200G Communication Electro-Optics **2-2-3**

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. Prerequisite: IST113G or IST122G or equivalent competencies.

IST211G PC Technician **2-2-3**

This course will prepare the student to disassemble, reassemble, repair, upgrade, and otherwise work with the hardware of computers in a hands-on environment. Students will become familiar with past and present PC architectures with a view to passing the A+ Certification hardware core examination. Topics will include installation, configuration, diagnosing, and troubleshooting PC components. Operating system core examinations will also be discussed. Prerequisite: IST113G or equivalent competencies.

IST212G Mobile Systems Architecture **2-2-3**

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.

IST220G Advanced Routing **2-2-3**

Advanced Routing continues the exploration of developing scalable IP networks using advanced implementation of VLSM, private addressing, and NAT to optimize IP address utilization. Laboratory experiences will implement the RIPv2, EIGRP, OSPF, IS-IS, and BGP routing protocols. In addition, details of the important techniques used for route filtering and route redistribution will be explored. Prerequisite: IST223G or Cisco Certified Network Associate (CCNA) certification.

IST221G Advanced Switching **2-2-3**

Multilayer Switching enables network administrators to implement appropriate technologies to build scalable multilayer switched networks; build switched networks using multilayer switching technologies; create and deploy a global intranet; and implement basic troubleshooting techniques in environments that use multilayer switches. The knowledge from this course will also enable learners to improve traffic flow, reliability, redundancy, and performance for LAN switching that are self-supported or transported via service provider. Prerequisite: IST223G or Cisco Certified Network Associate (CCNA) certification.

IST222G Scaling Networks **2-2-3**

The third of a four course sequence within the Cisco Academy program is based on the Exploration 3 curriculum. LAN switching protocols including VLANs, VTP, QoS, security and remote access management are explored. Wireless network access concepts are developed to balance ease of access with security and performance issues. Laboratory experiences involve advanced LAN configuration and testing. Prerequisite: IST122G.

IST223G Connecting Networks **2-2-3**

The last of a four course sequence within the Cisco Academy program is based on the Exploration 4 curriculum. Issues of convergence (voice, video, data) on networks are addressed in the context of WAN connectivity through PPP, HDLC, Frame Relay, and broadband WAN protocols. WAN security and efficient implementation through protocols including ACLs, DHCP, and NAT are explored. Prerequisite: IST122G and IST123G.

IST227G Advanced Troubleshooting **2-2-3**

The goal of Internetwork Troubleshooting is to provide learners with hands-on experience in troubleshooting suboptimal performance in a converged network. Proficiency in troubleshooting internetworks is an integral part of the technical requirements for networking professionals. This lab-intensive course provides extensive opportunities to work hands-on with advanced internetworking configurations. Prerequisite: IST223G or Cisco Certified Network Associate (CCNA) Certification.

IST228G Network Implementation **2-2-3**

Network design and installation methods are utilized to plan and install horizontal layer and vertical backbone networks. Networks are designed, specified, and proposed using industry documentation and cost/performance analysis techniques. Students will implement their design to create an operational network, which is analyzed to prove the effectiveness of their plan, use installation equipment, materials, and standards. Prerequisite: IST113G or IST223G or permission of instructor.

IST242G Advanced Virtualization **2-2-3**

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. Prerequisite: IST142G or Permission from Instructor.

IST245G Information Storage and Management **2-2-3**

This course provides a comprehensive introduction to storage technology including Storage Area Networks (SANs), tiered storage (CAS) and file sharing attachment (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 learn about the architectures, features, and benefits of an intelligent storage system. Topics include networked storage technologies and long-term archiving solutions, information security, 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. Prerequisites: IST113G and IST122G.

IST251G Windows Network Operating Systems Services **2-2-3**

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. Prerequisite: IST151G or equivalent competencies.

IST253G Windows Server 2008 Active Directory **2-2-3**

Windows Server 2008 Active Directory 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. Prerequisite: IST151G or equivalent competencies.

IST262G Advanced Network Security **2-2-3**

This course in the IST Security track focuses on the overall security processes 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: 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. Prerequisite: IST223G or equivalent competencies.

IST264G Configuration Security Appliance **2-2-3**

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. Prerequisite: IST223G or equivalent competencies.

IST266G Security+ **2-2-3**

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 assests. The end result of this class is to be ready to take the CompTia Security+ exam proctored by a third party. Prerequisite: IST122G or Permission from Instructor.

IST275G Network Protocols and Services **2-2-3**

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. Pre/Co-requisites: IST123G or IST113G or equivalent competencies.

IST281G Internship **1-8-3**

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. Prerequisite: 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.

IST291G IST Project **1-8-3**

The purpose of this experience is to provide qualified students 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 Information System 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.

MASS150G Physiology of Wellness **2-0-2**

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. Prerequisite: Permission of the Massage Therapy Program Coordinator. Co-requisites: MASS161G, MASS162G, MASS171G (or BIOL110G), and MASS181G.

MASS161G Principles of Massage Therapy **2-0-2**

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. Prerequisites: Permission of the Massage Therapy Program Coordinator and placement into college level reading. Co-requisites: MASS150G and MASS171G (or BIOL110G).

MASS162G Essentials of Massage Application **0-4-2**

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. Prerequisites: Prerequisites: Permission of the Massage Therapy Program Coordinator, MASS161G, and MASS171G. Co-requisites: MASS150G and MASS181G.

MASS171G Structural Anatomy and Physiology **3-2-4**

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. Prerequisites: Permission of the Massage Therapy Program Coordinator and placement into college level reading. Co-requisites: MASS150G and MASS161G.

MASS172G Visceral Anatomy and Physiology **3-2-4**

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. Prerequisites: Permission of the Massage Therapy Program Coordinator, complete MASS251G, MASS261G, MASS191G and MASS281G with a grade of C or better. Co-requisites: MASS271G, MASS192G, and HOSP244G.

MASS181G Pathology and Massage I **2-0-2**

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. Prerequisites: Permission of the Massage Therapy Program Coordinator, placement into college level reading and MASS171G. Co-requisites: MASS150G and MASS162G.

MASS182G Pathology and Massage II **2-0-2**

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. Prerequisites: Permission of the Massage Therapy Program Coordinator, complete MASS251G, MASS261G, MASS191G and MASS281G with a grade of C or better. Co-requisites: MASS271G, MASS192G, MASS172 and HOSP244G.

MASS191G Clinical Experience I **0-4-1**

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. Prerequisites: Prerequisites: Permission of the Massage Therapy Program Coordinator, complete MASS150G, MASS161G, MASS162G, MASS171G and MASS181G with a grade of C or better. Co-requisites: MASS251G, MASS261G and MASS281G.

MASS192G Clinical Experience II **0-4-1**

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. Prerequisites: Permission of the Massage Therapy Program Coordinator, complete MASS251G, MASS261G, MASS191G, and MASS281G with a grade of C or better. Co-requisites: MASS271G, MASS172G, MASS182G and HOSP244G.

MASS251G Advanced Theory and Techniques **3-4-5**

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. Prerequisites: Permission of the Massage Therapy Program Coordinator, complete MASS150G, MASS161G, MASS162G, MASS171G and MASS181G with a grade of C or better. Co-requisites: MASS261G, MASS191G and MASS281G.

MASS261G Kinesiology for Massage Therapists **3-4-5**

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. Prerequisites: Permission of the Massage Therapy Program Coordinator, complete MASS150G, MASS161G, MASS162G, MASS171G, and MASS181G with a grade of C or better. Co-requisites: MASS251G, MASS191G and MASS281G.

MASS271G Therapeutic Massage Specialties **2-2-3**

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. Prerequisites: Permission of the Massage Therapy Program Coordinator, complete MASS251G, MASS261G, MASS191G, and MASS281G with a grade of C or better. Co-requisites: MASS192G, MASS172G, MASS182G and HOSP244G.

MASS281G Ethics for Massage Therapists **1-0-1**

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. Prerequisite: Permission of the Massage Therapy Program Coordinator, complete MASS150G, MASS161G, MASS162G, MASS171G and MASS181G with a grade of C or better. Co-requisites: MASS251G, MASS261G and MASS191G.

MATH078G Developmental Algebra-K **3-0-3**

This course is for the student who possesses an adequate background in basic math concepts and skills but who has never taken an algebra course or who needs a refresher course. Topics covered are 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. This course uses Khan Academy. (this course carries 3 credits, which apply to the GPA; however, the credits do not count toward degree requirements.) Prerequisite: C or better in Math 070G or placement test or permission of instructor.

MATH080G Developmental Algebra I **3-0-3**

This course is for the student who possesses an adequate background in basic math concepts and skills, but who has never taken an algebra course or who needs a refresher course. Topics covered are 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 basic graphing techniques; and applications of all skills. Credits do not count toward graduation requirements. Credits do not count toward graduation requirements. Prerequisite: C or better in MATH070G or placement test or permission of instructor.

MATH084G Developmental Algebra **5-0-5**

This course is for the student who possesses an adequate background in basic math concepts and skills but who has never taken an algebra course or who needs a refresher course. Topics covered are operations with signed numbers; algebraic expressions; linear equations/inequalities; exponents; square roots; understanding and manipulating formulas; translating and solving word problems; interpreting/analyzing data, factoring polynomials, solving quadratic equations, solving systems of

equations, and graphing both linear and quadratic functions. Offered every semester, this course is good preparation for most credit bearing college level math courses. (This course carries 5 credits, which apply to the GPA; however, the credits do not count toward degree requirements.) Prerequisite: Satisfactory placement test scores as defined by mathematics faculty, MATH 070G with a C or better, or permission from the instructor.

MATH090G Developmental Algebra II **3-0-3**

MATH090G is a course meant to be taken by students who are not yet prepared for a course in advanced algebra and trigonometry. The course helps students further develop a knowledge foundation of basic algebraic concepts that are required to solve problems in all programs of study available at the college. The algebra topics offered are signed numbers, polynomial operations, solutions of linear equations and inequalities involving numerical and literal terms, factoring polynomials, word problems, formula manipulation, graphing linear equations, systems of linear equations and solution of equations by factoring or the quadratic formula. Credits do not count toward graduation requirements. Prerequisite: C or better in MATH078G/MATH080G or satisfactory placement test scores or permission of instructor.

MATH145G Topics in Applied College Mathematics **4-0-4**

This course focuses on quantitative thinking with real-world applications. Some topics covered are logic, number theory, number systems, algebra with applications, finance with simple and compound interest, geometry and measurement, probability and statistics, set theory, and graph theory. Prerequisites: Satisfactory placement test scores as defined by the mathematics faculty or successful completion (grade of C or better) of MATH084G or MATH090G.

MATH150G College Algebra **4-0-4**

This course prepares the student for higher-level mathematics. Some topics covered are factoring, rational exponents, solving linear and quadratic equations, rational expressions, composite and inverse functions, systems of linear and quadratic functions, geometry, matrix algebra, logarithmic functions, and exponential functions. This course also prepares the student for higher-level mathematics through the use of Trigonometry. Some topics include right triangle trigonometry, graphing, applications, identities and formulas, vectors, law of sines, and law of cosines. Prerequisite: Satisfactory placement test scores as defined by mathematics faculty or successful completion (grade of C or better) of MATH084G, MATH090G, or MATH145G. Students cannot receive credit for both MATH150G and MATH152G.

MATH152G College Algebra Plus **5-0-5**

This course prepares the student for higher-level mathematics and acts as an alternative or replacement for MATH150 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. Students cannot receive credit for both MATH150G and MATH152G. (See catalog description for MATH150G) Prerequisites: Satisfactory placement test scores as defined by the mathematics faculty or MATH084G, MATH090G or MATH145G with C or better or permission from the instructor.

MATH170G Discrete Mathematics **4-0-4**

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. Prerequisite: Satisfactory placement test scores as defined by mathematics faculty or successful completion (grade of C or better) of MATH084G, MATH090G, or MATH145G.

MATH210G Pre-Calculus **4-0-4**

This course covers advanced topics in algebra, analytic geometry, and trigonometry with the emphasis on graphic and problem solving. The major topics of study are algebraic, exponential, logarithmic, trigonometric and inverse trigonometric functions, trigonometric identities, and conic sections. Graphic calculator will be used to enhance specific functions and applications. Prerequisite: Satisfactory placement test scores as defined by the mathematics faculty or MATH150G (grade of "C" or better).

MATH215G Finite Mathematics **4-0-4**

This course begins with a review of linear equations, inequalities and systems of equations emphasizing graphing methods. Topics include matrices, linear programming, sets, and introduction to probability, the mathematics of finance, and the simplex method. Prerequisites: successful completion (grade of C or better) of MATH150G; satisfactory placement scores as defined by mathematics faculty.

MATH225G Probability and Statistics **4-0-4**

Topics include basic measures of central tendency and variability; frequency distributions; probability; the binomial distribution; the normal distribution; sampling or distributions; estimation of parameters; hypothesis testing; non-parametric tests; simple regression and correlation. Prerequisites: satisfactory placement scores as defined by the mathematics faculty or successful completion (grade of C or better) of MATH145G or higher.

MATH230G Calculus I **4-0-4**

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. Prerequisite: MATH210G with a grade of C or better.

MATH235G Statistics for Engineers and Scientists **4-0-4**

This course is Probability and Statistics intended to focus entirely 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 and model building in regression, ANOVA and Two-Way ANOVA. Use of statistical software is included. Prerequisite: MATH225G with C or better or Permission from the instructor.

MATH245G Introduction to Linear Algebra **4-0-4**

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. Prerequisite: Satisfactory placement test scores as defined by mathematics faculty, or MATH230G with a grade of "C" or better, or permission of the instructor.

MATH250G Calculus II **4-0-4**

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. Prerequisite: MATH230G with a grade of C or better.

MATH265G Differential Equations **4-0-4**

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. Prerequisite: MATH250 with a grade of "C" or higher or permission of the instructor.

MATH270G Calculus of Several Variables **4-0-4**
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. Prerequisite: MATH250G with a grade of "C" or higher or permission of the instructor.

MKTG125G Principles of Marketing **3-0-3**
This is an introductory course designed to present an overview of the complete range of marketing activities and the role of marketing in the American and international economic and social structure. The components of an organization's strategic marketing program including how to plan, price, promote, and distribute products, goods, services, ideas, people, and places will be explored.

MKTG135G Consumer Behavior **3-0-3**
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. Prerequisite: MKTG125.

MKTG205G International Marketing **3-0-3**
This course analyzes the decision-making process in marketing products, goods, and services internationally. The focus will be on the design of international marketing strategies (identification of potential markets, and product, price, promotion, and distribution decisions) within the global constraints of a particular cultural, economic and political setting. Prerequisite: MKTG125G.

MKTG210G Advertising **3-0-3**
This course will cover the development, planning, implementation, and evaluation of an advertising campaign. A primary focus will be on the development and planning of creative and media strategies. Also examined will be the dynamic changes taking place with regard to electronic media and advertising's role in the marketing of products, goods, and services. Prerequisite: MKTG125G.

MKTG224G Sales and Sales Management **3-0-3**
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. Prerequisite: MKTG125G.

MOAA120G Medical Office Administrative Assistant **3-0-3**
Medical Office Administration will teach the student to succeed in today's medical front office by learning the principles of medical office administration and how to apply factual knowledge to the many complex scenarios that may arise in the medical office environment. Emphasis will be on communication skills, ethical and legal issues, paper and electronic medical records, banking procedures and the revenue cycle. Prerequisite: Admission to the Medical Office Administrative Assistant Program.

MOAA130G Medical Coding I **3-0-3**

Medical Coding I focuses on the evaluation and management, the medicine section and also ICD-9-CM diagnosis coding aspects of coding for medical office setting. The students will be required to apply their knowledge of medical terminology to interpret and abstract pertinent data needed to accurately code the evaluation and management portion of an office or hospital visit to optimize insurance reimbursement. CPT, HCPCs and ICD-10-CM manuals will be explained and utilized extensively. Prerequisites: Admission to the Medical Office Administrative Assistant or Health Information Technology program, AH110G and AH112G both with a grade of C or better.

MOAA210G Medical Coding II **3-0-3**
This coding course focuses on surgical procedures, with individual emphasis on each of the body systems, radiology, pathology and behavioral medicine. Special attention will be paid to the use of modifiers for definitive CPT, HCPCs as well as ICD-10 diagnosis coding. Students will continue to interpret and abstract data from simulated and actual case studies. Prerequisites: C or better in MOAA130G and AH112G.

MOAA212G Insurance for the Medical Office **2-2-3**
The Medical Insurance Billing course focuses on the data entry of patient demographics, insurance information, ICD-9-CM, CPT, and HCPCs codes to properly complete the health insurance claim form for submission to the insurance carriers and facilitate prompt payment. The course will also address the legal and ethical issues involved in the field of health information management including HIPAA and OIG regulations. Prerequisites: MOAA210G and CIS110G or CIS107G.

MOAA220G Advanced Coding **2-0-2**
Advanced medical coding provides an in-depth understanding of physician-based medical coding and coding services using real-world patient cases including experience coding from physical documentation with advanced material. This course will enhance clinical decision-making skills, abstraction of information from documents, code selection and sequencing, and prepare the student for auditing medical records. Prerequisite: Grade of C or better in MOAA210G.

NATR100G Natural Resources Stewardship **3-2-4**
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. (Will not fulfill science elective requirements.) This is a Service Learning Course (SL).

NATR105G Sustainable Agriculture & Food Systems **3-2-4**
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.

NATR299G Contemporary Conservation Issues and Environmental Awareness **3-3-4**
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. Prereq: Admission to Environmental Studies Program or Instructor Signature.

NDT110G Introduction to Nondestructive Testing 2-2-3

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. Prerequisite: ACM210G with a grade of C or higher or permission of ACM Program Coordinator.

NDT210G Liquid Penetrant Testing 1-2-2

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. Prerequisite: NDT110G with a grade of C or higher.

NDT212G Ultrasonic Inspection 3-2-4

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. Prerequisite: NDT110G with grade of C or better.

NDT214G Radiographic Testing 3-2-4

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. Prerequisite: NDT110G with grade of C or better.

NURS111G Nursing I 6-9-9

Students learn the roles of the Associate Degree Nurse as a provider and manager of care and a member of the discipline of nursing. Students develop beginning intellectual, interpersonal, and psychomotor competencies to assess well clients and clients with common actual or possible health problems. The roles of the nurse, communication theory, life-span development, ethical legal standards, and nursing process are basic concepts to the practice of nursing for the Associate Degree Nurse. Students are introduced to the concept that the person is a system in dynamic interaction with the internal and external environments. The eleven Functional Health Patterns organize the study of concepts common to a basic knowledge of the client's state of wellness and possible or actual health problems. The Learning Laboratory provides opportunities to practice nursing skills in simulated activities. Clinical Learning provides experiences to practice nursing by caring for well clients or clients with common basic health

problems in protected favorable environments such as nursing homes, rehabilitation and transitional care facilities. Co-requisites: BIOL110G and PSYC110G.

NURS112G Nursing II **4-15-9**

The student develops competence to provide and manage care for clients and their families in protected favorable environments. The student provides support and teaching to the client and family and direct care for the client. The scope of the course includes the Functional Health Patterns of Sexuality - Reproductive; Role - Relationships; Nutrition - Metabolic; Health Perception, Health Management; and Activity Exercise (part I). Intellectual, interpersonal, and psychomotor competencies are further developed. Needs of clients across the life span are emphasized with special focus on adult and children in childbearing families. The student will plan to care for the client/family by utilizing the assessment database. Direct care will be provided to clients with common health problems. Laboratory Learning provides opportunities to practice more complex nursing skills in simulated activities. Clinical Learning experiences are provided for the student in perinatal/pediatric or psychiatric/ mental health, and adult health care settings. Prerequisites: Both NURS111G and BIOL110G with grades of "C+" or better, PSYC110G. Co-requisites: BIOL120G and PSYC210G.

NURS200G Advanced Placement Seminar **3-0-3**

This course provides a brief review of the following: students learn the roles of the Associate Degree Nurse as a provider and manager of care and member of the discipline of nursing. Students develop intellectual, interpersonal and psychomotor competencies to assess clients with common actual or possible alterations in health. The roles of the nurse, interpersonal relationship, life-span development, ethical legal standards, and nursing process are basic concepts to the practice of nursing for the Associate Degree Nurse. The eleven Functional Health Patterns organize the study of concepts common to a basic knowledge of the client's state of wellness and possible or actual alterations in health. Assessment and review of first level clinical skills will be covered in this course. The Learning Laboratory provides opportunities to practice nursing skills in simulated activities. Prerequisites: successful completion of the ATI LPN Step Assessment: LPN to RN examination, BIOL110G and BIOL120G with a "C+" or better, PSYC110G, PSYC210G and permission of nursing faculty.

NURS211G Nursing III **4-15-9**

The student develops competence to provide and manage care for clients and their families across the life span with common health problems. The student provides support and teaching to the client and family and direct care for the client. The scope of the course includes the Functional Health Patterns: Activity Exercise (part II); Elimination; Cognitive - Perceptual; Self - Perception; Coping-Stress Tolerance; and Value- Belief. Intellectual, interpersonal and psychomotor competencies are further developed. Laboratory Learning provides opportunities to practice increasingly complex nursing skills and basic group skills. Clinical Learning experiences are held in structured adult and psychiatric/mental health or perinatal/pediatrics care settings. 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 FYE101G. Co-requisites: BIOL210G and ENGL110G.

NURS212G Nursing IV **3-18-9**

The student develops increased competence and independence to provide and manage care for clients and families with common multisystem health problems across the life span. Nursing content includes the Functional Health Patterns of Coping- Stress; Activity-Exercise; Health Perception-Health Management; Self Perception; Role Relationships; and Cognitive -Perceptual. Additional course content includes leadership skills, health care policy and legislative advocacy. The student selects a Clinical Learning experience from predetermined, faculty-supervised structured health care settings. Laboratory Learning focuses on case presentations involving common, multisystem health problems, ethical decision making, and health care trends. Clinical Learning experiences are provided for the student in advanced medical

surgical nursing settings and community health. Prerequisites: Both NURS211G and BIOL210G with grades of "C+" or better, and ENGL110G.

PHIL110G Introduction to Philosophy **3-0-3**

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. (Fulfills Humanities requirement.)

PHIL215G World Religions **3-0-3**

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 world-view 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.). (Fulfills Humanities requirement.)

PHIL240G Ethics **3-0-3**

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. (Fulfills Humanities requirement.)

PHYS135G College Physics I **3-3-4**

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. Prerequisite: "C" or better in MATH150G or equivalent.

PHYS136G College Physics II **3-3-4**

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. Prerequisite: "C" or better in MATH210 or equivalent and PHYS135G.

PHYS290G University Physics I **3-3-4**

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. Prerequisite: Grade of "C" or better in MATH230G or equivalent.

PHYS295G University Physics II **3-3-4**

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. Prerequisite: Grade of "C" or better in PHYS290G.

POLS110G American Government **3-0-3**
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. (Fulfills Social Science requirement.)

POLS210G Introduction to Political Science **3-0-3**
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. (Fulfills Social Science requirement.)

POLS220G Public Administration **3-0-3**
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. (Fulfills Social Science requirement.)

PSYC110G Introduction to Psychology **3-0-3**
This course is an introduction to various areas of psychology, including scientific investigation 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. (Fulfills Social Science requirement.)

PSYC205G Crisis Intervention **3-0-3**
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. Prerequisite: PSYC110G. (Fulfills Social Science requirement.)

PSYC210G Human Growth and Development **3-0-3**
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. Prerequisite: PSYC110G. (Fulfills Social Science requirement.)

PSYC215G Abnormal Psychology **3-0-3**
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. PSYC110G. (Fulfills Social Science requirement.)

PSYC230G Educational Psychology **3-0-3**
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. Prerequisite: PSYC110G. (Fulfills Social Science requirement.)

PSYC235G Health Psychology **3-0-3**

This course focuses on health empowerment coping styles of resiliency and characteristics of invulnerability. It is designed to meet the needs of professionals, significant others, and individuals themselves who are attempting to affect the quality of life outcomes of addiction, trauma, long-term stressors, and/or disease. This course brings awareness of factors and behavioral methods which facilitate a resilient, thrive mode of quality of life that is very different in nature and practice from that of the coping style of psychosocial survival. Prerequisite: PSYC110G. (Fulfills Social Science requirement.)

PSYC241G Social Science Research Methods **3-0-3**

This course provides an overview of the research design process in the social sciences. Students will design and implement their own 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. Prerequisite: ENGL110G.

PSYC281G Psychology Internship **0-9-3**

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. Prerequisite: PSYC110G & Permission of Department Chair.

SOCI110G Sociology **3-0-3**

This course will provide an introduction to the concepts and principles of sociology. The basic social units of society and how they interact are studied in order to understand and appreciate the contributions of sociology to the field of social behavior. Social changes and its causes and effects will also be addressed. (Fulfills Social Science requirement.)

SOCI120G Society and Technological Change **3-0-3**

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. (Fulfills Social Science requirement.)

SOCI135G Sociology of Gender **3-0-3**

This course will provide an introduction to the concepts and principles of the sociology of gender. Within a sociological 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.

SOCI250G Multi Ethnic Cross-Cultural Relations **3-0-3**

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. (Fulfills Social Science requirement.)

SOCI281G Sociology Internship **0-9-3**

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. Prerequisite: SOCI110G & Permission of Department Chair.

SPAN110G Spanish I **4-0-4**

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. (Fulfills Foreign Language requirement.)

SPAN120G Spanish II **4-0-4**

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. Prerequisite: SPAN110G or equivalent. (Fulfills Foreign Language requirement.)

SURG115G Basic Instrumentation, Supplies and Equipment **0-3-1**

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. Prerequisite: Admission to Surgical Technology Program. Co-requisite: SURG118G and SURG119G.

SURG116G Advanced Instrumentation, Supplies and Equipment **0-3-1**

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. Prerequisites: Admission to Surgical Technology Program, C or better in SURG 115G, SURG118G, and SURG119G. Co-requisite: SURG121G and SURG122G.

SURG118G Surgical Technology Fundamentals Lecture **6-0-6**

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. Prerequisite: Admission to Surgical Technology Program. Co-requisites: AH110G, BIOL110G, MATH145G, SURG115G, and SURG119G.

SURG119G Surgical Technology Fundamentals Lab **0-3-1**

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. Prerequisite: Admission to Surgical Technology Program. Co-requisites: AH110G, BIOL110G, MATH145G, SURG115G, and SURG118G.

SURG121G Surgical Procedure I Lecture **3-0-3**

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. Prerequisite: Admission to Surgical Technology Program, C or better in AH110G, SURG115G, SURG118G, and SURG119G. Co-requisites: SURG116G and SURG122G.

SURG122G Surgical Procedure I Lab **0-3-1**

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. Prerequisites: Admission to Surgical Technology Program, C or better in AH110G, SURG115G, SURG118G, and SURG119G. Co-requisites: SURG116G and SURG121G.

SURG123G Orientation to Surgical Clinical **0-6-2**

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 SURG 120 Surgical Procedures I. Forty hours are spent for two weeks in assigned clinical areas. The student is expected to document learning experiences on a daily basis utilizing a journal, their Surgical Case Logs, Preceptor Evaluations and Case Study Reports. Prerequisites: Admission to Surgical Technology Program, C or better in SURG116G, SURG121G and SURG122G.

SURG210G Surgical Procedures II **3-0-3**

This course builds on information acquired during the Spring Semester Surgical Clinical I. Surgical procedures are studied in a unit-by-unit basis according to surgical categories and patient populations. 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/drugs related to specialties will also be addressed. Prerequisite: Admission to Surgical Technology Program, Pass in SURG123G, C or better in both MATH145G and BIOL110G. Co-requisite: SURG215G.

SURG215G Surgical Clinical I **0-32-8**

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, SURG121G and SURG122G. Twenty-four hours are spent each week in assigned clinical areas. The student is expected to document learning experiences on a daily basis utilizing a journal, their Surgical Case Logs, Preceptor Evaluations and Case Study Reports. Prerequisites: Admission to Surgical Technology Program, Pass in SURG123G, and C or better in both MATH145G and BIOL110G. Co-requisite: SURG210G.

SURG224G Surgical Procedures III/Special Considerations in Surgery **4-0-4**

A continuation of Surgical Procedures II. Students complete the theory portion of their clinical specialties with management of emergency situations, biotechnical science, physics, robotics, laser and other current technologies, resume writing and tips for a successful job interview. Prerequisite: Admission to Surgical Technology program, Pass in SURG215G and C or better in following courses: SURG210G, BIOL120G and BIOL210G. Co-requisite: SURG225G.

SURG225G Surgical Clinical II **0-24-8**

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. Twenty-four hours are spent each week in assigned clinical areas. The student is expected to document learning experiences on a daily basis utilizing a journal, their Surgical Case Logs, Preceptor Evaluations and Case Study Reports. Prerequisite: Admission to Surgical Technology program, Pass in SURG215G and C or better in following courses: SURG210G, BIOL120G and BIOL210G. Co-requisite: SURG224G.

TCHP101G Introduction to Exceptionalities **3-0-3**

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 will also provide a foundation for further courses in the area of special education.

TCHP104G Foundations of Education **3-0-3**

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 affects on education in the K-12 setting. Students will be encouraged to reflect on the art of teaching. This course requires 20 hours of observations in a classroom setting.

TCHP105G Accommodations for Math Instruction **3-0-3**

This course will provide educators with the tools needed to promote success within the K-12 mathematics classroom for a variety of learner needs. Students will be provided an overview of the importance of communication and collaboration within the classroom setting. An emphasis on the needs of the learner will be included. This course will provide an in-depth analysis of the accommodations needed within the K-12 mathematics classroom. A variety of general and specific accommodations will be introduced, demonstrated and incorporated into coursework.

TCHP201G The Teaching & Learning Process **3-0-3**

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. Prerequisite: TCHP104G.

TCHP203G Language, Linguistics, &Literacy **3-0-3**

This course will provide students with an in-depth study of language: acquisition, instruction, forms, terms, and process. A broad theoretical foundation will be given to promote a focus on literacy in today's classroom to meet the diverse needs of the English language learner. Prerequisites: TCHP104G or both ECE104G and ECE100G.

TCHP205G Technology in Education **3-0-3**

This course will provide students with strategies to incorporate the use of technology into the classroom. As emphasis will be placed on technology as a tool that facilitates learning and enhances the teaching

process. Students will explore the value of technology as it directly relates to student achievement, professional growth, and classroom management. Prerequisites: CIS110G or CIS107G or Computer Literacy Placement testing above CIS110G or CIS107G.

TCHP207G Topics in Special Education **3-0-3**

There are many factors that influence a teacher's ability to be successful in the classroom. This course will provide students with an in-depth analysis of essential elements of the teaching profession within the special education process. Students will investigate and reflect on a variety of factors that affect student success: methods of instruction, collaboration, ethical standards, the family's role in education, and political and societal influences on education. This course is appropriate for students seeking a career in a childcare or public school setting. Prerequisites: TCHP104G or ECE104G & ECE112G.

TCHP215G Behavioral Challenges in the Classroom **3-0-3**

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. Prerequisites: TCHP101G & TCHP104G or ECE104G & ECE206G.

TCHP220G Families and Professionals in Special Education **3-0-3**

This course will provide students with an in-depth analysis of the special education team members and the families involved with the process. Special education is a team approach. Educators must become aware of the benefits of working with a team and the responsibilities of being part of that team. The family is an essential part of this approach. Strategies to enhance collaboration; develop communication skills; and build the home-school connection will be explored. Prerequisites: TCHP101G & TCHP104G or ECE104G & ECE206G.

TCHP225G Curriculum Planning and Implementation for Inclusion **3-0-3**

This course will provide students with an overview of effective instructional designs, methods, strategies, assessments, and assistive techniques to meet the needs of students with disabilities. An emphasis on inclusion and working with students in the general education classroom will be provided. It is essential that educators develop a repertoire of teaching strategies to value the strengths and meet the diverse needs of students in today's classrooms. The practice of inclusion involves accommodating the curriculum to meet the individual needs of all students in the environment most conducive to learning. This course requires 15 hours of observations in a special education or general education classroom setting. Prerequisites: TCHP101G & TCHP104G or ECE104G & ECE206G.

VETN110G Introduction to Veterinary Technology **2-0-2**

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 prescriptions. Handling various customer 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. A 12 hour service learning component will be completed at the NHSPCA. Prerequisite: Acceptance into the Veterinary Technology program or acceptance in the Veterinary Practice Management certificate program. Corequisite: VETN112G Computer Applications in Veterinary Medicine (For Veterinary Technology program).

VETN112G Computer Applications in Veterinary Medicine **1-0-1**

Students will use a fully integrated, hands-on approach to understand the use of computer technology in the Veterinary setting. Students will gain proficiency in the Windows operating system environment, and learn the elements of Veterinary application software. Students will also explore software applications relevant to veterinary practice including word processing, spreadsheets, and presentation software. Students will explore various facets of the Internet as used in veterinary practice for research, client education and information. Prerequisite: Admission to the Veterinary Technology Program.

VETN114G Veterinary Pharmacology **2-0-2**

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 client education, side effects and dosage calculations. Prerequisites: C+ or better in both BIOL111G and VETN110G. Co-requisites: BIOL121G and VETN121G.

VETN121G Veterinary Clinical Methods I **3-3-4**

Small animal medical nursing procedures are introduced. Elements include restraint, aspects of the history and physical exam, specimen collection, administration of medications and treatments, diseases, nutritional supplementation, and the basics of preventative health care. 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. Prerequisite: C+ or better VETN110G, VETN 112G and BIOL111G. Coreqiusite: BIOL121G.

VETN130G Veterinary Clinical Affiliation I **0-24-4**

This eight-week summer session provides students with supervised hands-on work experience with live animals in selected clinical settings. Following sequential steps from basic to complex, learners build correlation of theoretical content to clinical performance. Students will be required to volunteer at one spay/neuter clinic during the Clinical Affiliation. The participating clinics will be pre-arranged by VETN faculty and the associated animal rescue by VETN faculty and the associated animal rescue organizations and/or shelters. VETN faculty will be present at the clinics to instruct and supervise the students. Prerequisites: "C+" or better in VETN110G, VETN112G, VETN114G, VETN121G, BIOL111G, BIOL121G.

VETN210G Veterinary Clinical Methods II **3-3-4**

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. Prerequisites: Complete VETN110G, 112G, 114G, 121G with a C+ or better and successfully complete VETN130G Clinical Affiliation I.

VETN212G Laboratory Animal Science **2-2-3**

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. Prerequisite: VETN130G.

VETN 214G Veterinary Pharmacology II **1-0-1**

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. VETN114G, BIOL121G and VETN121G with a C+ or better.

VETN215G Large Animal Management **2-2-3**

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. Prerequisite: VETN130G.

VETN220G Veterinary Clinical Pathology I **2-3-3**

An overview of the study of disease processes as well as veterinary diagnostic tests and laboratory technique will be provided in this course. Hands-on laboratory experience is gained in areas of, hematology, parasitology and urinalysis and cytology. Prerequisite: VETN130G, CHEM110G (or CHEM115G); or permission of the Instructor.

VETN221G Veterinary Clinical Pathology II **2-3-3**

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. Prerequisite: C+ or better in VETN220G.

VETN222G Veterinary Clinical Affiliation II **0-24-6**

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. Prerequisite: "C+" or better in VETN210G, VETN212G, VETN215G, VETN220G.

VETN 224G Veterinary Diagnostic Imaging **1-3-2**

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. Prerequisite: VETN130G.

VETN225G Veterinary Practice Law **2-0-2**

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. Prerequisite: Completion of VETN110G, 112G, 114G and 121G with a C+ or better; or fulfill criteria required for admission to the Veterinary Practice Management Certificate.

VETN226G Small Animal Behavior **2-0-2**

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. Prerequisites: Complete VETN110G, 112G, 114G, and 121G with a C+ or better or permission of Dept. Chair.

VETN227G Veterinary Emergency Medicine **1-2-2**

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). Prerequisites: Complete VETN110G, 112G, 114G, 121G, BIOL111G and BIOL121G with a C+ or better or permission of Dept. Chair.

WELD100G Basic Welding Technologies **5-3-6**

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.

WELD150G Intermediate Welding Technologies **3-6-6**

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 blue print 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. Prerequisite: WELD100G.

WELD200G Advanced Welding Technologies **3-6-6**

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. Prerequisite: Intermediate Welding Technologies.

PERSONNEL DIRECTORY

CCSNH BOARD OF TRUSTEES & GBCC COLLEGE ADVISORY BOARD

STATE OF NEW HAMPSHIRE

Governor

The Honorable Margaret Wood Hassan

The Executive Council

District 1 Joseph D. Kenney
District 2 Colin Van Ostern
District 3 Christopher T. Sununu
District 4 Christopher C. Pappas
District 5 David K. Wheeler

Community College System of New Hampshire

Chancellor

Dr. Ross Gittell

Board of Trustees

Paul Holloway, Chair
Katharine Bogle Shields, Vice Chair
Kim Trisciani, Secretary
Robert Duhaime, Treasurer
Jack Calhoun, IV
Allen Damren
Ned Densmore
Stephen Ellis
Stephen Guyer
Richard Heath
Jeremy Hitchcock
Tricia H. Lucas, Esq.
Claudette Mahar
Nathan Wells
David C. Paquette
Dr. Rafael Rojas, Jr.
Steve Rothenberg
Angela Roussel-Roberge
Connie Roy-Czyzowski
Susan Siegel
Alison Stebbins
John Stevens

Ex Officio

Governor Maggie Hassan
Dr. Ross Gittell, Chancellor
Commissioner Virginia M. Barry, Department of Education
Commissioner George Copadis, New Hampshire Employment Security
Commissioner Jeffrey Rose, Department of Resources and Economic Development
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, Chair
President
Strong Resource Group

Christine Carberry, Past Chair
Vice President,- Technical Operations; Program & Alliance Management
FORUMPharma

Doug Bates
Retired from Greater Portsmouth Chamber of Commerce

Catalina Celentano
Community Relations Specialist, New Hampshire – Eastern Region

Mark Galvin
Serial Entrepreneur

Anne Jamieson
Chief Executive Officer
Portsmouth Regional Hospital

Rep. Norman Major
Representative, House of Representatives
State of New Hampshire

Amy Monk, Esq.
Senior Legal and Compliance Counsel
Albany International Corp.
Jeni Mosca
SAU56 – Superintendent of Schools

Kathi Mullin
Vice Provost for Strategic Partnerships & Initiatives
University of New Hampshire

Laurie Murray
RN/ICU Exeter Hospital
President, GBCC Alumni Association

Nancy Pierce
Principal (retired), Seacoast School of Technology

Karen Pollard
Economic Development Manager
City of Rochester

Timothy Spinney
Guidance Counselor
Winnacunnet High School

Sen. Nancy Stiles
Senator, New Hampshire State Senate
State of New Hampshire

Mark R. Windt, M.D.
Center for Asthma, Allergy and Respiratory Disease, P.L.L.C.

Erin Flanigan
VP, Chief HR Officer, Wentworth-Douglass Health System

Kevin Davis
CEO, Performance Sports Group

Will Arvelo
President, Great Bay Community College

ADMINISTRATION

Dr. Wildolfo Arvelo
President
B.A., University of Massachusetts-Boston;
M.S., University of Massachusetts-Boston;
Ed.D., University of Massachusetts-Boston

Dr. Bruce E. Baker
Director of the Rochester ATAC Center
B.S., University of Massachusetts;
M.S., Northeastern University;
Ph.D., Boston College

Dr. Sarah Bedingfield
Vice President of Student Affairs
B.S., Skidmore College;
M.S., University of North Carolina;
C.A.G.S., Rivier College;
Ed.D., Rivier University

Joanne Berry
Chief Financial Officer
A.S., NHCTC/Stratham;
B.S., Franklin University

Michael Fischer
Assoc. VP Student Affairs
B.S., Springfield College;
M.A., Kaplan University

Paul Petritis
Vice President of Academic Affairs
B.A., Keene State College;
M.Ed. Antioch University New England

ACADEMIC AFFAIRS

Paul Petritis
Vice President of Academic Affairs
B.A., Keene State College;
M.Ed., Antioch University New England

Karen Burns
Assistant to VP of Academic Affairs
A.S., Casco Bay College

Frances Chickering
Director of Institutional Research
B.A., Wheaton College;
M.A., University of Colorado at Denver

Rachel Denmore
Faculty Secretary

Marjorie Wharmby
Running Start Coordinator
B.A., University of New Hampshire

ADVISING CENTER

Deanna Friedman
Director of Advising
B.S., University of New Haven;
M.S., University of New Haven

Erica Brown
Academic Advisor
Career/Transfer Coordinator
B.A., University of New Hampshire;
M.A. and M.Ed., University of New Hampshire

Margaret Duffy-Durkin
Academic Advisor
Outreach Advisor for Portsmouth Naval Shipyard
B.A., University of New Hampshire; Secondary Certification, Salem State College
M.S., University of Southern Maine

Sarah Follansbee
Academic Advising Liaison
B.A., Northeastern University

Kathy Yazinka
Academic Advisor
CPA Coordinator
A.S., Middlesex Community College;
B.S., Daniel Webster College;
M.Ed., University of New Hampshire

BUSINESS AND TRAINING CENTER

Sean Clancy
Associate Vice President of Corporate and Community Education
B.S., B.A., Nichols College
M.A., Southern Methodist University

Kathleen Totten
Director, Community Education
B.A., University of New Hampshire

Abigail Gaul,
Project SEARCH Instructor/Coordinator
B.A., Binghamton University
M.Ed., University of NH

Randy Bolduc
Advanced Manufacturing Program Manager
B.S., Hesser College;
M.S., Southern NH University

Teresa Lengyel
BTC Program Assistant
B.S., University of Rhode Island

BUSINESS OFFICE

Joanne Berry
Chief Financial Officer
A.S., NHCTC/Stratham;
B.S., Franklin University

Raymond Biondi
Accountant
A.S., McIntosh College;
B.S., New England College

Robert Busso, Jr.
Stock Clerk III
A.S., NHCTC/Stratham

Jennifer Gervais
Account Services Representative
B.A., University of Maine at Presque Isle

Joan Montini
Accounting Technician

CAMPUS SAFETY

Michael Golding
Evening/Weekend Supervisor
B.S. Northeastern University

Mark Brave
Security Officer

CENTER FOR ACADEMIC PLANNING AND SUPPORT

Sharon Cronin
Director
B.A., Colgate University;
M.S., State University of New York at Albany

Chelsea Jackman
College Readiness & Tutor Coordinator

B.S., Central Michigan University
M.A., University of Denver

Karen Frisbie
Coordinator of Disability Support Services
B.A., Dowling College;
M.Ed., Plymouth State University

Jody Mancini
Student Success Mentor
B.A. University of Southern ME

Diana Varga
ESOL-International Coordinator
B.A., University of New Hampshire

Tracy Young
CAPS Program Assistant
A.S., NHCTC/Stratham

CENTER FOR TEACHING AND LEARNING

Diane J. King
Director, Center for Teaching & Learning
B.A., Rivier College;
M.A., Lesley University

HUMAN RESOURCES

Ashley Rennie
Human Resource Coordinator
A.A., Great Bay Community College

INFORMATION TECHNOLOGY

Michael McNeil
Interim Coordinator of Campus Technology
A.S., NHCTC/Stratham

Lee Kenyon
Technical Support Specialist
A.S., NHCTC/Stratham

Edmond Mayrand
Technical Support Specialist
A.A., University of New Hampshire;
A.A.S., NHCTC/Stratham;
B.S., Granite State College

Geoffrey Stone

Technical Support Specialist

LIBRARY

Rebecca J. Clerkin
Director of Library and Media Services
B.A. and M.S., Simmons College

William Gleed
Library Aid
A.A., Great Bay Community College

Joseph Mayo
Library Technician
B.A., St. Thomas University

MAINTENANCE

Stephen Davis
Plant Maintenance Engineer
A.A.S., NHCTC-Manchester

James E. Cummings
Building Service Worker

Tom McCawley
Maintenance Mechanic

Tom Mears
Building Service Worker

John Vermette
Maintenance Mechanic II

PRESIDENT'S OFFICE

Dr. Wildolfo Arvelo
President
B.A., University of Massachusetts-Boston;
M.S., University of Massachusetts-Boston;
Ed.D., University of Massachusetts-Boston

Joan Belladue
Assistant to the President
Certificate, Great Bay Community College

ENROLLMENT MANAGEMENT AND STUDENT SERVICES

Dr. Sarah Bedingfield
Vice President of Student Affairs

B.S., Skidmore College;
M.S., University of North Carolina;
C.A.G.S., Rivier College;
Ed.D., Rivier College

Michael Fischer
Assoc. VP Student Affairs
B.S., Springfield College;
M.A., Kaplan University

Allyson Britton
Assistant Director of Student Life
B.A. and M.A., University of Bridgeport

Michael Golding
Evening/Weekend Supervisor
B.S., Northeastern University

Sara Poulin
Student Life Assistant
Civic Engagement and Student leadership Assistant
A.A., Great Bay Community College

ADMISSIONS OFFICE

Carey Walker
Director of Admissions
B.A., University of New Hampshire;
M.B.A., Kaplan University

Natalie Girouard
Admissions Counselor
B.A., Keene State College

Chelsea Astfalk
Admissions Assistant
B.A., Biola University

Laura Williams
Admissions Counselor
B.A., University of New Hampshire
M.Ed., University of New Hampshire

Stephanie Riotto
Admissions Representative
A.B Miami University
B.A., Miami University

COLLEGE SERVICES ONE STOP

Rae Eldridge
College Services Representative
Rochester Advanced Technology & Academic Center

Geoffrey Grinnell
College Services Representative
B.S., Roger Williams University

C. Richard Harris
College Services Representative
A.A., Great Bay Community College;
B.A., Granite State College

FINANCIAL AID OFFICE

Margaret Kelly
Director Financial Aid
B.A. Wheelock College
M.Ed. Northeastern University

Elaine Hersey
Financial Aid Assistant
A.A., NHCTC/Stratham

Lisa Howe
Financial Aid Assistant

MARKETING-PUBLIC RELATIONS/CREATIVE SERVICES

Josh Ketchen
Graphic Designer
A.A., Northern Essex Community College

Michael McNeil
Coordinator of Campus Technology
A.S., NHCTC/Stratham

Lisa Proulx
Programs Information Officer
B.A., St. Anselm College

Myra Warner
Web and Social Media Specialist
B.A., University of Maine

REGISTRAR'S OFFICE

Sandra Ho
Registrar

A.S., McIntosh College;
B.A., Middlebury College

Debra Lancaster
VA and Military Liaison / Assistant Registrar
A.S., NHCTC/Stratham

Michael Heath
Assistant Registrar
A.S., NH Technical Institute;
B.A., University of New Hampshire

Timothy Dubuque
Banner Database Coordinator
B.S., University of New Hampshire;
M.Ed., Lesley College

ROCHESTER CAMPUS - ATAC

Dr. Bruce E. Baker
Director of the Rochester ATAC Center
B.S., University of Massachusetts;
M.S., Northeastern University;
Ph.D., Boston College

Debra Mattson
Advanced Materials Manufacturing Program Director/Designer
B.S., University of New Hampshire;
M.S.B., Husson University;
M.Ed., University of Southern Maine

Jenna Anand
Enrollment & Academic Support Counselor
Rochester Advanced Technology & Academic Center
B.A., SUNY Fredonia;
M.S., New England College

Dave Barry
Lab Assistant

Bret Blanchard
Instructor, Advanced Manufacturing
B.S., University of Southern Maine

Peter Dow
Instructor, Advanced Manufacturing
B.A., New College of Florida

Matthew James
Evening/Weekend Supervisor

A.A., Cabrillo College;
B.A., University of California

Carol Lanoue
ACM Program Secretary
A.S., McIntosh College

Julie Lapierre
Teacher's Aide

Kerrie McCarthy
Office Manager
Rochester Advanced Technology & Academic Center

Andrew Savage
Account Services Representative
B.A., Saint Anselm College;
M.S., Southern NH University

Jonathan Theberge
Program Coordinator, Welding
B.S., Southern NH University

Sara Tower
Instructor, Advanced Manufacturing
B.A., Wheaton College

WORKREADYNH

Christina Wall
WorkReadyNH Director
B.A., Franklin Pierce University;
M.Ed., Plymouth State University

Gayle Chiodo
WorkReadyNH Program Assistant
B.S., Merrimack College;
M.B.A., Simmons School of Management

PROGRAMS OF STUDY

AVIATION TECHNOLOGY HELICOPTER

Bruce Cultrera
Aviation Department Chair
B.S., United States Air Force Academy, University of New Hampshire

Kevin Beaulieu
Supervisory Chief Instructor of Aviation Technology

Commercial Pilot, Flight Instructor
A.A.S., Yavapai College

Matt Hall
Supervisory Chief Instructor of Aviation Technology
Commercial Pilot, Flight Instructor
B.S., Embry-Riddle Aeronautical University, Worldwide Online

Eric Hanel
Commercial Pilot, Flight Instructor
Flight Instructor of Aviation Technology

Lee McKay
Senior Flight Instructor of Aviation Technology
Commercial Pilot, Flight Instructor
A.A.S., Yavapai College

Julianna Schopper
Private Pilot, Flight Instructor
Flight Instructor of Aviation Technology
B.A., Emerson College

BUSINESS ADMINISTRATION AND INFORMATION TECHNOLOGIES

Monique Jordan
Business Department Chair
B.S., Endicott College
M.Ed., Southern New Hampshire University

HOSPITALITY MANAGEMENT

Dawn Comito
Program Coordinator/ Professor, Hospitality
B.A., University of New Hampshire;
M.S., Southern NH University

COMPUTER TECHNOLOGIES

Meg Prescott
Program Coordinator/Associate Professor, Computer Technologies
B.A., University of Maine

CRIMINAL JUSTICE AND HOMELAND SECURITY

Monique Graf
Chairperson/Professor, Criminal Justice/Homeland Security
A.S., Northern Essex Community College;
B.S. and M.A., University of Massachusetts-Lowell

FINE ARTS AND DIGITAL MEDIA TECHNOLOGY

Annette Cohen
Program Coordinator/Professor
B.A., Massachusetts College of Art;

M.Ed. and Ph.D., Antioch University

EARLY CHILDHOOD EDUCATION

Anita Ward French
Program Coordinator/Professor
Early Childhood Education
B.S. and M.Ed., University of New Hampshire

EDUCATION

LIBERAL ARTS - TEACHER PREPERATION

Patricia Corbett
Chairperson/Professor, Teacher Preparation
B.A., St. Anselm's College;
M.S., University of New England

INFORMATION SYSTEMS TECHNOLOGY

Kevin Behnke
Program Coordinator/ Professor
Information Systems Technology
B.S., Westbrook College;
M.S., New Hampshire College;
M.B.A., Plymouth State College

Michael Harrison
Associate Professor
Information Systems Technology
B.S.E.E., Northfield University

LIBERAL ARTS - ENGLISH AND HUMANITIES

Richard Walters
Chairperson/Professor, English/Humanities
B.A., University of New Hampshire;
M.A., Boston College;
Ph.D., University of New Hampshire

Emily Hinnov
Associate Professor, English
B.A., Allegheny College;
M.A., Simmons College;
Ph.D., University of New Hampshire

Cynthia Walton
Associate Professor, English
B.A., University of Massachusetts
M.A., Simmons College

LIBERAL ARTS - MATH

D. Scott Hewitt
Chairperson/Professor, Math
B.S., SUNY Brockport;
M.S., University of New Hampshire

Mary Rudis
Professor, Math
B.S., University of Scranton;
M.S., Lehigh University

LIBERAL ARTS – LIFE AND PHYSICAL SCIENCES

Kim Williams
Chairperson/ Professor, Biological Science
B.S. and 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/Co-Program Coordinator, Biotechnology
B.S., Brown University;
M.S., University of New Hampshire

Catherine Ennis
Professor/Co-Program Coordinator, Biological Science
B.S. and M.S., University of New Hampshire

Michael Gordon
Program Coordinator/Professor, 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

Barry W. Spracklin
Professor, Biological Science
B.A. and M.S., Northeastern University;
Ph.D., University of New Hampshire

David Harper Wilson
Associate Professor, Biological Science

Environmental Science
B.S. Radford College;
M.S. University of New Hampshire

Candace Dolan
Coordinator of NH Phytoplankton Monitoring
B.S., Granite State College

Robert O'Brien
Laboratory Assistant
A.S., NHCTC/Stratham;
A.A.S., Northern Essex Community College

NURSING

Lisa McCurley
Chairperson/Professor, Nursing
B.S. University of Lowell;
M.S. University of Massachusetts-Boston;
CS-ANP, University of Massachusetts-Worcester

Nancy DeSotto
Professor, Nursing
B.S.N. and M.S.N., University of New Hampshire;
D.N.P., Case Western Reserve University

Dulcinea Kaufman
Professor, Nursing
B.S., Simmons College;
M.S., Northeastern University;
D.N.P., Northeastern University

Kelly McDonough
Professor, Nursing
B.S., University of New Hampshire;
B.S.N., Salem State College;
M.S.N., University of New Hampshire

Lorraine Mancuso
Professor, Nursing
B.S.N., University of Rhode Island;
M.S.N., University of Phoenix

Carrie Marchand
Professor, Nursing
B.S., University of Massachusetts- Lowell;
M.S., F.N.P., Rivier College

Laurie Murray
Professor, Nursing

B.S.,
M.S.N.,

SOCIAL SCIENCES AND EDUCATION

Patricia Corbett
Chairperson/Professor, Social Sciences
B.A., St. Anselm's College;
M.S., University of New England

SURGICAL TECHNOLOGY

Kristin Whitney, CST
Program Coordinator, Surgical Technology
A.A.S., Great Bay Community College

VETERINARY TECHNOLOGY

Deborah Discher
Program Coordinator/Professor,
Professor, Veterinary Technology
B.S., Rutgers University;
D.V.M., University of Minnesota