2018-2019

Academic Catalog

379 Belmont Road, Laconia NH 03246
603-524-3207 www.lrcc.edu

LAKES REGION
Community College

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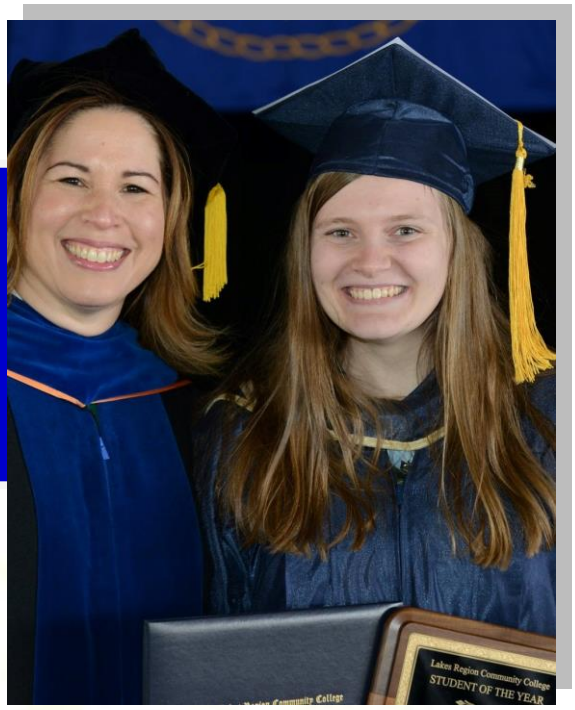
A Message from the President



Welcome to Lakes Region Community College (LRCC)! LRCC is a small, student-centered institution nestled among the mountains and lakes of the beautiful Lakes Region of New Hampshire. Here you will find degree programs as diverse as Fire Science and Fine Arts, as well as, non-degree offerings to give you the skills you need to open-up new career options or develop life-long passions. Yet, what truly distinguishes LRCC is its people. Our faculty and staff believe in our mission to serve and that our work will transform lives.

I share that belief because as a first generation college graduate I know first-hand that a college education uncovers new worlds to explore and career pathways that you have yet to imagine. LRCC is here to help you discover and attain the skills necessary to pursue what right now may only be dreams. LRCC is also here to respond to the needs of local employers and help provide the skilled workforce that is critical to building and supporting strong and economically vibrant communities.

Thank you for allowing LRCC help you discover the boundless possibilities that lie ahead!

Larissa R. Baía, Ph.D.
President

ASSOCIATE DEGREES

Accounting
Advanced Manufacturing
Automotive Service Education Program (ASEP GM)
Automotive Technology
Business Management
Computer Technologies
Culinary Arts
Early Childhood Education
Electrical Power and Control Technologies
Electrical Systems Installation and Maintenance
Electro-Mechanical Technologies
Fine Arts
Fire Protection
Fire Science
General Studies
Graphic Design
Health Information Technologies
Hospitality Management
Human Services
Human Services-Concentration in Gerontology
Liberal Arts
Liberal Arts- Health Science
Marine Technology
Nursing
Office Technology Management – Concentration in Administrative Office Assistant
Office Technology Management – Concentration in Medical Office Assistant
Pastry Arts
Restaurant Management
Toyota T-Ten

CERTIFICATES

Advanced Manufacturing
Advanced Manufacturing

Automotive and Marine Technologies
Basic and Advanced Automotive
Marine Technology
Toyota T-Ten

Computer Technologies
Application Developer
Database Administrator
Gaming and Animation Developer
Network Administrator
Website Developer

Business Studies
Accounting
Administrative Office Assistance
Business Management
Medical Office Assistant

Culinary Programs
Culinary Arts
Pastry Arts
Restaurant Management

CERTIFICATES Cont.

Early Childhood Education
Associate Teacher
Early Childhood Education Advanced
Lead Teacher

Electrical Technologies
Commercial Construction Wiring
Electrical Power and Control Technologies
Electrical Systems Installation and Maintenance
Industrial Construction Wiring
National Electrical Code Interpretation
Residential Construction Wiring

Fire Technologies
Fire Protection
Fire Science

Graphic Design
Graphic Design

Human Services
Developmental Disabilities
Gerontology
Human Services

Our Mission

Lakes Region Community College Mission
The mission of Lakes Region Community College is to serve all students seeking a high-quality education, emphasizing active learning and personal attention, whether their goal is to transfer to a four-year college or university, enter immediately into employment in a technical or professional field, or simply improves their current skills and knowledge. We prepare students to meet their personal goals as well as the needs of business, industry, and the community; and we support the community through our involvement in educational, social, cultural, and economic development activities.

Community College System of New Hampshire Mission
Our purpose is to provide residents with affordable, accessible education and training that aligns with the needs of New Hampshire's businesses and communities, delivered through an innovative, efficient, and collaborative system of colleges. CCSNH is dedicated to the educational, professional, and personal success of its students; a skilled workforce for our state's businesses; and a strong New Hampshire economy.

Disabilities Service Mission
It is the mission of the Community College System of New Hampshire 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.

General Information

Lakes Region Community College is one of seven colleges in the Community College System of New Hampshire. Information regarding any college visits www.collegeinthe603.com.

History
In the heart of the Lakes Region, the Laconia College, located on Route 106/Belmont Road, Lakes Region Community College was established in 1967. The main campus underwent a physical expansion in 1980, adding the Robert H. Turner wing to its facility. In September 2005, the Center for Arts and Technology was completed and is home to Computer Technologies, Electrical Technologies, Fine Arts, Fire Technologies and Graphic Design. In 1996, "Community" was added to the college name and as the college grows, plans are underway for new courses, new buildings, and a wider variety of options for learners. However, the basic philosophy remains to provide area residents with a first-rate two-year college education. Our graduates are competitive in the job market, advance on the job and grow as individuals.
In the thirty-nine years of its existence, Lakes Region Community College has consistently sought to provide quality education, allowing each student the opportunity to choose an occupation of interest and to gain the personal and professional skills needed to be successful in a competitive job market.
The student body has grown significantly and now includes a wide spectrum of ages and experiences. Courses for traditional and adult students are available day and evening. Programs uniquely blend theoretical information with practical application and maintain low student-faculty ratio. The faculty is here exclusively to teach and to prepare students for success.

Campus and Student Body
Lakes Region Community College's campus is located in the Lakes Region of New Hampshire, adjacent to the Belknap Mountains and the Gunstock Ski Area. The White Mountains Recreation Areas are a short drive to the north, and the cities of Concord and Manchester and the Seacoast are less than an hour to the south. Laconia has a population of approximately 18,000, and Belknap County, in which the College is located, has a population of approximately 62,000. Approximately 1,100 students attend the College each semester in its technical, professional and transfer programs, 52% of students are male, 48% female, 61% are 24 years of age or younger, 34% are enrolled full time, 91% are matriculated in a program, 9% are non-matriculated and 7% are enrolled in non-credit courses.

Notice of Non-Discrimination
Lakes Region 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, gender identity and expression, genetic information, veteran status, sexual orientation, or marital status. This statement is a reflection of the mission of the Community College System of New Hampshire and LRCC and refers to, but is not limited to, the provisions of the following laws:

Titles VI and VII of the Civil Rights Act of 1964
The Age Discrimination Act of 1967
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 Veteran's 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 **Larissa Baia**, Lakes Region Community College, (603) 524-3207, or to Sara A. 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, J.W. McCormack Post Office and Courthouse, Room 701, 01-0061, Boston, MA, 02109-4557, 617-223-9662, FAX: 617-223-9669, TDD:617-223-9695, or Email: OCR_Boston@ed.gov ; the NH Commission for Human Rights, 2 Chennell Drive, Concord, NH 03301, 603-271-2767, Fax: 603-271-6339; and/or the Equal Employment Opportunity Commission, JFK Federal Building, 475 Government Center, Boston, MA, 02203, 617-565-3200 or 1-800-669-4000, FAX: 617-565-3196, TTY: 617-565-3204 or 1-800-669-6820.

Affirmative Action
The College President serves as the Affirmative Action representative for the College. For issues related to Affirmative Action, you may reach the President at Lakes Region Community College, (603) 524-3207.

Accreditation
Lakes Region Community College is accredited by the New England Association of Schools and Colleges (NEASC) Commission on Institutions of Higher Education, a non-governmental, nationally-recognized organization whose affiliated institutions include elementary schools through collegiate institutions offering post-graduate instruction.

Accreditation means the institution meets or exceeds criteria for quality as determined through a peer group review process. An accredited college is one that has the necessary resources to achieve its stated purpose through appropriate educational programs, is substantially doing so, and gives reasonable evidence that it will continue to do so in the future. Institutional integrity is also addressed through the accreditation process. Accreditation provides reasonable assurance about the quality of opportunities available to students who attend the College.

Inquiries regarding the status of an institution's accreditation by the New England Association should be directed to the administrative staff of the College. Individuals may also contact the New England Association of Schools and Colleges, 209 Burlington Road, Bedford, MA 01730, (781) 271-0022.

Disclaimer
Lakes Region Community College has made every effort to assure the accuracy of the information in this catalog. Students and others who use this catalog should note that policies, rules, procedures and regulations change and that these changes may alter the information in this publication. This catalog is not intended to be a complete statement of all policies, rules, procedures and regulations. More current or complete information may be obtained from the appropriate administrative office on the campus. The College reserves the right to change without notice any academic or other requirements, course offerings and course contents contained in this catalog.

The catalog does not constitute a contract or terms of a contract between Lakes Region Community College and the student.

Admissions Policies and Procedure

Admission to Lakes Region Community College is open to anyone whose academic record and personal qualifications suggest that he or she may effectively participate in a program of study.

The following procedure is to be followed by each applicant for degree and certificate programs. A student must take at least one course per year to maintain matriculated status, or must apply for readmission and follow any new program requirements.

- File a Lakes Region Community College application.
- Submit evidence of graduation from a regionally accredited high school (or its equivalent) with an official transcript of courses, grades and standardized tests.

- Participate in the placement exam or other admissions exams/admission requirements as required by specific programs.
- Present recommendations from a high school source and/or employer(s) when appropriate. The recommendations should reflect character, personality, special abilities and general qualifications for college study.
- Submit an official transcript of all previous postsecondary work with course descriptions.
- A physical examination may also be necessary to meet the requirements of selected programs, or to participate in athletics.
- Apprise the College of eligibility for Veterans Administration and other aid programs.

It is the applicant's responsibility to request that official transcripts of previous study be mailed directly to the Admissions Office. High school transcripts must be received prior to consideration of the application.

Official application forms for Lakes Region Community College are available at high school guidance offices, at the College, or from the College's website at http://www.lrcc.edu/Admissions/Admissions.

Professional Conflict Due to Prior Criminal Convictions
Students may be required to participate in a criminal background check, and should be aware that a prior criminal conviction may affect their ability to enter and/or be certified within a given profession. They should immediately contact the Department Chairperson for the program to which they are considering applying to inquire about possible conflict with their ability to enter the profession in which they are interested.

Processing of Applications
In most cases, applicants will be notified of admission status by mail within two weeks of the date the College receives all admission requirements. Certain programs, however, have specific application deadlines and notification procedures. Please check the specific program information in this catalog for details.

Residency
A student's permanent home of record determines residency for tuition purposes. Normally, this is the location (town, city, state) from which the student enrolls for college. The determining factor is the official address listed on federal tax returns.

New residents may qualify for in-state tuition only after a one-year period of continuous domicile in New Hampshire, i.e., purchasing/renting property, obtaining a N.H. driver's license, vehicle registration and voter registration. Any request for a change of residency status must be received in writing in the Admissions Office prior to September 1st for the Fall Semester, January 1st for the Spring Semester, and June 1st for the Summer Semester. See the Admissions Office for details listed in the Community College System of New Hampshire policy manual.

Out-of-State Applicants
The determination of residency is made by the Admissions Office at the time of admission. Students who wish to appeal a residency decision may request detailed information from the Admissions Office.

New England Regional Student Program (NERSP)
The New England Regional Student Program provides qualified out-of-state New England residents with reduced tuition based on in-state tuition plus 50 percent. Eligibility for this program is established if the academic program to which the student is applying is not offered in the student's home state, or if the program offered at this college is closer to home. Determination of eligibility is the responsibility of the Vice President of Student Affairs. NERSP students are liable for full payment of all fees.

Transfer Applicants
Applicants with previous college credit should furnish official transcripts and course descriptions from post-secondary institutions previously attended. **Determination of transfer credit is explained on page 22.**

Transferability
Lakes Region Community College offers over forty degrees AND certificates. In addition to these programs, there exists many opportunities to start your education here and continue your education with other institutions of higher education. Our students now benefit from many articulation agreements and guaranteed transfer programs to many other colleges. The transfer process can be started at any time while attending LRCC. A student may enroll at LRCC knowing that they plan to continue their education, or they may decide to continue their education as they work toward completion of their program here. It's never too early, however, the sooner the process is started the easier it is to meet transfer requirements and maximize transfer credits and options.

The NH Dual Admission Program provides a seamless pathway from Lakes Region Community College to one of the four members of the University System of New Hampshire (University of New Hampshire, Keene State, Plymouth State or Granite State). Students receive special academic advising and enjoy campus activities at two colleges while working towards an associate degree and a bachelor's degree simultaneously. You can receive more information on the program, visit www.dualnh.com or www.nhtransfer.org for information on how specific courses transfer from LRCC to participating 4-year institutions.

Admissions Policy for International Students
An international student is an individual who is in the United States as a non-immigrant with a temporary visa such as the F-1 student visa. The term does not include students who are foreign-born but hold a Lawful Permanent Resident (LPR) status. A student with LPR status is legally permitted to live and work in the United States permanently. Other eligible noncitizens given LPR status include but are not limited to: refugees, victims of human trafficking, and those granted asylum in the US.
Applicants who are residents of a non-English speaking country, or whose native language is not English, will demonstrate English language proficiency by submitting one of the following:

1. TOEFL (Test of English as a Foreign Language), or an equivalent assessment instrument. TOEFL test results with a minimum score of 173/61.
2. Official transcript at an English-speaking high school.

International applicants will also submit the following documents before an admissions decision is rendered:
1. Completed college application.
2. Notarized high school and/or post-secondary transcript translated to English with a key to the grading system.
3. Paid a $100 non-refundable International Admissions fee.
4. Official financial documentation including a statement of financial support for the cost of full attendance, estimated at two semesters, and a financial statement from a bank showing sufficient funds to cover the costs of tuition and living expenses, both translated into English.

Upon receipt of the documentation listed above, applicants' can be considered for admission to the College. In order to receive a Form, I-20 (Certificate of Eligibility), required by the U.S. Citizenship and Immigration Services (USCIS) to apply for an F-1 student visa, applicants must also submit:
1. A copy of the biographical page of a valid passport;
2. A residential address in the home country;
3. Proof of medical insurance coverage in the US.

Upon receipt of all required documents, applicants will be notified of their status by the Admissions Office. Applicants should file the application and all other documents at least 90 days in advance of the expected start date.
Accepted international students are required to take a placement exam to appropriately select college level or development (basic skills) level courses in math and English. International students are expected to enroll and maintain full time status (minimum of 12 credits per semester), will be charged out-of-state tuition rates and are not eligible for federal financial aid.

Admissions Policy for Disabled Students
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 under provision of Section 504 of the Rehabilitation Act of 1973. An "otherwise qualified" person is one who is able to meet all program requirements in spite of his/her disabilities. Students with documented 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 the documentation of their disability, including the most recent psychological and academic testing within three years. The Learning Center provides the latest assistive technology as well as tutors and workshops for learning and study strategies, note-taking and organizational skills. For more information, contact Maureen Baldwin at (603) 524-3207 Ex. 6770.

Readmission to the College
A student who has withdrawn from the College, has been suspended, or has not enrolled for three consecutive semesters must apply for readmission through the Admissions Office.

Change of Major
A currently enrolled student who changes major need not submit a new application but does need to complete a Change of Major/Credential form. Students currently enrolled in a program who wish to be considered for admission to the

Nursing program are required to submit a new application for admission to the Nursing program along with the $20.00 application fee.

Additional Associate Degrees
Students can have only two majors at one time. To qualify for a second major, the student must have first successfully completed one semester in another major, and then submit a second application for the second major, along with a dual major request form. Both forms are available in the Admissions Office. A second major is defined as a program of study identified by its own unique title as it appears on the credential, a title different from that of the first major.

Students may earn additional associate degrees either by concurrent completion of the requirements of the several degrees or by subsequent study after the first degree is received. The requirements for earning additional degrees are as follows:
Complete all requirements of each program of study, including general education requirements not in common with the additional program(s), and
Earn a minimum of fifteen (15) additional credits at LRCC, beyond those required for the first and subsequent degrees, *excluding credit by examination, credit for experiential learning, college level examination program (CLEP), and transfer credit*.

Matriculated students, who want a credential less than a degree, while still pursuing the degree, can pursue the lesser credential as a second major. The student does not have to withdraw from the degree and apply to the certificate.

Tuition and Fees

Tuition
New Hampshire Residents: $215 per credit
New England Regional Student Program (NERSP): $323 per credit
Out-of-state & International: $490 per credit

Veterans and a spouse or child using educational assistance benefits that are living in New Hampshire and attending CCSNH will be charged in-state tuition, without waiting the ordinary period to establish residency.

GM ASEP and Toyota T-Ten Students
All New England resident students enrolling at Lakes Region Community College in the General Motors ASEP automotive program and the Toyota T-Ten program will be charged in-state tuition rate rather than the New England Regional rate.

Full-time status for financial aid and/or insurance purposes requires a minimum of 12 credits each semester, except for GM ASEP and Toyota T-Ten cooperative education students.

Comprehensive Fee: Students enrolled full or part-time, day or evening, will be assessed a Comprehensive Fee of $9 per credit in each semester of attendance. The fee is administered in part by the Student Senate within administrative guidelines.

Laboratory/Clinic/Practicum: A fee will be charged for laboratory/clinic/practicum or other similar experiences. This fee will be calculated by subtracting the number of class hours from the number of credit hours and multiplying the remainder by $110 for each course. This fee will be added to the normal tuition charge for that course. This fee will be charged to all students with no exceptions. Fees will not be charged for co-ops and internships.

Example:	**CL**	**LAB**	**CR**	
BIOL1450L Anatomy & Physiology I	3	2	4	4 - 3 = 1 x 110 = $110

Fees/Fines

International Student Admissions Fee	$100
Credit by Exam	$25/credit
Accuplacer Exam	$20
Collegiate Level Examination Program (CLEP) Administration	$25
Skill Assessment Manager	$9
Experiential Learning	50% of credit cost of tuition
Diploma Replacement	$20
Drug Testing Fee per Test	Up to $125
Payment Plan Fee (when applicable) *	$30

Protested Checks Fee*	$35
Student Personal Professional Liability Insurance (per year for programs w/clinical)	$10 to $65
Graphic Design/Media Arts annual fee for Adobe Creative Cloud	$420
Advanced Manufacturing Annual Curriculum Access Software (first year students)	$300
Automotive Supply Fee (excludes AUTO1750L, AUTO1760L, AUTO2750L, AUTO2900L, co-ops)	$40
Automotive Tool Fee (one time)	$420
Automotive Certification Fee	$40
Culinary/Pastry Arts/Rest. Mgmt. Supply Fee (CULA1460L,1470L,1510L,220L, 225L,2540L,2550L, 2560L, HOS1130L,1330L, 2020L)	$200
Introduction to Hot Foods (Hospitality Sanitation Test)	$39
LNA Competency exam – written	$80
LNA Competency exam – clinical	$80
Nursing Simms Kit fee (NURS1320L, NURS2220L)	$41
Immunization Tracker Fee	$35
Nursing Clinical Surcharge per semester	$500
Drug Testing Fee (NURS1320L, NURS2220L)	$42
Nursing Liability Insurance Fee	$20
ATI Nursing Exam Prep fee (NURS1320L) (Paid to ATI)	$382.25
ATI Nursing Exam Prep fee (NURS1420L) (Paid to ATI)	$342.25
ATI Nursing Exam Prep fee (NURS2220L) (Paid to ATI)	$342.25
ATI Nursing Exam Prep Fee (NURS 2320L) (Paid to ATI)	$342.25
Digital Pharmacology Assessment (NURS1320L)	$99
NABCEP Associate (students)	$80
NABCEP Associate (non-students) (determined on a case by case basis)	$100
Proctor Exam Fee for non-CCSNH students	$50
Library late fees (cost of replacement for lost or damaged materials)	$.25/item/day
CPR Certification Fee (EMT course)	$85
Fire Academy Fee (FIRE1360L)	$425
Fire Academy Fee (FIRE2000L)	$690
SCBA (Self Contained Breathing Apparatus) (FIRE1360L and FIRE2000L)	$350
Turn Out Gear**	$100
Mercury Marine MTF Certification Test	$25
Housing Deposit (Damage Deposit)	$150
Housing-Single (per semester)	$4450
Housing-Double (per semester)	$3950
Housing-Single (ASEP/Toyota/Lexus T-TEN)	$3337.50
Housing Double (ASEP/Toyota/Lexus T-TEN)	$2962.50
Housing Summer Weekly Rate-Single	$185
Housing Summer Weekly Rate-Double	$130
Housing Activity Fee (per semester)	$75
Housing Parking Fee	$10
Proximity Badge Replacement	$25
Standard Apartment Cleaning	$100
Deep Apartment Cleaning	Materials & labor plus 10%
Key Replacements	Materials & labor plus 10%
Repairs Apartments	Materials & Labor plus 10%
Acts of Vandalism	Materials & Labor plus 10%
Smoking Damage	Abatement Costs plus 10%
Replacement Student ID Card (First One Free) Additional ID	$10
Common Area Messes	$25
Parking Violations First Offense	$10
Parking Violations Second Offense	$20
Parking Violation Third Offense	$50
Parking Violation for each additional offense after the third violation	$75
Alcohol/Smoking Violation First Offense	$50
Alcohol Violation/Smoking Second Offense	$100
Alcohol/Smoking Violation each additional offense after second violation	$200
Public Safety First Offense	$20
Public Safety Second Offense	$50
Public Safety for third and each additional offense	$100
Public Safety (Reckless operation of vehicle)	$100

Tampering with Fire/Life Safety Equipment.....$100
False Fire Alarm Fee.....$350
ALL FEES SUBJECT TO CHANGE *Non-Refundable

Senior Citizen Tuition
Senior citizens (65 or older) will pay half tuition on a space available basis for credit courses. They are also responsible for the Comprehensive Student Service and Academic Instruction fees. Eligibility requires New Hampshire residency. Senior citizens will pay full tuition for non-credit courses and workshops.

Payment of Tuition
It is the policy of the College to require payment or arrangements for payment of all semester charges 14 calendar days prior to the start of the semester. Failure to make payment in full or arrangements for payment 14 days prior to the start of the semester may result in the cancellation of the student's registration. Students will then need to re-register and make payment or arrangements for payment providing that the course(s) still has space available. Each semester/session of the college year, including summer sessions, is billed separately. Tuition is based on a per credit charge. Students enrolled in 12 credits or more are considered full-time students. Credits earned during co-op work experience are college credits for which there is tuition fee charges payable by the student. It is the responsibility of the student to report all scholarships received to the Bursar's Office.

Students must log into the Student Information System (SIS) to receive their bill.

Delinquent Accounts
An account becomes delinquent 30 days after the start of the semester. Any account unpaid or in arrears for more than 60 days will be referred to an outside collection agency. Please note that additional fees of up to 35% of the amount owed to the College will be assessed by the collection agency. Once the account goes to a collection agency, the student can no longer rectify the situation with the College, but must resolve it directly with the agency.

Protested Checks
The College will charge a $35 fee for any check, draft or money order returned as uncollectible, plus all protest and bank fees, in addition to the amount of the check, draft or money order, to the person presenting the check, draft or money order to the department or institution to cover the cost of collection.

Student Account Deferred Payment Based on Student Hardship
If a student requests a deferred payment based on known student hardship, the request shall be made in writing to the President of the College. Evidence of good cause to receive a student hardship deferral shall include, but not be limited to:
death in the student's family;
medical emergency;
military commitments;
family emergency; or
a similar problem beyond the control of the student;
Within 10 calendar days of the date of receipt of the student's request for a deferral, the president shall grant or deny the request. FINANCE 13 10/18/07
Upon approval, the following requirements and procedures shall apply:
The president shall execute a written agreement with the student.
The agreement shall state when full payment is due.
The agreement shall state how full payment is to be made.
The agreement shall be dated and signed by the president and student.
The agreement shall be on file in the business office.

Payment Plan: A payment plan is available through NELNET. Go to www.lrcc.edu and click on Business Office, located under Admission, click on the red box "Sign up for a payment plan" or contact the Business Office at 603--366-5245. Student may also log into the Student Information System (SIS) and sign up for a payment plan by clicking on the student tab, student account and "View and Pay Account"

Tuition Refund Policy
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 non-refundable 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 workshops must withdraw in writing at least three (3) days prior to the first workshop session in order to receive a full refund of tuition and fees.

All Federal Title IV funds (i.e., Pell, SEOG, and Perkins Loan) are prorated and refunded according to the rules and regulations mandated by the U.S. Department of Education.

Tuition Credit/Waiver
Under special circumstances and for compelling reasons beyond a student's control, the College may grant an exception to the above policy or grant tuition credit or waiver. Students may request such an exception by completing the Financial Appeals form available from the President's Office. The request must be made in writing and supporting documentation is required. The student's request must support that the circumstances leading to the student's withdrawal were outside of the student's control. Criteria for consideration include a death in the family, a medical emergency and a military commitment. In addition, a tuition credit or waiver may be granted only when tuition has been paid. Tuition credits or waivers are not given when the account shows an outstanding balance.

Books, Tools and Supplies
The College furnishes much of the necessary lab equipment and tools, but students must purchase their own textbooks and personal equipment. Faculty advisors of each program will discuss these needs during the orientation/advising process. The cost of textbooks and supplies varies with each program.

Financial Aid

The Financial Aid Office encourages students to apply for financial assistance. The basic forms of assistance available are scholarships, grants, loans and work-study. The Federal College Code on the FAFSA for LRCC is: 007555.

To be considered for aid, the student must first be admitted into a program of study that leads to a degree, professional certificate or eligible certificate. Second, the student must be making satisfactory academic progress and must demonstrate financial need.

In order to be evaluated for aid, the student must complete the following:

The Free Application for Federal Student Aid (FAFSA). File the FAFSA electronically at www.fafsa.ed.gov.
Any other required documentation upon request.

Note: Federal, state and private scholarship funds are often limited. Applicants with greatest financial need receive first consideration for assistance. Application materials should be filed by May 1 to receive priority consideration.

Admission, registration and class attendance must be confirmed before financial aid reimbursement expense checks can be issued to the student. **Please allow at least 30 days from the beginning of the first class.**

Sources of Financial Aid
The following are brief descriptions of various programs, scholarship opportunities, and miscellaneous sources of possible support. More detailed information about these matters and application procedures can be obtained by visiting the Financial Aid webpage at http://www.lrcc.edu/admissions/financial-aid.

Grants

Federal Pell Grants
The Federal Pell grant program provides need-based grants to low-income students. Pell grants range from $305 to $6095 for full-time students. Use the FAFSA to apply for a Federal Pell Grant. Students with a Bachelor's degree are not eligible.

Federal Supplemental Educational Opportunity Grant Programs (FSEOG)
This is a smaller grant program funded by the federal government and the institution for the neediest students. Awards range between $100 and $1000 at the colleges in this system. Use the FAFSA or Renewal FAFSA to apply for this grant. Students with a Bachelor's degree are not eligible.

Loans

Direct Subsidized Student Loan
This is a loan program that is subsidized by the federal government (subsidized loan is a loan that will not accrue interest during enrollment periods of at least half-time status). Students enrolled below ½ time (less than 6 credits) for any given term are ineligible for loan disbursements. First time borrowers must complete entrance counseling and a master promissory note at www.studentloans.gov.

Direct Unsubsidized Student Loan
This loan program follows similar criteria as the subsidized student loan except the student is liable for the interest while in school. Student enrolled below ½ time (less than 6 credits) for any given term are ineligible for loan disbursements. First time borrowers must complete entrance counseling and a master promissory note at www.studentloans.gov.

Direct Parent Loan for Undergraduate Students (PLUS)
Parent Loans for Undergraduate Students are available to provide additional funds for educational expenses. These loans are made to parents of dependent undergraduate students. Parents may borrow up to the student's cost of attendance less anticipated financial assistance. Additional information is available on-line at http://www.lrcc.edu/financial-aid/loan-programs.

Alternative Loans for Parents and Students
These programs are developed by various agencies to assist parents and students with their educational expenses. Such funds may assist families that do not qualify for, or need to supplement, other forms of financial aid. More information is available on-line at http://lrcc.edu/financial-aid/loan-programs.

Federal Work-Study Program
Three different work-study opportunities exist at Lakes Region Community College. Hourly wages range from $8-9 per hour.

On-campus part-time jobs are available throughout the campus.

Off-campus limited part-time jobs are available throughout the community in non-profit agencies. Students must provide their own transportation.
America Reads Program offers part-time placement in area elementary schools. Students provide reading tutor skills for grades K-3. Geared for Early Childhood Education majors, this opportunity is also open to all eligible students. Students must provide their own transportation and background search costs.

Scholarships
Students are urged to investigate private scholarship opportunities. Many religious organizations, clubs, businesses, banks and individuals provide scholarship assistance. Visit our Financial Aid webpage at www.lrcc.edu for more scholarship opportunities and applications. The following are examples of such voluntary assistance:

Lakes Region Scholarship Foundation
A number of scholarships are offered to residents of Laconia, Gilford, or Belmont, or to graduates of Laconia, Gilford, or Belmont High Schools. Applicants are selected on the basis of academic achievement, extracurricular activities, self-help through employment and savings and with consideration of students' plans and financial needs.

New Hampshire Charitable Foundation Scholarships
New Hampshire residents pursuing undergraduate study are eligible to apply for scholarships based upon academic achievement, extracurricular participation and demonstrated financial need.

NH Scholars CCSNH Scholarships
Each CCSNH college will provide annually a $500 scholarship for up to 12 scholarships in high schools in its region for students who successfully complete the NH Scholars program (max cost = $6000).
The scholarship will be applied to the first $500 of tuition and fees only at the CCSNH institution awarding the scholarship.
Scholarships are not transferrable to other CCSNH colleges.
The scholarship is valid for one year following the student's high school graduation date.
While priority will be given to high schools within their regions, Presidents, at their discretion, may offer scholarships to students outside their respective regions.

SEMA Memorial Scholarship Fund
The SEMA Memorial Scholarship Fund was founded in 1984 to foster leadership in the specialty equipment marketplace and support educational goals for students pursuing careers in the automotive aftermarket. SEMA Scholarships are

awarded annually and have been distributed to hundreds of students in support and encouragement of their educational goals. More information and applications can be found on the SEMA website, www.sema.org/scholarships.

Other Sources of Financial Aid

Veterans Administration Assistance Program
The programs of the Lakes Region Community College are approved by the New Hampshire State Approving Agency (Postsecondary Education Commission) for Veterans Education Programs for persons eligible for educational benefits under the GI Bills. Students who have questions about their eligibility should call the Veterans Administration at 1-888-442-4551. Students who request veterans' educational assistance are required to have all previous postsecondary experience evaluated for possible transfer credit in order to be eligible for benefits.

VA Students enrolled under the Veterans Educational Assistance Improvement Act of 2010 shall be charged in-state tuition.

Veterans' Dependents and Survivors
Education benefits for up to 45 months may be paid to a student whose parent was permanently disabled or died in service or of service-connected disabilities. This benefit is also extended to wives, widows or widowers. There are also allowances for non-service connected disabilities. Contact the Veterans Administration at 1-888-442-4551 or www.va.gov for more information.

Refund of Title VI Funds for Financial Aid Recipients
A Financial Aid recipient who does not complete all of the days he/she was scheduled to attend during the payment period may be required to repay a portion or all of their Federal Pell Grant, Federal SEOG Grant and Federal Perkins Loan funds to the United States Department of Education. In terms of the Direct Loan program (student loans), the unearned portion of the loan money will be returned to the Department of Education.

The exact amount returned will vary depending on the amount of grant and loan money received and at what point the student withdraws from the College.

In addition, the student is liable for the balance owed the College for tuition, fees and, if applicable, room and board. 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.

NOTE: Federal Direct Loans (DL). If a student is in the first year of an undergraduate program, is a first-time borrower under the DL Program, and withdraws from the College prior to 30 days into the term, the student becomes INELIGIBLE for the Direct Loan.

Financial Aid Satisfactory Academic Process Policy

The Financial Aid office is required by federal regulations to periodically review financial aid recipients to ensure that they are making academic progress towards the completion of their program of study. Satisfactory academic progress for financial aid recipients is measured by both qualitative and quantitative standards and is an assessment of a student's cumulative academic record while in attendance at the institution.

Qualitative Standard

Cumulative GPA Component: Must have earned the minimum published CGPA at the published intervals.

Quantitative Standard

Completion Rate Component: Must complete more than 2/3 of the credits attempted.
Maximum Timeframe Component: Can receive financial aid for up to 150% of the number of credits.

QUALITATIVE STANDARD
Cumulative GPA Component
A student must maintain a minimum cumulative grade point average as noted below to be considered as making satisfactory academic progress.

Total Credits Earned Toward Program	Minimum Cumulative Grade Point Average Required for the Program	
	Certificate	**Associate**
0-13	1.50	1.50
14-27	2.00	1.70
28-40		1.80
41+		2.00

QUANTITATIVE STANDARD

Completion Rate Component
A student must successfully complete more than two-thirds (66.66%) of the total credits s/he 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 their academic career at the College must pass more than 24 credits in order to be making satisfactory academic progress.

Maximum Timeframe Component
A student may receive student federal aid for any attempted credits towards his or her program of study as long as those 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 can receive financial aid for up to 36 credits attempted. Likewise, a student enrolled in a program of study that requires 64 credits to earn the degree can receive student federal aid for a maximum of 96 credits attempted.

Academic Periods Included in the Review
The qualitative and quantitative standards of the Satisfactory Academic Progress policy will be used to review the academic progress for all periods of the student's enrollment. Even periods in which the student did not receive FSA funds will be included in the review. Additionally, periods for which the student was granted academic amnesty will be included in the review.

Satisfactory Academic Progress Review Process (SAP):

Question	Answer
When is my academic progress reviewed?	At the end of each semester
Are there probationary periods?	Yes, Probation prior to Suspension
Is there an appeal process?	Yes
Can you re-gain Financial Aid eligibility once you lose it?	Yes

The qualitative and quantitative components of the SAP policy will be reviewed at the end of each semester within the academic year of the student's program of study.

Students who meet SAP standards will be coded as making satisfactory academic progress and will retain eligibility for Student Federal Aid for the following semester.

Students who do not meet SAP standards will be placed on SAP probation for one semester. Students placed on SAP probation will retain their eligibility for Student Federal Aid for the following semester.

Students placed on SAP probation:
At the end of the probationary period, SAP standards will be reviewed. If the student meets SAP standards, s/he will once again be coded as making satisfactory academic progress and will retain eligibility for Student Federal Aid for the following semester.

If the student is still unable to meet SAP standards, s/he will no longer be eligible to receive FSA at the institution until such time that s/he is able to meet the standards of SAP.

Repeat Courses
One time only, financial aid will cover a repeated course that has been previously passed. Passed is identified as any grade higher than an "F," regardless of any school or program requiring a higher qualitative grade or measure to have been considered to have passed the course.
A student may be repeatedly paid for failing/withdrawing from a course. However, if a student passed a course once, then is repaid for taking it, and fails or withdraws the second time, that failure counts as their paid retake, and the student may not be paid for retaking the course a third time.

If a program of study requires students to retake all of the coursework for a term in which a student fails a course, any courses retaken that were previously passed in this case are not eligible for Title IV aid.

Transfer Credits
Credits that are transferred in from another institution and apply to the most current major will be excluded from the student's cumulative CGPA and the completion rate components. However, they will be included in the calculation for the maximum timeframe component.

Consortium Credits
All courses taken at an institution other than the home institution through an official consortium are included in the calculation for completion rate and maximum timeframe components, but are excluded from the student's cumulative CGPA component.

Remedial Courses
Credits from these courses will be included in the calculations for all three components of the satisfactory academic progress review. Students are only eligible for federal financial aid for up to 24 credit hours of this type of coursework.

Incompletes All incompletes must be resolved by the end of the third week of the semester following the receipt of the incomplete grade. If it is not, the grade is either automatically changed to an "F" or is considered to be an "F" for all components of the satisfactory academic progress review. Financial Aid can be withheld until Incompletes are resolved.

Audit Courses
Financial Aid does not cover any courses a student audits. Further, audit courses are not included for any of the calculated components. Full tuition is charged for all audited classes. See full audit policies.

Credit by Examination
Financial Aid does not cover courses in which a matriculated student earns credit through Credit by Examination. Credit by Examinations count toward the maximum time frame component, but are excluded from the student's cumulative CGPA component and completion rate components. The cost of credit by examination is $25 per credit.

Appeal Process
A student who becomes ineligible for federal student aid due to not meeting the financial aid standards of satisfactory academic progress may appeal for a review of that determination. A student who believes s/he has extenuating circumstances that affected his or her ability to progress satisfactorily should appeal in writing within 30 days of the date of the letter indicating a loss of financial aid eligibility. The letter should be addressed to the Financial Aid Appeals Committee and be submitted to the Financial Aid office. A successful appeal may preserve the student's eligibility for federal student aid in the following semester.

Change of Program
A student who changes his/her academic program may request an appeal in that determination if s/he has changed programs while enrolled at his/her current college. If this appeal is taken up then only those courses applicable to the new program will be evaluated for the Completion Rate and CGPA components. However, all courses attempted will be evaluated for the Maximum Timeframe component. If under these circumstances the student is making satisfactory academic progress, the student will regain eligibility for student aid. If under these circumstances the student is not making satisfactory academic progress, the student will not regain eligibility for student aid at this time.

For further information about the Financial Aid Satisfactory Academic Progress policy, please contact the Financial Aid Office.

Complete Financial Aid Handbook is available on-line at http://www.ccsnh.edu/sites/default/files/CCSNH%202017-2018%20Student%20Financial%20Aid%20Handbook.pdf.

Veteran's Administration
The Veteran's School Certifying Official processes certifications electronically to the Veteran's Administration. Any changes in enrollment status will be reported to the VA, which may affect your benefit payments.

New Veteran Students:
Apply for admission into an eligible degree or certificate program with our Admissions office.
Complete VA Form 22-1990 (Application for Educational Benefits) online at www.va.gov. It may take eight-twelve weeks for your claim to be processed.
If you have already applied for the benefits, please provide a copy of your Certificate of Eligibility (COE), issued by the VA, to the Veteran's School Certifying Official.

You will find additional information on how to apply for educational benefits, benefit eligibility and changes in enrollment status online at www va.gov or call the Veterans Administration at 1-888-442-4551.

Student Services and Resources

Academic Advising
Academic advising is available to all matriculated students. A faculty member is assigned to assist the student from matriculation through graduation. The academic advisor helps a student register for courses and approves all registration decisions; including course add/drop changes and withdrawals. The advisor assists students in identifying academic and personal resources on campus, and helps students select and choose various program options. Advisors may help students with decisions about career goals or further education. The more clearly students define and communicate their own goals, the more productive the student/advisor relationship.

Traditionally, the starting salary for graduates' ranges from $22,000-$45,000. Below is a sampling of careers and salaries:

Careers	**Salary**
Business Administration	$30,000
Computer Technology	$84,430
Culinary Arts	$39,000
Fine Arts	$43,950
Firefighter	$42,000
GM Automotive Technician	$30,000
Marine Engine Technician	$32,000
Media Arts and Technology	$53,530
Nursing	$50,000
Office Technology Management	$30,000
Restaurant Management	$39,000

Faculty advisors maintain close contact with business and industry representatives and actively assist students in locating job opportunities. The College also assists students in the area of resume development, job interviewing techniques and career counseling.

Activities
Students are encouraged to organize their own activities guided by faculty advisors and supervised by the Vice President of Academic and Student Affairs.

The Student Senate shares in the responsibility of promoting and coordinating student events and activities, and is responsible for allocating and disbursing student activity funds to support extracurricular activities/sports.

Activity Period
Two activity periods during the school week with minimal classes scheduled provide time for college activities including Student Senate and Honor Society meetings; student participation in clubs and activities of special interest; faculty and staff meetings; and seminars and discussion groups. **Activity Periods are: Tuesdays 12-12:45pm and Wednesdays, 11am – 11:45am**

Alumni
Alumni are an essential component of collegiate success, and the largest group within the college community. Because a larger association of alumni strengthens us, the college encourages all its past students to remain actively involved

through guest lecturing, attending events, annual giving, promoting the college, and staying connected with those who shared the same college experiences. To stay connected with the college, post an opportunity, or to donate to the college, please contact the College at 603-524-3207.

Bookstore
All required textbooks and supplies, as well as college novelty items, are available through the bookstore, Follett Higher Education Group, a private enterprise not subject to state rules and regulations.

The Bookstore accepts cash, checks, major credit cards, debit cards and Financial Aid services to students. The only non-cash services offered are based on written authorization from approved agencies.

The Bookstore now offers a Textbook Rental Program (not available on all textbooks). To be eligible to rent you must be 18 years or older, have a valid ID, credit or debit card for collateral and an email address.

The Bookstore buys back books year round at wholesale prices (determined by the used book wholesaler). At the end of spring and fall semesters we have a 50% buyback for books in good condition that have been ordered for the upcoming fall or spring semester. The half-price buying period is for 2 weeks starting the week of finals.

For more information and store hours contact the Bookstore at 603-524-0697 or the bookstore website www.lrccshop.com.

Counseling
Two support counselors provide general support, including course registration, referral to outside agencies and mental health referrals to all students. Counselors' hours are Monday – Thursday 9am – 5pm. Career counseling services are available through the Teaching and Learning Center. These services are offered free to students with the aim of assisting students in successfully meeting academic and/or professional goals.

LRCC collaborates with Genesis Behavioral Health (www.genesisbh.org) to provide mental health services to our students. A licensed clinical therapist provides limited counseling hours on campus. Please contact the support counselors for appointments. Students needing longer-term support will be referred out to service providers in their local area. All counseling is confidential.

Housing
LRCC offers students interested in a full campus life experience the opportunity to live on campus. The Apple Ridge Student Apartments are fully-operated by LRCC staff with a live-in Residence Director and Resident Assistants (RAs) living among the residential student population. All students live in one, two or three-bedroom furnished apartments with fully-equipped kitchens. Interested students must carry a minimum load of 12 credits per semester, apply for housing and submit a housing deposit. Housing assignments will be made on a first come first serve basis with preference to our returning students. Costs and additional information is available from www.lrcc.edu or calling 603-524-3207.

Teaching, Learning & Career Center
The Teaching, Learning & Career Center (TLCC) is available to all students, and offers a full range of academic and support services to enhance the educational opportunities for all students by giving them the tools to foster independent learning. The TLCC has a growing list of resources including books, handouts, video/audio tapes, computerized tutorials, and advanced assistive technology. Its human resources include learning specialist facilitators, peer and master tutors, and two reading specialists.

The TLCC provides training in organizational and study skills, note taking, career planning and time budgeting. Tutoring is offered in almost all subject areas.

Students who need academic support or who want to advance more rapidly in an academic area may contact the TLCC at (603)524-3207. Staff members will assist in meeting the individual student needs. Staff will also work with faculty for additional support or conferencing.

The TLCC offers career support in the following areas:

- Resumes, cover letters, interview protocol sessions
- Job listings, career advice, and direct contact to registered employers are available through the on-line career management service (CCN) accessed through the college website.

Peer Tutoring
Peer Tutoring is an important service the school provides to our students free of charge. Peer tutoring is available for students enrolled in courses at LRCC. Students needing tutoring services should come to the Teaching, Learning and Career Center (TLCC). Tutors are available for most courses including math, college writing, accounting, computers and business courses. Peer tutors are students (18 years and older) who have successfully completed the courses in which they are tutoring or have proven expertise on the subjects and are eligible for Work Study under Financial Aid. Tutoring sessions are on a one-to-one basis and allow students to ask questions, learn at their own pace, and receive immediate feedback.

Services for Students with Disabilities
In compliance with Section 504 of the 1973 Rehabilitation Act and the Americans with Disabilities Act of 1991, LRCC does not discriminate against students with disabilities in the admission process or in accessing opportunities for academic success. Students with documented disabilities are encouraged to disclose their disability in order to see if they qualify for reasonable classroom accommodations. Information regarding students' disabilities is kept confidential. The services available to students with disabilities vary according to the students' individual needs. Students without documentation, but who suspect that they might have a disability, should contact the Disability Coordinator, Jennifer Abraham to discuss support service options. Jennifer can be reached at jabraham@ccsnh.edu or by calling 603-366-5243.

Library
Bennett Library supports and enhances on-campus and distance learning for LRCC students with a wide variety of print, electronic, and multimedia resources. Reference and interlibrary loan services assist with research and informational needs. The Bennett Library webpage http://www.lrcc.edu/library/index.html provides 24/7 access to the online catalog, Ebscohost databases, Ebrary, netLibrary electronic book databases, and web links to other informational resources. The Library staff collaborates with faculty to provide materials supporting programs, the mission of the College, and to provide instruction to students in learning how to find, evaluate and use information. Library computers offer internet access and Microsoft Office software applications for research and class projects, wireless access is also available. The Library is open year round with abbreviated hours during the summer and holidays.

Student Email Accounts
The college email network facilitates communication between students, faculty and the college community, including Canvas. Students will be assigned a student email address within 24 hours of course registration or upon being admitted to the college. This email account will serve as the official account for all electronic communication with the College. For more instructions regarding student email go to http://www.lrcc.edu/academics/registrars-office.

Student Information System
Students may access their college information online by clicking on myLRCC at www.lrcc.edu. The Student Information System (SIS) allows current students to register for classes, check seat availability, look up instructor email addresses, and to view class schedule, grades, financial aid status, student billing account and personal information. For more instruction on accessing your SIS go to http://www.lrcc.edu/academics/registrars-office.

LRCC Alerts
Lakes Region Community College students are automatically registered to receive alerts via college email, but need to register (opt in) and provide emergency contact information to receive ALERTS via phone and/or text messaging. To register for LRCC Alerts, log into the Student Information System (SIS) and select LRCC Alerts under Personal Information.

There is no charge for LRCC ALERTS however, students should check their phone plans for potential charges associated with text messaging. Please be aware, LRCC will not reimburse for text messages.

Student Senate
The experience of attending Lakes Region Community College is not limited to the academic life of the student. Our college philosophy is to educate the entire person so he or she adapts to the ever-changing world.

The Student Senate serves as the governing group for the student body, with representatives elected from across the College. These representatives accept the challenges of leadership, authority and responsibility in dealing with their peers, faculty and administration. The Student Senate provides experiences promoting the general welfare of every student, plans social and cultural activities, and manages the expenditure of student funds. Activities may include field day, films, concerts, bus trips, lectures, clubs, athletics and social events.

National Honor Society
Students who have completed a minimum of 12 college-level credits with a minimum of a 3.5 cumulative grade point average are invited to become members of Phi Theta Kappa National Honor Society for two-year colleges. The society was established to maintain and perpetuate the qualities of scholarship, leadership, service and fellowship. Initiation ceremonies are held during the academic year. Only matriculated degree students, full-time or part-time, day or evening, are eligible. Certificate and professional certificate students are not eligible.

Academic Policies and Procedures

Academic Philosophy
As an open institution maintaining strong ties to the community, our goal is to engage students, faculty, and staff to build a collaborative learning environment.

At Lakes Region Community College . . .

. . . we recognize, value and promote the uniqueness and diversity of our students, both as individuals and as persons with varying educational goals and potentials.

. . . we believe our students learn through self-exploration, rigorous academics, and experiential discovery.

. . . we value and present a challenging and supportive learning environment which enhances students' abilities to think critically, to communicate effectively, and to demonstrate competencies and skills needed to contribute productively to their communities and beyond.

. . . we value educating our students beyond our classroom walls and into the community at large.

. . . we believe in fostering relationships between students and employers to promote lifelong professional interactions.

. . . we value and nurture curiosity, inquiry, critical thinking, and creativity within the safe but challenging confines of a rigorous academic environment that appreciates multiple perspectives.

. . . we model, advocate and expect ethical and moral behaviors which allow for open and constructive conversations.

Definition of an Education Person
An educated person is an individual who has undertaken a lifelong journey of discovery and learning. Throughout the lifelong process of acquiring skills and knowledge, the individual is empowered to function effectively throughout his/her life and career.

An educated person has the tools to be a productive member of society and to work for changes to better the local and global community.

An educated person values and pursues knowledge and actualizes his/her capacity for human relationships; for communication; for critical thinking and creative problem solving/decision making; for a global and diverse perspective; for mathematical and scientific processes; for information literacy; and for career-based technical skills.

Academic Requirements

Associate Degree
The Associate Degree prepares students for immediate employment or the opportunity to further their education. The curriculum provides students with the tools to think critically, reason, compute, communicate, and adapt to change.

To earn an Associate Degree from Lakes Region Community College, a student must:

- Successfully complete at least sixty (60) credits in college- level coursework (excluding remedial or developmental coursework/credits – i.e., those identified as being "for institutional credit only");

- Earn at least fifteen (15) credits in coursework offered by Lakes Region Community College with at least eight (8) of those credits earned in advanced-level courses in the student's major field;
- Achieve a Cumulative Grade Point Average of 2.0 or higher in all courses taken at the College (including remedial or developmental coursework/credits);
- Credit granted through transfer credits or credit by exam will count towards degree/certificate requirements, but will not be included in computing grade point averages.
- Completion of ESNT1200L College Essentials.

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

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

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

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

- English Composition 4 credits English Literature, Composition (requiring English Composition as a prerequisite), or Communications
- 3 credits Quantitative Reasoning/Mathematics
- 6 - 8 credits Natural or Physical Sciences 7- 8 credits (including at least one lab science) Social Sciences
- 9 credits Humanities/Fine Arts/Foreign Language 9 credits

AND EITHER
Electives in Specialized Major Field 20 -24 credits
Minimum 60 credits

OR (for generic AA in Liberal Arts)
Liberal Arts Electives (from above list) **AND** 12-15 credits
Open Electives 9 credits
Minimum 60 credits

Certificate
All certificate programs require a minimum of 20 semester hours in major and related courses, as well as 12 semester hours from the general education core. A cumulative grade point average of 2.0 or higher is required. Only those courses in the certificate will be used to calculate the GPA.

Assignment of Credits
A credit hour shall be allocated based on the below:

Category	Contact Hours/Week	Contact Hours/Semester (based on a minimum 15-week semester)
Class	1	15
Laboratory	2-3	30-45
Clinical	3-5	45-75
Practicum/Fieldwork	3	45
Internship	3-6	45-90
Cooperative Education	Varies by Department	Varies by Department

Course Credit Hour Designation
One instructional hour is equal to 50 minutes. 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, cooperative education, internship, or practicum hours per week. The third number represents the total number of credits.

Example:
BIOL1450L Anatomy and Physiology 3-2-4
PSYC1250L 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 time schedules including summer semester (8-weeks, 12-weeks, etc.) will be shown the same as above, but will be scheduled to reflect the equivalency of the total number of hours. For example, PSYC1250L offered on an 8-week schedule would meet 6 hours per week and earn the same 3 credits.

Course Credit Unit Instruction
Students who complete the competencies of a unit of a course may receive credit for the portion(s) successfully completed. For information about this process contact the student advisor. Note: Students required to take a three-credit (unit) course may not split units between two or more courses to satisfy one course requirement.

Residence Credit
Students seeking a degree at the College must earn a minimum of 15 semester hours from Lakes Region Community College. At least 8 semester hours of the courses taken to meet the minimum residency requirements shall be advanced courses in the student's major field of study or in appropriate advanced courses in related fields. Advanced courses are associate degree program courses listed in the first and second semesters of the second year, or in the second semester of the first year of one-year programs. Students seeking a professional certificate must complete a minimum of 9 credits or 25% of the credits, whichever is larger, from Lakes Region Community College. For a certificate, students must complete at least 6 credits or 25% of the credits, whichever is larger, from Lakes Region Community College.

Directed Study
Under certain circumstances a matriculated student may take a course in a semester when the course is not offered either during the day or evening. A directed study allows a matriculated student to pursue the published learning objectives/outcomes for a course independently under the guidance of a qualified faculty member. *Students must be matriculated and have a minimum cumulative GPA of 2.0 to be eligible for a Directed Study.*

The student must demonstrate compelling reasons why the course could not be taken in a subsequent semester or was not taken in the semester when it was originally offered in the curriculum. Barring exceptional circumstances, a directed study will not be granted for a course currently being offered in the day or evening divisions.

Independent Study
Opportunities for credit-bearing independent study are available to matriculated students who wish to explore areas of a discipline not covered in the normal curriculum but related to the student's program. *Independent study courses are not available to non-matriculated students. Students must be matriculated and have a minimum cumulative GPA of 2.0 to be eligible for an independent study.* The intent of independent study is to expand a student's learning experience beyond the normal program curriculum. Typically undertaken for one to three credits, independent studies may not be done in lieu of any course existing in the college catalog. Financial aid may not cover the cost of the independent study if it not need to meet graduation requirements.

Distance Learning
Distance Learning courses are offered in a 100% online environment using the Canvas learning management system. All competencies and knowledge presented is the same as the student would experience in a classroom based course. A student may add a 100% online course up to the official start date of the semester. Once the semester has started a student may add only with the permission of the instructor.

Alternative Delivery
Alternative Delivery is anything other than the once or twice a week traditional classroom meeting. It includes Distance Learning, hybrids and other condensed formats. These methods offer flexibility in scheduling while placing more responsibility for learning on the student. Online Learning and hybrid courses are taught using the Canvas learning management system. Students are recommended to take an online self-assessment and have basic computer skills before registering for a hybrid or Online Learning course.

Graduation Requirements
The College has established minimum competencies that must be attained in each program. Students will be awarded upon completion of academic requirements and demonstration of the required competencies.

To be eligible for graduation, students must:
Satisfactorily complete all requirements in their academic program
Earn a cumulative grade point average of 2.0 or higher
Meet all obligations to the College, including payment of all tuition and fees
Submit an Intent to Graduate form with the Registrar's Office.

The student has the primary responsibility for ensuring that he/she meets degree and certificate requirements for graduation. The student should initiate at least one meeting with his/her faculty advisor each semester to ensure all the graduation requirements have or will be met by the intended time of graduation. Students receiving a certificate do not participate in the commencement ceremony.

Transcripts
A student may request an official transcript (record of a student's academic history) through the Registrar's Office. All college obligations must be met, including student loan payments, outstanding tuition, payment of fines and library materials turned in before a transcript can be released. Transcripts are released in accordance with the Family Education Rights and Privacy Act of 1974 (the Buckley Amendment) and will not be released to a third party, including parents and spouses, without written permission of the student. Transcripts can be requested through the Student Information System (SIS) or transcript request forms are available in the Registrar's Office or on the college website. There is no charge for an official transcript; unofficial transcripts can be located on the Student Information System (SIS).

Academic Honesty
Original thinking and intellectual honesty are central to a college education. Research projects require the ongoing use of existing works, but students must conduct themselves with proper regard for the rights of others and of the College, in a context of mutual respect, integrity and reason. Activities such as plagiarism and cheating are not acceptable and will not be condoned by the College. Students involved in such activities are subject to serious disciplinary action.

The following are presented as examples of academic dishonesty:

- Misrepresenting academic work done by someone else as one's own efforts, with or without permission of the person.
- Providing or using prohibited assistance in assignments and examinations.
- Unauthorized communication in any manner with other students during an examination; collaboration in the preparation of reports or take-home examinations; copying, giving aid or failing to follow the faculty member's instructions.
- Tampering with or falsifying official college records.
- Infringing upon the right of other students to fair and equal access to college library materials and comparable academic resources.
- Falsification of data collected for and presented as part of course requirements.
- Presenting as one's own ideas, another person's work or words without proper acknowledgement.

There may be other instances of academic dishonesty, which will be identified by a faculty member.

Academic dishonesty is not tolerated at Lakes Region Community College. There is the expectation that coursework will be done honestly, whether in lab projects, examinations, or term papers. The individual faculty member will make the initial response to an occurrence of academic dishonesty. The instructor should discuss the matter with the student, and should include what happened to cause the instructor to think cheating had taken place. The instructor should be specific: cheating was seen first-hand, cheating was reported by another student, work handed in was of much higher quality than usual, etc. Please refer to the College Judicial System on the college website as well as in the Student Affairs Office for consequences and procedures.

Academic Honors
Students whose academic performance warrants recommendation and recognition will receive academic honors.

The President's List recognizes students enrolled in a degree or professional certificate program carrying a minimum of 12 semester hours and earning a grade point average of 3.75 or higher.

The Vice President's List recognizes students enrolled in a degree or professional certificate program carrying a minimum of 12 semester hours and earning a grade point average of 3.3 to 3.74.

During each commencement ceremony, the student with the highest cumulative grade point average in an associate degree program receives recognition as the class valedictorian. The student must complete a minimum of 60 credits at Lakes Region Community College, exclusive of transfer credits and waivers.

Determination of Grades
The College posts grades on the Student Information System (SIS) at the end of each semester/session for each course and are viewable to students who have met all financial and other college responsibilities. Online grade reports include the semester grade point average, cumulative credits and the cumulative grade point average. Current semester and cumulative grade point averages are not re-calculated until at least one week after the end of each semester in August, December, and May, once grades are received for all courses.

Grade Point Average
The grade point average determines academic standing and is computed as follows:
1. Multiply the grade points earned in each course by the number of credit hours associated with that course. For each course, this gives a value known as quality points.
2. Add the quality points from all the courses taken in the semester. Total the number of credits separately.
3. Divide the total quality points by the total number of credits. This gives the semester grade point average.

Example	**Letter Grade**	**Credit Hours**	**Quality Points**
ENGL100LEnglish Composition	A	(4)	4 x 3 = 12
BIOL1440LHuman Biology with Lab	B+	(3.3)	3.3 x 4 = 13.2
MATH129L Quantitative Reasoning	C	(2)	2 x 4 = 8
PSYC1250L Introduction to Psychology	D	(1)	1 x 3 = 3
TOTAL		13	34.2

A total of 34.2 quality points divided by 13 credits = 2.63 semester grade point average (GPA)

Grades are recorded as follows:

A	4.0 Points	AF – Administrative Failure
A-	3.7 Points	AU – Audit
B+	3.3 Points	CR – Credit by Exam
B	3.0 Points	CS – Continuing Study
B-	2.7 Points	I – Incomplete
C+	2.3 Points	NP – No Pass
C	2.0 Points	P – Pass
C-	1.7 Points	TR –Transfer
D+	1.3 Points	W – Withdrew
D	1.0 Points	WF – Withdrawal Failing
D-	.7 Points	WP – Withdrawal Passing
F	.0 Points	* - Basic Skills

Explanation of Grades:
AF: Instructor or administrator initiated withdrawal at any time for reasons other than poor grade performance, e.g., failure to meet attendance requirements, as published in the instructor's syllabus, violation of the Student Code of Conduct, disruptive behavior, etc. The grade may also be issued if a student registered in a clinic, practicum, internship or lab is deemed unsafe or performing in an unsatisfactory manner as determined by an evaluation by a faculty member/agency supervisor in accordance with department criteria and procedure. A grade of "AF" is calculated into the 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. *See full Audit Policy.*

CR: Students who are matriculated and earning a C or better on a Credit by Examination receive a grade of CR. The credits earned count toward the degree and are not calculated in the GPA.

I: An Incomplete grade indicates that a student has not completed a major course assignment due to extraordinary circumstances. It 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 subsequent semester or the grade defaults to an F. *See full Incomplete policy: Incomplete Course Grade.*

NP: No Pass; unsatisfactory (not calculated into GPA).

P: Pass (not calculated into GPA).

W: Student initiated withdrawal from a course at any time prior to completion of the drop deadline (60% of the course). Does not affect GPA, can be initiated by the instructor if the student, because of extenuating circumstances 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 drop deadline (60%) of the course; student has a failing grade at time of drop, as determined by the instructor. A "WF" is calculated into the GPA as an "F".

WP: Student initiated withdrawal from a course after the drop deadline (60%) of the course; student has a passing grade at time of drop, as determined by the instructor. A "WP" does not affect GPA and can be initiated by the instructor if the student, because of extenuating circumstances, is unable to initiate the process (e.g., catastrophic illness or injury, job transfer to another state).

*** Not for Degree Credit:** Grades for basic skills courses have an asterisk following the course name and are computed in a GPA, but cannot be used to satisfy degree requirements.

NOTE: When a student repeats a course (either voluntarily or because it is required to make up a failure), only the latest grade is computed in the GPA/CGPA, but both grades will appear on the academic transcript followed by an (I) – include and/or an (E) – exclude from CGPA.

Course Failure
The student must make up a course for which a grade of "F" was received, either by retaking the course at Lakes Region Community College or by taking a comparable course at another institution. Courses transferred from other institutions count towards credits only; the "F" remains as part of the CGPA. Retaking a failed class will result in the "F" being replaced by the passing grade for the purpose of GPA calculation. The student should consult the advisor and department chairperson to determine if a course will transfer. Course failures cannot be made up by taking a credit by examination. See policy on credit by examination.

Appeal of a Grade
Any appeal of a grade must be initiated by the student with the instructor before an ensuing semester has elapsed. Students should be advised. most often, a grade may be changed only by the instructor. Only in a case of obvious computational error or blatant abuse of the grading prerogative will the Vice President of Academic and Student Affairs (VPASA) be the other individual on campus empowered to change a grade or alter a student's grade.

Students who believe they have a valid ground for a grade appeal will use the following process to resolve the issue:

<u>Meet with the instructor</u>
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 shall meet within five business days.

<u>Meet with the Program Coordinator/Department Chair</u>
If the issue was not resolved in meeting with the instructor, the student has three business days from the date of the faculty member's decision, to file a written appeal with the faculty member's program coordinator or department chair, or with the Vice President of Academic and Student Affairs, if the faculty member is also the department chair or program coordinator. Within three business days the department chair or VPASA will mediate the dispute either through discussion with the instructor, or with the student in the company of the faculty member. If no resolution is reached, proceed to the step below.

<u>Meet with the Vice President of Academic and Student Affairs</u>
If the issue is not resolved meeting with the Program Coordinator/Department Chair, the student has three business days to file a written appeal with the Vice President of Academic and Student Affairs. The VPASA will meet with all parties concerned within the next three business days to attempt to resolve the dispute. The VPASA will have three business days from the last meeting to render a decision on the grade appeal, decision of the VPASA is final.

Note: During the summer, when faculty are not on campus, students may begin the grade appeal process with the Office of Academic and Student Affairs. Every attempt will be made to have the faculty member contact and meet with the student within the specified time. On occasion, however, these times may need to be adjusted.

Cumulative Grade Point Average
The cumulative grade point average (CGPA) reflects a student's academic standing through the most recent semester. To compute the cumulative grade point average, divide the total quality points earned in all semesters by the total credits attempted in all semesters. Calculation of cumulative grade point average (CGPA) will be based on all courses taken at the institution, including developmental or remedial courses.

Grade for a Repeated Course
All grades are entered on the grade report and academic record, and are used in figuring semester and cumulative grade point averages.

Students may retake a course, whether to replace an "F" or to improve their prior grade. The grade achieved in the most recent course will be the grade used in calculating a student's cumulative grade point average (CGPA). The course grade and hours are included in the semester and the cumulative grade point average computation. The original grade and credit hours will not be figured in the cumulative grade point average (CGPA), but will appear on the student's academic record followed by an (E) exclude.

Third and subsequent attempts to repeat a course will require the approval of the student's advisor or Vice President of Academic and Student Affairs.

Incomplete Grade
An incomplete grade "I" 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 an extension of time for a student delinquent in meeting course responsibilities. An incomplete contract must be completed by the instructor, signed by the student and filed with the Registrar's Office prior to the end of the term.*

The work must be completed by the student through 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 semester;
three weeks from the earliest start date of the summer semester for a grade issued in the spring semester.

Should the student fail to complete the work within the designated period, the grade will automatically become an "F" grade. The Vice President of Academic and Student Affairs may make exceptions to the above deadlines.

Incomplete grades will not be included in the computation of grade point average (GPA) until a final grade is posted and/or the grade becomes an "F". An "I" grade may affect a student's financial aid. Students should contact the Financial Aid office for further information.

Academic Standing
Students must show orderly progress toward their degrees and continue to display an ability to benefit from their programs and courses.

Each semester the Vice President of Academic and Student Affairs reviews the academic performance of matriculated students whose cumulative grade point average (CGPA) is below 2.0. This review may result in a status of probation or suspension.

Student Status Report: The instructor may issue status reports at any time during the semester/session when a student's academic performance is unsatisfactory. The status report identifies the problem and makes recommendations for corrective action. The and instructor receive a copy, and a copy goes in the student's file. A student may receive a failing grade without having received a course warning.

Academic Probation: Students will be placed on probation if they fall within one of the following categories:

0-13 Attempted Credits:	between .500 and 1.49 CGPA
14-27 Attempted Credits:	between 1.10 and 1.69 CGPA
28-40 Attempted Credits:	between 1.25 and 1.79 CGPA
41+ Attempted Credits:	between 1.50 and 1.99 CGPA

Students placed on academic probation will be limited to enrolling in 9 credits and may not participate in any extracurricular activities.

Academic Suspension: Students will be placed on suspension from the college for one semester if their academic performance falls under one of the following categories:

0-13 Attempted Credits:	between 0.00 and .499 CGPA
14-27 Attempted Credits:	between 0.00 and 1.09 CGPA
28-40 Attempted Credits:	between 0.00 and 1.24 CGPA
41+ Attempted Credits:	between 0.00 and 1.49 CGPA

A student who does not meet satisfactory progress for academic probation for three consecutive semesters will be placed on academic suspension.

Financial aid may be in jeopardy if a student fails to achieve satisfactory academic progress as defined above.

Appeal of Academic Standing Decisions
Students must submit a letter clearly defining the basis for the appeal to the Vice President of Academic and Student Affairs within seven business days following the date of the letter to the student. The Vice President of Academic and Student Affairs will review the appeal and provide a letter to the student of the outcome of the appeal.

If the student is not satisfied with the results of the appeal, he/she has the option to appeal directly to the President of the College within five days of the outcome of the appeal. The appeal to the President must be in writing, and must clearly define the basis for appealing the Vice President of Academic and Student Affairs decision.

Academic Amnesty
In order to be eligible for Academic Amnesty, a student must meet all of the following conditions:
The student has not taken any courses at LRCC within an enrollment period of at least three years from the last semester of attendance.

- The student applies for Academic Amnesty at the time of admission.
- The student has never before received Academic Amnesty
- The student achieved a cumulative grade point average (CGPA) below 1.7 during previous attendance.

All grades earned during a student's previous attendance at the College will no longer be used to calculate the student's new cumulative grade point average (CGPA). Grades of C- and above taken during that time will be used to meet course requirements, subject to the approval of the Vice President of Academic Affairs. All previous grades will remain on the student's transcript.

Academic Environment
The learning environment at LRCC encourages free discussion, inquiry and expression. Student performance is evaluated only on the basis of performance in class or lab, not on the basis of their individual views. Students are responsible for learning the content of any course of study, participate actively in the class and have the right to take exception to the views presented in class.

Students shall maintain academic standards and are accountable for the honest and timely completion of assigned work, consistent participation in all class, shop, laboratory or clinical activities, and for conducting themselves in an appropriate manner. At the beginning of each semester the instructor shall provide students with a syllabus that contains a description of the course, its objectives, grading procedures, special academic requirements, prerequisites and specific class participation and attendance standards. The syllabus will include a schedule indicating (on a weekly basis if possible) when various course topics will be covered. Copies of syllabi are also available from the Academic Affairs Office.

Students will supplement their syllabi and enhance their learning experiences via the use of a Learning Management System. For LRCC, this system is called Canvas. Individual instructors may utilize Canvas to varying extents, but all are required to post the course syllabus, post their contact information, and utilize the gradebook feature presented in Canvas for each course. Students should develop the practice of regularly checking Canvas for course updates, as well as their College email for important information

Student Code of Conduct
A student's enrollment at Lakes Region Community College depends on his or her conduct, the receipt of academic credit and the conferring of a degree or certificate. Students are subject to the academic and judicial policies of Lakes Region

Community College and the Community College System of New Hampshire (CCSNH). A student's registration may be canceled; he or she may, following due process, be dismissed from Lakes Region Community College at any time for conduct of a nature that would reflect discredit on the student and/or the colleges within CCSNH. All students are expected to be familiar with the Student Code of Conduct and the judicial process. Both may be found in the Student Handbook http://www.lrcc.edu/student-resources/student-handbook.

Attendance

The College has designed a schedule of classes for each course that meets the Carnegie unit definition of class time necessary for the average college student to complete the course. This time at the College, under the supervision of a professional educator, contributes to academic success. It is understood that students may miss class due to illness or emergency. When this happens, the student should make every attempt to contact the instructor as soon as possible to discuss assignments and makeup opportunities. Students should in all cases notify and consult with their instructor on all absences. Absence for any portion of scheduled class time may constitute an absence. In some cases, students must keep their own attendance records because a financial sponsor requires this for use in advising and recommending students to employers. The instructors will make every effort to accept advance notices of absences due to college events and/or emergencies. It is, however, ultimately the student's responsibility to make arrangements for missed assignments, tests, lectures, deadlines and other academic activities associated with the lack of attendance.

LRCC encourages attendance in class for several reasons:

- There is a strong correlation between attending classes and academic success.
- Material may be available in class that is not in the textbook.
- Class time has been assigned to each student and that is their time to receive instructor assistance, which is important to the successful completion of the course requirements.
- Much learning takes place between faculty and students during class. This time is also a chance for students to think, question and clarify ideas and information.
- Each individual is expected to make satisfactory progress in classes. Attendance is important so the faculty can assist the student in making satisfactory progress.
- Students who are not making satisfactory progress should, with the consensus of instructor and advisor, drop the course during the drop period.

Registration for any course presumes that the student will attend all scheduled classes, laboratories, and clinics. Any student who does not attend the first two classes of the semester and has not processed a course drop in writing with the Registrar's Office or via the Student Information System (SIS), will be removed from the class roster. Each student is responsible for meeting all class requirements. For an absence rate that reasonably precludes making up missed coursework, barring mitigating factors such as major illness, accident or family emergency, faculty may process an administrative failure form with the Registrar's Office or award a final grade of "AF" at the end of the term.

Registration

The Registrar's Office, the Financial Aid Office and the Bursar's Office coordinate the registration process, which includes registering for courses, completion of forms and payment of college tuition and fees. Matriculated students must have advisor approval before registering for any course. Non-matriculated students may register for courses as long as pre-requisites are met or the student receives instructor approval.

Students should understand by registering for courses at Lakes Region Community College, they are financially obligated for all costs related to the registered course(s). Upon a drop or withdrawal after the refund period, it is understood the student will be responsible for all charges as noted in the student catalog and handbook. If they do not make payment in full, it is understood their account may be reported to the credit bureau and/or turned over to an outside collection agency. It is also understood they will be responsible for the costs of the outside collection agency and/or any legal fees and bounced check fees under RSA 6:11 which may add a significant cost to their existing account balance.

Adding a Course

Students may add courses to their schedule up to and including the seventh (7th) calendar day of the semester, providing there is space in the class. A course may be added after the seventh (7th) calendar day of the semester only with the permission of the instructor.

Adding an Online Course

A student may add a 100% online course up to the official start date of the semester. Once the semester has started, a student may add a 100% online course only with the permission of the instructor.

Dropping a Course
The student should discuss the decision to drop a course(s) with his/her advisor. Course(s) may also be dropped online via the Student Information System (SIS), up to the last day to drop with a refund.

Students may drop a course anytime during the first 60% of the semester. This may, however, result in a change in student status for financial aid, veteran's benefits, insurance discounts, etc. Students who formally drop a course by filing the drop form in a timely manner will have information entered on their academic record as follows**:**

- No courses or grades are recorded for students who register but do not attend classes.
- No courses or grades are recorded for students who withdraw from course(s) during the refund period.
- A grade of "W" is awarded to students who drop a course(s) after the refund period but during the first 60% of the semester.

Students who fail to file an official drop form to drop a course for which they are not attending will receive an administrative failure for such courses on their transcripts.

Audit Policy
Under the Audit Policy, students may enroll in courses which provide an opportunity to assess their ability to do college work, explore a discipline of interest, refresh prior learning, or supplement existing knowledge. Typically, a student attends lectures, seminars and/or labs but does not complete graded assignments (unless agreed upon with the instructor). When enrolled as an audit, the student will not be given a final grade, nor will credit towards graduation be given for the course (the academic transcript will reflect an AU for the course). ***Student must pay the full tuition for the course. Financial Aid does not cover costs for an audited course.***

Not all courses can be taken for audit, and entry into a course as an auditing student is by permission of the instructor. A student must complete a registration form 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; likewise, a student registered for credit may not change to audit status after the designated add period. The Vice President of Academic and Student Affairs may make exceptions to this policy.

Pre-requisite
Students must successfully complete a pre-requisite course before enrolling in the next course. The course description section of the college catalog notes prerequisites. A failing grade in a pre-requisite will prevent a student from taking the next course. Students may use courses from other colleges to meet pre-requisites. The department chair or Vice President of Academic and Student Affairs determine transfer credit. See the section on transfer credit for further information.

Co-requisite
Some courses have a co-requisite course requirement, which means the course must be taken simultaneously with another course. A co-requisite may be satisfied if taken in a prior semester. Students should review all co-requisite requirements with their advisor.

Withdrawing from the College
Withdrawing from the College is a serious step, and students should discuss this process with instructors, academic advisor and a college counselor. The student must complete the withdrawal form and an exit interview with a college counselor, the Financial Aid Office and the Business Office to officially withdraw from the College. Failure to attend classes does not constitute withdrawal from the LRCC.

Students may withdraw from LRCC up to one week before the end of the semester. The date of withdrawal is noted on the students' academic college records, which also reflect the most recent date of class attendance, as needed, for students receiving scholarships, veteran's benefits, or for recipients of Title IV financial aid or other awards with special attendance requirements. Academic records will be treated in accordance with the standards used for dropping individual courses. A student who has withdrawn from the College may apply for readmission through the Admissions Office.

Student Status
A ***matriculated*** student is one who has been admitted to a program (degree or certificate) at the College. Matriculated students are entitled to participate in the Title IV Federal Financial Aid Program and have priority when registering for classes with limited enrollment. In order to remain matriculated, a student must enroll and attend at least one course during the academic year (not to exceed a 12-month period). A student who does not register for at least one course per academic year will lose matriculated status. A student who chooses to re-matriculate must reapply for admission to a program and if applying to a different program, may have to satisfy different program requirements.

A ***non-matriculated*** student is one who has not been admitted to a program at the College, and may register on a first-come, first-served basis for any course, providing the student has met pre-requisites and there is space available. *Non-matriculated* students should matriculate before the completion of 9 semester hours and begin pursuing graduation requirements. An advisor will help students make these decisions.

Leave of Absence
A *matriculated* student may request a *leave of absence* in writing through the Academic and Student Affairs Office if the student will not be taking courses within one academic year (not to exceed a 12-month period) but wishes to remain on matriculated status. After a leave of one academic year, the student must either register for at least one course or lose matriculated status, thus requiring reapplication and admission.

Medical Leave Policy
A matriculated student who, due to a ***serious medical condition*** requiring extended in-patient treatment in a medical facility and/or ongoing outpatient medical treatment, becomes unable to complete his/her academic requirements and/or who becomes unable to meet the program technical standards and/or the requirements of the Student Code of Conduct, may apply for a **Medical Leave of Absence** for up to three consecutive semesters.

Students considering a Medical Leave of Absence should be aware that ***granting of such leave does not relieve a student from financial responsibility to the College.*** A student who is seeking a Medical Leave of Absence who is also a financial aid recipient should contact the Financial Aid Office to discuss the leave and any potential implications for changes in financial aid eligibility. Students who have concerns about continuing health insurance coverage may also wish to consult http://www.michelleslaw.com for important information.

Students requesting Medical Leave of Absence must:

- Provide the medical leave form to the Vice President of Academic and Student Affairs.
- Provide the Vice President of Academic and Student Affairs documentation of the medical condition from a licensed health care professional *directly involved in the treatment* of the student's particular condition that is sufficiently comprehensive to facilitate the decision-making process.

The Vice President of Academic and Student Affairs (or designee) will make a determination regarding the appropriateness of the leave request and notify the student in writing whether the request for Medical Leave of Absence was granted and what conditions for readmission may apply. Students whose Medical Leave requests are granted will not be required to re-apply for admission at the end of the leave period provided that all conditions for readmission have been met.

Conditions for readmission may include, but are not limited to, submission of documentation from a licensed heath care professional *directly involved in the treatment* of the student's particular condition that is sufficiently comprehensive to provide reasonable assurance that the returning student will be able to meet all college and program academic, technical, and behavioral requirements. Other conditions for readmission may include a required in-person meeting with the Vice President of Academic and Student Affairs and/or the student's program Department Chair; compliance with any new admission criteria implemented in the student's absence; following a new curriculum plan that may have been implemented in the student's absence; and/or repeating courses and/or clinical experiences to ensure clinical competence following an extended absence. (Please note that students wishing to return to a residence hall may be required to meet additional, separate criteria from those required for return to an academic program. Students should directly negotiate any return to residence life with the Academic and Student Affairs Office.)

Students who choose to seek Medical Leave under the provisions of this policy should be aware that information they voluntarily disclose during the application and readmission processes will be handled under the confidentiality guidelines of the Family Educational Rights and Privacy Act (FERPA) and disclosed only to those persons with a direct academic need to know.

Enrollment Status is defined according to the number of credits a student takes during a semester and is used to determine financial aid awards. Credits awarded for transfer, work experience, audits and challenge exams do not count toward determination of full-time status. It is important to know; full-time status is the equivalent of 12 or more credit hours.

Full-time: 12 or more credits, or registered for ASEP or Toyota T-Ten Co-op
Three-quarter time: 9-11 credits
Half-time: 6-8 credits
Less than half-time: 1-5 credits

A student must register for 12 or more credit hours to qualify for *full-time status* for financial aid, veteran's benefits, etc.

Disclosure of Directory Information
Lakes Region Community College defines "directory information" as name, address, e-mail address (CCSNH email only), telephone number, major field of study, dates of attendance, enrollment status, degrees, honors, awards and most recent educational institution attended.

Students may refuse designation of personally identifiable information as directory information provided a written request is received by the Registrar.

Privacy of Records
LRCC does not provide access to, or release of, any personally identifiable records or files to any individual, agency or organization without prior written consent of the student except as follows. The President, Vice Presidents and Registrar shall have unlimited access, without permission, to all student records. They may release information without prior written authorization of the student in the following circumstances:
To officials and teachers within the College who are directly involved in a legitimate, educational matter with the student.
To authorize Federal and State offices as identified in Section 438(b) (3) of Public Law 93-380.
To appropriate persons in connection with an emergency if the knowledge of such information is necessary to protect the health or safety of any person. If students wish their parent(s) or anyone else to be given information about any aspects of their progress at the College, they must sign a Release of Student Information form, which can be obtained from the Registrar's Office.

Family Educational Rights Privacy Act Of 1974

The Family Educational Right and Privacy Act (FERPA) affords students certain rights with respect to their education records. These rights include:

The right to inspect and view the student's education records within 45 days of the day the college receives a request for access. Students should submit written requests that identify the record(s) they wish to inspect to the Registrar, Vice President of Student Affairs or the appropriate official. The college official will make arrangement for access and notify the student of the time and place where the records may be. If the records are not maintained by the college official to whom the request was submitted, that official should advise the student of correct official to whom the request should be addressed.

The right to request the amendment of the student's education records that the student believes is are incorrect or misleading. Students may ask the college to amend a record that they believe is incorrect or misleading. They should write the college official responsible for the record, clearly identify the part of the record they want changed, and specify why it is incorrect or misleading. If the college decides not to amend the record as requested by the student, the college will notify the student of the decision and advise the student of his or her right to a hearing regarding the request for amendment. Additional information regarding the hearing procedure will be provided to the student when notified of the right to a hearing.

The right to consent to disclosures of personally-identifiable information contained in the student's education records, except to the extent that FERPA authorizes disclosure without consent. One exception which permits disclosure without consent is disclosure to school officials with legitimate educational interests. A school official is a person employed by the college in an administrative, supervisory, academic, research or support staff position (including law enforcement unit personnel and health staff); a person or company with whom the college has contracted (such as an attorney, auditor or collection agent); a person serving on the Board of Trustees; or student serving on an official committee, such s a disciplinary or grievance committee, or assisting another school official in performing his or her task. A school official has a legitimate educational interest if the official needs to view an education record in order to fulfill his or her professional responsibility.

The right to file a complaint with the U.S. Department of Education concerning alleged failure by the college to comply with requirements of FERPA. Students may request release of college records by completing the Authorization for Release of Records form prior to releasing the documented.

Social Security Number
Federal law requires that Lakes Region Community College collect names and corresponding social security numbers for all students attending the College. The College is required by the Internal Revenue Code to produce a 1098-T tax form (Federal Register, Vol. 67, No. 2244, page 777686 (ii)) which requires the College to report the names and social security numbers of all students taking credit-bearing courses**. Please note, the College will ensure the security of the student's social security number and will not disclose it to anyone outside the College, except as mandated by federal or state laws.**

Cooperative Education (Co-op)
A cooperative education (co-op) is an educational experience that combines classroom studies with paid, productive work experience at a site in a field related to the student's major. Depending on the length of the co-op experience and criteria established by the sponsoring academic department, one to four credits may be awarded.

Each college department will set standards for eligibility to participate in a co-op. Individual departments must approve co-op sites and will determine requirements (papers, journals, etc.) that must be met during the co-op. The co-op will be graded using the College's grading system and credit will be awarded accordingly. Cooperative education is optional for all programs except the GM ASEP, Toyota/Lexus T-TEN, Culinary, Hospitality Management, Pastry Arts and Restaurant Management Programs. Faculty monitors each placement to ensure that it meets academic requirements and that the work experience is relevant to the student's area of study.

Exceptions to the above may be made with the approval of the Department Chair and Vice President of Academic and Student Affairs.

While LRCC makes every effort to place each eligible student, ***there is no guarantee*** placement will occur. Students should see their faculty advisor for specific details about their placement. The College charges tuition and fees for co-op experience, on a per-credit basis.

The student's cooperative education faculty advisor assists students in preparation for their co-op experience, usually two to four weeks prior to the co-op session

LRCC retains its right to remove a student from a co-op position if the situation warrants doing so. Obviously, as with most work situations, the employer can terminate the relationship resulting in loss of credit, if the employer has just cause and has documented the situation. Each department's criteria pertaining to cooperative education may differ. The student should consult with his/her advisor for additional information.

Credit Options for Advanced Standing
Credit options are opportunities for adult learners to earn credit toward a degree through alternatives other than coursework. Credit options include: transfer credit, CLEP examinations, credit by examination, advanced credit, DANTES and experiential learning.

LRCC encourages students to apply the wealth of knowledge and experience they possess to take advantage of all the credit options available to them. It is possible for students to earn significant credit based on previous educational and professional experiences. The only restriction is, students seeking a degree or certificate at the College must complete residency requirements. (See residence credit for specific requirements.)

Please note, credit earned through any of these options counts toward degree or certificate requirements, but is not included in computing grade point averages. Upon matriculation, student request for recognition of technical courses more than seven years old is subject to review. Course content may be outdated and therefore not acceptable for transfer or other credit. Computer Technologies courses more than three years old will not be accepted.

Transfer Credit
Students may transfer credits from other accredited colleges, including the colleges within the Community College System of New Hampshire provided they earned a grade of "C" or better, and those credits are equivalent to the courses in their program. To apply, students must contact other college(s) they have attended and arrange for official transcripts to be sent to the Lakes Region Community College Registrar.

The Vice President of Academic and Student Affairs must review course credit awarded through another institution's credit by examination policy. The Academic and Student Affairs Office along with Department Chairs, coordinates transfer credit. The Vice President of Academic and Student Affairs determine acceptability of transfer credit. Students should consider, transfer credits may lessen their financial aid eligibility by reducing the course load from full-time to part-time status.

Lakes Region Community College does not use grades received in courses taken at any other institution in computing semester or cumulative grade point averages.

Credit by Examination
Credit by examination provides matriculated students with the opportunity to challenge technical and other courses for which they feel qualified. Examinations are prepared and administered by college faculty. If students obtain a grade of "C" or better, the credits earned count toward their degree and the academic record will reflect a grade of "CR". The

academic officer and the instructor coordinate the credit by examination process. The exam must be taken and graded within the first seven days of the semester. The student, and the Registrar receive notification of the course exam results, a copy of which is placed in the student's permanent file.

Students who apply for credit by examination must be matriculated and may apply for credit by examination only for those courses for which they are not currently registered. The fee for credit by examination is $25 per credit, plus all direct costs associated with providing the laboratory exam. Students cannot use credit by examination to make up a previously failed course. If a student earns credit by examination, the enrollment status could change, an action which could affect financial aid status.

DANTES (Defense Activity for Non-Traditional Education Support)
The DANTES College Credit Examination program provides National Guard members and servicemen and women with three different exam programs to earn college credit. The exams are CLEP, ACT/PEP and the DANTES Subject Standardized Tests (DSSTS). To apply, students must arrange to have credits earned through DANTES sent to the college Registrar.

Continuing Education Credits
In students' working or professional lives, they may have taken work-related courses that have provided them with certificates or Continuing Education Units (CEUs). Students may earn credit(s) toward their degree through these efforts.

To apply, students need to assemble all certificates and CEUs into a package. Students must develop a narrative statement (for each certificate or CEU) that outlines the purpose of the course or workshop, the sponsor and instructor of the activity, and the total number of hours for each activity. In addition, students must arrange for their employer to send a letter to the Vice President of Academic and Student Affairs, confirming their narrative statements and highlighting the competencies gained through participation in the activities.

Experiential Learning
Credit for prior learning offers students the opportunity to demonstrate the knowledge they have gained through life experiences and apply this knowledge towards credit in a degree or certificate program. To prepare for this option, students will develop a portfolio to be assessed by appropriate college personnel. A student must be matriculated at one of the CCSNH colleges to be eligible to apply for experiential credit. Not all programs provide the experiential credit option; students should consult with their respective colleges for eligible programs and the process used for application. Students may be awarded a maximum of 24 credits for 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).

Running Start
High school students have the opportunity to earn college credit through the Running Start program. This unique partnership between LRCC and local area high schools offers the high school student selected college-level coursework and college credit for successful completion of coursework. Running Start courses are taught at the high school by high school faculty members during the regular school day.

The cost of a three-credit course is $150 per course, plus books and supplies. This represents a significant savings associated with college tuition. Local high schools and students interested in a Running Start course may call the Running Start Coordinator for more information.

Early College
LRCC offers interested high schools the opportunity to participate in the *Early College Program* intended to provide interested high school students with concurrent dual enrollment (at their high school and at LRCC). High schools approve students' enrollments in specific courses taken at LRCC and grant high school credit in addition to the college level credit granted by the College.

High School Articulation
Some high schools have developed written agreements with the College to ensure guaranteed acceptance for qualified students. These agreements specify the competencies needed for acceptance, and they show the student how to meet them. They also spell out how a student can earn college credit while in high school. (See Articulation Agreements for a listing of the participating high schools).

Articulation Agreements

High School	Lakes Region Community College Curriculum
Barre Technical Center Barre, VT	Automotive Service Education Program Automotive Technology Program
Berlin High School Berlin, NH	Automotive Service Education Program Automotive Technology Program
Biddeford Regional Center of Technology Biddeford, ME	Automotive Service Education Program
Burlington Regional and Career Technical Ctr. Burlington, VT	Automotive Service Education Program Graphic Design
Center for Career and Technical Education Salem, NH	Automotive Service Education Program Automotive Technology
Center for Technology Essex, VT	Automotive Service Education Program
Cheshire Career Center Keene, NH	Automotive Service Education Program Automotive Technology Program Culinary Arts
Cold Hollow Career Center, Enosburg, VT Enosburgh Falls, VT	Automotive Service Education Program
Concord Regional Technical Center, Concord, NH	Automotive Service Education Program Automotive Technology Program Culinary Arts
Dover Regional Career Technical Center, Dover, NH	Automotive Service Education Program Automotive Technology Program Culinary Arts Electrical Power and Control Technologies Electrical Systems Installation and Maintenance
Green Mountain Technology and Career Center Hyde Park, VT	Automotive Service Education Program
Hancock County Technical Center Ellsworth, ME	Automotive Service Education Program
Hartford Area Career and Technology Center, White River Junction, VT	Automotive Service Education Program Culinary Arts
J. Oliva Huot Technical Center, Laconia, NH	Automotive Service Education Program Automotive Technology Program Business Management Program Culinary Arts Office Technology Management Program
Hugh J. Gallen Career and Technical Center Littleton, NH	Automotive Service Education Program
Lakes Region Technical Center Wolfeboro, NH	Automotive Service Education Program Automotive Technology Program Culinary

Mascenic Regional High School New Ipswich, NH	Automotive Service Education Program Automotive Technology Program
Manchester School of Technology Manchester, NH	Culinary Arts
Nashua Career and Technical Center Nashua, NH	Graphic Arts
Nashua High School South Nashua, NH	Electrical Power and Control Technologies Electrical Systems Installation and Maintenance
Mount Washington Valley Career and Technical Center, Conway, NH	Automotive Service Education Program Automotive Technology Program Graphic Design
North Country Career Center Newport, VT	Automotive Service Education Program
Patricia A. Hannaford Career Center Middlebury, VT	Automotive Service Education Program
Pinkerton Academy Derry, NH	Automotive Service Education Program Automotive Technology Program
Plymouth Regional Technical Center Plymouth, NH	Automotive Service Education Program Automotive Technology Program
Portland Area Arts & Technology Portland ME	Automotive Service Education Program
Portsmouth Career and Technical Center, Portsmouth, NH	Automotive Service Education Program Automotive Technology Program Culinary Arts
Randolph Technical Career Center Randolph, VT	Automotive Service Education Program
Richard Creteau Technical Center Rochester, NH	Automotive Service Education Program Automotive Technology Program Graphic Design
River Bend Career & Technology Center Bradford, VT	Automotive Service Education Program Electrical Power and Control Technologies Electrical Systems Installation and Maintenance
Salem Center Technical Education Salem, NH	Computer Technologies
Sanford Regional Vocational Center Sanford, ME	Automotive Service Education Program
Seacoast School of Technology Exeter, NH	Automotive Service Education Program Automotive Technology Program Culinary Arts
Somerset Career Center Skowhegan, NH	Automotive Service Education Program
Somersworth HS Career and Technical Ctr. St. Johnsbury Academy St. Johnsbury, VT	Culinary Arts Automotive Service Education Program

Southwest VT Career Development Center Bennington, VT	Automotive Service Education Program
Spaulding High School Rochester, NH	Culinary Arts
Stafford Technical Center Rutland, VT	Automotive Service Education Program
Sugar River Valley Regional Technical Center Newport, NH	Automotive Service Education Program
Tri-County Technical Center Dexter, ME	Automotive Service Education Program
United Technologies Center Bangor, ME	Automotive Service Education Program Marine Technology Program
Waldo County Technical Center Waldo, ME	Automotive Service Education Program Automotive Technology
Westbrook Regional Vocational Center Westbrook, ME	Automotive Service Education Program

College Articulation Agreements

Franklin University
Franklin Pierce University
Granite State College
Johnson and Wales University
Keene State College
New Hampshire Institute of Art
Plymouth State University
Rivier College
Southern New Hampshire University
Springfield College
University of New Hampshire

Accounting
Associate in Science

An associate degree in accounting is your gateway to an exciting professional occupation. With an associate degree, you can graduate with career-ready accounting skills, including basic accounting, cost accounting, taxation, computerized accounting, and managerial accounting. Our students have the option of graduating and going directly into the workforce in this high-demand industry or pursuing a bachelor's degree at a four-year institution.

Students completing the Accounting degree program will have the skills and knowledge necessary to gain entry into careers such as accounts receivable clerk, accounting assistant, billing clerk, bookkeeper, management trainee, and payroll clerk. In addition to an accounting core, students will develop strong business skills by studying business concepts, management, international business, and business law.

For students interested in continuing with their college education, transfer agreements with four-year institutions may be available. Call or email the department chair for details.

Students completing the program will be expected to:

- 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
- Articulate the necessity for continued education through a bachelor degree and national licensing such as the CPA or CMA

FIRST YEAR

Fall Semester		**CL**	**LAB**	**CR**
ACCT1310L	Accounting I	3	0	3
BUS1300L	Introduction to Business	3	0	3
ENGL100L	English Composition	4	0	4
SOSC2310L	Microeconomics			
OR				
SOSC2320L	Macroeconomics	3	0	3
ESNT1200L	College Essentials	1	0	1
	Mathematics Elective	3	0	3
	Total	**17**	**0**	**17**

Spring Semester		**CL**	**LAB**	**CR**
ACCT1320L	Accounting II	3	0	3
CIS1320L	Software Applications	3	2	4
ENGL1230L	Business Communications	3	0	3
	Social Science Elective	3	0	3
	Liberal Arts Elective	3	0	3
	Total	**15**	**2**	**16**

Total Credits for Year = 33

SECOND YEAR

Fall Semester		**CL**	**LAB**	**CR**
ACCT2310L	Cost Accounting	3	0	3
ACCT2510L	Federal Taxes	3	0	3
ACCT2730L	Introduction to Computerized Accounting	2	2	3
BUS2310L	Principles of Management	3	0	3
	Science Elective	3	0	3
	Total	**14**	**2**	**15**

Spring Semester		CL	LAB	CR
ACCT2350L	Managerial Accounting	3	0	3
CIS2350L	Spreadsheets	2	2	3
BUS2380L	Business Law I	3	0	3
BUS2520L	Introduction to International Business	3	0	3
	Business Elective	3	0	3
	Humanities/Fine Arts/Foreign Language Elective	3	0	3
	Total	**17**	**2**	**18**

Total Credits for Year = 33
Total for A.S. Degree = 66

Accounting students may take any business class to satisfy their business elective so long as it is not required of their program.

Accounting Certificate

		CL	LAB	CR
ACCT1310L	Accounting I	3	0	3
ACCT1320L	Accounting II	3	0	3
ACCT2310L	Cost Accounting	3	0	3
ACCT2350L	Managerial Accounting	3	0	3
ACCT2510L	Federal Taxes	3	0	3
ACCT2730L	Introduction to Computerized Accounting	2	2	3
CIS2350L	Spreadsheets	2	2	3
CIS1320L	Software Applications	3	2	4
ESNT1200L	College Essentials	1	0	1
	Total	**23**	**6**	**26**

Advanced Manufacturing Associate in Science

The Advanced Manufacturing Degree at Lakes Region Community College consists of 11 major core courses 5 of which are the core courses of our Advanced Manufacturing Certificate program. Successful students should have the necessary skills to enter the manufacturing workforce, or excel in current manufacturing employment, into positions a step higher than entry level. Students will have an understanding of manufacturing operations and processes. In addition, students will have acquired skills for decision making in the manufacturing environment using quantitative and qualitative data. Students will have knowledge in materials, processes, quality control, machine operations, machine set-up and tool section, employee empowerment skills, critical thinking skills, oral and technical communication skills, and operation management skills.

Students completing the program will be expected to:

- Mathematic skills necessary to solve manufacturing problems through the understanding of fractions and decimals, algebra, geometry, trigonometry, linear equations, roots, geometric figures, usage of tolerances, interpretation and usage of formulas and proportions, and practical applications of geometry and trigonometry.
- The ability to read and interpret blueprints and engineering drawings.
- Understanding of machine tools and machine tool operations such as milling, turning, drilling, cutting, grinding, and chamfering.
- Advanced CNC machine operations skills including offsets, work offsets, G-code programming, machine zeroing, and circular interpolation, set-up, tool selection, material selection, and operator maintenance.
- Computer Aided Manufacturing (CAM) and CAM-Mill skills in processes such as contouring, cycle time estimating, tool selection, material specification, cutter compensation, parameter changes, contour applications, roughing, finishing, and tool paths.
- Operational Management skills in strategic decision making using tools such as forecasting, basic inventory models, aggregate planning, master scheduling, materials requirements, and scheduling of operations.
- Understanding of procurement, inventory movement, storage of materials, and production flows.
- Lean manufacturing principles such as line balancing, standard work, waste elimination, 5-S programs, employee empowerment, quality, lean production flow and inventory control, as well as facilitation techniques.

FIRST YEAR

Fall Semester		**CL**	**LAB**	**CR**
ENGL100L	English Composition	4	0	4
MATH1370L	Technical Algebra & Geometry	4	0	4
MANF1420L	Machine Processes	3	0	3
MANF1310L	Blueprint Reading	2	3	3
MANF1450L	Manufacturing Processes	3	0	3
ESNT1200L	College Essentials	1	0	1
	Total	**17**	**3**	**18**

Spring Semester		**CL**	**LAB**	**CR**
ENGL1220L	Technical Communications	3	0	3
OR				
ENGL1230L	Business Communications	3	0	3
MANF1320L	Solid Modeling	2	3	3
MANF1510L	CNC Machines I	2	0	2
MANF1520L	CNC Machines I Lab	2	6	2
PHYS1250L	Technical Physics	2	2	3
	Humanities/Fine Arts/Foreign Language Elective	3	0	3
	Total	**12**	**11**	**16**

Total Credits for Year = 34

SECOND YEAR

Fall Semester		**CL**	**LAB**	**CR**
MANF2200L	Properties of Materials	3	2	4
MANF2110L	CNC Machines II	1	0	1
MANF2120L	CNC Machines II Lab	2	6	2
MANF2300L	CAD/CAM	2	3	3
MANF2400L	Lean Manufacturing	3	0	3
	Social Science Elective	3	0	3
	Total	**14**	**11**	**16**

Spring Semester		**CL**	**LAB**	**CR**
MANF2500L	Advanced CNC Machine Processes	2	6	4
MANF2600L	Operations Management	3	0	3
MANF2700L	Capstone	3	0	3
OR				
MANF2800L	Internship	0	9	3
	Liberal Arts Elective	3	0	3
	Liberal Arts Elective	3	0	3
	Total	**14**	**15**	**16**

Total Credits for Year = 32
Total for A.S. Degree = 66

Advanced Manufacturing Certificate

		CL	**LAB**	**CR**
ESNT1200L	College Essentials	1	0	1
MANF1200L	Machine Tool Math	3	0	3
MANF1310L	Blueprint Reading	2	3	3
MANF1420L	Machine Processes	3	0	3
MANF1510L	CNC Machines I	2	0	2
MANF1520L	CNC Machines I Lab	0	6	2
MANF2110L	CNC Machines II	1	0	1
MANF2120L	CNC Machines II Lab	0	6	2
	Total	**12**	**15**	**17**

Automotive Technologies
Associate in Applied Science

Automotive Service Education Program (ASEP)

ASEP fulfills two very important goals in providing the best possible education for GM Technicians. First, it combines state-of-the-art technical training with appropriate academic coursework and dealership experience. Secondly, it fills an industry need for well-educated and motivated technicians capable of continued growth in a technologically dynamic field.

Graduates who successfully complete the 21-month cooperative education Automotive Service Education Program will receive an Associate in Applied Science Degree in Automotive Technology and credits toward GM Master Certification in all areas. The Co-op education program allows students to earn money while they work and learn in a General Motors dealership.

No college or educational program can guarantee its graduates a job in the future, but ASEP comes very close to doing just that. ASEP students are already working while in school. They receive training on specific products and dealership operations. ASEP graduates fulfill minimum training requirements that GM dealerships are obligated to meet. This makes them a valuable addition to the dealership.

The need for well-educated technicians to repair and service automobiles will be around for many years to come. Some ASEP graduates have gone on to become teachers, field service engineers, service managers or owners of their own dealerships. The potential for personal and financial growth in this industry is high.

The GM ASEP degree program has a limited number of spaces; therefore, students will be selected after careful consideration of their academic record, scores on the placement exam and an interview with the Automotive Department. The College's rolling admissions policy does not apply to the GM ASEP program. All candidates for this program must take the College's placement exam and must secure a GM dealer sponsor prior to an admissions decision.

Technical Requirements
A candidate for ASEP must:

- have a high school degree or equivalent
- interview with one of the automotive faculty;
- be sponsored by a General Motors dealership/AC Delco Professional Service Center;
- have command of the English language
- have reading comprehension skills sufficient to read and comprehend service literature;
- have communication skills sufficient to prepare required reports;
- be able to understand and follow both written and oral instructions;
- be able to complete requirements for college level classes;
- have sufficient vision to distinguish colors, read gauges, scopes, diagnostic equipment and information from a computer screen (adaptive equipment acceptable);
- have sufficient hearing to distinguish various sounds and noises (adaptive equipment acceptable);
- have the ability to stand for extended periods of time and the physical strength to lift automotive parts and equipment;
- have sufficient dexterity to perform manual skills related to automotive service;
- be able to work in an automotive service facility environment;
- maintain a valid driver's license;
- be able to purchase the minimum required tools.

Students completing the program will be expected to:

- have skills necessary to service and maintain GM vehicles and the integrated systems used on these vehicles;
- have the skills necessary to diagnose and repair GM vehicles and the integrated systems used on these vehicles;
- have the skills necessary to develop and maintain a training path for continued growth using GM Service Technology College (GMSTC).
-

FIRST YEAR

Fall Semester	**CL**	**LAB**	**CR**
AUTO1210L Automotive Systems	2	9	5
AUTO1220L GM Automotive Electricity	2	8	4

ENGL100L	English Composition	4	0	4
ESNT1200L	College Essentials	1	0	1
	Social Science Elective	3	0	3
	Total	**12**	**17**	**17**

Winter Semester		**CL**	**LAB**	**CR**
AUTO1750L	Cooperative Education	0	12	4
	Total	**0**	**12**	**4**

Spring Semester		**CL**	**LAB**	**CR**
AUTO2250LGM	Chassis Systems	2	8	4
AUTO1240LGM	Engine and Engine Related Electrical Systems	2	9	5
ENGL1220L	Technical Communications	3	0	3
MATH1370L	Technical Algebra & Geometry	4	0	4
	Total	**11**	**17**	**16**

Summer Semester I		**CL**	**LAB**	**CR**
AUTO2100LGM	Heating, Ventilation & Air Conditioning	2	8	3
AUTO2110LGM	Supplemental Inflatable Restraint & Accessories	2	8	3
	Total	**7**	**16**	**6**

Summer Semester II

AUTO1760L	Cooperative Education	0	6	2
	Total	0	6	2

Total Credits for Year = 45

SECOND YEAR

Fall Semester		**CL**	**LAB**	**CR**
AUTO2750L	Cooperative Education	0	12	4
	Total	**0**	**12**	**4**

Winter Semester		**CL**	**LAB**	**CR**
AUTO2220LGM	Drive Trains	2	9	5
AUTO1230LGM	Fuel and Emissions	2	8	4
PHYS1280L	Introduction to Physical Sciences	3	3	4
	Humanities/Fine Arts/Foreign Language Elective	3	0	3
	Total	**9**	**19**	**15**

Spring Semester		**CL**	**LAB**	**CR**
AUTO2900L	Cooperative Education	0	12	4
	Total	**0**	**12**	**4**

Total Credits for Year = 23
Total for A.A.S. Degree = 68

Automotive Technology

The constantly evolving automotive industry needs well-educated and motivated technicians capable of continued growth and lifelong learning skills as new advanced technologies find their way onto our roads. The Automotive Technology track at LRCC consist of a series of evening and Saturday courses that provide students a well-rounded education with an emphasis on the service, diagnosis, and repair of today's complex automobiles and their integrated systems. Graduates who successfully complete the two-year Automotive Technology Program will receive an Associate in Applied Science Degree in Automotive Technology. Attaining this degree will open doors to numerous opportunities for higher skills jobs, income, and continued personal and professional growth. The range of career options include automotive technician in an independent shop or a franchise shop; parts person; service advisor; service management, ownership, and possible pathways to teaching.

Evening and Saturday hours make this program a convenient option for those individuals already working in the field, who want to improve their understanding and skills, or have the desire to prepare for ASE Certification testing. The courses are a combination of classroom theory and invaluable hands-on lab experience. The classes are taught by Master

Certified Technicians with many years of experience solving the technical concerns related to engine performance, emissions, drive train, steering, suspension and braking systems, audio systems and HVAC.

Technical Requirements

The Automotive Technology student must:

- have a high school degree or equivalent;
- interview with one of the automotive faculty;
- have command of the English language;
- have reading comprehension skills sufficient to read and comprehend service literature;
- have communication skills sufficient to prepare required reports;
- be able to understand and follow both written and oral instructions;
- be able to complete requirements for college level classes;
- have sufficient vision to distinguish colors, read gauges, scopes, diagnostic equipment and information from a computer screen (adaptive equipment acceptable);
- have sufficient hearing to distinguish various sounds and noises (adaptive equipment acceptable);
- have the ability to stand for extended periods of time and the physical strength to lift automotive parts and equipment;
- have sufficient dexterity to perform manual skills related to automotive service;
- be able to work in an automotive service facility environment;
- maintain a valid driver's license;
- be able to purchase the minimum required tools.

Students completing the program will be expected to:

- be able to identify learning needs and construct activities to attain continuous growth through self-directed life-long learning.
- be able to safely perform routine diagnostics, service and repair on today's modern cars and light trucks.
- be able to safely diagnose and repair the integrated systems used on today's advanced vehicles.

FIRST YEAR

Fall Semester	**CL**	**LAB**	**CR**
AUTO1200L Introduction to Automotive Service	2	4	3
AUTO1360L Suspension and Steering	3	7	4
AUTO1320L Electrical/Electronics I	3	5	4
ENGL100L English Composition	4	0	4
ESNT1200L College Essentials	1	0	1
Total	**13**	**14**	**16**

Spring Semester	**CL**	**LAB**	**CR**
AUTO1330L Electrical/Electronics II	3	5	4
AUTO1340L Braking Systems	3	4	4
ENGL1220L Technical Communications	3	0	3
Mathematics Elective	3	0	3
Total	**12**	**9**	**14**

Summer Semester	**CL**	**LAB**	**CR**
AUTO1350L Heating, Ventilation and Air Conditioning	3	7	4
AUTO1300L Engine Mechanical	3	5	4
Social Science Elective	3	0	3
Total	**9**	**14**	**11**

Total Credits for Year = 41

SECOND YEAR

Fall Semester	**CL**	**LAB**	**CR**
AUTO2400L Manual Drive Train	3	4	4
AUTO2450L Engine Performance I	3	5	4

Science Elective	3	0	3
Liberal Arts Elective	3	0	3
Total	**12**	**9**	**14**

Spring Semester	**CL**	**LAB**	**CR**
AUTO2550L Engine Performance II	3	5	4
AUTO2650L Automatic Transmission and Transaxles	3	6	4
AUTO2700L Advanced Technology Systems	3	0	3
Humanities/Fine Arts/Foreign Language Elective	3	0	3
Total	**12**	**11**	**14**

Total Credits for Year = 28
Total for A.A.S. Degree = 69

Basic Automotive Certificate

	CL	**LAB**	**CR**
AUTO1200L Introduction to Automotive Services	2	4	3
AUTO1300L Engine Mechanical	3	5	4
AUTO1320L Electrical/Electronics I	3	5	4
AUTO1330L Electrical/Electronics II	3	5	4
AUTO1340L Braking Systems	3	4	4
AUTO1360L Suspension and Steering	3	7	4
ESNT1200L College Essentials	1	0	1
Total	**18**	**30**	**24**

Students in the Basic Automotive Certificate may take a co-op if desired.

Advanced Automotive Certificate

	CL	**LAB**	**CR**
AUTO1200L Introduction to Automotive Services	2	4	3
AUTO1300L Engine Mechanical	3	5	4
AUTO1320L Electrical/Electronics I	3	5	4
AUTO1330L Electrical/Electronics II	3	5	4
AUTO1340L Braking Systems	3	4	4
AUTO1350L HVAC	3	7	4
AUTO1360L Suspension and Steering	3	7	4
AUTO2400L Manual Drive Train	3	4	4
AUTO2450L Engine Performance I	3	5	4
AUTO2550L Engine Performance II	3	5	4
AUTO2650L Automatic Transmission and Transaxles	3	6	4
ESNT1200L College Essentials	1	0	1
Total	**19**	**27**	**28**

Toyota/Lexus T-TEN

The Toyota-Technician Education Network (T-TEN) is the result of a partnership between USA Toyota Motor Sales, the Northeast Region's Toyota/Lexus dealerships and Lakes Region Community College. The T-TEN technician education program provides the best possible education for Toyota Lexus Technicians as it combines state of the art technical training on the latest Toyota and Lexus vehicles with appropriate academic course work and paid dealership experience. The T-TEN program fills an industry need for well-educated and motivated technicians with specific product knowledge immersed in Toyota Lexus culture of continuous improvement. Successful T-TEN students have developed the skills and attitudes that make them capable of continued growth in a technologically dynamic field. Graduates who complete the 22-month cooperative education Toyota Lexus technician education program will receive an Associate of Applied Science Degree in Automotive Technology and Toyota Lexus certifications in all areas.

Once you've enrolled in the program and secured a sponsoring dealer, you'll divide your time between the classroom and dealership work experience. All tuition, fees, textbooks, tools, housing and travel expenses are the responsibility of the student. However, since you will be paid for your work at your dealership, much of these costs will be offset.

The close working relationship established between the student and the sponsoring dealership coupled with the Toyota Lexus certifications ensure a rewarding career as a Toyota or Lexus technician at your sponsoring dealership. The AAS degree may open doors for future career growth in other areas of the industry including management at the dealership, manufacturer positions and teaching positions.

The Toyota/Lexus T-TEN program has a limited number of spaces. Students will be selected after careful consideration of their academic record, scores on the placement exam and an interview with the Toyota Lexus instructors and dealership personnel. The College's rolling admissions policy does not apply to the T-TEN program. All candidates for this program must take the College's placement exam and must secure a Toyota or Lexus dealer sponsor prior to an admissions decision.

Technical Requirements

A candidate for T-TEN must:

- have a high school degree or equivalent;
- interview with one of the T-TEN faculty;
- be sponsored by a Toyota or Lexus dealership;
- have command of the English language
- have reading comprehension skills sufficient to read and comprehend Toyota Service Information;
- have communication skills sufficient to prepare required reports;
- be able to understand and follow both written and oral instructions;
- be able to complete requirements for college level classes;
- have sufficient vision to distinguish colors, read gauges, scopes, diagnostic equipment and information from a computer screen (adaptive equipment acceptable);
- have sufficient hearing to distinguish various sounds and noises (adaptive equipment acceptable);
- have the ability to stand for extended periods of time and the physical strength to lift automotive parts and equipment;
- have sufficient dexterity to perform manual skills related to automotive service;
- be able to work in an automotive service facility environment;
- maintain a valid driver's license with a good driving record;
- be able to purchase the minimum required tools.

Students completing the program will be expected to:

- have skills necessary to service and maintain Toyota and Lexus vehicles and the integrated systems used on these vehicles;
- have the skills necessary to diagnose and repair Toyota and Lexus vehicles and the integrated systems used on these vehicles;
- have the skills necessary to develop and maintain a training path for continued growth using Toyota Lexus University of Toyota

FIRST YEAR

Fall Semester	**CL**	**LAB**	**CR**
AUTO1215L Introduction to Toyota/Lexus	1	6	4
AUTO1225L Toyota/Lexus Electrical I	1	6	4
AUTO1235L Toyota/Lexus Electrical II	1	6	4
ENGL100L English Composition	4	0	4
ESNT1200L College Essentials	1	0	1
Total	**8**	**18**	**17**

Winter Semester	**CL**	**LAB**	**CR**
AUTO1755L Cooperative Education I	0	2	1
Total	**0**	**0**	**1**

Spring Semester	**CL**	**LAB**	**CR**
AUTO1345L Toyota/Lexus Brakes	1	6	4
AUTO1365L Toyota/Lexus Suspension, Steering and Handling	1	6	4
AUTO2101LToyota/Lexus Heating, Ventilation & Air Conditioning	1	6	4

ENGL1220L Technical Communications	3	0	3
MATH1370L Technical Algebra & Geometry	4	0	4
Total	**13**	**18**	**19**

Summer Session I	**CL**	**LAB**	**CR**
AUTO2570L Toyota/Lexus Engine Repair	1	10	6
Total	**1**	**10**	**6**

Summer Session	**CL**	**LAB**	**CR**
AUTO2755L Cooperative Education II	0	2	1
Total	**0**	**0**	**1**

Total Credits for First Year = 44

SECOND YEAR

Fall Semester	**CL**	**LAB**	**CR**
AUTO2901L Cooperative Education III	0	2	1
Total	**0**	**0**	**1**

Winter Semester	**CL**	**LAB**	**CR**
AUTO2555L Toyota/Lexus Engine Control Systems I	1	6	4
AUTO2560L Toyota/Lexus Engine Control Systems II	1	6	4
AUTO1370L Toyota/Lexus Manual Transmission	1	6	4
PHYS1280L Introduction to Physical Sciences	3	2	4
Humanities/Fine Arts/Foreign Language Elective	3	0	3
Total	**8**	**24**	**19**

Spring Semester	**CL**	**LAB**	**CR**
AUTO2902L Cooperative Education IV	0	2	1
Total	**0**	**0**	**1**

Summer Semester	**CL**	**LAB**	**CR**
AUTO2670L Automatic Transmissions	1	6	4
Social Science Elective	3	0	3
Total	**4**	**6**	**7**

Total Credits for Year = 28
Total for A.A.S. Degree = 72

Toyota/Lexus T-TEN
Level One Certificate

First Year

Fall Semester	**CL**	**LAB**	**CR**
AUTO1215L Introduction to Toyota/Lexus	1	6	4
AUTO1225L Toyota/Lexus Electrical I	1	6	4
AUTO1235L Toyota/Lexus Electrical II	1	6	4
ESNT1200L College Essentials	1	0	1
Total	**3**	**18**	**13**

Winter Semester	**CL**	**LAB**	**CR**
AUTO1755L Cooperative Education I	0	2	1
Total	**0**	**2**	**1**

Spring Semester	**CL**	**LAB**	**CR**
AUTO1345L Toyota/Lexus Brakes	1	6	4
AUTO1365L Toyota/Lexus Steering Suspension	1	6	4
AUTO1370L Toyota/Lexus HVAC	1	6	4
Total	**3**	**18**	**12**

Total for Certificate= 26

Toyota/Lexus T-TEN
Level Two Certificate

FIRST YEAR

Fall Semester	**CL**	**LAB**	**CR**
AUTO1215L Introduction to Toyota/Lexus	1	6	4
AUTO1225L Toyota/Lexus Electrical I	1	6	4
AUTO1235L Toyota/Lexus Electrical II	1	6	4
ESNT1200L College Essentials	1	0	1
Total	**3**	**18**	**13**

Winter Semester	**CL**	**LAB**	**CR**
AUTO1755L Toyota/Lexus Cooperative Education I	0	2	1
Total	**0**	**2**	**1**

Spring Semester	**CL**	**LAB**	**CR**
AUTO1345L Toyota/Lexus Brakes	1	6	4
AUTO1365L Toyota/Lexus Steering Suspension	1	6	4
AUTO1370L Toyota/Lexus HVAC	1	6	4
Total	**3**	**18**	**12**

Summer Semester	**CL**	**LAB**	**CR**
AUTO2101LToyota/Lexus Engine Repair	1	10	6
AUTO2755LToyota/Lexus Cooperative Education II	0	2	1
Total	**1**	**12**	**7**

SECOND YEAR

Fall Semester	**CL**	**LAB**	**CR**
AUTO2901L Toyota/Lexus Cooperative Education III	0	2	1
Total	**0**	**2**	**1**

Winter Semester	**CL**	**LAB**	**CR**
AUTO2570L Toyota/Lexus Manual Transmission	1	6	4
AUTO2555L Toyota/Lexus Engine Control Systems I	1	6	4
AUTO2560L Toyota/Lexus Engine Control Systems II	1	6	4
Total	**3**	**18**	**12**

Spring Semester	**CL**	**LAB**	**CR**
AUTO2902LToyota/Lexus Cooperative Education IV	0	2	1
Total	**0**	**2**	**1**

Summer Semester	**CL**	**LAB**	**CR**
AUTO2670L Automatic Transmissions	1	6	4
Total	**1**	**6**	**4**

Total for Certificate = 51

Business Management
Associate in Science

The Business Management program is designed to provide students with a broad background in the areas of entrepreneurship, marketing, management, human resources, finance, international business, project management, and technology. A strong emphasis is placed on the development of analytical skills and problem solving. Additionally, students are encouraged to relate theoretical learning to practice and establish bridges between the classroom and work environment. Students are also encouraged to participate in the campus business club and seek internships to network and further develop their skills.

Opportunities exist everywhere for students who study business, from business and industry, to non-profit and service organizations, to owning and operating one's own business. Virtually every business in existence relies on organizational and business skills to ensure that the business runs smoothly.

Upon completion of the Business Management program, students seek careers in many different areas of business and/or transfer to four-year institutions. For students interested in continuing with their college education, transfer agreements with four-year institutions may be available. Call or email the department chair for details.

Students completing the program will be expected to:

- Have a strong command of the English language, including written and oral communications
- Have the mental and physical ability to work in groups and give oral presentations
- Demonstrate reading comprehension skills appropriate for a college level class
- Demonstrate arithmetic and computation skills
- Demonstrate problem-solving and analytical skills
- Work with members of the public in a professional, ethical, and courteous manner
- Demonstrate understanding of basic accounting, finance, and budgeting principles
- Be comfortable using computers and computer application software
- Demonstrate competencies in fundamental areas of business accounting, entrepreneurship, management, marketing, human resources, computers/technology, economics, business law, international business, and project management

FIRST YEAR

Fall Semester		**CL**	**LAB**	**CR**
ACCT1310L	Accounting I	3	0	3
BUS1300L	Introduction to Business	3	0	3
CIS1320L	Software Applications	3	2	4
ENGL100L	English Composition	4	0	4
ESNT1200L	College Essentials	1	0	1
	Social Science Elective	3	0	3
	Total	**16**	**2**	**18**

Spring Semester		**CL**	**LAB**	**CR**
ACCT1320L	Accounting II	3	0	3
BUS2600L	Principles of Marketing	3	0	3
ENGL1230L	Business Communications	3	0	3
SOSC2310L	Microeconomics			
OR				
SOSC2320L	Macroeconomics	3	0	3
	Mathematics Elective	3	0	3
	Total	**15**	**0**	**15**

Total Credits for Year = 33

SECOND YEAR

Fall Semester		**CL**	**LAB**	**CR**
BUS2310L	Principles of Management	3	0	3
BUS1350L	Small Business Management	3	0	3
BUS2400L	Introduction to Project Management	3	0	3
	Business Elective	3	0	3
	Liberal Arts Elective	3	0	3
	Science Elective	3	0	3
	Total	**18**	**0**	**18**

Spring Semester		**CL**	**LAB**	**CR**
BUS2380L	Business Law I	3	0	3
BUS2520L	Introduction to International Business	3	0	3

	Business Elective*	3	0	3
	Business Elective*	3	0	3
	Humanities/Fine Arts/Foreign Language Elective	3	0	3
	Total	**12**	**0**	**15**

Total Credits for Year = 33
Total for A.S. Degree = 66

***Business Electives**		**CL**	**LAB**	**CR**
BUS1500L	Principles of Customer Service	3	0	3
BUS1752L	Cooperative Education/Internship I	0	9	3
BUS2330L	Supervision	3	0	3
BUS2390L	Business Law II	3	0	3
BUS2410L	Human Resource Management	3	0	3
BUS2610L	Social Media Marketing	3	0	3
BUS2640L	Business and Sustainability	3	0	3
BUS2800L	Cooperative Education/Internship II	3	0	3
CIS2320L	Website Development	2	2	3
CIS2350L	Spreadsheets	2	2	3
ENGL2600L	Public Speaking	3	0	3
FIN1800L	Personal Financial Management	3	0	3
MANF2600L	Operations Management	3	0	3
OTM1210L	Business Documentation I	2	2	3
SOSC2210L	Organizational Behavior	3	0	3
SOSC2310	Microeconomics	3	0	3
SOSC2320L	Macroeconomics	3	0	3

Business students may take any accounting class not already required and use as a business elective.

Business Management Certificate

		CL	**LAB**	**CR**
ACCT1310L	Accounting I	3	0	3
ACCT1320L	Accounting II	3	0	3
BUS1300L	Introduction to Business	3	0	3
BUS1350L	Small Business Management	3	0	3
BUS2310L	Principles of Management	3	0	3
BUS2600L	Principles of Marketing	3	0	3
CIS1320L	Software Applications	3	2	4
ENGL1230L	Business Communications	3	0	3
ESNT1200L	College Essentials	1	0	1
BUS2330L	Supervision			
OR				
BUS2410L	Human Resource Management	3	0	3
	Total	**28**	**2**	**29**

Computer Technologies Associate in Science

The Computer Technologies curriculum leads to an associate degree in the field of computer technologies. Additionally, the program is designed to offer Microsoft or other industry-recognized certification in specific areas of study within the degree program.

LRCC participates in Microsoft Imagine, Oracle, and Apple Academies. While earning an associate degree or a certificate, students can become certified in an industry standard by passing a series of tests. Certification gives industry recognition of proficiency in technical areas in demand by businesses. Certain certifications may also give access to technical and product information not available to the general public, including access to secure websites, as well as invitations to conferences, technical training and special events. Students can pursue all of the computer courses by means of distance learning, with the approval of the Department Chair. All courses are designed with the potential for

transfer to a four-year institution.

Students taking the Associate in Science Degree in Computer Technologies select one track from the three tracks offered: Network Administrator, Application Developer/Gaming and Animation, Database Administrator/Web Developer. Many of the classes also provide the student with the knowledge and skills to pass a variety of professional certification exams. Students should declare their focus by the second semester to ensure completion of curriculum requirements. In addition, a Technologies for Education Certificate is available for educators who either wish to update their technology skills or become certified to teach computer classes at the middle and high school levels.

The rapidly changing world of computer technology has created a growing demand for persons trained in hardware and software. This degree program prepares students for a broad range of employment opportunities in the field; including positions in networking, software and mobile app development, database administration, gaming and animation development and help desk administration. All courses are designed with the potential for transfer to a four-year institution.

Technical Requirements

Computer Technology Program candidate must:

- have command of the English language;
- have normal vision for reading instructions and course materials and for performing manipulative tasks;
- be able to complete requirements for college level classes;
- be able to understand and follow both written and oral instructions;
- have sufficient vision to distinguish colors, read gauges, scopes, diagnostic equipment and information from a computer screen (adaptive equipment acceptable);
- have reading comprehensive skills sufficient to read and comprehend technical literature;
- have communication skills sufficient to prepare required reports;
- have sufficient hearing to distinguish various sounds and noises (adaptive equipment acceptable);
- have sufficient dexterity to perform manual skills related to computer operation.

Students completing the program will be expected to:

- knowledge of operating systems, applications, database systems, hardware, programming concepts, networks, and online resources;
- knowledge of security issues, risks, tools, and policies;
- ability to apply a systematic and methodical approach to solve problems;
- strong documentation skills and knowledge of general business principles and project management;
- obtain specific technical skills to enter the workplace based on the student's chosen track;
- to think critically **and make appropriate decisions based on relevant factors.**

NOTE: A Computer Technology Track must be selected.

FIRST YEAR

Fall Semester		**CL**	**LAB**	**CR**
CIS1320L	Software Applications	3	2	4
CIS1360L	Introduction to Computers	2	2	3
CIS1400L	Introduction to Programming	2	2	3
ENGL100L	English Composition	4	0	4
MATH2110L	College Algebra	4	0	4
ESNT1200L	College Essentials	1	0	1
	Total	**16**	**6**	**19**

Spring Semester		**CL**	**LAB**	**CR**
CIS2270L	IT Developmental Applications	2	2	3
	Computer Technology Track *	4	4	6
	Liberal Arts Elective	3	0	3
	Mathematics Elective (200 Level)	4	0	4
	Total	**13**	**6**	**16**

Total Credits for Year = 35

SECOND YEAR

Fall Semester		**CL**	**LAB**	**CR**
	Social Science Elective	3	0	3
	Computer Technology Track*	6	6	9
	English Elective	3	0	3
	Science Elective	3	0	3
	Total	**15**	**6**	**18**

Spring Semester		**CL**	**LAB**	**CR**
CIS2800L	Capstone Project	3	0	3
	Computer Technology Track*	6	6	9
	Humanities/Fine Arts/Foreign Language Electives	3	0	3
	Total	**12**	**6**	**15**

Total Credits for Year = 33
Total for A.S. Degree = 68

Computer Technology Tracks:

Network Administration		**Credits**	**Certification Test**
Spring	CIS2480L Introduction to Networks	3	CCNA
Spring	CIS2610L Configuring Windows Networks	3	70-410
Fall	CIS2820L Routing & Switching Essentials	3	CCNA
Fall	CIS2670L Administering Windows Servers	3	70-411
Fall	CIS2530L Mac OS & Networking	3	Mac Technician
Spring	CIS2830L Scaling Networks	3	CCNA
Spring	CIS2840L Connecting Networks	3	CCNA
Spring	CIS2680L Advanced Windows Server Configuration	3	70-412

Software Developer/Gaming and Animation		**Credits**	**Certification Test**
Spring	CIS2750L Object-Oriented Programming C++	3	98-632, 98-372
Spring	CIS2770L Programming for Games	3	98-374, 98-483
Fall	CIS2710L Analyzing Software Requirements	3	98-631, 98-362, 98-372
Fall	CIS2720L Object-Oriented Programming Java	3	
Fall	CIS2920L Mobile Applications Development	3	98-373
Spring	CIS2760L Developing Web Applications	3	98-363
Spring	CIS2440L SQL Server	3	98-461, 98-462
Spring	CIS2730L Distributed Applications with Visual Basic and XML	3	98-361, 98-362, 98-372

Database Administrator/Website Developer		**Credits**	**Certification Test**
Spring	CIS2440L SQL Server	3	98-461, 98-462
Spring	CIS2620L Introduction to Linux	3	Linux+
Fall	CIS2420L Database Management and Design	3	98-364
Fall	CIS2720L Object Oriented Programming Java	3	
Fall	CIS2320L Website Development	3	98-375, 98-480
Spring	CIS2430L Database Application Development	3	
Spring	CIS2760L Developing Web Applications	3	98-363
Spring	CIS2730L Distributed Applications with Visual Basic and XML	3	98-361, 98-362, 98,372

Network Administrator Certificate

		CL	**LAB**	**CR**
ESNT1200L	College Essentials	1	0	1
CIS1360L	Introduction to Computers	2	2	3
CIS2270L	IT Developmental Applications	2	2	3
CIS2480L	Introduction to Networks	2	2	3
CIS2820L	Routing & Switching Essentials	2	2	3
CIS2830L	Scaling Networks	2	2	3
CIS2840L	Connecting Networks	2	2	3
CIS2610L	Configuring Windows Servers	2	2	3

CIS2670L	Administering Windows Servers	2	2	3
CIS2680L	Advanced Windows Server Configuration	2	2	3
CIS	Computer Technology Elective	2	2	3
	Total	**21**	**20**	**31**

Application Developer Certificate

		CL	LAB	CR
ESNT1200L	College Essentials	1	0	1
CIS1360L	Introduction to Computers	2	2	3
CIS2270L	IT Developmental Applications	2	2	3
CIS1400L	Introduction to Programming	2	2	3
CIS2920L	Mobile Application Development	2	2	3
CIS2440L	SQL Server	2	2	3
CIS2710L	Analyzing Software Requirements	2	2	3
CIS2720L	Object-Oriented Programming-Java	2	2	3
CIS2730L	Distributed Applications with XML	2	2	3
CIS2760L	Developing Web Applications	2	2	3
CIS2770L	Programming for Games	2	2	3
	Total	**21**	**20**	**31**

Database Administrator Certificate

		CL	LAB	CR
ESNT1200L	College Essentials	1	0	1
CIS1360L	Introduction to Computers	2	2	3
CIS1400L	Introduction to Programming	2	2	3
CIS2270L	IT Developmental Applications	2	2	3
CIS2420L	Database Management and Design	2	2	3
CIS2430L	Database Application Development	2	2	3
CIS2440L	SQL Server	2	2	3
CIS2620L	Introduction to Linux	2	2	3
CIS2730L	Distributed Applications with XML	2	2	3
CIS2760L	Developing Web Applications	2	2	3
CIS	Computer Technology Elective	2	2	3
	Total	**20**	**20**	**30**

Gaming and Animation Developer Certificate

		CL	LAB	CR
ESNT1200L	College Essentials	1	0	1
CIS1360L	Introduction to Computers	2	2	3
CIS2270L	IT Developmental Applications	2	2	3
CIS1400L	Introduction to Programming	2	2	3
CIS2750L	Object-Oriented Programming-C++	2	3	3
CIS2770L	Programming for Games	2	2	3
CIS2710L	Analyzing Software Requirements	2	2	3
CIS2720L	Object-Oriented Programming-Java	2	2	3
CIS2730L	Distributed Applications with XML	2	2	3
CIS2760L	Developing Web Applications	2	2	3
CIS2920L	Mobile Application Development	2	2	3
	Total	**21**	**20**	**31**

Technologies for Education Certificate

		CL	LAB	CR
ESNT1200L	College Essentials	1	0	1
CIS1320L	Software Applications	3	2	4

CIS1360L	Introduction to Computers	2	2	3
CIS2260L	Advanced Office Applications	2	2	3
CIS1350L	Word Processing	2	2	3
CIS2270L	IT Developmental Applications	2	2	3
CIS2320L	Website Development	2	2	3
CIS2350L	Spreadsheets	2	2	3
CIS2420L	Database Management and Design	2	2	3
	Total	**18**	**16**	**26**

Website Developer Certificate

		CL	LAB	CR
ESNT1200L	College Essentials	1	0	1
CIS1360L	Introduction to Computers	2	2	3
CIS2270L	IT Developmental Applications	2	2	3
CIS1400L	Introduction to Programming	2	2	3
CIS2720L	Object-Oriented Programming-Java	2	2	3
CIS2750L	Object-Oriented Programming-C++	2	2	3
CIS2440L	SQL Server	2	2	3
CIS2920L	Mobile Application Developer	2	2	3
CIS2730L	Distributed Applications with Visual Basic & XML	2	2	3
CIS2760L	Developing Web Applications	2	2	3
CIS2320L	Website Development	2	2	3
	Total	**21**	**20**	**31**

Culinary Arts Associate in Science

This two-year program prepares students for entry to mid-level employment in a variety of culinary venues. It combines a foundation of culinary and management skills the industry demands. The curriculum incorporates opportunities to learn and work in a student-operated restaurant. Summer employment in culinary complements the learning experience. These workplace opportunities provide the student with hands-on knowledge and the benefit of work experience.

Technical Requirements

Culinary Arts candidates must:

- have written and verbal command of the English language;
- be capable of lifting or carrying at least twenty-five pounds;
- comprehend new terminology;
- understand the importance of personal hygiene, appearance, and etiquette for interaction with the public;
- have the physical and mental ability to satisfy long hours, demands, and stress that the restaurant industry cultivates.

Culinary Arts is a fast growing field with tremendous job potential. Quality employees are always in high demand. The Culinary Arts program provides opportunities for fulfilling jobs in all aspects of an exciting and growing industry.

Students completing the program will be expected to:

- demonstrate basic knife skills as well as describe the French terminology of each knife cut;
- prepare stocks, sauces, soups from fundamental ingredients following industry practice;
- demonstrate using procedures and terminology in creating recipes from basic ingredients;
- produce several regional ethnic dishes from within the United States and internationally;
- demonstrate the use of the different pieces of equipment in the kitchen;
- demonstrate different cooking techniques such as sautéing, roasting, grilling, boiling, steaming, braising;
- be hired from entry-level to sous-chef positions in larger restaurants;
- be able to manage a fully functioning kitchen as a culinary cook in smaller establishments;
- establish cost and purchasing controls in food management;
- apply hospitality laws to any kitchen/dining service venue.

FIRST YEAR

Fall Semester		**CL**	**LAB**	**CR**
CULA1460L	Bakery Production	1	4	3
CULA1510L	Culinary Fundamentals	1	6	3
CULA1520L	Sanitation & Safety	3	0	3
ENGL100L	English Composition	4	0	4
HOS1140L	Dining Room Management I	0	6	3
ESNT1200L	College Essentials	1	0	1
	Total	**10**	**16**	**17**

Spring Semester		**CL**	**LAB**	**CR**
CULA1580L	Restaurant Facility & Menu Design	3	0	3
CULA1590L	Cost Control	3	0	3
HOS1130L	Introduction to Worldwide Cuisine	1	6	3
	Hospitality Elective	1	0	1
	Liberal Arts Elective	3	0	3
	Mathematics Elective	3	0	3
	Total	**14**	**6**	**16**

Summer Semester		**CL**	**LAB**	**CR**
CULA2320L	Culinary Co-operative Education (300 hours required)	0	9	3
	Liberal Arts Elective	3	0	3
	Total	**3**	**9**	**6**

Total Credits for Year = 39

SECOND YEAR

Fall Semester		**CL**	**LAB**	**CR**
CULA2530L	Introduction to Garde Manger	1	6	3
CULA2540L	Classical Cuisine	1	6	3
HOS2220L	Quantity Food Purchasing	3	0	3
BIOL1290L	Nutrition for Health and Fitness	3	0	3
	Social Science Elective	3	0	3
	Total	**11**	**12**	**15**

Spring Semester		**CL**	**LAB**	**CR**
CULA1470L	Hot and Cold Plated Desserts	1	4	3
CULA2550L	Italian Cuisine	1	6	3
CULA2560L	U.S. Regional & Infusion Cuisine	1	6	3
	English Elective	3	0	3
	Humanities/Fine Arts/Foreign Language Elective	3	0	3
	Total	**9**	**16**	**15**

Total Credits for Year = 30
Total for A.S. Degree = 69

Culinary Arts Certificate

		CL	**LAB**	**CR**
CULA1460L	Bakery Production	1	4	3
CULA1510L	Culinary Fundamentals	1	6	3
CULA1520L	Sanitation & Safety	3	0	3
CULA2540L	Classical Cuisine	1	6	3
CULA2530L	Introduction to Garde Manger	1	6	3
HOS1130L	Introduction to Worldwide Cuisine	1	6	3
CULA1470L	Hot and Cold Plated Desserts	1	4	3
CULA2550L	Italian Cuisine	1	6	3
CULA2560L	U.S. Regional & Fusion Cuisine	1	6	3
ESNT1200L	College Essentials	1	0	1
	Total	**12**	**44**	**28**

Early Childhood Education
Associate in Science

Employment opportunities in New Hampshire in early childhood education and childcare remain excellent and will continue to grow. Sixty-seven percent of children under the age of six in New Hampshire receive some form of childcare provided by persons other than their parents. Many of these young children spend eight to eleven hours each day in childcare. Because of a shortage of trained directors, teachers, and workers, many childcare programs strive but are unable to fully meet the developmental needs of children in their care.

The Early Childhood Education Associate in Science Degree program provides theoretical and practical experiences for preparation to work as an Early Childhood Education Director, responsible for the care and education of young children, management of personnel, finances, and facilities of an early childhood education program. The certificate prepares graduates to become childcare teachers.

The Early Childhood Education program seeks students who have a strong desire to nurture and care. To ensure that the Early Childhood Education Associate in Science applicant chooses the appropriate career, candidates are encouraged to meet with the program coordinator and the college counselor.

Successful completion of this program satisfies New Hampshire Childcare Bureau of Licensing requirements for certification as a childcare director or teacher. This program also provides an ideal preparation for those students wishing to continue their education on the baccalaureate level.

The New Hampshire Bureau of Childcare Standards and Licensing may restrict certification of candidates who have been involved in civil or criminal action. Questions about certification restrictions should be addressed to the New Hampshire Bureau of Childcare Standards and Licensing.

Technical Requirements

Early Childhood Education Program candidates must:

- have command of the English language;
- have the ability to 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;
- have sufficient strength, stamina and motor coordination to perform frequent lifting, moving and transferring children, especially infants and toddlers;
- have sufficient visual and hearing acuity to ensure a safe environment and the ability to respond quickly in the event of an emergency;
- have sufficient verbal ability to express and exchange information and ideas as well as to interpret important instructions to children, fellow students, and supervising teachers;
- have the ability to work with frequent interruptions, to respond appropriately to unexpected situations, and to cope with extreme variations in workload and stress levels;
- have the ability to secure transportation to Practicum and field observation sites;
- uphold the ethical codes relevant to his or her discipline (National Association for the Education of Young Children);
- have the ability to demonstrate and maintain organizational skills, time management and professional respect and conduct as an early childhood education student, either at a practicum site, or in the community;

Students completing the program will be expected to:

- communicate skillfully, both orally and in writing;
- demonstrate empathy with children and their families;
- perform accurate development assessments;
- devise imaginative developmentally appropriate learning experiences.

FIRST YEAR

Fall Semester		**CL**	**LAB**	**CR**
EDU2100L	Teaching with Technology	3	0	3
ECE1210L	Growth and Development of the Young Child	3	0	3
ECE1230L	Foundations of Early Childhood Education	3	0	3
ENGL100L	English Composition	4	0	4
ESNT1200L	College Essentials	1	0	1
	Total	**14**	**0**	**14**

Spring Semester		**CL**	**LAB**	**CR**
ECE1220L	Curriculum Development in Early Childhood	3	0	3
ECE1240L	Health, Nutrition and Safety in Child Care	3	0	3
PSYC1250L	Introduction to Psychology	3	0	3
MATH129L	Quantitative Reasoning	4	0	4
	Open Elective	3	0	3
	Total	**16**	**0**	**16**

Total Credits for Year = 30

SECOND YEAR

Fall Semester		**CL**	**LAB**	**CR**
ECE1260L	Infant/Toddler Development	3	0	3
ECE165L	Practicum I in Early Childhood Education	1	6	3
ECE2160L	Young Children's Special Needs	3	0	3
SOSC2350L	Children, Youth and Families	3	0	3
	Open Elective	3	0	3
	Total	**13**	**6**	**15**

Spring Semester		**CL**	**LAB**	**CR**
ECE265L	Practicum II in Early Childhood Education	1	9	4
ECE2300L	Developing and Administering a CC & Ed.	3	0	3
PHIL2270L	Ethical Issues	3	0	3
	Science Elective	3	0	3
	Open Elective	3	0	3
	Total	**13**	**9**	**16**

Total Credits for Year = 31
Total for A.S. Degree = 61

Associate Teacher Certificate

		CL	**LAB**	**CR**
ECE1210L	Growth and Development of the Young Child	3	0	3
ECE1240L	Health, Nutrition and Safety in Child Care	3	0	3
ECE1260L	Infant/Toddler Development	3	0	3
ESNT1200L	College Essentials	1	0	1
	Total	10	**0**	**10**

This certificate program satisfies New Hampshire Childcare Bureau of Licensing requirements for childcare worker certification.

Lead Teacher Certificate

		CL	**LAB**	**CR**
ECE1210L	Growth and Development of the Young Child	3	0	3
ECE1220L	Curriculum Development in Early Childhood	3	0	3
ECE1230L	Foundations of Early Childhood Education	3	0	3
ECE1240L	Health, Nutrition and Safety in Child Care	3	0	3

ECE1260L	Infant/Toddler Development	3	0	3
ECE165L	Practicum I in Early Childhood Education	2	6	3
ESNT1200L	College Essentials	1	0	1
	Total	**18**	**6**	**19**

This certificate program satisfies NH Childcare Bureau of Licensing requirements for teacher and childcare worker certification.

Early Childhood Education
Advance Certificate

		CL	LAB	CR
ECE1210L	Growth and Development of the Young Child	3	0	3
ECE1220L	Curriculum Development in Early Childhood	3	0	3
ECE1230L	Foundations of Early Childhood Education	3	0	3
ECE1240L	Health, Nutrition and Safety in Child Care	3	0	3
ECE1260L	Infant/Toddler Development	3	0	3
ECE165L	Practicum I in Early Childhood Education	2	6	3
ECE2240L	Math and Science in Early Childhood	3	0	3
OR				
ECE2310L	Early Literacy Development	3	0	3
ENGL100L	English Composition	3	0	4
ESNT1200L	College Essentials	1	0	1
	Literature Elective	3	0	3
	Total	**27**	**6**	**29**

This certificate provides a successful pathway to the Associate in Science Degree in Early Childhood.

Electrical Technologies
Associate in Applied Science

Electrical Technology offers two degree programs: Electrical Systems Installation and Maintenance and Electrical Power and Control Technologies. Electrical Technology students acquire a broad range of knowledge that allows them to begin at entry level position in different aspects of the field.

The Electrical Systems Installation and Maintenance (ESIM) degree program provides the knowledge needed for employment as an electrical construction electrician, industrial electrical technician, electrical estimator, or electrical inspector. This program meets the education requirements of the New Hampshire Electrical Licensing Board. Opportunities for electrical construction electricians are available in nearly all geographic locations. Employment opportunities exist in residential construction, industrial construction, and commercial construction as an electrician or as a maintenance electrician. Graduates may find employment as industrial electricians, maintenance electricians, electrical inspectors, electrical estimators, or in any of the high-tech electrical fields.

The Electrical Power and Control Technologies (EPCT) degree program prepares students in the electrical industry and offers an ever-increasing number and variety of employment opportunities to qualified industrial electricians. Along with these opportunities come the responsibilities associated with one of today's most sophisticated technologies. A well-grounded individual can expect entry-level employment with rapid upward mobility in construction, industrial electricity, electrical design, or electrical inspection. Successful completion of this program satisfies all the related education requirements for electrical licensing within the State of New Hampshire. New Hampshire license holders receive reciprocity with the States of Massachusetts, Vermont, and Maine.

Technical Requirements

In order to be successful in the ESIM or EPCT Program a student must:

- have command of the English language;
- have the ability to stand for extended periods of time and have the physical strength to lift components and equipment;
- be able to purchase the minimum required tools and textbooks;
- be able to complete requirements for college level classes;
- have a high school diploma or equivalent;
- be able to understand and follow both written and oral instructions;
- have communication skills sufficient to prepare required reports;
- have sufficient dexterity to perform manual skills;

- be able to distinguish various sounds and noises and read instructions for course materials and other manipulative tasks (adaptive equipment acceptable);
- have reading comprehension skills sufficient to read and comprehend service literature.

Electrical Power and Control Technologies

Students completing the program will be expected to:

- Demonstrate the mathematic skills necessary to solve electrical problems through the understanding of fractions and decimals, algebra, geometry, trigonometry, linear equations, roots, and practical applications of trigonometry, algebra, and geometry.
- Demonstrate proficiency in the understanding and applications of electrical theory including but not limited to Alternating Current (AC) circuits, Direct Current (DC) circuits, series circuits, parallel circuits, series/parallel circuits, voltage, current, resistance, impedance, and power.
- Have completed Occupational Safety and Health Administration's (OSHA) 30-hour construction site safety certification for the Construction Industry and NFPA 70E training for safe electrical work protocols.
- Demonstrate proficiency in understanding and wiring electrical circuits including but not limited to residential, commercial, and industrial applications.
- Demonstrate proficiency in designing, troubleshooting, and installing electrical controls.
- Demonstrate an understanding of the operation and installation of Photovoltaic (PV) systems.
- Accumulate lab hours that count toward the work experience requirement as a licensed State of New Hampshire electrical apprentice.
- Demonstrate an in-depth understanding and application of the National Electric Code (NEC).
- Demonstrate proficiency in using takeoff skills and ConEst software to generate cost estimates for the purpose of generating work in the low bid market, as well as skills for successful project management.
- Demonstrate proficiency in the design, installation, programming and troubleshooting of Programmable Logic Controllers (PLCs) and their associated circuitry.
- Demonstrate an in-depth understanding of the theory of operation and troubleshooting of all types of AC and DC electric motors and generators.
- Demonstrate an in-depth understanding of all types and configurations of power transformers and the complex theory of phase relationship, power efficiency, and power transfer ratios.
- Demonstrate proficiency in the design, installation, electrical connections, and troubleshooting of complex electro-mechanical and solid state electrical control circuits and devices.

FIRST YEAR

Fall Semester		**CL**	**LAB**	**CR**
ETEC1260L	Residential Wiring and Electrical Blueprint Reading	3	0	3
ETEC1270L	Residential Wiring and Electrical Blueprint Reading Lab	0	6	2
ETEC1240L	AC/DC Theory	4	3	5
ETEC1410L	NEC-Residential	2	0	2
MATH1310L	Boolean Algebra	1	0	1
MATH1370L	Technical Algebra & Geometry	4	0	4
ESNT1200L	College Essentials	1	0	1
	Total	**15**	**9**	**18**

Spring Semester		**CL**	**LAB**	**CR**
ETEC1280L	Fundamentals of Electrical Control	2	6	4
ETEC1300L	Rotating Machinery	2	6	4
ETEC1420L	NEC-Multi-Family Unit	2	0	2
ENGL100L	English Composition	4	0	4
	Liberal Arts Elective	3	0	3
	Total	**12**	**12**	**17**

Total Credits for Year = 35

SECOND YEAR

Fall Semester		**CL**	**LAB**	**CR**
ETEC1430L	NEC-Commercial/Industrial Applications	2	0	2
ETEC2150L	Photovoltaics	2	3	3
ETEC2400L	Stationary Machinery	2	6	4

PHYS1250L	Technical Physics	2	2	3
	Social Science Elective	3	0	3
	English Elective	3	0	3
	Total	**14**	**11**	**18**

Spring Semester		**CL**	**LAB**	**CR**
ETEC2100L	Introduction to Electrical Estimating and Design	2	2	3
ETEC2340L	Construction Site Safety	3	0	3
ETEC2350L	Programmable Controllers	2	4	3
	Humanities/Fine Arts Foreign Language Elective	3	0	3
	Liberal Arts Elective	3	0	3
	Total	**13**	**6**	**15**

Total Credits for Year = 33
Total for A.A.S. Degree = 68

Electrical Power and Control Technologies Certificate

		CL	**LAB**	**CR**
ETEC1260L	Residential Wiring and Electrical Blueprint Reading	3	0	3
ETEC1270L	Residential Wiring and Electrical Blueprint Reading Lab	0	6	2
ETEC1240L	AC/DC Theory	4	3	5
ETEC1280L	Fundamentals of Electrical Control	2	6	4
ETEC1300L	Rotating Machinery	2	6	4
ETEC1410L	NEC-Residential	2	0	2
ETEC1420L	NEC-Multi-Family Unit	2	0	2
MATH1370L	Technical Algebra & Geometry	4	0	4
ESNT1200L	College Essentials	1	0	1
	Total	**20**	**21**	**27**

National Electric Code Interpretation Certificate

		CL	**LAB**	**CR**
ETEC1410L	NEC-Residential	2	0	2
ETEC1420L	NEC-Multi-Family Unit	2	0	2
ETEC1430L	NEC-Commercial/Industrial Applications	2	0	2
ESNT1200L	College Essentials	1	0	1
	Total	**7**	0	7

Residential Construction Wiring Certificate

		CL	**LAB**	**CR**
ETEC1260L	Residential Wiring and Electrical Blueprint Reading	3	0	3
ETEC1270L	Residential Wiring and Electrical Blueprint Reading Lab	0	6	2
MATH1370L	Technical Algebra & Geometry	4	0	4
ESNT1200L	College Essentials	1	0	1
	Total	**8**	**6**	**10**

Commercial Construction Wiring Certificate

		CL	**LAB**	**CR**
ETEC1230L	Wiring Theory and Techniques (Commercial)	4	6	6
ETEC1240L	AC/DC Theory	4	3	5
ETEC1410L	NEC-Residential	2	0	2
MATH1370L	Technical Algebra & Geometry	4	0	4
ESNT1200L	College Essentials	1	0	1
	Total	**15**	**9**	**18**

Industrial Construction Wiring Certificate

		CL	LAB	CR
ETEC1420L	NEC-Multi-Family Unit	2	0	2
ETEC2240L	Wiring Theory and Techniques (Industrial)	3	3	4
MATH1370L	Technical Algebra & Geometry	4	0	4
ESNT1200L	College Essentials	1	0	1
	Total	**10**	**3**	**11**

Electrical Systems Installation and Maintenance

Students completing the program will be expected to:

- Demonstrate the mathematic skills necessary to solve electrical problems through the understanding of fraction and decimals, algebra, geometry, trigonometry, linear equations, roots, and practical applications of trigonometry, algebra, and geometry.
- Demonstrate proficiency in the understanding and applications of electrical theory including but not limited to Alternating Current (AC) circuits, Direct Current (DC) circuits, series circuits, parallel circuits, series/parallel circuits, voltage, current, resistance, impedance, and power.
- Have completed Occupational Safety and Health Administration's (OSHA) 30-hour construction site and safety certification for the Construction Industry and NFPA70E training for safe electrical work protocols.
- Demonstrate proficiency in understanding and wiring electrical circuits including but not limited to residential, commercial, and industrial applications.
- Demonstrate proficiency in designing, troubleshooting, and installing electrical controls.
- Demonstrate an understanding of the operation and installation of Photovoltaic (PV) systems.
- Accumulate lab hours that count toward the work experience requirement as a licensed State of New Hampshire electrical apprentice.
- Demonstrate an in-depth understanding and application of the National Electric Code (NEC).

FIRST YEAR

Fall Semester		**CL**	**LAB**	**CR**
ETEC1260L	Residential Wiring and Electrical Blueprint Reading	3	0	3
ETEC1270L	Residential Wiring and Electrical Blueprint Reading Lab	0	6	2
ETEC1240L	AC/DC Theory	4	3	5
ETEC1410L	NEC-Residential	2	0	2
MATH1310L	Boolean Algebra	1	0	1
MATH1370L	Technical Algebra and Geometry	4	0	4
ESNT1200L	College Essentials	1	0	1
	Total	**15**	**9**	**18**

Spring Semester		**CL**	**LAB**	**CR**
ETEC1230L	Wiring Theory and Techniques (Commercial)	4	6	6
ETEC1420L	NEC-Multi-Family Unit	2	0	2
ENGL100L	English Composition	4	0	4
	Social Science Elective	3	0	3
	Total	13	**6**	**15**

Total Credits for Year = 33

SECOND YEAR

Fall Semester		**CL**	**LAB**	**CR**
ETEC1430L	NEC-Commercial/Industrial Applications	2	0	2
ETEC2150L	Photovoltaics	2	3	3
ETEC2300L	Electrical Motor Control	2	3	3
PHYS1250L	Technical Physics	2	2	3
	English Elective	3	0	3
	Open Elective	3	0	3
	Total	**14**	**8**	**17**

Spring Semester		CL	LAB	CR
ETEC2100L	Introduction to Electrical Estimating and Design	2	2	3
ETEC2240L	Wiring Theory and Techniques (Industrial)	3	3	4
ETEC2340L	Construction Site Safety	3	0	3
	Humanities/Fine Arts/Foreign Language Elective	3	0	3
	Liberal Arts Elective	3	0	3
	Total	**14**	**5**	**16**

Total Credits for Year = 33
Total for A.A.S. Degree = 66

Electrical Systems Installation and Maintenance Certificate

		CL	LAB	CR
ETEC1260L	Residential Wiring and Electrical Blueprint Reading	3	0	3
ETEC1270L	Residential Wiring and Electrical Blueprint Reading Lab	0	6	2
ETEC1230L	Wiring Theory and Techniques (Commercial)	4	6	6
ETEC1240L	AC/DC Theory	4	3	5
ETEC1410L	NEC-Residential	2	0	2
ETEC1420L	NEC-Multi-Family Unit	2	0	2
ETEC1430L	NEC-Commercial/Industrial Applications	2	0	2
MATH1370L	Technical Algebra and Geometry	4	0	4
ESNT1200L	College Essentials	1	0	1
	Total	**22**	**15**	**27**

Electro-Mechanical Technologies Associate in Science

The Electro-Mechanical Technologies Degree at Lakes Region Community College consists of 11 core courses. Three of the core courses are part of the Advanced Manufacturing Degree and four of the core courses are part of the Electrical Power and Controls Technologies Degree. Successful students should have the necessary skills to enter the manufacturing work force, or excel in current employment, into machine technician positions. Students will have an understanding of electrical and mechanical theory and principals. Students will have acquired shills in troubleshooting electrical, hydraulic, and pneumatic control systems. Students will also have acquired skills in Computer Numeric Controlled (CNC) machine operations, electrical controls programmable controllers, principles of electrical motors, critical thinking skills, oral and technical communication skills.

Students completing the program will be expected to:

- Mathematic skills necessary to solve manufacturing problems through the understanding of fractions and decimals, algebra, geometry, trigonometry, linear equations, roots, geometric figures, usage of tolerances, interpretation and usage of formulas and proportions, and practical applications of geometry and trigonometry.
- Understanding of machine tools and machine tool operations such as milling, turning, drilling, cutting, grinding, and chamfering.
- Advanced CNC machine operations skills including offsets, work offsets, G-code programming, machine zeroing, and circular interpolation, set-up, tool selection, material selection, and operator maintenance.
- Computer Aided Manufacturing (CAM) and CAM-Mill skills in processes such as contouring, cycle time estimating, tool selection, material specification, cutter compensation, parameter changes, contour applications, roughing, finishing, and tool paths.
- Understanding of AC/DC Electrical Theory and how it applies to CNC Machine diagnostics.
- Ability to interpret electrical control diagram, prints, and logic.
- Ability to understand electrical controls and programmable controllers.
- Understanding of motors including drive motors and drive systems.
- Troubleshooting skills for programmable controllers, motor drive units, and electrical controls.
- Mechanical CNC machine repairs and troubleshooting techniques.

FIRST YEAR

Fall Semester		**CL**	**LAB**	**CR**
ENGL100L	English Composition	4	0	4
MATH1370L	Technical Algebra & Geometry	4	0	4
ETEC1240L	AC/DC Theory	4	3	5
ELMT1200L	Fluid Power Systems	2	6	4
ESNT1200L	College Essentials	1	0	1
	Total	**15**	**9**	**18**

Spring Semester		**CL**	**LAB**	**CR**
ENGL1220L	Technical Communications	3	0	3
OR				
ENGL1230L	Business Communications	3	0	3
ETEC1280L	Fundamentals of Electrical Controls	2	6	4
ETEC1300L	Rotating Machinery	2	6	4
MANF1510L	CNC Machines I	2	0	2
MANF1520L	CNC Machines I Lab	0	6	2
	Humanities/Fine Arts Foreign Language Elective	3	0	3
	Total	**12**	**18**	**18**

Total Credits for Year = 36

SECOND YEAR

Fall Semester		**CL**	**LAB**	**CR**
PHYS1250L	Technical Physics	2	2	3
ELMT2100	Mechanical Drive Systems	2	4	4
MANF2300L	CAD/CAM	3	0	3
MANF2110L	CNC Machines II	1	0	1
MANF2120L	CNC Machines II Lab	0	6	2
	Social Science Elective	3	0	3
	Total	**11**	**12**	**16**

Spring Semester		**CL**	**LAB**	**CR**
ETEC2350L	Programmable Logic Controllers	2	3	3
ELMT2700L	Electro-Mechanical Capstone	3	0	3
OR				
ELMT2800L	Electro-Mechanical Internship	0	9	3
	Liberal Arts Elective	3	0	3
	Liberal Arts Elective	3	0	3
	Open Elective	3	0	3
	Total	**12**	**3/9**	**15**

Total Credits for Year = 31
Total for A.S. Degree = 67

Fine Arts
Associate in Arts

The Associate in Arts in Fine Arts provides students with an introduction to the discipline of the visual arts as a means of self-expression and communication. The curriculum provides a solid foundation in a wide range of media, methods, and materials. These develop the skills and experiences that lead to transfer to a four-year institution, and eventually to a career in the visual arts. The educated artist balances artistic and practical training with a liberalizing background of general studies, art history, and cultural trends. The graduate with an A.A. in Fine Arts is at the beginning of an exciting and dynamic career in the visual arts.

The curriculum presents students with a thorough exploration of a variety of art fundamentals, beginning with first year courses in Drawing, Design, and the History of Art. Building on these foundation experiences, the second year of the program continues these studies and extends them into the disciplines of Painting and Printmaking. In addition, a number of courses are available as art electives. The Senior Portfolio Project gives the student the practical skills to develop a professional portfolio for eventual transfer to a four-year institution of higher education, or for pursuit of a career in the visual arts, such as a studio apprentice, assistant to an artist or craftsperson, art gallery associate, or creating their own

fine art business.

Students intending to transfer to a four-year program of study work closely with their advisor to identify the programs of interest to them. Students may then develop a course of study and a focused portfolio for admissions review by the selected four-year programs. To become eligible for transfer to a variety of four-year programs, students must successfully complete all general education coursework in addition to their Fine Arts program of study. Poor academic performance will affect transferability whether it is after one semester or upon completion of all degree requirements.

Students completing the program will be expected to:

- Translate the 3D world onto a 2D surface through drawing and painting,
- Utilize the elements of composition, 2D design, 3D design and color theory,
- Realize and create a cohesive body of work, photograph and organize this work into an online portfolio and layout and hang this work in a professional manner,
- Understand and discuss current trends in the art world,
- Communicate effectively both orally and in writing as well as through artistic communications,
- Explore diverse ideas and emotions, as expressed through art history, to evaluate the effect of historical trends, events, institutions, and social systems as applied to the Fine Arts,
- Perform mathematical operations basic to functioning in present and future disciplines or occupations and to prepare for further education,
- demonstrate scientific thought both quantitatively and qualitatively by learning to recognize and formulate questions for analysis of human and technical problems.

Required Courses		**CL**	**LAB**	**CR**
ARTS111L	Introduction to Drawing	2	3	3
ARTS116L	Drawing: Personal Voice	2	3	3
ARTS1200L	2-D Design	2	3	3
ARTS1250L	3-D Design	2	3	3
ARTS131L	Art History: Prehistoric to Gothic	3	0	3
ARTS136L	Art History: Renaissance to Modernism	3	0	3
ARTS216L	Drawing: Figure in Value	2	3	3
ARTS221L	Drawing: Figure in Color	2	3	3
ARTS2400L	Painting I	2	3	3
ARTS2510L	Issues in Contemporary Art	1	0	1
ARTS266L	Portfolio	2	0	2
ENGL100L	English Composition	4	0	4
ESNT1200L	College Essentials	1	0	1
	Science Elective	2	2	3
	English Elective	3	0	3
	Mathematics Elective	3	0	3
	Social Science Elective	3	0	3
	Science Elective	3	2	4
	Social Science	3	0	3
	Mathematics Elective	3	0	3
	Social Science Elective	3	0	3
	Art Elective	2	3	3

Total for A.A. Degree = 63

Fire Technologies
Associate in Science

Fire Technologies offers two degree programs: **Fire Science and Fire Protection**. Fire Technology students acquire a broad range of knowledge that allows them to begin at entry level positions in different aspects of the fire service and other fire protection related occupations.

The **Fire Science** degree program is designed for students wishing to work in a municipal or federal government fire department. This degree includes courses designed to cover a wide range of subjects and is based on the Fire and Emergency Services Higher Education (FESHE) curriculum developed through the National Fire Academy. Students will

complete Firefighter Level I certification, and Emergency Medical Technician-Basic certification through the State of New Hampshire as part of the degree program.

The **Fire Protection** degree program is designed for students wishing to work in the fields of fire prevention, fire inspection, insurance loss prevention, public fire education, installation and service of fire alarm, sprinkler and other fire suppression systems, fire extinguishers, fire investigation and other fire protection related careers.

Recent graduates have successfully transferred their Associate Degree credits to Keene State College, University of New Haven, Oklahoma State University, Granite State College, and other bachelor degree programs.

Students completing the program will be expected to:

- have command of the English language;
- have a high school diploma or equivalent;
- not have a felony conviction
- have reading comprehension skills sufficient to read and comprehend service literature;
- have communication skills sufficient to prepare and present required reports;
- have sufficient hearing to distinguish various sounds and noises;
- have sufficient dexterity to perform manual skills;
- have the ability to stand for extended periods of time;
- have normal vision for reading instructions and course materials and for performing manipulative tasks;
- be able to work in a fire, emergency medical or hazardous material environment;
- be able to wear fire protective clothing and a self-contained breathing apparatus for an extended period of time;
- have the ability to concentrate on the execution of treatment plans, assigned skills, and tasks as well as the integration and communication of this work for both short and long term periods of time;
- have the ability to work in settings that may lend themselves to frequent interruptions and immediate crisis response;
- have the ability to cope with a variety of stressors, including people-place occurrences, and demonstrate safe and required care for individuals and the workplace as a whole;
- have the ability to secure transportation to the NH Fire Academy and to other sites;
- have the ability to consistently attend and participate in classes;
- have the physical strength necessary for maneuvering and/or lifting heavy objects;
- have the ability to climb and work on ladders, including heights above 100 feet;
- have the ability to work in confined spaces while using self-contained breathing apparatus;
- have the ability to exercise initiative and judgment while dealing with changing situations.

Fire Protection

Students completing the program will be expected to:

- be prepared for employment in companies and organizations associated with fire protection;
- understand policies and procedures involving workplace safety;
- understand their role in the company that employs him/her and how it impacts overall fire protection.

FIRST YEAR

Fall Semester		**CL**	**LAB**	**CR**
FIRE1240L	Principles of Emergency Services	3	0	3
FIRE1270L	Fire Behavior and Combustion	3	0	3
FIRE1310L	Fire Protection Systems	3	0	3
FIRE2450L	Fire and Life Safety Education	3	0	3
ENGL100L	English Composition	4	0	4
ESNT1200L	College Essentials	1	0	1
	Mathematics Elective	3	0	3
	Total	**20**	**0**	**20**

Spring Semester		**CL**	**LAB**	**CR**
FIRE1400L	Building Construction for Fire Protection	3	0	3
FIRE1600L	Fire Prevention	3	0	3
FIRE2360L	Fire Investigation I	3	0	3
	Social Science Elective	3	0	3

	Humanities/Fine Arts/Foreign Language	3	0	3
	Total	**15**	**0**	**15**

Total Credits for Year = 35

SECOND YEAR

Fall Semester		**CL**	**LAB**	**CR**
FIRE2500L	Fire Protection Hydraulics and Water Supply	3	0	3
FIRE2255L	Hazardous Materials Chemistry	3	0	3
FIRE2690L	Legal Aspects of Emergency Services	3	0	3
CHEM1210L	Chemistry I	2	2	3
	Liberal Arts Elective	3	0	3
	Liberal Arts Elective	3	0	3
	Total	**17**	**2**	**18**

Spring Semester		**CL**	**LAB**	**CR**
FIRE2550L	Occupational Health and Safety for Emergency Services	3	0	3
FIRE2560L	Community and Risk Analysis	3	0	3
FIRE2365L	Fire Investigation II	3	0	3
FIRE2300L	Advanced Fire Codes and Standards	3	0	3
	English Elective	3	0	3
	Total	**15**	**0**	**15**

Total Credits for Year = 33
Total for A.S. Degree = 68

Fire Science

The student who successfully completes this program will:

- be prepared for employment in a fire department;
- understand policies and procedures involving firefighter and EMT safety;
- understand procedures used on and off an emergency scene;
- understand psychological factors associated with firefighting and emergency medical services.

FIRST YEAR

Fall Semester		**CL**	**LAB**	**CR**
FIRE1240L	Principles of Emergency Services	3	0	3
FIRE1270L	Fire Behavior and Combustion	3	0	3
FIRE1310L	Fire Protection Systems	3	0	3
FIRE2250L	Emergency Medical Technician	1	6	3
ESNT1200L	College Essentials	1	0	1
	Mathematics Elective	3	0	3
	Total	**14**	**6**	**16**

Spring Semester		**CL**	**LAB**	**CR**
FIRE1400L	Building Construction for Fire Protection	3	0	3
FIRE1600L	Fire Prevention	3	0	3
FIRE1360L	Fire Ground Procedures	2	12	6
ENGL100L	English Composition	4	0	4
	Social Science Elective	3	0	3
	Total	**15**	**12**	**19**

Total Credits for Year = 35

SECOND YEAR

Fall Semester		**CL**	**LAB**	**CR**
FIRE2500L	Fire Protection Hydraulics and Water Supply	3	0	3
FIRE2240L	Strategy and Tactics	3	0	3
CHEM1210L	Chemistry I	2	2	3
	Liberal Arts Elective	3	0	3
	Humanities/Fine Arts/Foreign Language Elective	3	0	3
	Total	**17**	**2**	**18**

Spring Semester		**CL**	**LAB**	**CR**
FIRE2340L	Fire & Emergency Services Safety & Survival	3	0	3
	Fire Science Elective	9	0	9
	English Elective	3	0	3
	Liberal Arts Elective	3	0	3
	Total	**18**	**0**	**18**

Total Credits for Year = 33
Total for A.S. Degree = 68

Fire Science Electives:		**CL**	**LAB**	**CR**
Fire Science students must have a total of 9 credits in Fire Science Electives				
FIRE2000L	Advances Fire Ground Procedures	1	6	3
FIRE2300L	Advanced Fire Codes and Standards	3	0	3
FIRE2360L	Fire Investigation I	3	0	3
FIRE2380L	Advanced Emergency Medical Technician	4	6	6
FIRE2430L	Educational Methodology	3	0	3
FIRE2450L	Fire & Life Safety Education	3	0	3
FIRE2810L	Fire and Emergency Services Administration	3	0	3

Fire Protection Certificate

Fall Semester		**CL**	**LAB**	**CR**
FIRE1270L	Fire Behavior and Combustion	3	0	3
FIRE2255L	Hazardous Materials Chemistry	3	0	3
FIRE2450L	Fire and Life Safety Education	3	0	3
FIRE2360L	Fire Investigation I	3	0	3
FIRE2690L	Legal Aspects of Emergency Services	3	0	3
ESNT1200L	College Essentials	1	0	1
	Total	**16**	**0**	**16**

Spring Semester				
FIRE1240L	Principles of Emergency Services	3	0	3
FIRE1310L	Fire Protection Systems	3	0	3
FIRE1400L	Building Construction and Blueprint Analysis	3	0	3
FIRE2550L	Occupational Health and Safety for Emergency Services	3	0	3
FIRE2560L	Community Fire and Risk Analysis	3	0	3
	Total	**15**	**0**	**15**

Total for Certificate = 31

Fire Science Certificate

Fall Semester		**CL**	**LAB**	**CR**
FIRE1240L	Principles of Emergency Services	3	0	3
FIRE1270L	Fire Behavior and Combustion	3	0	3
FIRE1310L	Fire Protection Systems	3	0	3
FIRE1360L	Fire Ground Procedures (Firefighter I)	2	12	6
ESNT1200L	College Essentials	1	0	1
	Total	**12**	**12**	**16**

Spring Semester

FIRE1400L	Building Construction & Blueprint Analysis	3	0	3
FIRE1600L	Fire Prevention	3	0	3
FIRE2250L	Emergency Medical Technician	1	6	3
FIRE2360L	Fire Investigation I	3	0	3
FIRE2810L	Fire & Emergency Services Administration	3	0	3
	Total	13	6	15

Total for Certificate = 31

General Studies
Associate in Science

Students working on completing general education requirements while awaiting admission to the Nursing program should select General Studies. Students awaiting admission to the Nursing Program are recommended to take courses that are pre-requisites or co-requisites of the Nursing Program requirements. Students must achieve a minimum grade of "C" in all pre-requisite or co-requisite courses. These courses include:

ENGL100L English Composition
ESNT1200L College Essentials
BIOL1450L Anatomy and Physiology I
BIOL1460L Anatomy & Physiology II
BIOL2410L Microbiology
PSYC1250L Introduction to Psychology
PSYC1260L Human Growth and Development
PHIL2270L Ethics Issues
Mathematics Elective (MATH2160L Statistics recommended)
English Elective

In addition to these courses, if a student has not completed the Nursing Program admissions requirement of successful completion of high school or college algebra, chemistry with lab and biology with lab classes, all with a minimum grade of "C" or higher, then students should work with their academic advisor to select courses that will meet this requirement. Please note that these three admissions requirements must be completed prior to the application due date.

The General Studies degree is a flexible program of study allowing students to develop a program meeting their individual professional and academic goals. This flexibility allows students to combine assessment of prior learning/work experience, with focused coursework in one or two major areas of study to build a pathway meeting their degree requirements. The General Studies degree is also perfect for the student wanting to build transfer credits for a degree major other than those offered at LRCC. With proper planning and course selection, the entire 64 credits in the General Studies program will transfer to the desired four-year program.

Since the General Studies program is individually tailored and allows for exploration of options not provided within existing LRCC degree programs, it is imperative that the student formulate and identify his/her own career and/or transfer goals with the assistance of your General Studies advisor.

This self-designed degree requires a total of 64 credits, with a minimum of 32 credits in the major-related or core courses. All college policies, including residence credits, apply to this degree.

Students completing the program will be expected to:

- demonstrate integrity, responsibility, perseverance and tolerance of ambiguity through the acquisition of knowledge and skills for leadership, further education and team work;
- communicate effectively both verbally and non-verbally;
- demonstrate a process for evaluating information rationally and consistently;
- demonstrate scientific thought both quantitatively and qualitatively by learning to recognize and formulate questions for analysis of human and technical problems.

FIRST YEAR

Fall Semester	**CR**
ENGL100L English Composition	4
ESNT1200L College Essentials	1
Computer Elective	3
Major/Related Courses	6
Mathematics Elective	3
Total	**17**

Spring Semester	**CR**
English Elective	3
Humanities/Fine Arts/Foreign Language Elective	3
Major/Related Courses	9
Science Elective….	4
Total	**19**

Total Credits for Year = 36

SECOND YEAR

Fall Semester	**CR**
Liberal Arts Elective	3
Major/Related Courses	9
Social Science Elective	3
Total	**15**

Spring Semester	**CR**
Open Elective….	3
Liberal Arts Elective	3
Major/Related Courses	9
Total	**15**

Total Credits for Year = 30
Total for A.S. Degree = 66

Graphic Design
Associate in Science

The Graphic Design program offers a diverse educational experience in all phases of graphic communications, including print, web design, and video, and state-of-the-art content areas such as E-commerce and Social Media Marketing. The program exposes the student to a thorough scope of the industry, as well as preparing students to create and run their own freelance businesses. A strong combination of theory and hands-on application gives students a variety of valuable, as well as very employable, learning experiences.

All graphic design students will take a complement of core courses totaling 33 credits. These courses provide a broad foundation in graphic design. In addition, each student will select a specialty area within which to complete a total of 9 additional credits. These areas include: additional courses in graphic design; courses in web design; or courses in video production. Required general education courses bring the total program credits to 66/68.

Students who complete the program will be well-versed in the industry, and will have a variety of employment options. Print media includes such possibilities as newspapers, magazines, hospitals, special interest organizations, and various businesses – anyone needing logos, printed brochures or other materials, event advertising, etc. Web developing is a multi-faceted specialty with a growing demand. Video options include television and web advertising, as well as video components embedded in websites. In addition, many graduates develop their own freelance businesses.

For those students who may already have a degree in another field and/or who simply wish to gain knowledge and skills in graphic design, we also offer two certificate program options, each of which can be obtained in one semester and require 15 credits. Our Foundations Certificate introduces the student to basic skills in the graphic design industry. Our Advanced Certificate builds on the Foundations Certificate skills, and would be appropriate for those who may already have some experience or background in the field, or who have taken the Foundations Certificate.

Technical Requirements

In order to be successful in the Graphic Design program a student must:

- have command of the English language;
- have a high school diploma or equivalent;
- be able to complete requirements for college level classes;
- be able to understand and follow both written and oral instructions;
- have sufficient vision to make fine visual discriminations, and for reading instructions and course materials;
- have reading comprehension skills sufficient to read and comprehend service literature;
- have communication skills sufficient to prepare required reports;
- have basic understanding of common computer operating systems and procedures;
- have good understanding of measurement systems;
- have the ability to work with others;
- have a good eye for detail/attitude toward quality.

Students completing the program will be expected to:

- demonstrate an understanding of the theory and processes associated with the Graphic Design profession;
- understand and use appropriately the technical vocabulary associated with the Graphic Design profession;
- demonstrate the ability to apply critical thinking skills to successfully problem solve customer needs;
- produce a body of work that serves as a professional portfolio.

FIRST YEAR

Fall Semester		**CL**	**LAB**	**CR**
ENGL100L	English Composition	4	0	4
GRA1250L	Fundamentals of Design	2	2	3
MMDA1200L	Design Software Essentials	2	3	3
ESNT1200L	College Essentials	1	0	1
MATH2110L	College Algebra	4	0	4
	Total	**13**	**5**	**15**

Spring Semester		**CL**	**LAB**	**CR**
GRA1340L	Typography	2	2	3
GRA2230L	Graphic Design I	2	2	3
BUS2610L	Social Media Marketing	2	2	3
	Social Science Elective	3	0	3
	English Elective	3	0	3
	Total	**12**	**6**	**15**

Total Credits for Year = 30

SECOND YEAR

Fall Semester		**CL**	**LAB**	**CR**
ARTS2120L	Introduction to Digital Photography	2	2	3
GRA2240L	Publication Design	2	2	3
CIS234L	Website and Design Development	2	2	3
GRA1360L	Digital Illustration	2	2	3
	Science Elective	3	0	3
	Total	**11**	**8**	**15**

Spring Semester		**CL**	**LAB**	**CR**
ARTS2800L	Creative Entrepreneurship	3	0	3
CIS2760L	Developing Web Applications	2	2	3
ARTS2130L	Advanced Digital Photography	2	3	3
GRA2710L	Screen Process Printing	2	2	3
GRA280l	Graphic Design Capstone	2	0	3
	Total	**11**	**7**	**15**

Total Credits for Year = 30
Total for A.S. Degree = 60

Graphic Design Foundation Certificate

		CL	LAB	CR
GRA1250L	Fundamentals of Design	2	2	3
MMDA1200L	Design Software Essentials	2	3	3
GRA234L	Website and Design Development	2	2	2
ARTS2120L	Introduction to Digital Photography	2	2	3
ARTS2800L	Creative Entrepreneurship	3	0	3
ESNT1200L	College Essentials	1	0	1
	Graphic Design Elective	varies	varies	3
	Total	**12**	**9**	**18**

Health Information Technologies Associate in Science

The program is designed to provide students with the skills necessary to enter the workforce as an HIT professional, also known as clinical informaticists. These specialists transform data into information used to improve care delivery. These skills include networking, web design and maintenance, programming and database skills. These students will be able to support Healthcare information technology needs. Most of the course will also allow students to sit for nationally recognized certifications such as CompTIA HIT, Cisco, Microsoft and Oracle.

With new regulatory requirements and business goals, healthcare executives recognize the need to hire people who understand the movement to an integrated health system, including the need for common goals for healthcare quality as well as patient drug adherence in a new outcomes-based environment that pays for value over volume. The new requirements for electronic health records (EHRs) include penalties for non-compliance. For this reason, hospitals, physicians and other caregivers have the greatest need for IT specialists in the health sector.

It is possible to compete the degree by means of online or hybrid courses. All courses are designed with the potential for transfer to a four-year institution.

Technical Requirements

Health Information Technology candidate must:

- have command of the English language;
- have normal vision for reading instructions and course materials and for performing manipulative tasks;
- be able to complete requirements for college level classes;
- be able to understand and follow both written and oral instructions;
- have sufficient vision to distinguish colors, read gauges, scopes, diagnostic equipment and information from a computer screen (adaptive equipment acceptable);
- have reading comprehensive skills sufficient to read and comprehend technical literature;
- have communication skills sufficient to prepare required reports;
- have sufficient hearing to distinguish various sounds and noises (adaptive equipment acceptable);
- have sufficient dexterity to perform manual skills related to computer operation.
- it is also recommended that all candidates interview with the department chair.

Students completing the program will be expected to:

- skills necessary to be a self-directed and continuous learner;
- knowledge of operating systems, applications, database systems, hardware, programming concepts, networks, and online resources;
- knowledge of security issues, risks, tools, and policies;
- ability to apply a systematic and methodical approach to solve problems;
- strong documentation skills and knowledge of general business principles and project management;
- obtain specific technical skills to enter the workplace

FIRST YEAR

Fall Semester		CL	LAB	CR
CIS1320L	Software Applications	3	2	4
CIS1360L	Introduction to Computers	2	2	3

CIS1400L	Introduction to Programming	2	2	3
ENGL100L	English Composition	4	0	4
MATH2110L	College Algebra	4	0	4
ESNT1200L	College Essentials	1	0	1
	Total	**15**	**6**	**18**

Spring Semester		**CL**	**LAB**	**CR**
CIS2270L	IT Development Applications	2	2	3
CIS2350L	Spreadsheets	2	2	3
HIT1100L	Health Information Technologies I	2	2	3
MATH2160L	Statistics	4	0	4
	Social Science Elective	3	0	3
	English Elective	3	0	3
	Total	**16**	**6**	**19**

Total Credits for Year =37

SECOND YEAR

Fall Semester		**CL**	**LAB**	**CR**
HIT1500L	Health Information Technologies II	2	2	3
CIS2710L	Analyzing Software Requirements	2	2	3
CIS2420L	Database Management & Design	2	2	3
CIS2320L	Website Development	2	2	3
CIS2760L	Developing Web Applications	2	2	3
	Humanities/Fine Arts/Foreign Language Elective	3	0	**3**
	Total	13	**10**	**18**

Spring Semester		**CL**	**LAB**	**CR**	
HIT2100L	Health Information Technologies III	2	2	3	
CIS2430L	Database Application Development	2	2	3	**OR**
CIS2440L	SQL Server	2	2	3	
CIS2490L	Network Security	2	2	3	
	Liberal Arts Elective	3	0	3	
	Science Elective	3	0	3	
	Total	12	**0**	**15**	

Total Credits for Year = 33/34
Total for A.S. Degree = 70/72

Hospitality Management
Associate in Science

A degree in Hospitality Management prepares students for careers in the world's largest industry, offering opportunities for growth and career advancement. This program, in partnership with leading hospitality and tourism businesses in New Hampshire, combines a rigorous academic program with relevant industry practical experience for those professionals in the hospitality industry and those wanting to enhance their career opportunities. The hospitality and tourism industry offers many career paths, such as working for hotels and resorts, restaurants, vacation ownership, tourism and recreation management organizations, large and small event planning and design companies, private and public clubs, cruise lines, and managed food service organizations.

Students completing the Hospitality Management degree will gain knowledge and competencies in several critical areas such as hotel and resort operations, event management, food and beverage management, customer service, hospitality law, human resource management, as well as marketing, budgeting and finance. During the student's time in this program, they will complete 500 hours of hands-on training with one of our many industry partners, where they will be exposed to various areas of the business.
For students interested in continuing with their college education, transfer agreements with four-year institutions may be available. Call or email the Department Chair for details.

Students completing the program will be expected to:

- Have a strong command of the English language, including written and oral communications
- Demonstrate reading comprehension skills appropriate for a college level class

- Demonstrate arithmetic and computation skills
- Work with members of the public in a professional and courteous manner
- Demonstrate understanding of basic accounting, finance, and budgeting principles
- Demonstrate skills in basic MS Office
- Travel to industry sites to complete the 500 hours of cooperative education
- Stand or sit at a desk or workstation for extended periods of time
- Perform physical tasks required for basic grounds and facilities management
- Demonstrate a commitment to safety and safe industry practices in all classroom and on-site locations.

FIRST YEAR

Fall Semester		**CL**	**LAB**	**CR**
ESNT1200L	College Essentials	1	0	1
ENGL100L	English Composition	4	0	4
HOS1200L	Introduction to Hospitality Management	3	0	3
BUS1500L	Principles of Customer Service	3	0	3
CULA1520L	Sanitation and Safety	3	0	3
HOS191L	Hospitality Management Cooperative Education I	0	0	1
	Total	**14**	**0**	**15**

Spring Semester		**CL**	**LAB**	**CR**
HOS1250L	Hotel and Lodging Operations	1	4	3
HOS2130L	Conference Service Management	3	0	3
HOS1230L	Food and Beverage Management	3	0	3
	Liberal Arts Elective	3	0	3
	Mathematics Elective	3	0	3
	Total	**13**	**4**	**15**

Summer Semester		**CL**	**LAB**	**CR**
HOS192L	Hospitality Management Cooperative Education II	0	0	3
	Total	**0**	**0**	**3**

Total Credits for Year = 33

SECOND YEAR

Fall Semester		**CL**	**LAB**	**CR**
ACCT1310L	Accounting I	3	0	3
HOS1220L	Hospitality Marketing	3	0	3
ENGL2600L	Public Speaking	3	0	3
HOS193L	Hospitality Management Cooperative Education III	0	0	1
	Social Science Elective	3	0	3
	Liberal Arts Elective	3	0	3
	Total	**15**	**0**	**16**

Spring Semester		**CL**	**LAB**	**CR**
HOS2400L	Grounds and Facility Management	2	2	3
HOS2200L	Budgeting and Finance for Hotels and Restaurants	3	0	3
HOS2100L	Hospitality Law	3	0	3
BIOL1290L	Nutrition for Health and Fitness	3	0	3
	Humanities/Fine Arts/Foreign Language Elective	3	0	3
	Total	**14**	**2**	**15**

Total Credits for Year = 31
Total for A.S. Degree = 64

Human Services
Associate in Science

In the Human Services Program, students develop skills in the areas of supportive counseling, written and oral communication, assessment, planning, asset identification, and community organization. The Program provides a sound theoretical framework used to understand and assist people with differences including the sociology of deviance, disability, and service systems, while recognizing that methods for understanding and helping others are constantly evolving. Opportunities to apply the skills and knowledge acquired in the classroom to real work situations is provided in Practicum courses that require students to work in community settings under the supervision of professionals in the field.

The Human Services Program prepares students to enter occupations in public and private human services agencies; acquire skills and knowledge related to the student's current human services employment; and pursue further studies leading to advanced academic degrees and special certifications.

A Certificate in Human Services provides students with knowledge, skills, and attitudes required for humane and effective work in entry- level positions. The Associate Degree in Human Services, however, prepares students for more advanced positions requiring greater autonomy and a broader range of knowledge and skills. Many students completing the Human Services Program continue their education and obtain bachelor and master level degrees in Human Services and allied professions. Students wishing to specialize in Gerontology can elect to enroll in the Human Services degree with a concentration in Gerontology.

Scholarships may be available for students who are currently working in the Human Services profession. Please contact the Program Coordinator to learn more.

Students completing the program will be expected to:

- Human service students must demonstrate capacities for systematic analysis, skilled communication, imaginative problem-solving, empathic insight, and a strong sense of accountability to the persons on whose behalf they work.
- The student is expected to have the emotional stability required to exercise sound judgment, and accept direction and guidance from a supervisor or faculty coordinator; and establish rapport and maintain sensitive interpersonal relationships with employees, customers, and/or clients and their families.
- Human Services students work closely in the field with individuals of all ages. Many practicum sites and potential employers perform background checks through the New Hampshire Department of Safety as well as through the Police and possibly the FBI. A student's driving record will be examined and considered prior to acceptance by some practicum sites and potential employers. The student will pay for such background checks in many circumstances.
- Applicants, who have been in difficulty with the law, depending upon the nature of the problem, may not be employable or even eligible for practical. Applicants need to discuss these issues in an interview with the Department Chairperson prior to admission to the program so that future goals are not compromised.

Human Services

FIRST YEAR

Fall Semester		**CL**	**LAB**	**CR**
ENGL100L	English Composition	4	0	4
HSV1200L	Introduction to the Human Services Profession	3	0	3
HSV1100L	Professional Seminar	3	0	3
PSYC1250L	Introduction to Psychology	3	0	3
ESNT1200L	College Essentials	1	0	1
	Mathematics Elective	3	0	3
	Total	**17**	**0**	**17**

Spring Semester		**CL**	**LAB**	**CR**
ENGL1230L	Business Communications	3	0	3
OR				
ENGL2600L	Public Speaking	3	0	3
HSV1260L	Learning and Behavior	3	0	3
HSV1280L	Individual Assessment and Planning	3	0	3
HSV1300L	Gerontology	3	0	3
HSV1500L	Introduction to Practicum	1	0	1

SOSC1280L	Chemical Dependency	3	0	3
	Total	**16**	**0**	**16**

Total Credits for Year = 33

SECOND YEAR

Fall Semester		**CL**	**LAB**	**CR**
HSV1610L	Human Services Practicum I	2	9	5
HSV2210L	Mental Health/Developmental Disabilities	3	0	3
PSYC1260L	Human Growth and Development	3	0	3
SOSC2350L	Children, Youth, and Families	3	0	3
	Total	**11**	**9**	**14**

Spring Semester		**CL**	**LAB**	**CR**
HSV2280L	Political/Social Issues in Human Services	3	0	3
HSV2620L	Human Services Practicum II	2	9	5
PHIL2270L	Ethical Issues	3	0	3
	Human Services Elective*	3	0	3
	Science Elective with Lab	3	2	4
	Total	**14**	**11**	**18**

Total Credits for Year = 32
Total for A.S. Degree = 65

Concentration in Gerontology

FIRST YEAR

Fall Semester		**CL**	**LAB**	**CR**
ENGL100L	English Composition	4	0	4
HSV1200L	Introduction to the Human Services Profession	3	0	3
HSV1100L	Professional Seminar	3	0	3
PSYC1250L	Introduction to Psychology	3	0	3
ESNT1200L	College Essentials	1	0	1
	Mathematics Elective	3	0	3
	Total	**17**	**0**	**17**

Spring Semester		**CL**	**LAB**	**CR**
ENGL1230L	Business Communications	3	0	3
HSV1260L	Learning and Behavior	3	0	3
HSV1280L	Individual Assessment and Planning	3	0	3
HSV1300L	Gerontology	3	0	3
HSV1500L	Introduction to Practicum	1	0	1
SOSC1280L	Chemical Dependency	3	0	3
	Total	**16**	**0**	**16**

Total Credits for Year = 33

SECOND YEAR

Fall Semester		**CL**	**LAB**	**CR**
CIS1320L	Software Applications	3	2	4
HSV1310L	Psychosocial Aspects of Aging	3	0	3
HSV1710L	Gerontology Practicum I	2	9	5
HSV2300L	The Aging Process	3	0	3
PSYC1260L	Human Growth and Development	3	0	3
	Total	**14**	**9**	**18**

Spring Semester		**CL**	**LAB**	**CR**
HSV2280L	Political/Social Issues in Human Services	3	0	3
HSV2710L	Gerontology Practicum II	2	9	5
PHIL2270L	Ethical Issues	3	0	3
BIOL1440L	Human Biology with Lab			

OR

BIOL1450L	Anatomy & Physiology I	3	2	4
SOSC2210L	Organizational Behavior	3	0	3
	Total	**14**	**11**	**18**

Total Credits for Year = 36
Total for A.S. Degree = 69

***Human Services Electives**		**CL**	**LAB**	**CR**
HSV1120L	Overview Developmental Disabilities	3	0	3
HSV1130L	Community Inclusion	3	0	3
HSV1220L	Supportive Communication Skills	3	0	3
HSV1400L	Justice and the Community	3	0	3
HSV1450L	Foundations of Conflict Resolution	3	0	3
HSV2140L	Meaningful Supports	3	0	3
HSV2150L	Family and Support Networks	3	0	3
HSV2300L	The Aging Process	3	0	3

Human Services Certificate

		CL	**LAB**	**CR**
ENGL100L	English Composition	4	0	4
HSV1200L	Introduction to the Human Services Profession	3	0	3
HSV1100L	Professional Seminar	3	0	3
HSV1260L	Learning and Behavior	3	0	3
HSV1280L	Individual Assessment and Planning	3	0	3
HSV1500L	Introduction to the Practicum	1	0	1
HSV1610L	Human Services Practicum I	2	9	5
PSYC1260L	Human Growth and Development	3	0	3
ESNT1200L	College Essentials	1	0	1
Choose 3 credits				
HSV1300L	Gerontology	3	0	3
HSV2210L	Mental Health/Developmental Disabilities	3	0	3
SOSC1280L	Chemical Dependency	3	0	3
	Total	**25**	**9**	**28**

Gerontology Certificate

		CL	**LAB**	**CR**
ENGL100L	English Composition	3	0	4
HSV1100L	Professional Seminar	3	0	3
HSV1300L	Gerontology	3	0	3
HSV1310L	Psychosocial Aspects of Aging	3	0	3
HSV1500L	Introduction to the Practicum	1	0	1
HSV1710L	Gerontology Practicum I	2	9	5
OR				
NURS1000L	Licensed Nursing Assistant	2	9	5
HSV2300L	The Aging Process	3	0	3
SOSC1280L	Chemical Dependency	3	0	3
ESNT1200L	College Essentials	1	0	1
Choose 3 credits				
HSV2320L	Political/Social Issues in Gerontology	3	0	3
SOSC1240L	Introduction to Sociology	3	0	3
PSYC1260L	Human Growth and Development	3	0	3
	Total	**24**	**9**	**25**

Developmental Disabilities Certificate

		CL	LAB	CR
ENGL100L	English Composition	3	0	4
HSV1120L	Overview of Developmental Disabilities	3	0	3
HSV1130L	Community Inclusion	3	0	3
CIS1320L	Software Applications	3	2	4
HSV1500L	Introduction to the Practicum	1	0	1
HSV1610L	Human Services Practicum I	2	9	5
HSV2140L	Meaningful Supports	3	0	3
HSV2150L	Families and Support Networks	3	0	3
ESNT1200L	College Essentials	1	0	1
Choose 3 credits				
HSV1200L	Introduction to the Human Services Profession	3	0	3
HSV2210L	Mental Health and Developmental Disabilities	3	0	3
HSV2280L	Political/Social Issues of Human Services	3	0	3
	Total	**25**	**11**	**30**

Liberal Studies Associate in Arts

This Associate in Arts degree program offers the equivalent of the first two years in a four-year Bachelor of Arts or Bachelor of Science program. Students may choose one of three paths, Liberal Arts, Liberal Arts with a major in Psychology or Liberal Arts with a concentration in Health Sciences. Upon completion of one of these programs, students have an academic background sufficient to transfer into a baccalaureate degree program. The program also provides a foundation for the acquisition of skills and abilities essential for jobs requiring a broader base of arts and sciences.

Students completing the program will be expected to:

- Communicate effectively in writing and orally
- Solve problems using critical, creative and scientific reasoning
- Critically employ quantitative methods to organize, analyze, and interpret data toward the express goals of informing themselves and solving problems
- Demonstrate scientific thought both quantitatively and qualitatively by learning to recognize and formulate questions for analysis of human or technical problems
- Interpret facts and evaluate issues from multiple perspectives
- Demonstrate knowledge of diverse cultures and subcultures, with an eye toward broadening their global and historical perspectives.
- Reflect on their interactions with other individuals and their communities, as well as their role in a global society
- Use technology to retrieve, process, and communicate information

In this flexible program, students select courses based on the requirements of the four-year college to which they plan to transfer. Working with an advisor, students design a program that best meets their future plans. It is recommended that students identify the college to which they plan to transfer and discuss a transfer plan with their advisor as soon as possible.

The following courses satisfy Liberal Arts requirements:

English	Courses with ENGL prefix and HUMA1600L
Humanities	ENGL2230L, ENGL2240L, ENGL2460L, ENGL2500L, ENGL2540L, ENGL2550L, ENGL2560L, ENGL2570L, and courses with ARTS, FREN, HIST, HUMA, PHIL and SPAN prefix
Literature	ENGL2230L, ENGL2240L, ENGL2460L, ENGL2500L, ENGL2540L, ENGL2550L, ENGL2560L, ENGL2570L
Mathematics	Courses with MATH prefix
Science	Courses with BIOL, CHEM, ENVS, GEOL, PHYS prefix
Social Science	HUMA1310L, HUMA1500L, HUMA1510L, HUMA2500L, HUMA2520, and courses with HIST, PHIL, POLS, PSYC and SOSC prefix

Liberal Arts

FIRST YEAR

Fall Semester	**CR**
ESNT1200L College Essentials	1
ENGL100L English Composition	4
Mathematics Elective	3
Social Science Elective	3
Science Elective w/lab	4
Total	**15**

Spring Semester	**CR**
English Elective	3
Mathematics Elective	3
Humanities/Fine Arts Foreign Language Elective	3
Social Science Elective	3
Science Elective w/Lab	4
Total	**16**

Total Credits for Year = 31

SECOND YEAR

Fall Semester	**CR**
Humanities/Fine Arts Foreign Language Elective	3
Social Science Elective	3
Liberal Arts Elective	3
Liberal Arts Elective	3
Open Elective (computer course recommended)	3
Total	**15**

Spring Semester	**CR**
Humanities/Fine Arts Foreign Language Elective	3
Liberal Arts Elective	3
Liberal Arts Elective	3
Open Elective	3
Open Elective	3
Total	**15**

Total Credits for Year = 30
Total for A.A. Degree = Minimum of 61 credits

Liberal Arts: Health Science Concentration

The Associate in Arts, Liberal Arts: Health Science degree serves as a foundation degree for those students interested in pursuing a career within the healthcare profession. The program provides a student with a foundation in the liberal arts with a focus on Life Sciences, and an emphasis on preparation for continued study in a health science field. In addition, the course of studies also lends itself as a transfer degree into a large number of four-year university majors that require a strong background in the biological sciences and related areas of physical sciences and mathematics. Here the program provides many first and second year courses for a diverse set of majors ranging from Athletic Training to Speech-Language Pathology to Marine Biology.

FIRST YEAR

Fall Semester	**CR**
ESNT1200L College Essentials	1
ENGL100L English Composition	4
Mathematics Elective	3
Introduction to Psychology	3
Biological Science Elective	4
Total	**15**

Spring Semester	**CR**
English Elective	3
Mathematics Elective	3
Humanities/Fine Arts Foreign Language Elective	3
Biological Science Elective	4
Open Elective*	3
Total……	**16**

Total Credits for Year = 31

SECOND YEAR

Fall Semester	**CR**
Biological Science Elective	4
Humanities/Fine Arts Foreign Language Elective	3
Physical Science Elective w/Lab	4
Social Science Elective	3
Liberal Arts Elective	3
Total……	**17**

Spring Semester	**CR**
Science Elective w/Lab	4
Humanities/Fine Arts Foreign Language Elective	3
Social Science Elective	3
Open Electives	6
Total……	**16**

Total Credits for Year = 33
Total Credits for A.A. Degree = 64

Recommended courses for Liberal Arts: Health Science Degree:
The following list shows courses in the sciences, mathematics, English, humanities and social science that are commonly required for many Life/Health/Biological Science majors or are required for some majors within this diverse set of professions. Please meet routinely with your program advisor while selecting the courses appropriate for your career path.

Biological Sciences: BIOL1270L Nutrition for Health and Fitness; BIOL1520L Ecology; BIOL1450L Anatomy & Physiology I; BIOL1460L Anatomy & Physiology II; BIOL1480L General Biology I; General Biology II; BIOL1530L Introduction to Plant Biology; BIOL2410L Microbiology; BIOL2460L Introduction to Genetics.

Physical Sciences: CHEM1360L Principles of Chemistry; CHEM1380L General Chemistry I; CHEM1390L General Chemistry II; PHYS2200L College Physics I; PHYS2210L College Physics II.

Mathematics: MATH2160L Statistics; MATH2350L Pre-Calculus; MATH2700L Calculus I.

English: ENGL1220L Technical Communications; ENGL2500L Introduction to Literature; ENGL2600L Public Speaking.

Humanities: ENGL2500L Introduction to Literature; PHIL2270L Ethical Issues.

Social Science: PHIL2270L Ethical Issues; PSYC1260L Human Growth & Development; SOSC1240L Introduction to Sociology.

Marine Technology
Associate in Applied Science

The Marine Technology program concentrates on recreational marine equipment; including outboards, inboards, inboard/outboards, engines, and diagnostic equipment. Students become knowledgeable in the maintenance and repair of internal combustion engines and drive systems through classroom and lab experience.

In addition to the mechanical aspects, students learn basic marina operations, safety management, uses of marine products, customer relations, and communications.

Opportunities for marine technicians are found in coastal and lakeside communities. Graduates will find employment as inboard drive, or outboard technicians. Many other opportunities in the recreational off-road vehicle market; such as motorcycle and snowmobile technician are also available.

Students completing the program will be expected to:

- have command of the English language;
- have a high school diploma or equivalent;
- be able to purchase the minimum required tools;
- be able to work in a marine service environment;
- be able to work in confined spaces;
- be able to complete requirements for college level classes;
- be able to understand and follow both written and oral instructions;
- have sufficient vision to distinguish colors, read gauges, scopes, diagnostic equipment, and information from a computer screen (adaptive equipment acceptable);
- have reading comprehension skills sufficient to read and comprehend service literature;
- have communication skills sufficient to prepare required reports;
- have sufficient hearing to distinguish various sounds and noises (adaptive equipment acceptable);
- have the ability to stand for extended periods of time and the physical strength to lift components and equipment;

have sufficient dexterity to perform manual skills related to marine service

FIRST YEAR

FIRST YEAR

Fall Semester		**CL**	**LAB**	**CR**
ENGL100L	English Composition	4	0	4
MAR1200L	Fundamentals of Electricity and Electronics	3	3	4
MAR121L	Marine Maintenance and Fundamentals	4	3	5
ESNT1200L	College Essentials	1	0	1
	Mathematics Elective	3	0	3
	Total	**14**	**6**	**17**

Spring Semester		**CL**	**LAB**	**CR**
MAR126L	Outboard Engine Maintenance	3	6	5
MAR1240L	Starting, Ignition, and Charging Systems	3	3	4
	English Elective	3	0	3
	Social Science Elective	3	0	3
	Total	**15**	**6**	**15**

Summer Semester		**CL**	**LAB**	**CR**
MAR1703L	Independent Study	3	0	3
	Total	**3**	**0**	**3**

Total Credits for Year = 35

SECOND YEAR

Fall Semester		**CL**	**LAB**	**CR**
MAR232L	Outboard Engine Repair	3	6	5
MAR226L	Marine Drive Systems	3	3	4
	Humanities/Fine Arts/Foreign Language Elective	3	0	3
	Science Elective	3	0	3
	Total	**12**	**10**	**15**

Spring Semester		**CL**	**LAB**	**CR**
MAR224L	Inboard Engine Repair	3	3	4
MAR2220L	Marina Operations	4	0	4
MAR2350L	Marine Engine Diagnostics	3	0	3
	Liberal Arts Elective	3	0	3
	Total	**13**	**6**	**14**

Total Credits for Year = 29
Total for A.A.S. Degree = 64

Marine Technology
Certificate

		CL	LAB	CR
MAR1200L	Fundamentals of Electricity and Electronics	3	3	4
MAR121L	Marine Maintenance and Fundamentals	4	3	5
MAR1230L	Outboard Engine Maintenance	3	6	5
MAR1240L	Starting, Ignition, and Charging Systems	3	3	4
MAR224L	Inboard Engine Repair	3	3	4
MAR226L	Marine Drive Systems	3	3	4
ESNT1200L	College Essentials	1	0	1
	Total	**22**	**24**	**27**

Nursing
Associate in Science

The Nursing Program offers the opportunity to earn an Associate of Science Degree in Nursing, in preparation for the licensing exam (NCLEX-RN) to become a Registered Nurse. This Nursing program has the full approval of the New Hampshire Board of Nursing. The New Hampshire Board of Nursing's website can be accessed at www.state.nh.us/nursing.

This nursing education program is accredited by the Accreditation Commission for Education in Nursing (ACEN) (3343 Peachtree Road NE, Suite 850, Atlanta, Georgia, 30326; (404) 975-5000; http://www.acenursing.org/). Questions about the status of accreditation for the Nursing program should be addressed to ACEN

Program Mission

The nursing department accepts and aligns itself with the mission of Lakes Region Community College. The mission of the Lakes Region Community College Associate Degree Nursing Program is to prepare compassionate health care professionals whose practice is holistic, scientifically based and technically competent. The mission is to provide all students with a quality education that affords each graduate the opportunity to enter the healthcare profession in their community and have the ability to pursue a Bachelor of Science degree in Nursing.

End-of-Program Student Learning Outcomes

Graduates of the LRCC nursing program will be prepared to achieve the following Learning Outcomes:

1. Deliver safe, legal, and ethical patient-centered care to the culturally and developmentally diverse patients using the nursing process.

2. Practice collaboratively throughout the healthcare system on a multi-professional healthcare team to achieve shared goals using principles of communication, leadership, and management.

3. Support a culture of continuous evidence-based quality improvement by using data to monitor outcomes and identify and report actual or potential problems.

4. Use health care system resources and technology to coordinate and deliver individual and/or population-focused care that is safe, effective, and efficient.

5. Demonstrate professional accountability using legal, ethical, and regulatory guidelines.

6. Participate in activities that contribute to life-long learning.

The New Hampshire State Board of Nursing may restrict licensing of candidates who have been involved in civil or criminal legal action. Questions about licensing restrictions should be addressed to the Board of Nursing. Satisfactory completion of the A.S. in Nursing does not guarantee RN Licensure.

Students admitted into the Nursing Program must achieve a minimum grade of C in all pre-requisite and co-requisite courses, and B- in all nursing courses.

Graduates of the program are encouraged to pursue a Bachelor and/or Master of Science in Nursing. Graduates of the LRCC nursing program have the opportunity to pursue further nursing education through the RN to BSN pathway that has been established with Southern New Hampshire University (SNHU) and Granite State College (GSC). Students planning to continue their education toward the Bachelor's or Masters of Science in Nursing should plan their program of study with an academic advisor from the Department of Nursing.

Admission Requirements for Level I applicants:

- Submit a completed college application for admission. Applications completed prior to December 15 will be considered for an early action notification. If an applicant is not admitted through the early action process, their application will be reconsidered with the other regular decision applications after the February 1 application deadline. Applications completed after February 1 may only be considered on a space available basis, if the program is not at capacity. Applications are considered complete only when all required documentation is received by the LRCC Admissions Office prior to the above deadlines.
- Meet all general college admissions requirements
- Successfully complete the Test of Essential Academic Skills (TEAS) with the following minimum score in each section. Reading – 74.5%, Math – 68.8%, Science – 55.3% and English – 66.7%. Applicants are permitted to take this test 3 times in a calendar year; no sooner than six weeks between attempts. Test scores are valid for a period of two years. Test dates are available on the LRCC website www.lrcc.edu or by contacting the Admissions Office. The test may also be completed at any other TEAS test site. It is the student's responsibility to have the results forwarded to the LRCC Admissions Office if the test is completed elsewhere
- Submit a 300 to 500-word essay to the admissions office. Directions for completing the essay can be found at www.lrcc.edu under the Admissions link.
- Applicants who have completed all of the admission requirements will be required to participate in an interview with nursing faculty.
- Document successful completion of high school or college algebra, chemistry with lab and biology with lab classes all with a minimum grade of "C" or higher.
- Nursing courses must be completed within three years from the date of entry. Students who leave the program in good standing may be re-admitted only once during the three years.
- Participate in an interview with Nursing faculty.

Nursing courses must be completed within three years from the date of entry. Students who leave the program in good standing may be re-admitted only once.
Students may be required to do an evening clinical rotation depending on clinical site and/or clinical faculty availability

All students accepted into the Nursing Program will:

- Attend a designated summer orientation session
- Obtain and maintain current Basic Life Support for the Professional Rescuer certification
- Pass a national criminal background check, prior to the first semester of attendance
- Complete a Bureau of Elderly and Adult Services (BEAS) State Registry form prior to the start of attendance
- Submit proof of immunizations
- Submit results of a two-step Tuberculosis (TB) test
- Submit proof of current health insurance
- Submit a completed Health Exam form
- Pass an annual drug screen
- Purchase the required uniform.
- Make up all clinical and class hours missed for any reason at the discretion of the faculty

Transfer into the LRCC Nursing Program
To qualify for acceptance into the Nursing Program a prospective transfer student must meet the following criteria:

1. All nursing courses must have been completed with a grade of B- or better within the past five years.
2. All required science courses must have been completed within the 5 years of starting the nursing program with a grade of C or better.
3. If any required science course has been completed greater than 5 years before entry into the nursing program, applicants can elect to re-take the course, or test out of the course by completing a comprehensive exam with a grade of C or better.
4. One of these options must be completed before the end of the semester that corresponds to what is shown in the nursing schedule for that course.
5. All pre-requisite and co-requisite courses must be completed with a grade of C or better.
6. The program hours for each nursing course being transferred in to LRCC must meet the minimum number of required program hours determined by the LRCC nursing program.

Transfer into the LRCC Nursing Program is available on a space available basis. Transfer credit will be based on course content, program hours, and credits earned. Prior to applying for transfer into the Nursing Program, potential transfer students must first meet with the Chair of the Nursing department. Based on the results of the meeting and/or additional review by the Chair, students may then be advised to apply for admission and for what semester.

It is the applicant's responsibility to have official transcripts from all previously attended high school and college institutions sent to the LRCC Admissions Office as soon as possible. A student who has been accepted for transfer into the Nursing Program must complete the program within 2 years. A student who has transferred into the Nursing Program and does not complete course work within 2 years may not reapply for readmission to the Nursing Program.

If during the application/admissions timeframe there are more qualified students applying to transfer into the Nursing Program than there is available space, the final decision regarding acceptance into the program will be made by the Nursing Faculty. A student who has exited from another nursing program for unsafe practice or unprofessional behavior is not eligible for transfer into the Nursing program at LRCC.

LPN to ADN Pathway
A Licensed Practical Nurse (LPN) may apply to the Lakes Region Community College nursing program to earn an Associate's degree in nursing. Prior to applying to the Nursing Program an LPN applicant must first meet with the Chair of the Nursing department. Based on the results of the meeting and/or additional review by the Chair, the applicant may then be advised to apply for admission. To apply to the nursing program, the LPN applicant must meet the following criteria:

1. Meet all pre-requisites for the RN program excluding completion of the TEAS exam.
2. All nursing courses must have been completed with a grade of B- or better.
3. Meet all the co-requisite requirements for the first semester of the nursing program.
4. Hold an unencumbered New Hampshire LPN license
5. Complete the NLN NACE I exam with a minimum grade of 74%
6. Meet all admission criteria by December 15 for admission in to the spring semester.

NACE I test scores are valid for a period of two years. Contact the Admissions Office for test dates and further information about the NACE I exam.

LPN applicants who successfully meet all of the admission requirements may be eligible for admission into the RN program beginning the Spring semester of Level 1 on a space available basis.

Technical Standards
The following technical standards are to guide students to make an informed decision regarding a career in nursing. These standards are required to complete the nursing curriculum and to enter nursing practice as a Registered Nurse. The skills are as follows:

Auditory: Each student must possess auditory ability to monitor, and assess health needs, including (but not limited to)

- hear and interpret information a client is communicating verbally
- hear auscultory sounds using a stethoscope
- hear auditory signals from equipment
- communicate over the telephone

Visual: Each student must possess visual ability sufficient for observation, and assessment necessary to provide nursing care, including (but not limited to)

- observe drainage on dressings and drainage of body fluids
- note fluid levels in supplies and equipment
- read gauges that monitor clients
- see to administer treatments
- observe changes in client skin color
- observe client's behavior and movement

Tactile: Each student must possess tactile ability sufficient to perform a physical assessment, and procedures on clients, including (but not limited to)

- perform palpation, and other functions necessary for physical exam
- assess texture, shape, size, temperature, and vibration
- perform therapeutic procedures
- collect specimens

Sense of Smell: It is desirable that each student possess a sense of smell acute enough to detect strong odors that may indicate a change in a client's condition, including (but not limited to);

- a purulent wound
- ketones on a person's breath
- body fluids that have a strong odor
- smoke or other indicator of danger

Communication: Each student must be able to communicate in English effectively with clients, families, and other health care professionals. This includes expressive, and receptive modes of verbal, nonverbal, and written communication, including (but not limited to);

- explain procedures, and treatments
- initiate health education
- document nursing assessment, planning, implementation, and evaluation of nurse and client actions, and responses
- read client documentation, and medical literature
- give an accurate report of client information to other health care providers

Motor Function: Each student must have sufficient motor function, neuromuscular strength, and coordination to effectively perform nursing functions, including (but not limited to)

- transfer clients to/from wheelchair to bed, and bed to/from stretcher
- gather assessment data by palpation, auscultation and percussion
- manipulate instruments to perform physical assessment
- apply pressure (to stop bleeding). Gross and Fine Motor Coordination: Each student must have sufficient gross and fine motor coordination to
- move around in the health care environment
- perform treatments, and procedures
- calibrate, and use equipment
- navigate stairs or other client settings

Stamina: Each student must have sufficient stamina to sit, stand, and move within the classrooms; skills lab, nursing units, operating room, and community settings, for periods of time as long as eight hours at a time. Each student must be able to lift 20 lbs.

Behavioral: Each student must possess the ability to establish, and maintain, appropriate professional relationships, including the following factors

- act ethically
- exercise sound clinical judgment
- be compassionate
- develop mature, and effective relationships with clients
- complete all responsibilities required for client care

Emotional Health: Each student must possess the emotional health required for full utilization of his/her intellectual abilities, including (but not limited to)

- prioritize competing demands
- function in stressful situations
- tolerate physically taxing workloads
- adjust to changing circumstances

FIRST YEAR

Fall Semester		**CL**	**LAB**	**CR**
NURS1320L	Nursing I	5	12	9
BIOL1450L	Anatomy and Physiology I	3	2	4
ENGL100L	English Composition	4	0	4
ESNT1200L	College Essentials	1	0	1
	Total	**13**	**14**	**18**

Spring Semester		**CL**	**LAB**	**CR**
NURS1420L	Nursing II	3	15	8
BIOL1460L	Anatomy & Physiology II	3	2	4
PSYC1250L	Introduction to Psychology	3	0	3
PSYC1260L	Human Growth and Development	3	0	3
	Total	**12**	**17**	**18**

Total Credits for Year = 36

SECOND YEAR

Fall Semester		**CL**	**LAB**	**CR**
NURS2220L	Nursing III	5	12	9
BIOL2410L	Microbiology	3	2	4
PHIL2270L	Ethics Issues	3	0	3
	Total	**11**	**17**	**16**

Spring Semester		**CL**	**LAB**	**CR**
NURS2320L	Nursing IV	8	12	12
	Mathematics Elective (MATH2160L Statistics recommended)	3	0	3
	English Elective	3	0	3
	Total	**14**	**12**	**18**

Total Credits for Year = 34
Total for A.S. Degree = 70

Office Technology Management
Associate in Applied Science

The Office Technology Management degree prepares students for a variety of roles in today's ever-changing 21st century office environment. Students will gain a solid foundation in office management skills with opportunities for specialization in Administrative or Medical Office Technology Management. Not only will students gain an understanding of the roles and skills used by administrative assistants, they will also gain vital knowledge in business, business communication, and accounting.

Each concentration offers excellent employment opportunities in a variety of administrative, clerical, and other front office roles in a variety of industries. Career paths include jobs such as administrative assistant, executive secretary, general office manager, office clerk, receptionist, and medical office assistant. Opportunities are especially strong in customer service, hospital administration, medical offices, law firms, religious organizations, real estate firms, government offices, car dealerships, hotels, schools, sports teams, libraries, transportation and manufacturing.

Students completing the program will be expected to:

- Have a strong command of the English language, including written and oral communications;
- Demonstrate reading comprehension skills appropriate for a college-level class.
- Demonstrate arithmetic and computation skills;
- Possess eye/hand coordination (dexterity) for manipulating computer keyboards and other office equipment;

- Have sufficient manual dexterity to produce legible written documents in a timely manner and use a keyboard and calculator;
- Be comfortable using computers and computer application software;
- Have the ability to cope with multi-tasking, self-management of some course content/tasks/simulations, and a variety of teaching/learning methods;
- Be able to sit or stand at a desk or workstation and stay on task for extended periods of time;
- Have the ability to follow instructions;
- Exercise professional decorum in the classroom environment.

Concentration in Administrative Office Assistant

FIRST YEAR

Fall Semester		**CL**	**LAB**	**CR**
ENGL100L	English Composition	4	0	4
ESNT1200L	College Essentials	1	0	1
OTM1210L	Business Documentation I	2	2	3
OTM1250L	Administrative Office Management	3	0	3
	Social Science Elective	3	0	3
	Liberal Arts Elective	3	0	3
	Total	**16**	**2**	**17**

Spring Semester		**CL**	**LAB**	**CR**
BUS1300L	Introduction to Business	3	0	3
CIS1320L	Software Applications	3	2	4
ENGL1230L	Business Communications	3	0	3
OTM2210L	Business Documentation II	2	2	3
	Business Elective	3	0	3
	Total	**14**	**4**	**16**

Total Credits for Year = 33

SECOND YEAR

Fall Semester		**CL**	**LAB**	**CR**
ACCT1310L	Accounting I	3	0	3
CIS2420L	Database Management	2	2	3
OTM2250L	Administrative Office Procedures	2	2	3
	Business Elective	3	0	3
	Mathematics Elective	3	0	3
	Open Elective	3	0	3
	Total	**16**	**4**	**18**

Spring Semester		**CL**	**LAB**	**CR**
OTM1400L	Principles of Records Management	2	0	2
BUS1150L	Professional Development	1	0	1
CIS2350L	Spreadsheets	2	2	3
ACCT2730L	Introduction to Computerized Accounting	2	2	3
	Humanities/Fine Arts/Foreign Language Elective	3	0	3
	Science Elective	3	0	3
	Total	**13**	**2**	**15**

Total Credits for Year = 33
Total for A.A.S. Degree = 66

Concentration in Medical Office Assistant

FIRST YEAR

Fall Semester		**CL**	**LAB**	**CR**
ENGL100L	English Composition	4	0	4
ESNT1200L	College Essentials	1	0	1
OTM1210L	Business Documentation I	2	2	3
OTM1250L	Administrative Office Management	3	0	3

OTM1310L	Medical Terminology	3	0	3
OTM1560L	Law and Ethics for the Medical Professional	3	0	3
	Total	**15**	**2**	**16**

Spring Semester		**CL**	**LAB**	**CR**
BUS1300L	Introduction to Business	3	0	3
CIS1320L	Software Applications	3	2	4
ENGL1230L	Business Communications	3	0	3
OTM2210L	Business Documentation II	2	2	3
	Business Elective	3	0	3
	Total	**14**	**4**	**16**

Total Credits for Year = 33

SECOND YEAR

Fall Semester		**CL**	**LAB**	**CR**
ACCT1310L	Accounting I	3	0	3
	Business Elective	3	0	3
	Social Science Elective	3	0	3
	Liberal Arts Elective	3	0	3
	Mathematics Elective	3	0	3
	Open Elective	3	0	3
	Total	**18**	**0**	**18**

Spring Semester		**CL**	**LAB**	**CR**
OTM1400L	Principles of Records Management	2	0	2
BUS1150L	Professional Development	1	0	1
OTM2520L	Medical Insurance Billing	3	0	3
OTM2270L	Medical Office Procedures	2	2	3
	Humanities/Fine Arts/Foreign Language Elective	3	0	3
	Science Elective	3	0	3
	Total	**14**	**2**	**16**

Total Credits for Year = 34
Total for A.A.S. Degree = 67

Office Technology Management students may take any business or accounting class to satisfy business electives as long as it is not required course in the program.

Administrative Assistant Certificate

		CL	**LAB**	**CR**
ACCT1310L	Accounting I	3	0	3
BUS1150L	Professional Development	1	0	1
CIS1320L	Software Applications	3	2	4
ENGL1230L	Business Communications	3	0	3
OTM1210L	Business Documentation I	2	2	3
OTM1250L	Administrative Office Management	3	0	3
OTM1400L	Principles of Records Management	2	0	2
OTM2210L	Business Documentation II	2	2	3
OTM2250L	Administrative Office Procedures	2	2	3
ACCT2730L	Introduction to Computerized Accounting	2	2	3
ESNT1200L	College Essentials	1	0	1
	Total	**23**	**10**	**28**

Medical Office Assistant

		CL	**LAB**	**CR**
BUS1150L	Professional Development	1	0	1
CIS1320L	Software Applications	3	2	4
OTM1210L	Business Documentation I	2	2	3

OTM1250L	Administrative Office Management	3	0	3
OTM1310L	Medical Terminology	3	0	3
OTM1400L	Principles of Records Management	2	0	2
OTM1560L	Law and Ethics for the Medical Professional	3	0	3
OTM2210L	Business Documentation II	2	2	3
OTM2270L	Medical Office Procedures	2	2	3
OTM2520L	Medical Insurance Billing	3	0	3
ESNT1200L	College Essentials	1	0	1
	Total	**25**	**8**	**29**

Pasty Arts
Associate in Science

This two-year program prepares students for entry to mid-level employment in a variety of pastry venues. It combines a foundation of pastry and management skills the industry demands. The curriculum incorporates opportunities to learn and work in a student-operated pastry kitchen. Summer employment in pastry arts complements the learning experience. These workplace opportunities provide the student with hands-on knowledge and the benefit of work experience.

Technical Requirements
Pastry Arts candidates must:

- Have an understanding and command of the English language.
- Be capable of lifting and carrying at least twenty-five pounds unassisted.
- Comprehend and use new career terminology.
- Understand the necessity for personal hygiene, appearance, and etiquette when interacting with the public and display it for the duration of the school/working hours.
- Have the physical and mental ability to satisfy the long hours, demands, and stress that embodies the pastry industry.
- Must display complete knowledge of all safety rules/regulations in the workplace and fully comply with them.

Pastry Arts is a fast growing field with tremendous job potential. Quality employees are always in high demand. The Pastry Arts program provides opportunities for fulfilling jobs in all aspects of an exciting and growing industry.

Students completing the program will be expected to:

- Demonstrate knowledge of the pastry kitchen and patisserie operations.
- Produce product, purchase, price and cost goods for profit and sale in a pastry shop.
- Demonstrate a strong foundation in fundamental baking techniques.
- Demonstrate using procedures and terminology in creating formulas from basic ingredients.
- Produce several regional ethnic pastries and desserts from within the United States and internationally.
- Demonstrate the use of the different pieces of equipment in the kitchen.
- Exhibit a strong sense of teamwork.
- Be hired from entry-level to beginning supervisory positions in bake shops, hotels, and retail establishments.
- Be able to manage, as a baker, a fully functioning pastry kitchen in smaller establishments.
- Show the ability to use technology for the advancement of managerial duties in order to support pastry establishments.
- Apply hospitality laws to any pastry kitchen/dining service venue.
- Demonstrate basic knowledge in advanced pastry methods.
- Showcase knowledge of nutritional baking and practices.

FIRST YEAR

Fall Semester		**CL**	**LAB**	**CR**
CULA1460L	Bakery Production	1	4	3
CULA1450L	Breads and Rolls	1	4	3
CULA1520L	Sanitation & Safety	3	0	3
ENGL100L	English Composition	4	0	4
ESNT1200L	College Essentials	1	0	1
	Mathematics Elective	3	0	3
	Total	**13**	**8**	**17**

Spring Semester		CL	LAB	CR
CULA1470L	Hot & Cold Plated Desserts	1	4	3
CULA1480L	Cake Decorating	1	4	3
CULA1590L	Cost Control	3	0	3
ENGL1230L	Business Communications	3	0	3
	Liberal Arts Elective	3	0	3
	Total	**11**	**8**	**15**

Summer Semester		CL	LAB	CR
CULA2300L	Pastry Arts Cooperative Education (300 hours required)	0	9	3
	Total	**0**	**9**	**3**

Total Credits for Year = 35

SECOND YEAR

Fall Semester		CL	LAB	CR
CULA2100L	Nutritional & Alternative Baking	1	4	3
CULA2200L	Advanced Cake Decorating	1	4	3
BIOL1290L	Nutrition for Health and Fitness	3	0	3
	Social Science Elective	3	0	3
	Liberal Arts Elective	3	0	3
	Total	**11**	**8**	**15**

Spring Semester		CL	LAB	CR
CULA1490L	Baking and Pastry Technologies	3	0	3
CULA2250L	Advanced Pastry and Confections	1	4	3
CULA1580L	Restaurant Facility & Menu Design	1	4	3
CULA2310L	Pastry Arts Capstone	1	0	1
	Liberal Arts Elective	3	0	3
	Humanities/Fine Arts/Foreign Language Elective	3	0	3
	Total	12	8	16

Total Credits for Year = 31
Total for A.S. Degree = 66

Pastry Arts Certificate

Fall Semester		CL	LAB	CR
ESNT 1200L	College Essentials	1	0	1
CULA1450L	Breads and Rolls	1	4	3
CULA1460L	Bakery Production	1	4	3
CULA1520L	Sanitation and Safety	3	0	3
CULA1480L	Cake Decorating	1	4	3
	Total	**7**	**12**	**13**

Spring Semester				
CULA1430L	Advanced Cake Decorating	1	4	3
CULA1470L	Hot and Cold Plated Desserts	1	4	3
CULA1490L	Baking and Pastry Technologies	3	0	3
CULA2250L	Advanced Pastry and Confections	1	4	3
	Total	**6**	**12**	**12**

Summer Semester				
CULA2300L	Pastry Arts Co-op	0	9	3
	Total	**0**	**9**	**3**

Total for Certificate=28

Restaurant Management
Associate in Science

This program prepares students for responsible, mid-level employment in both skilled and professional positions. It combines a foundation of culinary and management skills that the industry demands. The curriculum incorporates opportunities to learn and work in a student-operated restaurant located in the Lakes Region. Summer employment in restaurant management complements the learning experience. These workplace opportunities provide the student with hands-on knowledge and the benefit of work experience.

The Restaurant Management program offers a two-year degree and a one-year certificate.

Graduates of the degree may transfer to Southern New Hampshire University with junior year status in the Hospitality Administration Program.

Restaurant Management is a fast growing field with tremendous job potential. Graduates have a selection of jobs in many areas including: assistant food and beverage manager, dining room manager, bar manager, kitchen manager, food and beverage manager, and assistant restaurant manager. Quality employees are always in high demand in a growing field. The Restaurant Management program provides opportunities for fulfilling jobs in all aspects of an exciting and growing industry.

Technical Requirements

Restaurant Management candidates must:

- have command of the English language;
- be capable of lifting or carrying at least twenty-five pounds;
- comprehend new terminology;
- understand the importance of personal hygiene, appearance, and etiquette for interaction with the public;
- have the physical and mental ability to satisfy long hours, demands, and stress that the restaurant industry cultivates.

Students completing the program will be expected to:

- be prepared for mid-level management employment in both skilled and professional positions;
- have an understanding of successful management styles which promote skills such as teamwork, employee motivation, no excuses management, critical thinking and decision making;
- acquire managerial accounting skills that will specifically deal with cost controls within the Hospitality Industry and prepare them for both chain and independent properties;
- gain practical experience in the complete management of the front of the house, both dining room and bar, including hiring, termination, POS control systems, dining techniques and scheduling;
- gain practical experience in the complete management of the back of the house focusing on costing, purchasing, menu design and terminology, quality recipe production and kitchen organization;
- gain practical experience in catering through actual mandatory functions taken by the restaurant management program;
- understand the laws and legislation which apply to hotels and inn-keeping, restaurants and related hospitality operations with an emphasis on management policies to minimize the risks of liability.

FIRST YEAR

Fall Semester		**CL**	**LAB**	**CR**
ENGL100L	English Composition	4	0	4
BUS1300L	Introduction to Business	3	0	3
HOS1140L	Dining Room Management I	0	6	3
BUS1500L	Principles of Customer Service	3	0	3
CULA1520L	Sanitation and Safety	3	0	3
ESNT1200L	College Essentials	1	0	1
	Total	**14**	**6**	**17**

Winter Session		CL	LAB	CR
HOS1761	Restaurant Management Cooperative Education	0	0	1
	Total	**0**	**0**	**1**

Spring Semester		CL	LAB	CR
BUS2301L	Principles of Management	3	0	3
CULA1510L	Culinary Fundamentals	1	6	3
HOS1150L	Dining Room Management II	0	6	3
ENGL2600L	Public Speaking	3	0	3
	Mathematics Elective	3	0	3
	Total	**12**	**12**	**15**

Summer Semester		CL	LAB	CR
HOS1762L	Restaurant Management Cooperative Education	0	0	3
	Total	**0**	**0**	**3**

Total Credits for Year = 36

SECOND YEAR

Fall Semester		CL	LAB	CR
ACCT1310L	Accounting I	3	0	3
HOS1230L	Food and Beverage Management	3	0	3
CULA2560L	U.S. Regional & Infusion Cuisine	1	6	3
	Social Science Elective	3	0	3
	Liberal Arts Elective	3	0	3
	Total	**13**	**6**	**15**

Winter Session		CL	LAB	CR
HOS1763L	Restaurant Management Cooperative Education	0	0	1
	Total	**0**	**0**	**1**

Spring Semester		CL	LAB	CR
CULA1590L	Cost Control	3	0	3
HOS1010L	Bartending I	1	0	1
HOS1030L	Bartending II	1	0	1
HOS2200L	Budget and Finance for Hotels and Restaurants	3	0	3
BIOL1290L	Nutrition for Health and Fitness	3	0	3
	Humanities/Fine Arts/Foreign Language Elective	3	0	3
	Total	**14**	**0**	**14**

Total Credits for Year = 30
Total for A.S. Degree = 66

Restaurant Management Certificate

		CL	LAB	CR
BUS2600L	Principles of Marketing	3	0	3
HOS1010L	Bartending I	1	0	1
CULA1510L	Culinary Fundamentals	1	6	3
HOS1130L	Introduction to Worldwide Cuisine	0	6	3
HOS1140L	Dining Room Management I	0	6	3
HOS1150L	Dining Room Management II	0	6	3
HOS1230L	Food and Beverage Management	3	0	3
HOS2020L	Banquet Dining Room Techniques	0	6	3
	HOSPITALITY (Choose 3 one-credit electives)	3	0	3
ESNT1200L	College Essentials	1	0	1
HOS1763L	Restaurant Cooperative Education			
OR				
HOS2220L	Quantity Food Purchasing	3	0	3
	Total	**15**	**30**	**29**

Lakes Regions Community College reserves the right to change without notice any academic or other requirements, course offerings and course contents contained in this profile.

Course Descriptions

ACCOUNTING

ACCT1310L Accounting I **CL3 L0 CR3**
An introduction to accounting as the language of business. The student will be introduced to the procedures necessary to record, classify, and summarize basic business transactions. The course will cover the accounting cycle for service and merchandising sole proprietorships, including: journalizing transactions in general and special journals, recording adjusting and closing entries, and preparing worksheets and financial statements. The course will also cover banking and payroll procedures.

ACCT1320L Accounting II **CL3 L0 CR3**
A more in-depth study of accounting procedures and concepts. The course closely examines balance sheet accounts, such as accounts receivable, notes receivable and payable, inventory, property plant and equipment and long-term debt. Different structures of equity are examined through the study of partnership and corporate forms of business. Financial statement analysis and the statement of cash flows are introduced. General accounting principles are introduced and applications are discussed throughout the course. (Prerequisite: ACCT1310L with a grade of C or better or Permission of Department Chair)

ACCT2310L Cost Accounting **CL3 L0 CR3**
Accounting for transactions and summarizing data particular to manufacturing and service environments. The course will examine in detail the three elements of cost: materials, labor and overhead, in both the job order and process cost systems. It will also cover standard cost systems, including variance analysis. The student will be introduced to cost behavior patterns and apply them to cost analysis for decision making. (Prerequisite: ACCT1320L)

ACCT2350L Managerial Accounting **CL3 L0 CR3**
The study of the use of accounting information for management decision-making purposes in the manufacturing and service environments. Cost behavior and classification, as well as cost-volume-profit analysis, differential cost analysis and absorption vs. variable costing principles, will be applied to cost and volume control, pricing and other management decisions. The student will learn to develop budgets and evaluate performance internally. Special considerations of decentralized operations and capital investment decisions will be studied. The student will be exposed to current trends in the global business environment, including the principles of activity-based costing, Just-in-Time manufacturing, and the theory of constraints. (Prerequisite: ACCT1320L)

ACCT2510L Federal Taxes **CL3 L0 CR3**
A study of Federal Income Tax regulations and reporting. The course will cover individual returns, including filing requirements and status, rules of dependency, income inclusions and exclusions, expenses, deductions and credits, capital gains and losses. Special attention will be paid to depreciation. The partnership and corporate returns will be introduced. Topics relating to tax administration and tax planning will also be covered. (Prerequisite: ACCT1320L)

ACCT2730L Introduction to Computerized Accounting **CL2 L2 CR3**
This course will introduce students to computerized accounting systems using QuickBooks Pro and an educational version of an integrated accounting system. The accounting procedures done manually in Accounting I will now be performed on the computer using accounting software that is currently being used in business and industry. Students will set up and perform routine tasks such as recording business transactions, maintaining customer and vendor files, vouchering, controlling inventory, processing sales, maintaining fixed asset and depreciation schedules, and preparing the payroll. Additional procedures students will perform include setting up a chart of accounts, summarizing data, generating financial reports, and banking transactions. (Prerequisites: ACCT1310L)

ADVANCED MANUFACTURING

MANF1200L Machine Tool Math **CL3 L0 CR3**
This focused class develops the skills of students in areas of mathematics relevant to modern manufacturing. An emphasis will be placed on practical applications as found in machining. The topics include usage of fractions and decimals, conversion between units, interpreting and using percentages, usage of tolerances, interpretation and usage of formulas and proportions, and the practical application of geometry and trigonometry in interpreting and using drawings. The usage of scientific calculators will be integrated into the course content.

MANF1310L Blueprint Reading **CL2 L3 CR3**
Students will learn the fundamentals of blue print reading including multi-view drawings and how to sketch one, threads, title blocks, ECOs, tolerance blocks, Rectangular and Geometric Tolerance. Students need a basic knowledge in drafting/design, machine processes and procedures.

MANF1320L Solid Modeling **CL2 L3 CR3**
This class will be using the solid modeling software, SOLIDWORKS. The class will focus on being certifiable for the SOLIDWORKS CSWA (Certified SOLIDWORKS Associate) test. The SOLIDWORKS Certification could make you a more proficient modeler or help you get a job in, for example, drafting/design, tool making, or CNC programming. The class will focus on building solid models (parts and assembly models) utilizing extruded, revolved, lofts and swept additive and subtractive features along with fillets chamfers, patterns and mirror features. Materials will be added to these models and Mass Properties will be explored. Models and drawings will be used using both ANSI and ISO standards.
The course will be slightly fast paced to squeeze in all that is required for the certification. The class will be instructor lead along with working on your own. (Prerequisite: MANF1310L.)

MANF1410L Independent Study in Machine Processes **CL1 L0 CR1**
This course will be a directed study in Machine Processes. The student will engage in learning about a topic of special interest at the direction of the instructor. (Prerequisite: Approval of advisor and department chair)

MANF1420L Machine Processes **CL3 L0 CR3**
This course will present the theory of machine processes through and lessons covering traditional, manually operated machine tools such as band saws, drill presses, milling machines and lathes. Topics covered are selecting the machine stock, proper squaring a block on a milling machine, basic layout, drilling, tapping reaming, countersinking, counter boring, chamfering, machine set-up, grooving, and threading. Also, students will learn about standard precision measuring tools such as but not limited to micrometers, dial calipers, and Vernier scales with an introduction to gauging, tolerance and dimensioning. Machine tool and shop safety will be covered throughout the course.

MANF1450L Manufacturing Processes **CL3 L0 CR3**
This course will cover a qualitative and quantitative study of manufacturing processes. Fundamental principles of value-added processing of materials into useable forms for the customer will be covered. Topics will include material properties and traditional and non-traditional manufacturing processes with an emphasis on process selection for optimum design with quality, strength and economic evaluations.

MANF1510L CNC Machines I **CL2 L0 CR2**
Students will be introduced to the fundamentals of Computer Numerical Controlled (CNC) Milling machines and their programming. Covered in this course is the basic operation of CNC machines with topics such as safety, simulation, tooling with tool selection, and machine zeroing. Students will be exposed to absolute and incremental positioning, circular interpolation, program interpolation, and cycle pausing. CNC machine safety will be stressed throughout this course. (Prerequisite: MANF1420L)

MANF1520L CNC Machines I Lab **CL0 L6 CR2**
This course will immerse students in CNC I by their actual demonstrated use of CNC machining centers and turning centers. Student will demonstrate proper safety practices while setting up and programming various operations such as: linier and circular interpolation, canned cycles, and sub programming. (Prerequisite: MANF1420L.)

MANF2110L CNC Machines II **CL1 L0 CR1**
In this course students will expand on knowledge from CNC Machines I as well as be introduced to Computer Aided Manufacturing (CAM). CNC Machines topics will include machine speeds and feeds, feed rate, and cycle time optimization. Students will also learn alternative drilling cycles, subprograms, cutter compensation, and scaling/mirroring. CNC Machine safety will be stressed throughout this course. Students will also be introduced to CAD/CAM with topics to include part geometry, CAM-Mill processes, contouring, cycle time estimation, tool selection, material selection, cutter compensation, parameter pages, contour applications, roughing, finishing and tool paths. (Prerequisites: MANF1420L and MANF1510L.)

MANF2120L CNC Machines II Lab **CL0 L6 CR2**
In this course students will be immersed in CNC II using what they have learned to demonstrate safe machining practices while using the Renishaw tool offset probe to find work offsets, tool heights, digitizing and inspection. Students will also be able to demonstrate the proper use of CAD/CAM to program and manufacture parts from CAD files, while following safe machining practices. (Prerequisites: MANF1420L and MANF1510L.)

MANF2200L Properties of Materials **CL3 L2 CR4**
This course introduces the student to the processes and materials used in modern manufacturing, with an emphasis on steels and nonferrous metallic alloys. After establishing the sources of stock materials and the means to modify them to adjust material properties, the selection of why certain materials are appropriate for different applications is covered. The understanding of manufacturing processes is central to the course, including machine tooling, hot working, cold working, casting, joining processes, and powder metallurgy. In addition, the processes required to manufacture plastics and composites will also be incorporated. (Prerequisites: MATH1370L with a grade of C or better and PHYS1250L)

MANF2300L CAD/CAM **CL2 L3 CR3**
This course covers Computer-Aided Design (CAD) and Computer-Aided Manufacturing (CAM). The course includes demonstrations as well as hands-on of CAD/CAM software and hardware. An emphasis is placed on geometry creation and editing functions, process planning, proper cutter selection, speed and feed selection, and tool path generation along with post processing to CNC machines. Students need a basic knowledge in drafting/design, machine processes and procedures, and computer operating systems (MS Windows).

MANF2400L Lean Manufacturing **CL3 L0 CR3**
This course will cover all of the aspects of Lean Manufacturing. Topics will include line balancing, batching versus single piece flow, standard work, inventory control models, value stream mapping, 5-S, and waste elimination. Students will learn tools for identifying and reducing waste such as fishbone modeling, brainstorming techniques, “spaghetti” mapping, and observation techniques. An emphasis on quality control and people empowerment will be stressed throughout the course.

MANF2500L Advanced CNC Machine Processes **CL2 L6 CR4**
This course expands on the machining skills presented in the CNC I & II courses. This course will include 3-D and solid modeling, programming, machine setup, and operating procedures. Tool selection, quality measurement/control, and operator maintenance, are also topics covered.

MANF2600L Operations Management **CL3 L0 CR3**
This course will cover how to manage activities involved in the process of transformation resources into products or services. Strategic decision making using tools such as forecasting, basic inventory models, aggregate planning, master scheduling, materials requirements, and scheduling of operations will be covered. Also procurement, movement, and storage of materials are covered. Inventory and production flows, line balancing, and lean principals will be discussed throughout the course.

MANF2700L Advanced Manufacturing Capstone **CL3 L0 CR3**
This course provides the vehicle for students to demonstrate overall competency in advanced manufacturing and in the specific operations in which they have chosen to concentrate. Under the supervision of a faculty advisor, working individually or as part of a team, the student will select and successfully carry out a major project which pertains directly to advanced manufacturing.

MANF2800L Advanced Manufacturing Internship **CL0 L9 CR3**
This course provides the opportunity for the student to utilize learned course competencies in a real-life setting. A supplemental laboratory experience on an extensive array of equipment and processes may be provided. Resume, cover letter, weekly journal, and employer evaluation are required. Student needs to work a minimum of 300 hours in a manufacturing job related environment. Cumulative GPA 2.0 minimum required.

ARTS

ARTS111L Introduction to Drawing **CL2 L3 CR3**
This course is an introduction to drawing from observation. We will cover several “tools for seeing” or ways of translating the 3-Dimensional world onto our 2-Dimensional page. We will work on ways to overcome our preconceived ideas of what something looks like and to truly see it. Tools to be covered are sighting and measuring, negative space, summarizing value and 1-point perspective. This class will work primarily in black in white and from observation of still lives and the landscape. Drawing as a mode of self-expression will also be explored throughout the course.

ARTS116L Drawing: Personal Voice **CL2 L3 CR3**
The projects in this course are aimed to help the student find their “personal” drawing Voice. They will explore what they are using art to say and how are they saying it. An introduction to color theory is covered and a variety of both black, white and color drawing media are used. Assignments involve synthesizing from observational drawing and imagined drawing, working in diptychs and series, working from written prompts as well as process oriented prompts. Assignments encourage both observational and abstract work. (Prerequisite: ARTS111L or Permission of Instructor)

ARTS1200L 2-D Design **CL2 L3 CR3**
This course offers an introduction to the basic two-dimensional design concepts of color, composition and the organization of pictorial space. A variety of design media will be explored which includes drawing, painting and collage.

ARTS1250L 3-D Design **CL2 L3 CR3**
This course offers an introduction to three-dimensional concepts and sculptural materials that are involved in the creation and appreciation of functional and non-functional sculptural form. A variety of sculptural media, materials and techniques will be explored including clay, plaster, wire, cardboard and mixed media.

ARTS131L Art History: Prehistoric to Gothic **CL3 L0 CR3**
This course covers the principle movements and trends in painting, sculpture, and architecture from the pre-historic period through the Gothic period. The course will utilize digital images, interactive 3D reproductions, short films, historical texts and a course text book as well as opportunity for student reflection.

ARTS136L Art History: Renaissance to Modernism **CL3 L0 CR3**
This course covers the principle movements and trends in painting, sculpture, and architecture from the Renaissance through Modernism. The course will utilize digital images, interactive 3D reproductions, short films, historical texts and a course text book as well as opportunity for student reflection.

ARTS1400L Exploration in the Visual Arts **CL3 L0 CR3**
This course is designed to provide an overview of the visual arts, its traditions, history and techniques as part of our general education offerings. This course will fulfill a Liberal Arts elective requirement but will not be appropriate for students pursuing the Associate Degree in Fine Arts.

ARTS1450L The Clay Experience I **CL2 L3 CR3**
This course offers an overview of the basic techniques and processes of working with clay. Topics include hand-building and wheel-throwing methods, glazes and firing. This course will fulfill a humanities or liberal arts requirement for all majors.

ARTS1500L Introduction to Art Education **CL3 L0 CR3**
This course offers an introduction to the art teaching profession. The course also provides an overview of issues concerning the theory and practice of art education, as well as possible career paths in art education. Topics include but are not limited to: history of art education in American schools; theory and practice in art education; child development in art; life in the art classroom; and career paths in art education. Twenty hours of classroom observation in an art(s) program is required.

ARTS1630L Screen Printing **CL2 L2 CR3**
This course introduces the student to screen printing techniques. Areas of emphasis include: types of frames, terminology, fabric selection, stencil preparation, fabric stretching techniques, screen printing inks, and squeegee selection. Projects are selected and designed by each student. Classroom theory will be supported by lab demonstrations. Credit will not be given for more than one of the following courses: ARTS1630L or GRA2710L.

ARTS2100L Introduction to 35mm Photography **CL2 L2 CR3**
This course will provide the inexperienced photographer with instruction in basic 35mm camera techniques, types of cameras, lens and exposure controls. Particular attention will be given to various types of films, their exposure and development, followed by print development and darkroom techniques. Understanding technical terminology as it applies to photography will be stressed. Each student must provide film, print paper and his/her own 35mm manual camera.

ARTS2120L Introduction to Digital Photography **CL2 L2 CR3**
This course is designed for students with minimal experience in photography. Students will learn the basics of photographic techniques, both technical and artistic. Lighting, camera settings, simple Photoshop processes, and composition will be covered, as well as moving images from the camera to computer, printer, web, or presentation. Students must provide their own camera with minimum requirements: point and shoot camera or equivalent, built in flash, zoom lens, different scene modes, 2-4g memory card. Optional equipment: tripod.

ARTS2130L Advanced Digital Photography **CL2 L2 CR3**
This course builds on skills covered in ARTS2120L, and is the choice for the more advanced student. Technical skills using a wide variety of camera settings are covered, as is more advanced Photoshop techniques. Students will develop a keener artistic eye, greater creative capacity, and a broader range of photographic skills, such as night time-exposure photographs. Students must provide their own camera with minimum requirements: fixed-lens (FLO DSLR camera) with

light metering ability, built-in flash, auto focus system, and manual mode. Optional equipment includes: tripod, zoom or multiple lenses, external flash, and multiple storage cards. (Prerequisite: ARTS2120L or Permission of Instructor)

ARTS216L Drawing: Figure in Value **CL2 L3 CR3**
This is an introductory level figure drawing course. Students will draw primarily from the nude model. They will learn to draw the model from observation using line and value. Students will work primarily in black and white however there will also be opportunity to use a value range within a limited color palette. A variety of wet and dry drawing media will be explored. (Prerequisites: ARTS111L or Permission of Instructor)

ARTS221L Drawing: Figure in Color **CL2 L3 CR3**
This course builds off of the basic figure drawing covered in Drawing: Figure in Value. Students will work primarily in color. Using color in an observational and expressive manner. A variety of wet and dry drawing media will be explored. (Prerequisite: ARTS216L or Permission of Instructor)

ARTS2350L 20th Century Art **CL3 L0 CR3**
This course provides an introductory survey of the styles and conventions of the principle artistic movements and trends of the late 19th through 20th century.

ARTS2400L Painting I **CL2 L3 CR3**
This course offers an introduction to the basic principles, media and techniques of painting in oils and acrylics. The development of understanding color mixing, exploration of form, content and space is emphasized while working from abstract and realistic subject matters. The course synthesizes composition, creative thought and critical thinking. (Prerequisite: ARTS1100L or ARTS1150).

ARTS2450L The Clay Experience II **CL2 L3 CR3**
This course offers a continuation and expansion of concepts and skills established in ARTS1450L. This course will explore both functional and non-functional forms in clay, introducing the students to more sculptural and conceptual methods of producing clay objects and to thinking of clay as a personally expressive medium. (Prerequisite: ARTS1450L or Permission of Instructor)

ARTS2510L Issues in Contemporary Art **CL1 L0 CR1**
This course offers an exploration of current topics, trends, issues, and artists in the contemporary art world. This course will be taught in a seminar format, supplemented with slides, film and video, computer presentations, and visiting artists. When possible, field trips to area galleries, museums, exhibitions, arts events, or studios may be taken.

ARTS2550L Printmaking **CL2 L3 CR3**
An introductory studio courses in the methods and materials of printmaking, building on principles and concepts of design established in 2-D Design (ARTS1200L). A variety of printmaking techniques will be introduced including woodblock printing, etching, lino-printing, embossing and collograph. (Prerequisite: ARTS1100L or ARTS1200L)

ARTS2600L Sculpture **CL2 L3 CR3**
Introduction to three-dimensional sculpture processes in a variety of media, which include clay, plaster, metals and wood. The course builds upon concepts and skills established in 3-D Design with emphasis on creative expression and critical thinking. Students will work from a variety of subject matter in both additive and subtractive sculptural methods. (Prerequisite: ARTS1250L)

ARTS266L Portfolio **CL2 L0 CR2**
In this course students create a personal website of their work. They learn to photograph their work and to edit the photos to upload to their website. They develop an artist statement. They also learn and practice the process of matting and hanging their work.

ARTS2700L Painting II **CL2 L3 CR3**
Further development of skills introduced in Painting I. Primary focus is on observational painting from landscape, still-life, and an introduction to painting the figure. The course will include analysis of the painting styles of the past and emphasis upon the role of the artist in contemporary society. (Prerequisite: ARTS2400L)

ARTS2750L Independent Study in Fine Arts **CL3 L0 CR3**
The Independent Study in Fine Arts is designed for those students who either want to delve more deeply into a particular aspect of art, or who have a personal project they would like to explore. Students are expected to have enough art experience to formulate their own interests and goals, as well as work independently to completion. (Prerequisite: Permission of Instructor)

ARTS2800L Creative Entrepreneurship **CL3 L0 CR3**
This course addresses the unique needs of creative people in the creative professions. Students will explore all aspects of living the creative life and building a creative work life through hands-on projects, discussion, and simulation. Topics will include, but are not limited to, the following: assessing your creative personality, exploring career possibilities and creating a plan, business essentials, and branding yourself in the marketplace.

AUTOMOTIVE TECHNOLOGY

AUTO1200L Introduction to Automotive Service **CL2 L4 CR3**
This course is the first of a series of courses that make up the Automotive Technology track. It provides instruction in career opportunities, safety, Oxy-Acetylene usage, measurement, proper tool usage and service operations and basic maintenance including tire service, safety inspections light engine repair and brake work. This course will use Chapters 1-17 and parts of other chapters throughout the text.

AUT01210L Automotive Systems **CL2 L9 CR5**
This course prepares the student for their first co-op experience by introducing the student to safe shop practices, General Motors products, maintenance requirements and procedures, periodic motor vehicle safety inspection and tire service. It consists of five units - Safety and Shop Practices, Maintenance of Automotive Systems, Tire Service, Vibration Correction, and Basic Steering and Brakes.

AUTO1215L Introduction to Toyota/Lexus Automotive System **CL1 L6 CR4**
This course prepares the student for their first co-op experience by introducing students to safe shop practices, Toyota/Lexus products, maintenance requirements and procedures, periodic motor vehicle safety inspection and tire service. It consists of five units - Safety and Shop Practices, Maintenance of Toyota/Lexus Automotive Systems, Tire Service, Vibration Correction, and Basic Steering and Brakes. The student will receive credit for Toyota/Lexus courses L005, Introduction to Lexus, 031 Maintenance and General Service, Toyota Express Maintenance T-TEN.

AUTO1220L GM Automotive Electricity **CL2 L8 CR4**
This course introduces the student to the theory and application of electricity, magnetism and electronics. This includes reading, understanding and applying the information from GM schematics and service literature to diagnose the integrated electronic control systems used on today's GM vehicles.

AUT01221L GM Automotive Electricity I **CL3 LO CR3**
This course introduces the student to the theory and application of electricity, magnetism, and electronics. This includes reading, understanding, and applying the information from GM schematics and service literature to diagnose the integrated electronic control systems used on today's GM vehicles. (The combination of this course plus AUTO12202L is the equivalent of AUTO1220L)

AUTO1222L GM Automotive Electricity II **CL0 L4 CR1**
In this lab only course, students put into practice the electrical and electronics theory studied in the GM Automotive Electricity I theory class. This includes the application of Ohms Law and Kirchhoff's Law to the solution of electrical and electronic concerns, wiring schematics and symbols, series and parallel circuits, the use of multi-meters, logic probes, oscilloscopes and graphing multi-meters, wiring repair; electronic component and devices, lighting & signaling system circuits. (Prerequisite: AUTO12201L or AUTO1320L)

AUTO1225L Toyota/Lexus Electrical I **CL1 L6 CR4**
In this course, students study electrical and electronics theory including the application of Ohms Law and Kirchhoff's Law to the solution of electrical and electronic concerns, wiring schematics and symbols, series and parallel circuits, the use of multi-meters, logic probes, oscilloscopes and graphing multi-meters, wiring repair, electronic component and devices, battery, charging and starting systems. Upon successful completion the student will receive credit for Toyota/Lexus courses 623 and L623. (Prerequisite: AUTO1215L with a C or better. AUTO1215L may be taken concurrently.)

AUTO1230L GM Fuel and Emissions **CL2 L8 CR4**
This course prepares students to diagnose and repair engine fuel injection and electronic controls system concerns as they relate to drivability and emissions. It includes the study of fuel composition and quality, the use of specialized diagnostic tools including the Tech II diagnostic scan tool combined with General Motor's TIS2000 software, and extensive use of the digital multi-meter and lab scopes. (Prerequisites: AUTO1210L or AUTO1220L)

AUTO1235L Toyota/Lexus Electrical II **CL1 L6 CR4**
This course builds on the material covered in Electrical/Electronic I and includes communication and networking, body control systems, security systems, occupant safety systems, entertainment and audio systems, and driver information and navigations systems. Students will practice diagnosis and repair using scan tools, oscilloscopes and multi-meters. Upon successful completion the students will receive credit for Toyota/Lexus courses 652 and L652. (Prerequisites: AUTO1215L and AUTO1225L with a C or better.)

AUTO1240L GM Engine and Engine Related Electrical **CL2 L9 CR5**
This course provides the student with knowledge and skills necessary to diagnose, service, and repair the advanced engines used in GM vehicles today. The activities include engine disassembly, evaluation, repair, and reassembly of a variety of the latest world-class engines manufactured by General Motors and their industry partners. The student will also study GM ignition systems, starting and charging systems. (Prerequisites: AUTO1210L and AUTO1220L)

AUTO1227L Toyota/Lexus Electrical I-2 **CL3 L6 CR3**
In this course, students study electrical and electronics theory including the application of Ohms Law and Kirchhoff's Law to the solution of electrical and electronic concerns; wiring schematics and symbols, series and parallel circuits; the use of multi-meters, logic probes, oscilloscopes and graphing multi-meters; wiring repair; electronic component and devises; battery, charging and starting systems.

AUTO1228L Toyota/Lexus Electrical I-3 **CL1 L0 CR1**
In this course, students study electrical and electronics theory including the application of Ohms Law and Kirchhoff's law to the solution of electrical and electronic concerns; wiring schematics and symbols, series and parallel circuits; the use of multi-meters, logic probes, oscilloscopes and graphing multi-meters; wiring repair; electronic component and device; battery, charging and starting systems. Upon successful completion the student will receive credit for Toyota/Lexus courses 623 and L623.

AUTO1300L Engine Mechanical **CL3 L5 CR4**
In this course, the student studies engine design and construction; engine mechanical diagnosis for performance, noise and leaks; engine disassembly procedures and best practices; engine evaluation and measurement; engine removal and installation techniques. (Prerequisite, may be taken concurrently: AUTO1200L with a grade of C- or better, or Permission of Instructor)

AUTO1320L Electrical/Electronics I **CL3 L5 CR4**
In this course, students study electrical and electronics theory including the application of Ohms Law and Kirchhoff's Law to the solution of electrical and electronic concerns, wiring schematics and symbols; series and parallel circuits; the use of multi-meters, logic probes, oscilloscopes and graphing multi-meters; wiring repair; electronic component and devices; battery, charging and starting systems.

AUTO1330L Electrical/Electronics II **CL3 L5 CR4**
This course builds on the material covered in Electrical/Electronics I and includes communication and networking, body control systems, security systems, occupant safety systems, entertainment and audio systems and driver information and navigations systems. Students will practice diagnosis and repair using scan tools, oscilloscopes and multi-meters.

AUTO1340L Braking Systems **CL3 L4 CR4**
This course prepares the students to diagnose, evaluate and service base brake systems, parking brake systems, antilock brake systems and traction control systems. Students will practice machining drums and rotors using both on-car and off-car lathes. Students will practice diagnosis, evaluation and repair using pressure gauges, measuring tools, scan tools, oscilloscopes and multi-meters. (Prerequisite: AUTO1200L with a grade of C- or better or Permission of Instructor)

AUTO1345L Toyota/Lexus Brakes **CL1 L6 CR4**
This course prepares the students to diagnose, evaluate and service base brake systems, parking brake systems, antilock brake systems and traction control systems. Students will practice machining drums and rotors using both on-car and off-car lathes. Students will practice diagnosis, evaluation and repair using pressure gauges, measuring tools, scan tools, oscilloscopes and multi-meter. Upon successful completion the student will receive credit for Toyota/Lexus courses 553 and L553. (Prerequisites: AUTO1215L, AUTO1225L and AUTO1235 with C or better.)

AUTO1350L HVAC Systems **CL3 L7 CR4**
This course prepares the students to diagnose, evaluate and service heating ventilation and air conditioning systems using the latest equipment and technology. The course includes basic refrigeration theory and extensive study of the sub-systems that play a role in HVAC performance followed by hands-on practice evaluating and diagnosing HVAC issues.

Students must pass the ASE EPA 609 test as part of completion of this course. (Prerequisite: AUTO1200L with a grade of C- or better or Permission of Instructor)

AUTO1351L HVAC Systems **CL3 L0 CR3**
This course prepares the students to diagnose, evaluate and service heating ventilation and air conditioning systems using the latest equipment and technology. The course includes basic refrigeration theory and extensive study of the sub-systems that play a role in the HVAC performance. (Prerequisite: AUTO1200L with a grade of C- or better or Permission of Instructor)

AUTO1360L Suspension and Steering **CL3 L7 CR4**
This course prepares the students to diagnose evaluate and service base steering and suspension systems and electronically controlled steering and suspension systems. Students will practice replacing steering and suspension components. Students will practice 2-wheel and 4-wheel alignment. (Prerequisite: AUTO1200L with a grade of C- or better or Permission of Instructor)

AUTO1365L Toyota/Lexus Suspension, Steering and Handling **CL1 L6 CR4**
This course introduces students to steering and suspension systems with emphasis on identification of steering and suspension type, mechanical components and electronic controls. Lab activities will include on car diagnostic procedures; removal and installation of steering and suspension components, disassembly, evaluation and inspection and reassembly procedures. Focus will be on the latest generation of Toyota/Lexus steering and suspension systems. Upon successful completion the student will receive credit for Toyota course 453 and L453. (Prerequisite: AUTO1235 with C or better.)

AUTO1370L Toyota/Lexus Manual Drive Trains **CL1 L6 CR4**
In this course, students study manual transmissions, transaxles, transfer cases and rear axle theory of operation, disassembly and reassembly procedures, including set-up and endplay measurements. Student will also practice removal and replacement procedures for clutches, transmissions, transaxles, transfer cases and rear axle assemblies. Focus will be on the current generation Toyota/Lexus manual transmissions, transaxles, differentials and transfer cases. Upon successful completion the student will receive credit for Toyota/Lexus course 302. (Prerequisite: AUTO1235L with a C or better.)

AUTO1750L GM ASEP Cooperative Education **CL0 L12 CR4**
This course provides the opportunity to receive hands-on experience in an automotive service environment. Student will be exposed to a wide array of experiences and will become familiar with the responsibilities, workload and duties of a professional automotive technician. (Prerequisites: A grade of C or higher in all ASEP courses and a 2.0 CGPA)

AUTO1755L Toyota/Lexus Cooperative Education I **CL0 L2 CR1**
This 12-week co-op provides the opportunity to receive hands-on experience in a Toyota/Lexus dealership environment. Student will be exposed to a wide array of experiences and will become familiar with the responsibilities, workload, and duties of a professional automotive technician. Additionally, the student will complete assigned University of Toyota web-based training modules during this session. (Prerequisites: AUTO1215L, AUTO1235L and AUTO1235L with a C or better.)

AUTO1760L GM ASEP Cooperative Education **CL0 L6 CR2**
This course provides the opportunity to receive hands-on experience in an automotive service environment. Student will be exposed to a wide array of experiences and will become familiar with the responsibilities, workload and duties of a professional automotive technician. (Prerequisites: A grade of C or higher in all ASEP courses and a 2.0 CGPA)

AUTO2100L GM Heating, Ventilation & Air Conditioning **CL2 L8 CR3**
This course prepares students to safely diagnose and repair common performance concerns related to heating and AC systems. Emphasis is placed on electrical and electronic control of these systems. Electrical and Electronic theory studied previously is put to practical use in evaluating and diagnosing AC Control Systems and related Sub-Systems. (Prerequisites: AUTO1210L, AUTO1220L, AUTO1230L, AUTO1240L)

AUTO2101L Toyota/Lexus Heating, Ventilation & Air Conditioning **CL1 L6 CR4**
This course prepares the students to diagnose, evaluate and service heating ventilation and air conditioning systems using the latest equipment and technology. The course includes basic refrigeration theory and extensive study of the sub-systems that play a role in HVAC performance followed by hands-on practice evaluating and diagnosing HVAC issues. Students must pass the ASE EPA 609 test as part of completion of this course. Upon successful completion the student will receive credit for Toyota/Lexus course 752 and L752. (Prerequisite: AUTO1235L with C or better.)

AUTO2110L GM Supplemental Inflatable Restraint & Accessories **CL2 L8 CR3**
Students study Supplemental Inflatable Restraint (SIR) Systems, Windshield Wiper Systems, Cruise Control, Body Controllers and Theft Deterrent Systems. This course builds on the electronic/electrical theory studied previously by applying that theory in evaluating and diagnosing these integrated systems. (Prerequisites: AUTO1210L, AUTO1220L, AUTO1230L, AUTO1240L)

AUTO2220L GM Drive Trains **CL2 L9 CR5**
In this course, the student studies GM automatic transmissions and transaxles, manual transmissions and transaxles, transfer cases and rear axles. The learning outcomes include the development of skills in the diagnosis, disassembly, evaluation and repair of these components and the related electronic control systems. (Prerequisites: AUTO1210L, AUTO1220L, AUTO1230L, AUTO1240L)

AUTO2250L GM Chassis Systems **CL2 L8 CR4**
This course prepares students to diagnose, repair and service GM antilock brakes, steering and suspension systems. Emphasis is placed on service of integrated systems and four-wheel alignment, as well as their related electrical and electronic sub-systems. (Prerequisites: AUTO1210L, AUTO1220L, AUTO1230L, AUTO1240L)

AUTO2300L Automotive Service Management **CL3 L0 CR3**
This course is instructor led with classroom meetings that will use Andrew A. Rezin's text Automotive Service Management – Principles and Practice, 2009. The course will address such subjects as Service Operations; Management Styles and Strategies; Financial Management; Organization; Customer Relations; Employee Relations; marketing; Legal Issues and Responsibilities.

AUTO2400L Manual Drive Train **CL3 L4 CR4**
In this course, students study manual transmissions, transaxles, transfer cases and rear axle theory of operation, disassembly and reassembly procedures including set-up and endplay measurements. Students will also practice removal and replacement procedures for clutches, transmissions, transaxles, transfer cases and rear axle assemblies. (Prerequisite: AUTO1200L with a grade of C- or better or POI)

AUTO2450L Engine Performance I **CL3 L5 CR4**
This course prepares the student with the skills they need to service, diagnose and repair fuel delivery, ignition and emission systems used on today's vehicles. Students will study four stroke theory and combustion theory for both spark ignited and compression ignited engines. Students will study the emission concerns related to internal combustion engines and the systems and strategies used to control these emissions. Students will practice testing and diagnostic routines on vehicles with faults using scan tools, multi-meters, signal generators, pressure gauges and oscilloscopes. (Prerequisite: AUTO1200L with a grade of C- or better or Permission of Instructor)

AUTO2550L Engine Performance II **CL3 L5 CR4**
This course builds on Engine Performance I with more emphasis on performance systems such as turbo charging, super charging, variable cam timing, and variable valve lift and drivability diagnostics related to these systems. Extensive use of the scan tool, multi-meters and oscilloscope are employed in the diagnosis and evaluation of these systems as students determine the root cause of failures following a logical diagnostic process. There is more emphasis on the application of theory to solving drivability and performance concerns on vehicles with failures built into the systems. (Prerequisite: AUTO1200L and AUTO2450L with a grade of C- or better or Permission of Instructor)

AUTO2555L Toyota/Lexus Engine Control Systems I **CL1 L6 CR4**
This course prepares the student with the skills they need to service, diagnose and repair fuel delivery, ignition and emission systems used on today's vehicles. Students will study four stroke theory and combustion theory for both spark ignited and compression ignited engines. Students will study the emission concerns related to internal combustion engines and the systems and strategies used to control these emissions. Students will practice testing and diagnostic routines on vehicles with faults using scan tools, multi-meter, signal generators, pressure gauges and oscilloscopes. Focus will be on Toyota/Lexus systems and upon successful completion the student will receive credit for Toyota/Lexus courses 852 and L852. (Prerequisite: AUTO1235L with a C or better.)

AUTO2560L Toyota/Lexus Engine Control Systems II **CL1 L6 CR4**
This course builds on Engine Control Systems I with more emphasis on performance systems such as turbo charging, super charging, variable cam timing, and variable valve lift and drivability diagnostics related to these systems. Extensive use of the scan tool, multi-meters and oscilloscope are employed in the diagnosis and evaluation of these systems as students determine the root cause of failures following a logical diagnostic process. There is more emphasis on the application of theory to solving drivability and performance concerns on vehicles with failures built into the systems. Focus

will be on Toyota/Lexus advanced engine controls. Upon successful completion the student will receive credit for Toyota/Lexus courses 874 and L874. (Prerequisite: AUTO2555L with C or better.)

AUTO2570L Toyota/Lexus Engine Repair **CL1 L10 CR6**
In this course, the student studies engine design and construction; engine mechanical diagnosis for performance, noise and leaks; engine disassembly procedures and best practices; engine evaluation and measurement; engine removal and installation techniques. The students will be focused on the current generation of Toyota/Lexus engines and will receive credit for Toyota/Lexus courses 151 and L151 upon successful completion of course. (Prerequisite: AUTO1215L, AUTO1225L, and AUTO1235L with a C or better.)

AUTO2650L Automatic Transmissions and Transaxles **CL3 L6 CR4**
This course introduces students to automatic transmissions and transaxles with emphasis on identification of transmission type, mechanical components and power flow, hydraulic systems and operation and electronic controls. Lab activities will include on car diagnostic procedures; removal and installation of a transaxle; disassembly, evaluation and inspection and reassembly procedures.

AUTO2670L Toyota/Lexus Automatic Transmissions **CL1 L6 CR4**
This course introduces students to automatic transmissions and transaxles with emphasis on identification of transmission type, mechanical components and power flow, hydraulic systems operation and electronic controls. Lab activities will include on car diagnostic procedures; removal and installation of a transaxle; disassembly, evaluation and inspection and reassembly procedures. Focus will be on the latest generation of Toyota/Lexus automatic transmissions and transaxles. Upon successful completion the student will receive credit for Toyota course 274. (Prerequisite: AUTO1235L.)

AUTO2700L Advanced Technology Systems **CL3 L0 CR4**
This course introduces students to the latest technology in transportation including hybrid, electric and fuel cell vehicles. Students will learn about the different design hybrid systems and the components used in these systems. Students will learn about the personal protection equipment used and safe practices that are followed to service and repair the systems used on these vehicles. (Prerequisite: AUTO1200L with a grade of C- or better or Permission of Instructor)

AUTO2750L GM ASEP Cooperative Education **CL0 L12 CR4**
This course provides the opportunity to receive hands-on experience in an automotive service environment. Student will be exposed to a wide array of experiences and will become familiar with the responsibilities, workload, and duties of a professional automotive technician. (Prerequisites: A grade of C or higher in all ASEP courses and a 2.0 CGPA)

AUTO2755 Toyota/Lexus Cooperative Education II **CL0 L2 CR1**
This 6-week co-op provides the opportunity to receive hands-on experience in a Toyota/Lexus dealership environment. Student will be exposed to a wide array of experiences and will become familiar with the responsibilities, workload, and duties of a professional automotive technician with an emphasis on HVAC systems. Additionally, the student will complete assigned University of Toyota web-based training modules during this session. (Prerequisite: AUTO2101L with a C or better.)

AUTO2901L Toyota/Lexus Cooperative Education III **CL0 L2 CR1**
This 11-week co-op provides the opportunity to receive hands-on experience in a Toyota/Lexus dealership environment. Student will be exposed to a wide array of experiences and will become familiar with the responsibilities, workload, and duties of a professional automotive technician with an emphasis on Braking Systems, Steering and Suspension Systems and Manual Transmission. Additionally, the student will complete assigned University of Toyota web-based training modules during this session. (Prerequisite: AUTO1370L, AUTO1345L and AUTO1365L with a C or better.)

AUTO2902L Toyota/Lexus Cooperative Education IV **CL0 L2 CR1**
This 12-week co-op provides the opportunity to receive hands-on experience in a Toyota/Lexus dealership environment. Students will be exposed to a wide array of experiences and will become familiar with the responsibilities, workload, and duties of a professional automotive technician with an emphasis on Engine Mechanical repairs and Engine Performance. Additionally, the student will complete assigned University of Toyota web-based training modules during this session. (Prerequisites: AUTO2570L, AUTO2555L and AUTO2560L with a C or better.)

AUTO2900L GM ASEP Cooperative Education **CL0 L12 CR4**
This course provides the opportunity to receive hands-on experience in an automotive service environment. Student will be exposed to a wide array of experiences and will become familiar with the responsibilities, workload, and duties of a professional automotive technician. (Prerequisites: A grade of C or higher in all ASEP courses and a 2.0 CGPA)

BUSINESS MANAGEMENT

BUS1150L Professional Development **CL1 L0 CR1**
This course is designed to improve professional growth in individuals. Topics include business etiquette, appearance, attitude, networking, decision-making, personal and professional growth plans.

BUS1300L Introduction to Business **CL3 L0 CR3**
This course offers the study of business world operations including the wide range of occupational functions and the American economic system.

BUS1350L Small Business Management **CL3 L0 CR3**
Problems of a small business operation: going into business, financing a business, the feasibility study, marketing, and management of business phases are covered.

BUS1500L Principles of Customer Service **CL3 L0 CR3**
This course is designed to develop the critical skills necessary for success as a customer service provider. Students will examine current concepts and trends in the customer service industry, and will take an active role in the development of their own exceptional customer service skills. Areas of study will include problem solving, communication, development of a customer service strategy, creating customer service systems, conflict resolution, coping with challenging customers, customer retention, and measuring satisfaction.

BUS1752L Cooperative Education/Internship I **CL0 L9 CR3**
The initial experience in a program designed to combine classroom theory with practical application through job-related experiences. Students are actively working in an organization with a focus which relates to their academic training and career objectives. (Prerequisite: Permission from advisor and department chair)

BUS2310L Principles of Management **CL3 L0 CR3**
A comprehensive survey of the principles and practices of management as they are currently being applied in the United States and abroad. The two continuing themes throughout the course are; (1) the never-ending effort by managers and organizations to meet or exceed customer needs and (2) the need for effective leadership in organizations. Emphasis is placed on determining the role of a manager through the leadership process. Individual and group-work dynamics are explored through case studies, research, and experiential exercises. (Prerequisite: BUS1300L or Permission of Instructor)

BUS2330L Supervision **CL3 L0 CR3**
Studies techniques and responsibilities involved in the supervision of employees in business management. This course examines human behavior which encourages productive business relationships at all levels. Management of projects and customer service functions are studied. Students learn to work with minimal supervision and to effectively supervise the work of others.

BUS2380L Business Law I **CL3 L0 CR3**
Origins of law, federal and state court systems, classification of criminal and tort law; a working knowledge of the law of contracts, and sales and consumer protection as applied to everyday usage.

BUS2390L Business Law II **CL3 L0 CR3**
A study of the law of personal property and bailment; real property, wills, intestacy and trusts; commercial paper; insurance, secured transactions and bankruptcy; agency and employment; business organization and regulation and emerging trends and issues. In addition, the course is designed to enable students to better comprehend the rules of conduct they can reasonably expect from others, as well as the conduct others may expect from them in various business situations. (Prerequisite: BUS2380L)

BUS2400L Introduction to Project Management **CL3 L0 CR3**
This course will provide students with basic skills to define, analyze and manage projects. By using a variety of automated tools and working with a hands-on case study, students will become familiar with project feasibility, cost benefit analysis, and the development of a project plan. Students will also become familiar with a systems development methodology (SDM) and structured business systems analysis.

BUS2410L Human Resource Management **CL3 L0 CR3**
The study of human resource issues affecting employees in present and future organizations.

BUS2640L Business and Sustainability **CL3 L0 CR3**
How can businesses thrive in an age of limited resources, environmental degradation and climate change? This course explores the role of business in light of this sustainability challenge. Topics include the concept of sustainability; the triple bottom-line (people, planet and profits); and forces that are driving businesses towards sustainable paths. Throughout the course there is an emphasis on practical sustainable management strategies, in strategic planning, business operations, accounting, marketing and finance. Numerous case studies and examples are used.

BUS2520L Introduction to International Business **CL3 L0 CR3**
Study of today's globalization process, international environment and management operations for a multilateral corporation. The course particularly focuses on the organizational, marketing and production strategies employed by companies in a world market. (Prerequisites: BUS1300L, SOSC2310L or SOSC2320L or Permission of Department Chair)

BUS2600L Principles of Marketing **CL3 L0 CR3**
This course studies product, pricing, promotion and channels of distribution. Marketing in retail, wholesale, service and manufacturing companies.

BUS2610L Social Media Marketing **CL3 L0 CR3**
This course will examine the use of social media marketing today. Students will gain the knowledge and skills needed to effectively use social media to market a business, and/or themselves as business professionals. Attention will be focused on efforts used through the Internet to connect and network with customers and other businesses through digital channels. Areas to be covered include: customer service, building brand loyalty, expanding markets, and creating sales. Students will utilize a variety of social media, including blogs, wikis, LinkedIn, Facebook, Twitter, and more.

BUS2650L Independent Study **CL3 L0 CR3**
Students in an independent study option will engage in learning about topics of special interest and/or need. Written reports on the topics of the independent study are required.

BUS2800L Cooperative Education/Internship II **CL3 L0 CR3**
This course is designed to allow students to continue an existing cooperative education/internship. It will combine classroom theory with practical application through job-related experiences. Students are actively working in an organization with a focus which relates to their academic training and career objectives. This course may be taken as a second, non-related cooperative education experience only with Department Chair approval. (Prerequisite: Permission of Department Chair)

FIN1800L Personal Financial Management **CL3 L0 CR3**
This course studies the fundamental financial planning procedures and controls for personal finances to include managing assets, credit, insurance needs, budgets, retirement, and estate planning. Students will also be introduced to the concepts of investment as part of the planning procedures, as well as career planning.

COLLEGE ESSENTIALS

ESNT1200L College Essentials **CL1 L0 CR1**
This course is designed to help the student learn to be a confident student and to master the skills needed to succeed in college. Every new student must take this course during his or her first semester. Topics to be discussed include: accessing college resources and services, navigating Blackboard and online learning, information literacy, time-management, self-confidence in an academic environment, self-motivation, long and short-term goal-setting, career goals, maintaining physical, mental, financial, and emotional health and wellbeing. A minimum grade of C in this course is required for graduation from Lakes Region Community College.

COMPUTER TECHNOLOGIES

CIS1320L Software Applications **CL3 L2 CR4**
The emphasis of this course is hands-on applications of computer software including Windows, database, spreadsheets and word processing. Students will be exposed in-depth to business uses through simulated projects. Students are also introduced to PowerPoint and other business applications. An analysis of the impact of these programs on the business environment will also be studied. The fourth credit is an independent study/distance-learning format utilizing the Internet. Computer labs will be open for student use.

CIS1360L Introduction to Computers **CL2 L2 CR3**
This course provides an introduction to computers and computer networking and the various computer job fields. The introduction to computers portion of the course covers computer hardware, principles of computer operations, operating systems, representing data digitally, computer algorithms, the World Wide Web and digital security. The introduction to computer networking portion of the course focus is on network terminology and protocols, local-area networks (LANs), wide-area networks (WANs), network models, cabling, cabling tools, network addressing and network standards.

CIS1400L Introduction to Programming **CL2 L2 CR3**
This course provides an introduction to the process of problem solving as it relates to program design and development. The student will learn to use various methodologies used in programming, as well as learning to use the various techniques and tools which have been developed to aid in the process. The basic programming statement types (sequential, conditional and iterative) will be covered as the student learns to use them in algorithms, as well an introduction into object-oriented and web-development concepts.

CIS1770L Cooperative Education **CL0 L9 CR3**
This course provides the opportunity for the student to utilize learned course competencies in a real life setting. The course also provides supplemental laboratory experience on an extensive array of equipment and processes. (Prerequisites: Permission of advisor and department chair)

CIS2270L IT Developmental Applications **CL2 L2 CR3**
This course introduces the student to MS Visio and MS Project. Students will learn to work with various types of diagrams in Visio, as well as how to work with Project to plan and track projects using a variety of resources. This is a hands-on course where students will work extensively with the software to develop projects based on individual interests and course of study. It is designed for the IT industry, but the skills learned can translate to any industry. (Prerequisite: CIS1320L or permission of instructor or competence demonstrated on computer placement exam)

CIS2330L Introduction to Multimedia **CL2 L2 CR3**
This course offers an introduction to multimedia concepts with emphasis on web-based multimedia. Students will study the different multimedia elements to include text, images, video, sound and interactive content. Additionally, students will learn about the hardware and software used to produce multimedia, to include such applications as Maya, Macromedia Director and Flash. A number of projects will give students the opportunity to reinforce their learning by building computer applications that incorporate graphics, animation, audio and video. (Prerequisites: CIS1360L)

CIS234L Website and Design Development **CL2 L2 CR3**
This course offers an introduction to Website Design and Development using HTML5 and CSS, as well as various software products available. The basics of good page and form design, graphics, mapping, lists and tables will be discussed. An overview of integrating text, video, data, audio, graphics and animation will also be covered.

CIS2350L Spreadsheets **CL2 L2 CR3**
This course provides extensive “hands-on” exposure to MS Excel, an industry-standard program. Topics covered include constructing a worksheet, entering and manipulating data, and extracting useful information from the worksheet. Graphs and charts of data will be constructed, and “what-if” projections will be developed. (Prerequisite: CIS1320L or LCIS1320 OR permission of instructor or competence demonstrated on computer placement exam)

CIS2370L Web Programming I **CL2 L2 CR3**
This course teaches web site programmers how to use component object model (COM) components on both the client and the server. Other topics include XML, ASP, CSS, ActiveX controls, data objects, simple SQL statements and queries. (Prerequisites: CIS1360L, CIS1400L, and CIS2320L, which may be taken concurrently)

CIS2380L Web Programming II **CL2 L2 CR3**
This course is a companion to Web Programming I. Topics include PERL, CGI, Java and scripting in Visual Basic and Java. (Prerequisites: CIS1360L, CIS1400L, and CIS2320L which may be taken concurrently)

CIS2390L E-Commerce **CL2 L2 CR3**
This course provides students with an introduction to the technologies required for on-line business activities. Technologies will include security, databases, XML, shopping carts, as well as other current topics. This course also covers the issues concerning international trade, ethics, legal issues and taxes. ((Prerequisite: CIS1320L or LCIS1320 OR permission of instructor or competence demonstrated on computer placement exam)

CIS2400L Management with Computers **CL2 L2 CR3**
This is a project-based course where students are expected to utilize several software packages including MS Project. Students will study in depth how businesses use computers and software in day-to-day business. Make or buy decisions, artificial intelligence, decision support systems, the software development life cycle, data flow diagrams and CASE tools will also be studied. (Prerequisite: Senior status)

CIS2420L Database Management and Design **CL2 L2 CR3**
This lab course introduces modern techniques of data management. Students will learn the concepts of data normalization elements and their organization into proper schemata. Working with database management systems involves programming and sequential thinking skills, whereby students create and manipulate databases using SQL. Additional topics include Big Data, data security, and NoSQL. (Prerequisite: CIS1320L).

CIS2440L SQL Server **CL2 L2 CR3**
This course provides students with the knowledge and skills required to install, configure, administer and troubleshoot MS SQL Server. Students will learn to write queries and perform a wide variety of tasks using both GUI and SQL code. (Prerequisites: CIS1320L and CIS1360L)

CIS2450L Information Storage and Management **CL2 L2 CR3**
This course teaches students how to manage and secure information. This includes instruction and hands-on exercises in the installation, configuration and management of a variety of technologies like RAID, SAN and NAS used for storing, accessing, securing, sharing and optimizing information. (Prerequisite: CIS1360L)

CIS247L Introduction to Oracle DB **CL2 L3 CR3**
This course provides students with the knowledge and skill required to install, configure, administer and troubleshoot Oracle DB. Students will learn to write queries and perform a wide variety of tasks using both GUI and SQL code. (Prerequisites: CILS1400L and CIS2420L)

CIS2480L Introduction to Networks **CL2 L2 CR3**
This course is the first in a series of four courses designed to prepare students to earn the Cisco Certified Network Associate (CCNA) certification. It is based on the Cisco Introduction to Networks course and introduces the architecture, structure, functions, components and models of the Internet and computer networks. The principles of IP addressing and fundamentals of Ethernet concepts, media and operations are introduced to provide a foundation for the curriculum. By the end of the course, students will be able to build simple LANs, perform basic configurations for routers and switches and implement IP addressing schemes. (Prerequisite: CIS1360L)

CIS2490L Network Security **CL2 L2 CR3**
This course covers basic security principles, cryptography, security baselines and current attack and defense techniques and technologies. It also covers the development of security policies and procedures and the management of security efforts. The course prepares students for the CompTIA Security+ certification exam. (Prerequisite: CIS1360L or equivalent)

CIS2500L Networking Fundamentals (CCNA 1 Cert Test) **CL2 L2 CR3**
This course is an introduction to networking. It is based on the Cisco CCNA 1 course – Networking for Home and Small Businesses. The focus is on network terminology and protocols, local-area networks (LANs), wide-area networks (WANs), Open System Interconnection (OSI) models, cabling, cabling tools, routers, router programming, Ethernet, Internet Protocol (IP) addressing and network standards. (Prerequisite: CIS1360L or equivalent)

CIS2510L Small Business Networking **CL2 L2 CR3**
This course is the second in a series of four courses designed to prepare students to earn the Cisco Certified Network Associate (CCNA) certification. It is based on the Cisco CCNA 2 course, Working at a Small-to-Medium Business or ISP. This course focused on initial router configuration, Cisco IOS software management, routing protocol configuration, TCP/IP, and sub-netting. (Prerequisites: CIS1360L)

CIS2520L Managing & Troubleshooting PC's **CL2 L2 CR3**
This course prepares students to pass Comp TIA's A+ Essentials and Practical Applications exams. The student will gain an understanding of the terminology, technology, installation and upgrading of Windows PCs as well as basic Windows operating system support. The student will also learn advanced configuration and troubleshooting skills, to include the use of the command line interface. (Prerequisite: CIS1360L)

CIS2530L Mac OS and Networking **CL2 L3 CR3**
This course is based on Apple-Certified courseware and is designed to train students to work with the Mac operating system as part of the business environment. Students will learn how to install, configure, and troubleshoot software and hardware problems that can occur. Additional topics such as systems resources, peripheral devices, hidden files and firewall configuration are covered, as well as many others necessary for the student to become Apple certified. (Prerequisites: CIS1360L)

CIS2590L Designing and Supporting Networks **CL2 L2 CR3**
This course is the last in a series of four courses designed to prepare students to earn the Cisco Certified Network Associates (CCNA) certification. It is based on Cisco CCNA four Course-Designing and Supporting Computer Networks. This course focuses on network design methodologies, network characterization and prototyping tools, IPv4 and IPv6 addressing and WAN technologies to include Frame Relay (Prerequisite: CIS2530L)

CIS2610L Installing and Configuring Windows Servers **CL2 L2 CR3**
This course covers installing and configuring Microsoft Servers; managing directory services; implementing networking, file and print services; and server virtualization. (Prerequisite: CIS1360L)

CIS2620L Intro to Linux **CL2 L2 CR3**
This course provides the introduction to UNIX operating system. Concepts such as file system, editors, program development, shell environment/programming, communication, data management, security and remote computing will be covered. In addition to laboratory exercises to enforce the concepts, students will also engage in a course project. Computer labs will be open for student use. (Prerequisite: CIS1360L and CIS2500L)

CIS2650L Independent Study **CL2 L2 CR3**
Students in an independent study option will engage in learning about a topic of special interest and/or need. A written report on the topic of the independent study is required. (Prerequisites: A matriculated student, Permission of Department Chair and a minimum cumulative GPA of 2.0)

CIS2670L Administering Windows Servers **CL2 L2 CR3**
This course covers implementing Group Policy; managing user and service accounts, maintaining directory services, configuring DNS and remote access; and optimizing file services and security. (Prerequisites: CIS2610L)

CIS2680L Advanced Windows Server Configuration **CL2 L2 CR3**
This course covers advanced network services, file services, dynamic access control, network load balancing, failover clustering and disaster recovery. (Prerequisites: CIS2610L)

CIS2690L Designing Network Services Infrastructure **CL2 L2 CR3**
This course prepares the student for designing a networking infrastructure based on an organization's needs. Topics include DHCP, IP address configuration, DNS, WINS, as well as current technologies. (Prerequisite: CIS2600L)

CIS2710L Analyzing Software Requirements **CL2 L2 CR3**
This course teaches students to develop conceptual, logical and physical designs for a business software solution using modern software techniques and tools such as UML, SCRUM, etc. This course prepares the student for the Microsoft Certified Exam. (Prerequisites: CIS1320L, CIS1360L, CIS1400L)

CIS2720L Object-Oriented Programming – Java **CL2 L2 CR3**
This course offers a study of the features of Java. Focus will be on the principles of software design and development specific to the object-oriented approach, including classes, objects, inheritance and error handling. (Prerequisite: CIS1400L or equivalent)

CIS274L XML **CL2 L3 CR3**
This course will teach students the skills to necessary to build distributed applications in an n-tier client server environment using Visual Basic & XML. Additional topics include database access in a multi-tier or cloud environment and the application front end. (Prerequisite: CIS 1400L or permission of department chair)

CIS2750L Object-Oriented Programming – C++ **CL2 L2 CR3**
This course offers a study of the features of C++. Focus will be on the principles of software design and development specific to the object-oriented approach including classes, objects, inheritance and error handling. (Prerequisite: CIS1400L or equivalent)

CIS2760L Developing Web Applications **CL2 L2 CR3**
This course will teach students the skills necessary to develop and implement web applications using technologies such as PHP, MySQL, NET and IIS. Topics include creating user services, creating and managing components, data manipulation, debugging and security issues. (Prerequisite: CIS 2320L or permission of Department Chair).

CIS2770L Programming for Games **CL2 L2 CR3**
This in an introductory computer-games programming class, which teaches the programming techniques needed to produce interactive graphical applications like computer games. The topics covered include: game design, storyboarding, animation techniques, game construction tools, artificial intelligence, input devices, sound and real time graphics. During the course, students produce a simple interactive graphical project. (Prerequisite: CIS1400L)

CIS2780L Programming with DirectX **CL2 L2 CR3**
This course is designed to teach the student techniques needed to create games using DirectX technology. This is a hands-on course where students will be expected to complete several games. Topics include: sprites, bitmaps, DirectX game libraries, windows sockets, as well as game design. (Prerequisite: CIS1400L or Permission of Instructor)

CIS2800L Capstone Project **CL2 L2 CR3**
This course is intended to provide the vehicle for students to show overall competency in Computer Technologies and the specialties that have been a part of their particular degree program. Under supervision of a faculty advisor, the student will select an appropriate subject; perform the research and present results. Project will include the following components: project proposal, research and definition, and the project presentation. This course should be taken the semester prior to graduation.

CIS2810L Enterprise Networking **CL2 L2 CR3**
This course is the third in a series of four courses designed to prepare students to earn the Cisco Certified Network Associate (CCNA) certification. It is based on the Cisco CCNA 3 course – Introducing Routing and Switching in the Enterprise. This course focuses on advanced IP addressing techniques (Variable Length Subnet Masking [VLSM]), intermediate routing protocols (RIP v2, single area OSPF, EIGRP), command line interface configuration of switches, Ethernet switching, Virtual LANSs (VLANs), Spanning Tree Protocol (STP) and VLAN Trunking Protocol (VTP) and Access Control Lists (ACLs). (Prerequisite: CIS2510L with a C- or better)

CIS2820L Routing & Switching Essentials **CL2 L2 CR3**
This course is the second in a series of four courses designed to prepare students to earn the Cisco Certified Network Associate (CCNA) certification. It is based on the Cisco Routing & Switching Essentials course and introduces the architecture, components and operation of routers and switches in a small network. Students learn how to configure a router and a switch for basic functionality. By the end of the course, students will be able to configure and troubleshoot routers and switches and resolve common issues with RIPv1, RIPv2, single and multi-area OSPF, VLANs and inter-VLAN routing in both IPv4 and IPv6 networks. (Prerequisite: CIS2480L with a C- or better)

CIS2830L Scaling Networks **CL2 L2 CR3**
This course is the third in a series of four courses designed to prepare students to earn the Cisco Certified Network Associate (CCNA) certification. It is based on the Cisco Scaling Networks course and introduces the architecture, components and operation of routers and switches in a large and complex network. Students learn how to configure routers and switches for advanced functionality. By the end of the course, students will be able to configure and troubleshoot routers and switches and resolve common issues with OSPF, EIGRP, STP and VTP in both IPv4 and IPv6 networks. Students will also develop the knowledge and skills needed to implement DHCP and DNS operations in a network. (Prerequisite: CIS2820L with a C- or better)

CIS2840L Connecting Networks **CL2 L2 CR3**
This course is the last in a series of four courses designed to prepare students to earn the Cisco Certified Network Associate (CCNA) certification. It is based on the new Cisco CCNA Routing & Switching course – Connecting Networks. This course covers the WAN technologies and network services required by converged applications in a complex network. It enables students to understand the selection criteria of network devices and WAN technologies to meet network requirements. Students learn how to configure and troubleshoot network devices and resolve common issues with data link protocols. Students also develop the knowledge and skills needed to implement IPSec and VPN operations in a complex network. (Prerequisite: CIS2820L with a grade of C- or better)

CIS2920L Mobile Application Development **CL2 L2 CR3**
This is an introductory course developing mobile applications for various platforms, including smart phones, Android devices and Apple IOS. Topics include device convergence, platform architecture, app life-cycles, design patterns, and

cross-platform development, as well as the challenges of developing for mobile devices. Students will be exposed to different API and languages such as Objective C, Xcode and Java (Prerequisite: CIS1400L or Permission of Instructor)

CULINARY ARTS/PASTRY ARTS

CULA1450L Breads and Rolls **CL1 L4 CR3**
Students will be introduced to the baker's scale and taught how to properly measure ingredients. Reading a formula and recipe conversions will also be covered. The history of bread making will be explored as well as the creating of many classical items from several cultures around the world. The milling process of flour will be discussed as well as the function of important ingredients in the dough. The class will largely focus on the organized process of preparing dough. Mixing, shaping, proofing, baking, and storing are critical steps that will be explored. The bread and roll productions that will be created in each class will be used in our dining room bakery case.

CULA1460L Bakery Production **CL1 L4 CR3**
This course will focus on the common items found in any bakery/pastry shop. Muffins, quick breads, coffee cakes, and donuts will be explored. Pie dough, puff pastry, pâté à choux, short dough and Danish dough will be taught, and several items will be created from each. Classical European pastry will be touched upon and the "classics" of pastry will be introduced. Pies, tarts, cookies, and common bakery items will also be created. Students will be introduced to various ingredients such as nuts, chocolates, and fruits; they will be taught how, when, and why to use them.

CULA147L Hot and Cold Plated Desserts **CL1 L4 CR3**
The focus of this course is plated desserts that would be found in a restaurant setting. The critical components of a plated dessert will be explored along with detailed instructions of each. Various sauces and garnishes will be introduced, as well as various plate presentations. This course will include the production of slow-bake desserts (custards, cheesecakes), frozen desserts, traditional desserts (Baked Alaska, Bananas Foster, Cherries Jubilee), and creative ways to present simple desserts. Students will be required to use their creativity and create a plated dessert of their own for a project grade.

CULA1480L Cake Decorating **CL1 L4 CR3**
This course will be concerned with creating various cakes, icings, fillings, frostings, and butter creams. Each student will learn the proper techniques for covering a cake, as well as ways to enhance the decoration on it. Making paper cones, writing on cakes, and making several types of butter cream flowers are covered. Classical cakes will also be covered (Dobos, Sacher) along with their history. There will be a large concentration on using a piping bag, the function of various tips, and proper piping techniques. This course will also introduce the use of marzipan, fondant, airbrushing, and wedding cakes.

CULA1490L Baking and Pastry Technologies **CL3 L0 CR3**
Baking & Pastry Technologies is a look into the scientific side of baking. Baking & Pastry Technologies is dedicated to teaching different scenarios, and reactions of ingredients, while baking. The lab element gives the experience of seeing different reactions of ingredients in baking; knowing, by looking at finished products, what works best and what may ruin the project. At the completion of this course, the student will have basic knowledge of the scientific breakdown that goes into the formulas of baking. This course will enable graduates to better be prepared to gain positions as a pastry chef or patisserie.

CULA1510L Culinary Fundamentals **CL1 L6 CR3**
This course encompasses the basic fundamental principles for a career in Culinary Arts. Each subject will be discussed and practiced in detail. This class will emphasize the importance of such terms and procedures as "mise en place", knife skills, proper use of tools and several other basic principles that are important to the culinary industry. This course will also emphasize the appropriate standard of behavior and uniform that is set by culinary professionals. At the end of this course, students will have a core knowledge and insight into the essential aspects of Culinary Arts.

CULA1520L Sanitation & Safety **CL3 L0 CR3**
This course offers a look into the fundamentals of food service sanitation and safety. Students will demonstrate knowledge of proper hot and cold food handling procedures, cross contamination of ready-to-eat foods, proper receiving practices, proper storage guidelines, who is affected by improper food handling, and federal/state food service sanitation requirements. When this course is completed, the student will test for the ServSafe certification.

CULA1580L Restaurant Facility & Menu Design **CL3 L0 CR3**
Both menu and facility design are important aspects of the restaurant industry. This course gives students realistic practice at mastering both. Students will practice proper menu layout as well as its design. Students will learn the importance of cross-utilization and how to optimize it. This course will give students the opportunity to see different writing

styles of menus including a la carte, rotating, and institutional menus. Different types of culinary establishments will be discussed as well as the equipment needed for them. Students will be designing menus to match kitchen layouts through projects conducted one-on-one with the instructor.

CULA1590L Cost Control **CL3 L0 CR3**
This course covers such subjects as pricing menus, food costing equations, weights and measurements, scaling, yield testing, food cost percentages, inventories, and recipe conversions. The student will be expected to cost out recipes to find per portion costs as well as multi-portion costs. This course discusses money saving techniques, waste control, and the importance of portion size as it relates to menu prices. Beverage costing, as well as alcohol procurement, will also be examined. The Shaker Table's menus, inventories, and recipes will be exposed for practical use through projects or discussion conducted by the instructor.

CULA2100L Nutritional & Alternative Baking **CL1 L4 CR3**
This course introduces student into not only the nutritional aspects of baking, but the alternative baking world. Alternative baking meaning such subjects as gluten free, sugar free, dairy free, and other allergy sensitive baking procedures. Nutritional aspects cover such subjects as low fat, low sodium, carbohydrate sensitive, as well as diabetic responsive dessert composition. Focus will revolve around techniques and alternative methods of producing health conscious pastries, product substitutions, ideas and concepts of creative alternative and nutritional desserts.

CULA2200L Advanced Cake Decorating **CL1 L4 CR3**
This course is a continuation of our cake decorating course. Advanced cake decorating takes what has been learned in cake decorating and introduces new ingredients, techniques, and skill sets. Intricate piping techniques are demonstrated and practiced. The uses of ingredients such as rolled fondant, gum paste, royal icing and molding chocolate will be established. Advanced cake styles and wedding cakes will be practiced. This is a fifteen week course that will provide students with the enhanced knowledge, techniques and proficiency of cake decorating. (Prerequisites: CULA1480L).

CULA2250L Advanced Pastry and Confections **CL1 L4 CR3**
In this course the student will learn an array of international pastries and advanced pastry methods, techniques and showpieces. The student will be introduced to chocolate tempering, shaping, basic show piece construction and candy making. Subjects such as pastiage, pouring sugar and confection artistry will also be confection artistry will also be covered, researched and practiced. Students will fine tune their skills and challenge themselves both technically and artistically. (Prerequisites: CULA1460L).

CULA2300L Pastry Arts Cooperative Education **C0 L9 CR3**
This course provides the opportunity for the student to utilize baking and pastry course competencies in a real-life setting along with supplemental laboratory experience on the extensive array of equipment and processes. (Prerequisite: POI)

CULA2310L Pastry Arts Capstone **C1 L0 CR1**
This course provides the vehicle for students to demonstrate overall competency in baking and pastry and in the specific operations in which they have chosen to concentrate. Under the supervision of a faculty advisor, working individually or as part of a team, the student will select and successfully carry out a major project which pertains directly to baking and pastry operations.

CULA2320L Culinary Cooperative Education **CL0 L9 CR3**
Co-operative education provides the opportunity for students to utilize learned culinary course competencies in a real-life setting. This course provides supplemental laboratory experience on the extensive array of equipment, ingredients and processes. Students will gain valuable experience and first-hand knowledge as to what a career in the Culinary Arts field outside the classroom entails. Students are expected to complete 300 hours of co-op experience. Instructor's approval of workplace site required. (Prerequisites: CULA1460L, CULA1510L, CULA1520L, CULA1580L, CULA1590L, HOS1130L and HOS1140L)

CULA2530L Introduction to Garde Manger **CL1 L6 CR3**
This course offers an insight into the "cold side" of the restaurant industry. The student during this course will be responsible for researching Garde Manger techniques as well as practicing those techniques. The student will be inspired to practice classic Garde Manger skills through a series of projects created by the instructor. Such skills and techniques include preparation of: Cured meats, aspic and chaud froid, terrines and pates, crudités platters, cheese displays, smoked foods, cold sauces and dressings, salads, hors d'oeuvres, and buffet design/layout. Presentations by guest speakers and visiting chefs as well as off-site demonstrations/applications will enhance student skill sets.

CULA2540L Classical Cuisine **CL1 L6 CR3**
This course will explore the history of classical cuisine and its origins. The accomplishments of our forefathers will be explored and their impact on cooking discussed. Students will absorb these concepts and hone their techniques in order to apply them to modern day cooking. Historical chefs like Escoffier and Careme will be introduced and explored. Classical cuisine will be an overview of how cooking has evolved throughout time and will conclude with modern technology, equipment development, and the evolution of food products.

CULA2550L Italian Cuisine **CL1 L6 CR3**
Students will enhance their cooking skills by studying cooking techniques and cultural aspects that deal in-depth with Italian cookery. Students will rotate through each station in preparing new menu items. Students will be expected to follow recipes in preparing dishes from each of the regions in Italy. This course will reinforce both classical and modern cooking techniques.

CULA2560L U.S. Regional & Infusion Cuisine **CL1 L6 CR3**
This course will give an overview of food origins and how they have shaped our modern day cuisine. Students will focus on a variety of cultural and regional cuisines throughout the United States. The trend towards cross-cultural cuisines, and the eclectic foods they produce, will be discussed in depth. Students will learn how to create dishes using various cultural ingredients. Preparation, plating, and garnishing techniques will be addressed.

EARLY CHILDHOOD EDUCATION

ECE1210L Growth and Development of the Young Child **CL3 L0 CR3**
An introduction to the child, from birth to age eight, as a learner and family member with needs to explore and communicate, as well as to develop social competence. Explanation of current themes of child development is provided with special emphasis on understanding children's developmental levels through childhood. Topics covered include: conception, heredity and prenatal development, infant development, the child in the family, toddlerhood and early childhood. Observation in a childcare center or preschool setting is a requirement of this course.

ECE1220L Curriculum Development in Early Childhood **CL3 L0 CR3**
The design, implementation and evaluation of appropriate programs for young children through age six. The course focuses on the concrete, practical application of various theories, philosophies and current research data in the field. Other topics include: the young child as explorer and learner, language, numbers, art and the world, and the effective teacher of young children. Observation in a childcare center or preschool setting is a requirement of this course.

ECE1230L Foundations of Early Childhood Education **CL3 L0 CR3**
This course covers the history of early childhood education and child care, including the contributions of Froebel, Montessori and Wheelock. The course concentrates on a diversity of programs including childcare, Head Start, kindergarten and nursery. Profit and non-profit programs will be examined. Discussion includes historical perspectives, current trends, theories and approaches to the care, development and education of young children. Observation in a childcare center or preschool setting is a requirement of this course.

ECE1240L Health, Nutrition and Safety in Child Care **CL3 L0 CR3**
Utilizing National Association for the Education of Young Children guidelines and all applicable local and state standards, this course provides the student with comprehensive concepts, guidelines, and practices needed to implement appropriate policies and procedures to insure proper nutrition and sanitary, healthy, and safe child care environments. It should be noted that CPR and First Aid training are NOT part of the course. Observation in a childcare center or preschool setting is a requirement of this course.

ECE1260L Infant/Toddler Development **CL3 L0 CR3**
This course focuses on developmentally appropriate practices for infant/toddler caregivers. Students will explore various theoretical perspectives on infant/toddler development and the pragmatics of caring for young children in early childhood settings. A study of important influences on infant and toddler development, with emphasis on the role and responsibilities of parents and caregivers in creating high quality, supportive environments with sensitivity to attachment and the importance of communication skills in nurturing positive parent/teacher/child relationships. Observation in a childcare center or preschool setting is a requirement of this course.

ECE165L Practicum I in Early Childhood Education **CL1 L6 CR3**
Students gain exposure to their professional role while they apply and integrate knowledge acquired through prior coursework. In order to develop appropriate attitudes and skills, and to effectively apply knowledge to the area and education of young children, the student works in a licensed and approved setting under the supervision of a qualified professional. Periodic conferences between the supervisor and the practicum instructor are conducted to evaluate the

student's progress. As the close of the semester the student submits documentation relating theory, practice and other practicum learning experiences. Working at the practicum site along with peer review, self-reflection and disclosure combine to create a structure that promotes and supports personal and professional growth. (Student Personal Professional Liability Insurance is mandatory for practicum students.) (Prerequisites: ECE1210L, ECE1230L, ECE1240L, and ECE1260L. ECE1260L may be taken concurrently.)

ECE 1620L Independent Study in Early Childhood Education **CL0 L3 CR1**
In order to develop appropriate attitudes and skills, and to effectively apply knowledge to the care and education of young children, the student works in a licensed and approved setting under the supervision of a qualified professional. Periodic conferences between the supervisor and the practicum instructor evaluate the student's progress. At the close of the semester the student submits documentation relating the student's practicum learning experiences. Work at the practicum site along with self-reflection and disclosure documented with journaling combine to create a structure that promotes and supports personal and professional growth. (Prerequisites: ECE1210L, or ECE1260L and ECE1220L)

ECE2160L Young Children's Special Needs **CL3 L0 CR3**
This course will broaden the student's awareness of the theoretical and legal foundations for programs serving young children from infancy through age eight with a wide range of special education needs. Students will examine the causes, symptoms, social consequences and behavior characteristics of children with special needs. Emphasis will be on education for children and their families. Disabilities and special needs, theoretical foundations and practical implications, legal requirements, rights and procedures are discussed. Observation in a childcare center or preschool setting is a requirement of this course.

ECE2240L Math and Science in Early Childhood **CL3 L0 CR3**
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 which 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. Observation in a childcare center or preschool setting is a requirement of this course.

ECE2250L Art, Music, Drama and Movement **CL3 L0 CR3**
This course focuses on nurturing creativity in young children through developmentally appropriate activities in the areas of art, music, drama, and movement. The various methods and materials used to stimulate a young child's creative impulses will be explored, as well as the developmental stages of artistic growth. Observation in a childcare center or preschool setting is a requirement of this course.

ECE2300L Developing and Administering a Child Care and Education Program **CL3 L0 CR3**
This course will provide a comprehensive study of the operation of an early childhood education child care facility. Staffing and supervision, including orientation, training, and motivation and evaluating staff are explored as they relate to the business of child care. Students develop business and marketing plans according to accepted business standards. New Hampshire Child Care Standards and licensing requirements, Child Care Development Block Grant, and funding sources are included. Observation in a childcare center or preschool setting is a requirement of this course.

ECE2310L Early Literacy Development **CL3 L0 CR3**
Early Literacy Development involves listening, speaking, drawing, singing and acting, as well as reading. It includes all the ways children communicate ideas and receive those of others. This course will focus on concepts underlying early literacy development and using children's literature and creative activities to enable students to develop a repertoire of experiences and a portfolio of resources to enhance emergent literacy in young children. Observation in a childcare center or preschool setting is a requirement of this course.

ECE265L Practicum II in Early Childhood Education **CL1 L9 CR4**
The student works in a licensed and approved setting under the supervision of a qualified professional to acquire the advanced skills and develop autonomy in the planning and implementation of activities for young children. Periodic conferences between the student, supervisor and the practicum instructor are held to evaluate the student's progress. At the close of the semester, the student submits detailed documentation relating theory, practice, and the student's learning experiences at the practicum site. In addition, a detailed portfolio which entails the NAEYC Standards is produced. Work at the practicum site along with peer review, self-reflection and disclosure combine to create a structure that promotes and supports personal and professional growth. (Prerequisites: ECE165L, ECE1220L and 2300L. ECE1220L and ECE2300L may be taken concurrently.)

EDU2100L Teaching with Technology **CL3 L2 CR4**
This course presents theory and strategies for effective integration of technology resources and technology-based methods of instruction to enhance and extend student learning. The role of technology in the classroom with regard to student use, teacher productivity, and communication will be explored, including assistive technology designed for students with disabilities, to discover ways in which technology supports differentiated instruction. State and National technology standards will be addressed with respect to planning curricula and technology-based activities. (Prerequisite: EDU1200L, ECE1230L) .

ELECTRICAL TECHNOLOGIES

ESTC1500L Introduction to Photovoltaics **CL3 L0 CR3**
This course introduces the principles of photovoltaics; including the basics of safety, the electrical basics of solar PV systems, how modules are designed and combined with other system components. Participants will learn how to decide upon the size, electrical and mechanical design of a PV system, as well as how to analyze and troubleshoot problems. At the conclusion of this course, students will be eligible to take the examination for the NABCEP PV Entry Level Certificate of Knowledge. Students should have a basic understanding of electricity fundamentals before enrolling in this class. (Prerequisites: ETEC1240L or LELC1240 or Permission of Instructor)

ETEC1230L Wiring Theory and Techniques (Commercial) **CL4 L6 CR6**
This course covers commercial building wiring, blueprint reading, branch circuit installations, and service entrance installations based on the National Electrical Code. The following topics will be covered: interpretation of plans, branch circuit installations, feeder installations and calculations, service entrance calculations and installations, and low-voltage installations. (Prerequisite: ETEC1260L or Permission of Instructor)

ETEC1240L AC/DC Theory **CL4 L3 CR5**
This course is designed to introduce concepts of electricity involving the behavior of both direct and alternating current circuits.

ETEC1260L Residential Wiring and Electrical Blueprint Reading **CL3 L0 CR3**
This course covers electrical theory, circuit analysis, techniques used in residential wiring, and reading electrical blueprints. The following topics will be covered: electrical safety, tools of the trade, blueprint reading, branch circuit calculations, load calculations, wiring devices, GFCI and AFCI, lighting circuits, types of luminaire, installation of ranges and dryers, hot water tanks, and residential services.

ETEC1270L Residential Wiring and Electrical Blueprint Reading Lab **CL0 L6 CR2**
This course covers the lab portion of electrical circuit analysis techniques used in residential wiring and reading electrical blueprints. The following topics will be covered: safety in the lab, proper use of tools, soldering and splicing techniques, single pole switching, duplex receptacle wiring, 3-way switching, 4-way switching, GFCI and AFCI wiring, BX, AC, and MC installations, low voltage switching, range and dryer wiring, and hot water tank wiring, and residential services (main panel) and (subpanels).

ETEC1280L Fundamentals of Electrical Controls **CL2 L6 CR4**
Industrial motor control fundamentals are covered, as well as the basic theory of magnetic controls, control components, pilot devices, control circuit diagrams and troubleshooting. (Prerequisite: ETEC1240L or Permission of Instructor)

ETEC1300L Rotating Machinery (1/2012) **CL2 L6 CR4**
This course covers the concepts of rotating electrical machinery beginning with magnetism and induction, conductor thrust and torque, and then progresses to motor basics such as nameplates, mechanical design, troubleshooting and protection. Each major classification of electric motor design and operation is studied in detail in the classroom and proven in the laboratory environment. (Prerequisite: ETEC1240L)

ETEC1410L NEC-Residential **CL2 L0 CR2**
A study of NEC requirements as it applies to residential applications.

ETEC1420L NEC-Multi-Family Unit **CL2 L0 CR2**
A study of NEC requirements as it applies to Multi-Family Units.

ETEC1430L NEC-Commercial/Industrial Applications **CL2 L0 CR2**
A study of NEC requirements as it applies to commercial and industrial applications.

ETEC2100L Introduction to Electrical Estimating and Design **CL2 L2 CR3**
This course uses computer-aided programs. The following topics will be covered: introduction to estimating concepts, computer-aided electrical estimating, and developing an estimate using an electrical blueprint.

ETEC2150L Photovoltaics **CL2 L3 CR3**
This course introduces the principles of photovoltaics; including the basics of safety, the electrical basics of solar PV systems, and how modules are designed and combined with other system components. Participants will learn how to decide upon the size, electrical and mechanical design of a PV system, as well as how to analyze and troubleshoot problems. The lab portion of the course will include hands-on installation of PV systems on mock roofs and ground mounts. This PV Entry Level course ***will not earn students an installer-in-training credential***, but will serve as an important first step in preparing individuals to become highly skilled, qualified and experienced trades people in the PV industry. At the conclusion of the course, students will be eligible to take the examination for the NABCEP PV Entry Level Certificate of Knowledge. Students should have a basic understanding of electricity fundamentals before enrolling in this course. Credit will not be given for more than one of the following courses: ETEC2150L or ESTC1500L. (Prerequisite: ETEC1240L)

ETEC2240L Wiring Theory and Techniques (Industrial) **CL3 L3 CR4**
Industrial building wiring, blueprint reading, transformer connections, “high-voltage” installations, motor circuit theory and lighting designs are covered, as well as interpretations of plans, transformer connections, “high-voltage” installations, motor circuit theory, and lighting designs and applications. (Prerequisites: ETEC1220L, ETEC1230L or POI)

ETEC2300L Electrical Motor Controls **CL2 L3 CR3**
The course covers control fundamentals incorporating control relays, contactors and motor starters, as well as an introduction to solid state motor controls. (Prerequisite: ETEC1240L or Permission of Instructor)

ETEC2350L Programmable Controllers **CL2 L4 CR3**
This course covers industrial programmable controllers and program writing including; but not limited to, basic relay logic programming, program control instructions, sequence instructions, data manipulation, math instructions, program editing and troubleshooting. (Prerequisites: ETEC1280L, MATH1310L or Permission of Instructor)

ETEC2400L Stationary Machinery **CL2 L6 CR4**
A review of magnetism and electromagnetism and the design and operational characteristics of single-phase, three-phase and specialty transformer connections are covered in this course. (Prerequisites: ETEC1240L, ETEC1300L)

ELECTRO-MECHANICAL TECHNOLOGIES

ELMT1200L Fluid Power Systems **CL2 L6 CR4**
Students will be introduced to the fundamentals of hydraulic and pneumatic power system safety, operation, basic circuit connections, and 3, 4, and 5-way cylinder circuit function. Hydraulic power system topics include basic hydraulic circuits, pumps, principles of pressure and flow, speed control, pressure control, sequence and reducing valves. Pneumatic power system coverage includes single acting cylinders, motor circuits, leverage, volume, pressure and flow, air flow resistance, flow control, and flow measurement.

ELMT2100L Mechanical Drive Systems **CL2 L4 CR4**
In this course, students will learn the concepts of mechanical power transmission through the many types of mechanical drive systems in modern machinery. Mechanical power system safety is focused on throughout this course. Topics include machine and electric motor mounting, motor shaft and keyway features, measuring speed, torque, power, and efficiency, mechanical shaft bearing, coupling, and alignment, as well as v-belt, chain, spur gear, and multiple shaft drives.

ELMT2700L Electro-Mechanical Capstone **CL3 L0 CR3**
This course provides the vehicle for students to demonstrate overall competency in advanced manufacturing and in the specific operations in which they have chosen to concentrate under the supervision of a faculty advisor, working individually or as part of a team, the students will select and successfully carry out a major project which pertains directly to electro-mechanical technologies.

ELMT2800L Electro-Mechanical Internship **CL0 L9 CR3**
This course provides the opportunity for the student to utilize learned course competencies in a real-life setting. A supplemental laboratory experience on an extensive array of equipment and processes may be provided. Resume, cover letter, weekly journal, and employer evaluation are required. Student needs to work a minimum of 300 hours in a manufacturing job related environment. (Pre-requisite: A cumulative GPA of 2.0 or higher).

ENGLISH

ENGL080L Foundations of Reading and Writing **CL2 L0 CR3**
In this course, students will work to improve their skills with the reading/writing processes by recognizing and applying strategies to reading, understanding, and composing nonfiction. Students will learn organizational and structural techniques that they will then use to reinforce and strengthen sentence, paragraph, and essay mechanics. Additionally, students will develop and strengthen the ability to use inquiry in both reading and writing. (Credits do not apply to degree requirements.)

ENGL100L English Composition **CL4 L0 CR4**
In this course, students will be presented with critical thinking strategies that will be used to effectively convey meaning and thought in analytical terms. Students will learn to write concisely through the use of the writing process and integration of information literacy and meta-literacy strategies. (Prerequisite: Competence as demonstrated on placement exam.)

ENGL1220L Technical Communications **CL3 L0 CR3**
The focus in this course is on the principles of, and practice in, clear and accurate presentation of information as directed to specific audiences. This includes planning, composing and editing resumes, reports, descriptions of mechanisms, instructions and critiques, and incorporation of graphics. The oral component includes interview strategies, informal and formal presentations. (Prerequisite: ENGL100L or Permission of Instructor)

ENGL1230L Business Communications **CL3 L0 CR3**
Efficient techniques of written and oral communication emphasizing both process and product in the modern business environment are examined. Students gain an understanding of the theory of the communication process and then prepare reports in direct, indirect and persuasive order. (Prerequisite: ENGL100L or Permission of Instructor)

ENGL2230L Survey of American Literature **CL3 L0 CR3**
An overview of how America's best-known thinkers, authors and poets have reflected and influenced culture, this course takes an historical approach to studying literature from colonial to contemporary times. (Prerequisite: ENGL100L or Permission of Instructor)

ENGL2240L The American Short Story **CL3 L0 CR3**
Early, modern and contemporary short stories are read closely and analyzed for theme, plot development, character study and author's style. Stories are placed in their historical context. (Prerequisite: ENGL100L or Permission of Instructor)

ENGL2300L Creative Writing Workshop **CL3 L0 CR3**
Techniques, practice and feedback help access creative writing skills and develop an understanding of different creative writing genres through weekly writing, revision and a final portfolio. Students compose a short story, five pieces of poetry and two dramatic scenes. Focus is on characterization, plot, imagery and theme. (Prerequisite: ENGL100L or Permission of Instructor)

ENGL2310L Fiction Workshop **CL3 L0 CR3**
Students involve themselves in the process of imaginative writing. Instruction is guided by the student's individual interests, strengths and needs. Principal, traditional forms of fictional narrative writing are explored, including the short story, novella and novel. Students are encouraged to discover and reflect their own voice in the form most suitable. Attention is focused on character, plot and thematic development. Students submit a portfolio for publication. (Prerequisite: ENGL2300L or Permission of Instructor)

ENGL2320L Poetry Workshop **CL3 L0 CR3**
Students involve themselves in the process of imaginative writing. Instruction is guided by the student's individual interests, strengths and needs. The course emphasizes the analysis and writing of poetry. Students study the idea of creativity and the poetic use of language, and are encouraged to discover and reflect their own voice. Attention is focused on tone, style, voice and thematic development. Students submit a portfolio for publication. (Prerequisite: ENGL2300L or Permission of Instructor)

ENGL2330L Playwriting Workshop **CL3 L0 CR3**
Students involve themselves in the process of imaginative writing. Instruction is guided by the student's individual interests, strengths and needs. The course includes the analysis and writing of dramatic scripts designed for the theater. Students study and write one- and multiple-act plays and are encouraged to discover and reflect their own voice in the form most suitable. Attention is focused on conflict, character and thematic development. Emphasis is placed on effective dialogue. Students submit a portfolio for publication. (Prerequisite: ENGL2300L or Permission of Instructor)

ENGL2340L Scriptwriting for Film and Television **CL3 L0 CR3**
Students involve themselves in the process of imaginative writing. Instruction is guided by the student's individual interests, strengths and needs. The course includes the analysis and writing of dramatic scripts designed for television and/or large screen production. Students are encouraged to discover and reflect their own voice in the form most suitable. Attention is focused on conflict, character and thematic development, as well as logistics. Students submit a portfolio for publication. (Prerequisite: ENGL2300L or Permission of Instructor)

ENGL2460L Tolkien and The Ring of Power **CL3 L0 CR3**
The Hobbit and The Lord of the Rings by J.R.R. Tolkien are studied and analyzed. Tolkien's biography, his writing life, the origins of the stories, and their publication history, as well as his construction of a mythological world and its peoples and languages, his characters and their development, and his thematic concerns are researched. Finally, Tolkien's influence on 20th century fantasy literature is considered. (Prerequisite: ENGL100L)

ENGL2500L Introduction to Literature **CL3 L0 CR3**
Various literary types are defined and compared. Representative examples of short stories, plays, poems and novels are read and critically analyzed. (Prerequisite: ENGL100L or Permission of Instructor)

ENGL2540L The Nature Writers **CL3 L0 CR3**
The course introduces students to the prose and poetry of British and American nature writers. It also helps them understand the historical, social and intellectual background of various literary periods. (Prerequisite: ENGL100L or Permission of Instructor)

ENGL2550L Popular Fiction **CL3 L0 CR3**
Elements of horror fiction and popular fiction are studied and researched. Representative samples are read and analyzed for techniques and themes. Writers include Poe, Hawthorne, Faulkner, Oates and Conrad. The evolution of imaginative literature from the gothic through contemporary horror, science fiction and fantasy is studied using various critical approaches. (Prerequisite: ENGL100L or Permission of Instructor)

ENGL2560L Introduction to Drama **CL3 L0 CR3**
The basis of this course is the reading and discussion of significant plays in Western literature, from the Greeks to the present with related writing assignments. The plays are viewed within their historical and social contexts, with an emphasis on the relationship between their literary and theatrical forms. (Prerequisite: ENGL100L or POI)

ENGL2570L The Myth of the Hero **CL3 L0 CR3**
The character of the hero, as he or she appears in the myths of different societies, is studied and analyzed. Students explore the meanings of mythological figures, motifs, and references from a variety of perspectives. Creation and fertility myths of the world, as they impact understanding the role of the hero, are considered as well. (Prerequisite: ENGL100L)

ENGL2600L Public Speaking **CL3 L0 CR3**
This course provides an introduction to the fundamentals of public speaking and offers students the opportunity to practice these skills through a variety of in-class speeches. Students research, prepare and deliver oral presentations. In addition, class members serve as an audience and provide feedback to their fellow classmates. (Prerequisite: ENGL100L or Permission of Instructor)

FIRE TECHNOLOGIES

FIRE1240L Principles of Emergency Services **CL3 L0 CR3**
This course provides an overview to fire protection and emergency services; career opportunities in fire protection and related fields; culture and history of emergency services; fire loss analysis; organization and function of public and private fire protection services; fire departments as part of local government; laws and regulations affecting the fire service; fire service nomenclature; specific fire protection functions; basic fire chemistry and physics; introduction to fore protection systems, introduction to fire strategy and tactics; life safety initiatives.

FIRE1270L Fire Behavior and Combustion **CL3 L0 CR3**
This course explores the theories and fundamentals of how and why fires start, spread and are controlled.

FIRE1310L Fire Protection Systems **CL3 L0 CR3**
This course provides information relating to the features of design and operation of fire alarm systems, water-based fire suppression systems, special hazard fire suppression systems, water supply for fire protection and portable fire extinguishers.

FIRE1360L Fire-ground Procedures **CL2 L12 CR6**
This course teaches the student basic fire-ground procedures including fire department organization, forcible entry, fire behavior, personal protective equipment, and other related subjects necessary for entry-level firefighters. Successful completion of this course certifies the student in Firefighter I through the State of NH Fire Standards and Training.

FIRE1400L Building Construction for Fire Protection **CL3 L0 CR3**
This course provides the components of building construction related to firefighter and life safety. The elements of construction and design of structures are shown to be key factors when inspecting building, preplanning fire operations, and operating at emergencies.

FIRE1600L Fire Prevention **CL3 L0 CR3**
This course provides fundamental knowledge relating to the field of fire prevention. Topics include: history and philosophy of fire prevention; organization and operation of a fire prevention bureau; use and application of codes and standards; plans review; fire inspections; fire and life safety education; and fire investigation.

FIRE2000L Advanced Fire-Ground Procedures **CL1 L6 CR3**
Teaches the student advanced fire-ground procedures, incident command system, vehicle rescue and extrication, water supply, foam streams, detection systems, and other related subjects necessary for entry-level firefighters. Successful completion of this course certifies the student in Firefighter II through the State of NH Fire Standards and Training. (Prerequisite: FIRE1360L).

FIRE2240L Strategy and Tactics **CL3 L0 CR3**
This course provides the principles of fire-ground control through utilization of personal, equipment, and extinguishing agents. (Prerequisite: FIRE1270L and FIRE1400L).

FIRE2250L Emergency Medical Technician – Basic **CL1 L6 CR3**
This course covers all emergency medical techniques required of the Emergency Medical Technicians in the provision of emergency care with an ambulance/fire service. Successful completion of the course allows the student to sit for the National Registry of Emergency Technicians' written and practical examination.

FIRE2255L Hazardous Material Chemistry **CL3 L0 CR3**
This course provides basic chemistry relating to the categories of hazardous materials including recognition, identification, reactivity, and health hazards encountered by emergency services.

FIRE 2300L Advanced Fire Codes and Standards **CL3 L0 CR3**
This course prepares the student to use fire codes and standards at an advanced level. An in-depth study of common fire codes provides the student with the knowledge needed to perform fire inspections and fire investigations, review fire protection system designs, understand electrical installations and have the resources to answer code related questions pertaining to fire protection. (Prerequisite: FIRE1600L)

FIRE2340L Fire & Emergency Services Safety & Survival **CL3 L0 CR3**
This course introduces the basic principles and history related to the national firefighter life safety initiatives, focusing on the need for cultural and behavior change throughout the emergency services. (Prerequisite: FIRE2240L)

FIRE2360L Fire Investigation I **CL3 L0 CR3**
This course is intended to provide the students with the fundamentals and technical knowledge needed for proper fire scene interpretations, including recognizing and conducting origin and cause, preservation of evidence and documentation, scene security, motives of the fire-setter, and types of fire causes. (Prerequisite: FIRE1270L and FIRE1400L).

FIRE2365L Fire Investigation II **CL3 L0 CR3**
This course is intended to provide the student with advanced technical knowledge on the rule of law, fire scene analysis, fire behavior, evidence collection and preservation, scene documentation, case preparation and court-room testimony. (Prerequisite: FIRE2360L).

FIRE2380L Advanced Emergency Medical Technician **CL4 L6 CR6**
This course covers the knowledge and skill of the Advanced Emergency Medical Technician to prepare the student for a career in the fields of Emergency Medical Services or Fire Science. Successful completion of this course and related clinical requirements enables the student to become eligible for the National Registry of Emergency Medical Technicians (NREMT), cognitive and psychomotor examinations. (Prerequisites: FIRE2250L, Nationally Registered EMT (NREMT), or

EMT-Basic (NREMT-B), or State EMT with instructor approval; American Heart Association BLS for the Healthcare Provider Certification (or approved equivalent); Criminal record free of felony convictions;

FIRE2430L Educational Methodology **CL3 L0 CR3**
Educational Methodology explores the learning and teaching processes. The course covers behavioral objectives, lesson plans, training aids, factors that influence the learning climate, learning disabilities, testing and measurement, method of instruction, and other pertinent topics conducive to the field of education. This course prepares students to complete the Fire Instructor I program with the State of New Hampshire Fire Standards and Training Commission.

FIRE2450L Fire & Life Safety Education **CL3 L0 CR3**
This course provides information relating to the field of fire and life safety education.

FIRE2500L Fire Protection Hydraulics and Water Supply **CL3 L0 CR3**
This course provides a foundation of theoretical knowledge in order to understand the principles of the use of water in fire protection and to apply hydraulic principles to analyze and to solve water supply problems. (Prerequisite: MATH0610L or required math elective)

FIRE2502L Fire Protection Hydraulics and Water Supply Unit 2 **CL2 L0 CR2**
Study of fire protection hydraulics including fire flow and friction loss calculations for fire streams using mobile fire pumps. (Prerequisite: Permission of Department Chair)

FIRE2503L Fire Protection and Water Supply Unit 3 **CL1 L0 CR1**
This course offers a study of fire protection hydraulics including fire flow and friction loss calculation for underground and above ground water distribution systems. (Prerequisite: FIRE2502L)

FIRE2550L Occupational Health and Safety for Emergency Services **CL3 L0 CR3**
This course introduces the basic concepts of occupational health and safety as it relates to emergency service organizations. Topics include risk and hazard evaluations and control procedures for emergency service organizations.

FIRE2560L Community Fire and Risk Analysis **CL3 L0 CR3**
This course provides training in analyzing data, identifying problems, and formulating objectives, analyzing casual factors, developing selection criteria, identifying alternative solutions, developing implementation strategies, and designing an evaluation plan. Upon completion, the student will be able to evaluate the community needs associated with all hazards, to select and evaluate the most efficient system in developing community fire protection programs, and to define and design a fire and life safety system for a jurisdiction.

FIRE2690L Legal Aspects of Emergency Services **CL3 L0 CR3**
This course will address the Federal, State, and local laws that regulate emergency services and include a review of national standards, regulations, and consensus standards.

FIRE2810L Fire and Emergency Services Administration **CL3 L0 CR3**
This course introduces the student to the organization and management of a fire and emergency services department and the relationship of government agencies to the fire service. Emphasis is placed on fire and emergency service, ethics and leadership from perspective of the company officer. (Prerequisite: FIRE1240L)

FOREIGN LANGUAGES

FREN1200L Elementary French I **CL3 L0 CR3**
This course is open to students with little or no prior experience in the language. It stresses the four basic skills of listening, speaking, reading and writing, as well as the language in a cultural setting.

FREN1210L Elementary French II **CL3 L0 CR3**
This course offers a continuation of FREN1200L with the same emphasis on listening, speaking, reading and writing. (Prerequisite : FREN1200L)

SPAN1200L Elementary Spanish I **CL3 L0 CR3**
This course is open to students with little or no prior experience with the language. It stresses the four basic skills of listening, speaking, reading and writing, as well as the language in a cultural setting.

SPAN1210L Elementary Spanish II **CL3 L0 CR3**
This course offers a continuation of SPAN1200L with the same emphasis on listening, speaking, reading and writing. (Prerequisite: SPAN1200L)

GRAPHIC DESIGN

GRA1250L Fundamentals of Design **CL2 L2 CR3**
This course covers the major principles and elements of design, which form the basis for typography, color and layout theory.

GRA1270L UX Foundations **CL2 L3 CR3**
User Experience (UK) involves a person's behaviors, attitudes, and emotions about using or anticipating using a particular product, system, or service. This course uses straight-forward introductions, the tools of the trade, and more detailed workflows to develop a unique user experience for a fictitious company's product or services. (Prerequisites: MMDA1200L and GRA1250L)

GRA1340L Typography **CL2 L2 CR3**
This course is designed to introduce students to the basics of Typography. Students study the various classifications of type, and the anatomy associated with each class. Students will solve visual design and layout problems for various media requirements.

GRA1360L Digital Illustration **CL2 L2 CR3**
This course explores the techniques and equipment used to incorporate your sketches into digital designs. Students develop thumbnails and sketches for various elements to be digitized by industry standard software. (Prerequisites: MMDA1200L, ARTS1100)

GRA2230L Graphic Design I **CL2 L2 CR3**
In this course students will be given projects that will incorporate all aspects of graphic design. Using the principles of design and color theory, along with use of typography and layout, students will learn how to promote, brand, print, and save images for use on the web in various applications. This course uses research and investigation to solve problems from multiple perspectives through experimenting and conceiving solutions. Results will be single topics that produce multiple output media and forms. (Prerequisites: GRA1250L and MMDA1200L)

GRA2240L Publication Design **CL2 L2 CR3**
This course teaches the necessary skills to develop layouts for both page and screen publications. Industry standards and practices will be discussed, while developing layouts using grids, typography, color theories, and basic design principles. (Prerequisite: GRA1340L and MMDA1200L)

GRA2260L CMS Basics **CL2 L3 CR3**
Focusing on online use, a Content Management System (CMS) is an application that allows a developer to create, manage, store, and deploy content on web pages that can easily be edited and maintained by a client. Students are exposed to the different companies offering CMS services, and how to implement, manage, and customize a basic CMS presence. (Prerequisite: MMDA1200L)

GRA2270L CMS Customizing **CL2 L3 CR3**
This course goes beyond basic CMS implementation and tasks the student with developing a custom CMS child theme. Students use a standard CMS Theme as a base for a custom child theme and develop a new custom layout with HTML, CSS, and JavaScript. (Prerequisites: MMDA1200L and GRA2260L)

GRA2290L e-Commerce Basics **CL2 L3 CR3**
Electronic commerce (ecommerce) is an industry where the buying and selling of products and services are conducted online. In this course students develop an ecommerce site using a standard CMS system with an e-commerce plug-in. Students are exposed to the development and management of inventory, creating sales items, shipping options, accepting payments, and how to return items. (Prerequisites: MMDA1200L and GRA2260L)

GRA2660L Independent Study **CL3 L0 CR3**
Students in an independent study option will engage in learning about a topic of special interest and/or need. A written report on the topic of the independent study is required. (Prerequisites: Approval of advisor and department chair)

GRA2710L Screen Process Printing **CL2 L2 CR3**

This course introduces the student to commercial screen printing techniques. Areas of emphasis include types of frames, terminology, fabric selection, photo mechanical stencil preparation, fabric stretching techniques, screen printing inks, squeegee selection, and substrates. Projects are selected and designed by each student and must be printed on predetermined substrates. Classroom theory will be supported by lab demonstrations. (Prerequisite: GRA1250L or GRA1350L)

GRA280L Graphic Design Capstone **CL2 L0 CR3**
This course is intended to provide the vehicle for students to show overall competency and skills in Graphic Design Technologies, which have been a part of their particular degree program. Under supervision of a faculty advisor, the student will select an appropriate project, plan and perform the necessary tasks, and present the results. It is expected the student will create a professional portfolio with the objective of obtaining either a professional position in the field, or admission into a 4-year institution. (Prerequisite: GRA2240L, may be taken concurrently)

HEALTH INFORMATION TECHNOLOGY

HIT1100L Health Information Technologies I **CL2 L2 CR3**
This course provides students with an overview of today's Healthcare system in the United States. It will introduce to students the ways Healthcare IT is being used to improve the quality, safety and efficiency of care in all healthcare environments. It will help students to learn about the key issues driving Healthcare reform in the U.S. This course will provide students with the foundation they need to understand the rapid changes occurring in Healthcare today, so they will be prepared to help implement and support those initiatives. This course is one of three courses which will prepare students for the CompTIA Healthcare IT Technician & HTI Pro Certifications.

HIT1500L Health Information Technologies II **CL2 L2 CR3**
This course will introduce students to the Electronic Health Record (HER) and the way it is used within Healthcare today. Students will learn how to employ usability engineering methods in designing and implementing Healthcare IT functions. They will learn about Clinical Decision Support and why it is important and they will come to understand Healthcare IT-based processes. They will also learn how to work with end-users and administration to document clinic processes, in order to facilitate workflow analysis and redesign. They will begin to understand the importance of architectural safeguards for designing, building, purchasing and implementing safe and secure IT systems and medical devices. This course is the second of three which prepares students for the CompTIA Healthcare IT Technician & HIT Pro Certifications. (Prerequisites: HIT1100L)

HIT2100L Health Information Technology III **CL2 L2 CR3**
This course will introduce students to healthcare cybersecurity. Students will learn about the importance of certification for Healthcare IT products and systems. They will learn to identify commonly used IT terms and technologies, install and configure hardware drivers and devices, and troubleshoot and solve common PC problems within the healthcare environment. They will be introduced to the importance of programming for healthcare information technology, and how to utilize the systems developed life cycle (SDLC). Students learn how a project manager works with a project team and stakeholders to develop SMART project objectives. This course is the third of three courses which prepares students for the CompTIA Healthcare IT Technician & HIT Pro Certifications. (Prerequisites: HIT1100L and HIT1500L)

HISTORY

HIST1310L American History and Civilization I **CL3 L0 CR3**
This survey, from the "Age of Exploration" until approximately 1865, examines the development of American civilization, institutions and cultures during this period. The course's approach to American history is a "holistic" one that explores the social, cultural, philosophical, political and economic aspects of that history.

HIST1320L American History and Civilization II **CL3 L0 CR3**
This survey, from approximately 1865 to the present, examines the development of American civilization, institutions and culture during this period. The course's approach to American history is a "holistic" one that explores the social, cultural, philosophical, political and economic aspects of that history.

HIST1380L Women in U.S. History – 1600 to the Present **CL3 L0 CR3**
This course is a multicultural survey of women's roles, experiences and contributions to American society and culture from 1600 to the present. Topics included will be colonial women and domestic work; witchcraft persecutions; women as masters and slaves; women reformers; the suffrage and woman's rights movement; women and war; women's physical and mental health; women and political power; immigrant women; women as Other – lesbians and gender rebels; women in the Civil Rights and peace movements; women and political power; contemporary feminism.

HIST1400L New Hampshire History **CL3 L0 CR3**
This course examines major social, cultural, political, and technological events, trends, and movements in New Hampshire, from the time before the glaciers to today. Topics covered include: geology and geography of New Hampshire, the original inhabitants, European arrival, New Hampshire's role in the shaping of America and the world. Special attention will be given to the personalities and legends that give New Hampshire its unusual character and reputation.

HIST1500L Latin American History and Civilization **CL3 L0 CR3**
This course covers the historical development of Latin American/Hispanic culture and civilization from the Pre-Columbian period until the present. Topics will include: the geography and culture of Latin America; Native American cultures and civilizations in the region; the Spanish and Portuguese conquests; the Spanish colonial economy, society, and politics; Latin American independence movements and wars; the early independent republics in Latin America; U.S./Latin American relations, human rights issues, and modern developments in the region.

HIST2100L World History I **CL3 L0 CR3**
This survey course covers the historical development of various representative world cultures and civilizations until approximately 1500. Areas covered include: human evolution and migration out of Africa, prehistoric human cultures, the Agricultural Revolutions in the Old and New Worlds, the major "Cradles of Civilization": Mesopotamia, Egypt, India, China, Mesoamerica, and the Andes, human technical developments, the development of political and legal systems, Ancient Europe, Medieval Europe, contact between Asia and Europe, and other topics. Students will understand history as not only WHO, WHAT, WHERE, and WHEN but will also understand the "WHY".

HIST2200L World History II **CL3 L0 CR3**
This survey course covers the historical development of various representative world cultures and civilizations from approximately 1500 to the present. Areas covered include: European expansion and conquest; the development of the "modern" political and economic systems; the rise and fall of "empires"; the Industrial Revolution; the Enlightenment and its influence; the development of the modern nation-state; imperialism, colonialism, and nationalism. Students will understand history as not only WHO, WHAT, WHERE, and WHEN but will understand the "WHY".

HIST2250L History of the Twentieth Century **CL3 L0 CR3**
The course examines major social, cultural, political and technological events, trends and movements in the world during the twentieth century. Topics covered include: Russian Revolution, Communism, World Wars I and II, industrial and technological advances and trends, the demise of colonialism, the Cold War, the Middle East, Vietnam, social and cultural trends in the 1950's and 1960's, and the downfall of the Soviet Union. It is hoped that class members will go beyond an understanding of history as simply "who, where and when," and begin to understand why.

HIST2350L US Labor and Reform Movements **CL3 L0 CR3**
The focus of the course is on those trends, movements and leaders that have sought to give voice and power to the traditionally voiceless and powerless segments of American society. Movements that have fought to eliminate or reduce inequality based on class, gender and race and to realize the "American Dream" are studied. The history and development of organized labor and its effect on American life and culture and such related movements and trends as the Civil Rights and Women's Rights movements are discussed. The music, art, literature and other elements of "popular culture" associated with these movements are examined. (Prerequisites: HIST1310L or HIST1320L or HIST2250L or HUMA2500 or HUMA2520L or POLS2310L or POI)

HOSPITALITY and RESTAURANT MANAGEMENT

HOS1010L Bartending I **CL1 L0 CR1**
This course includes a basic overview of mixology, serving mixed drinks, equipping, maintaining and service in a bar setting. Serving liquor outside the regular bar settings, and beverage systems will be covered.

HOS1030L Bartending II **CL1 L0 CR1**
This course includes a more in-depth overview of wine, spirits, liquors, beer types, mixology, serving mixed drinks, managing a bar, and New Hampshire State Laws and T.E.A.M. Certification. Students will be eligible to test for the T.E.A.M. Certification. Upon successful completion of course requirements, students will be awarded a certificate in bartending. (Prerequisite: HOS1010L or Permission of Instructor)

HOS1090L Independent Study **CL1 L0 CR1**
Students in an independent study option will engage in learning about a topic of special interest and/or need. A written report on the topic of the independent study is required. Subject matter must be approved by the instructor and the

department chair. (Prerequisite: A matriculated student, permission of department chair and a minimum cumulative GPA of 2.0)

HOS1130L Introduction to Worldwide Cuisine **CL1 L6 CR3**
The student will apply concepts and skills learned in Introduction to Hot Foods (HOS1120L) and expand knowledge of the restaurant setting. A six-hour lab will focus on international cuisine. Costing, purchasing, menu terminology, quality recipe production and kitchen organization are stressed. Students will continue to operate a restaurant that is open to the public. (Prerequisite: CULA1510L or HOS1120L or Permission of Instructor)

HOS1140L Dining Room Management I **CL0 L6 CR3**
This course presents an in-depth analysis of dining room personnel as well as menu planning, styles of service, and customer service responsibilities. A six-hour working lab will take place where students will set and serve in a student-run restaurant that is open to the public. A discussion of wines and wine service is included.

HOS1150L Dining Room Management II **CL0 L6 CR3**
This class is an extension of the management aspects of the front of the house. A six-hour lab will take place where students set and serve in a student-run restaurant that is open to the public. A discussion of tableside service, scheduling, customer relations and staff supervision is included.

HOS1160L Independent Study II **CL0 L3 CR1**
Individual courses will vary. This course provides the vehicle for students to demonstrate overall competency in specific concentration areas. Under supervision of a faculty advisor, working individually or as part of a team, the student will select and successfully carry out a series of projects that pertain directly to their area of interest. Projects will be designed on a case-by-case basis. (Prerequisites: A matriculated student, permission of department chair and a minimum cumulative GPA of 2.0)

HOS1170L Institutional Dining Services Management **CL0 L2 CR1**
This course describes the options available to the institutional dining services managers, including scheduling, settings, servicing your clientele, training and orientation, as well as a clear understanding of the requirements that would present a smooth and efficient operation from the angle of the dining room.

HOS1180L Institutional Dining Services Management Lab **CL0 L3 CR1**
This course will act as a follow-up to the lecture course by providing the hands-on support of dining services in an institutional setting. This will provide interaction with clients and the experience of serving and setting up the dining room. This experience will reinforce the need for professionalism, provide a variety of dining settings, and expand on the different training methods used in the industry.

HOS1190L Institutional Cooking **CL1 L6 CR3**
Discussion of procedures of selecting, handling and cooking meats, poultry, fish, vegetables, fruits, salads and pasta products in a manner that will be appropriate for large groups, including holding and delivery of food product to remote locations. Included in this course is the preparation of various dietary textures, ground, puree and low salt, the presentation of these textures, and nutritional portions. Cooking in an institutional situation will be emphasized. This course is a one-hour lecture and a six-hour lab where students prepare and serve food in an institutional setting. Provides students with knowledge to organize, plan, cook, and deliver food.

HOS1200L Introduction to Hospitality Management **CL3 L0 CR3**
This course is an introduction to the field of hospitality, emphasizing the development of the hotel, restaurant and resort industries. It will examine differences and similarities of each of these operations and their relationships to each other. Management styles, skills and functions will be examined as part of the decision-making process with an emphasis on teamwork.

HOS1230L Food and Beverage Management **CL3 L0 CR3**
This course examines the structure and management of a food and beverage operation. Special attention is given to the cost flow within the operation, basic menu design, purchasing, receiving, storeroom operations and production planning and control. Students will also be introduced to the concept of food cost, issues in menu pricing, and elements of food service facility layout and design. During the course, each student will complete a project that includes planning and developing a food service concept.

HOS1240L Sanitation and Safety **CL1 L0 CR1**
This course covers sanitation and safety concepts, regulations, and procedures for food service and other sectors of the hospitality industry. Certificate may be issued.

HOS1761L Restaurant Management Cooperative Education **CL0 L3 CR1**
Provides the opportunity for the student to utilize learned restaurant course competencies in the real-life setting, and also provides supplemental laboratory experience on the extensive array of equipment and processes. (Prerequisite: Permission of instructor)

HOS1762L Restaurant Management Cooperative Education **CL0 L6 CR2**
Provides the opportunity for the student to utilize learned restaurant course competencies in the real-life setting, and also provides supplemental laboratory experience on the extensive array of equipment and processes. (Prerequisite: Permission of Instructor)

HOS1763L Restaurant Management Cooperative Education **CL0 L9 CR3**
Provides the opportunity for the student to utilize learned restaurant course competencies in the real-life setting, and also provides supplemental laboratory experience on the extensive array of equipment and processes. (Prerequisite: Permission of Instructor)

HOS1770L Institutional Cooperative Education **CL0 L12 CR2**
This course provides the student the opportunity to utilize learned course competencies in the real-life setting. It also provides supplemental laboratory experience on the extensive array of equipment and processes. Site selection is to be determined by instructor. (Prerequisite: Permission of Instructor)

HOS191L Hospitality Management Co-op Education I **CL0 L0 CR1**
Eligibility for graduation requires students to fulfill a minimum of 100-hours of paid on-the-job, work experience in the hospitality industry. Food and beverage operations, event operations, hotel and resort operations, marketing and sales, and accounting/finance operations will be considered. (Co-requisite: HOS1200L or Permission of Instructor.)

HOS192L Hospitality Management Co-op Education II **CL0 L0 CR3**
Eligibility for graduation requires students to fulfill a minimum of 300-hours of paid on-the-job, work experience in the hospitality industry. Food and beverage operations, event operations, hotel and resort operations, marketing and sales, and accounting/finance operations will be considered. (Co-requisite: HOS1200L or Permission of Instructor.)

HOS193L Hospitality Management Co-op Education III **CL0 L0 CR1**
Eligibility for graduation requires students are to fulfill a minimum of 100-hours of paid on-the-job, work experience in the hospitality industry. Food and beverage operations, event operations, hotel and resort operations, marketing and sales, and accounting/finance operations will be considered. (Co-requisite: HOS1200L or Permission of Instructor.)

HOS2010L Banquet and Buffet Cooking Techniques **CL1 L6 CR3**
Discussion of procedures for selecting, handling and cooking meats, poultry, fish and shellfish, appetizers, vegetables, fruits, salads and salad dressings, and pasta products in a manner that will be appropriate for buffets and banquets. Cooking for large groups in a banquet situation will be emphasized. A six-hour lab will take place where students prepare and serve food in the student-run restaurant that is open to the public. Provides students with the knowledge to organize, plan and present buffets and banquets.

HOS2020L Banquet Dining Room Techniques **CL0 L6 CR3**
This course presents in-depth analysis of banquet dining room personnel including banquet menu planning, styles of banquet service and customer service responsibilities. A six-hour lab will take place where students set and serve in a student-run restaurant that is open to the public. Students will attain knowledge in all aspects of organizing banquet personnel including hiring, firing and scheduling.

HOS2040L Therapeutic Nutritional Foodservice **CL2 L0 CR2**
This course will familiarize students with the USDA and other professional organizations guidelines, along with applicable local and state standards on nutrition. The course provides the student with comprehensive concepts, guidelines and practices needed to implement appropriate policies and procedures to ensure proper nutrition to the customer.

HOS2050L Institutional Foodservice Management **CL3 L0 CR3**
This course will discuss all aspects of institutional foodservice management, including ethics, scheduling, sexual harassment, employee motivation, management styles, labor costing, training and orientation, hiring and firing, multi-ethnic services and legal issues.

HOS2070L Institutional Foodservice Computer Skills **CL1 L0 CR1**
This course will familiarize the student with basic software applications needed in the operation of an institutional setting. This will include databases, spreadsheets and word processing. The student will be introduced to the process of collecting information to be used in institutional foodservice. There will be an overview of programs used to develop tray tickets and a hardware application to assist in this process.

HOS2100L Hospitality Law **CL3 L0 CR3**
Laws and legislation which apply to hotels and inn-keeping, restaurants and related hospitality operations are the focus of this course, with emphasis on management policies to minimize the risks of liability. State and federal statutes governing liability, alcoholic beverage controls, safety and responsibility to guests are topics. Personnel and labor laws pertaining to employees are also included.

HOS2160L Catering **CL1 L0 CR1**
This self-directed course provides students with opportunities to learn the catering business. It includes culinary and business skills, licensing and insurance requirements, menu and pricing, developing a marketing plan and contracts.

HOS2170L Creative Menu and Plate Design **CL1 L0 CR1**
The ability to design and artfully create menus and plate presentation is the basis to successful food and beverage management. This course will outline color, design and layout as they pertain to a selection of establishments to contrast their different needs. It will also expand on general food and garnishing techniques.

HOS2190L Employee Motivation-Team Strategies **CL1 L0 CR1**
Helpful motivational techniques to assist managers with the difficult task of keeping employees excited about their jobs and specifics on how to assist hospitality employees with teamwork strategies that will increase both profits and customer satisfaction levels.

HOS220L Budgeting and Finance for Hotels and Restaurants **CL3 L0 CR3**
This course will provide a comprehensive study of budgeting and finance in the hospitality industry with a special focus on hotels and restaurants. Students will study how to use numbers and fundamental accounting and finance to successfully operate a hospitality department or business. Students will progress and build upon topics such as accounting and financial analysis, financial statements, management reports, budgeting, and forecasting.

HOS2220L Quantity Food Purchasing **CL3 L0 CR3**
This course covers the duties of stewardship and all related functions including specifications, centralized procurement and container sizes. Emphasis is given to the examination and establishment of the various grades and types of categories of produce, meats, poultry, and fish. Comparisons are made between canned products as well as scrutinizing their pros and cons. The importance of inventory control methods, product loss management and vendor selection are stressed.

HOS2230L Accounting Applications for Hotels and Restaurants **CL3 L0 CR3**
This course emphasizes the operation and integration of accounting applications with an emphasis on managerial accounting and its adaptation to industry standards. Point of sale, payroll, inventory, front desk and general ledger functions will be discussed, and hands-on applications will be explored. Budgeting, purchasing and staffing will be the topics of project simulation. Topics covered reinforce the concepts of Accounting I (ACCT1310L) and their applications to the hotel and restaurant industry. Course projects will specifically deal with cost controls within the hospitality industry. (Prerequisite: ACCT1310L or Permission of Instructor)

HOS2240L Restaurant Capstone Project **CL3 L0 CR3**
This course provides the vehicle for students to demonstrate overall competency in Restaurant Management and in the specific operations in which they have chosen to concentrate. Under supervision of a faculty advisor, working individually or as part of a team, the student will select and successfully carry out a major project that pertains directly to restaurant operations and food and beverage management.

HOS2200L Grounds and Facilities Management **CL2 L2 CR3**
This course presents a hands-on survey of safe fundamental practices and principles of facilities management. Included are topics addressing the maintenance of electrical systems, plumbing, and HVAC systems, as well as such topics as ground maintenance, pest prevention, and basic interior/exterior carpentry and painting. (Prerequisite: HOS1250L)

HUMAN SERVICES

HSV1100L Professional Seminar **CL3 L0 CR3**
This course covers the basic steps to becoming a Human Services professional. Self-evaluations and aptitude testing will be a part of the curriculum. Students will acquire an understanding of the responsibility of working with others and how confidentiality and ethics play a major role in the field. Other topics will include cultural diversity, domestic violence, community awareness, and communication skills, both verbal and written. (Prerequisite: Interview with Instructor)

HSV1120L Overview of Developmental Disabilities **CL3 L0 CR3**
This course will cover the broad range of developmental disabilities; including what is a developmental disability, an overview of specific developmental disabilities, what are the best ways to support a person with a specific disability. Included in this course will be the history of the provision of services to people with developmental disabilities, nationally and specifically in New Hampshire.

HSV1130L Community Inclusion **CL3 L0 CR3**
This course will cover how as a society we have come from segregation to integration to full inclusion. How does this impact someone through their lifespan, what are some specific strategies and tools one can use when working with individuals with disabilities and their families? (Prerequisite: HSV1120L)

HSV1200L Introduction to the Human Services Profession **CL3 L0 CR3**
This course provides the full range of human service topics for the student to become familiar with the profession in all its diversity. Topics include: administration, assessment, diversity, gerontology, mental health, and direct care. Students will understand the theory and practice of the services available for disabled and disadvantaged people in the community. Information and concepts are drawn from history, sociology, and psychology.

HSV1220L Supportive Communication Skills **CL3 L0 CR3**
This course provides an overview of theory, process, and the practice of primary interpersonal communication skills. Students are assisted in developing skills to supportively communicate with a variety of people in a range of environments.

HSV1260L Learning and Behavior **CL3 L0 CR3**
This course discusses the history and principles of behaviorism and presents learning theories and teaching techniques based on positive behavior principles. Presentation and discussion focus on the ethical and client rights issues of understanding and promoting effective behavior. Recent trends and techniques for applying learning principles in a variety of settings will be included.

HSV1280L Individual Assessment and Planning **CL3 L0 CR3**
In this course we address the question of how human potential can be recognized and enhanced. To answer this question, we will critically examine the perspectives and tools that are commonly used. Our focus will be to build on strengths and develop ways of supporting continued growth and personal goals of people who choose to participate in human services.

HSV1300L Gerontology **CL3 L0 CR3**
This survey course in gerontology includes a history of the changing demographics of aging, social and economic factors, potential impact of stress, housing, and retirement. Legal issues, as well as protection, safety, community services, and care are discussed.

HSV1310L Psychosocial Aspects of Aging **CL3 L0 CR3**
This course examines the growth and development of older persons from both psychological and sociological perspectives. The interaction of the individual with the social environment provides a framework for this course with special attention given to societal valuing and devaluing of older persons. The growth and development of older adults, social roles, expectations, opportunities, and new perspectives on aging are discussed.

HSV1400L Justice and the Community **CL3 L0 CR3**
This course will provide a comprehensive overview of emerging trends in community justice and support services, with an emphasis on community integration of service delivery, juvenile justice, and violence in society. Changing societal, judicial, and community values will be explored within a historical context; with regard to their impact on the evolution of emerging community-based juvenile justice models and responses to violence through the development of community justice models.

HSV1450L Foundations of Conflict Resolution **CL3 L0 CR3**
This course is designed to provide students with the essential foundations of Conflict Resolution. This is a theory based course that will enhance students' awareness of violence in society as well as bullying and conflict related issues that arise in the workplace and personal environment. Students will study, research, and analyze various theoretical models of conflict resolution to realize that there are a variety of concepts that can be used to create a peaceable environment. Students will participate in role-plays to further enhance their understanding of each model and its impact on the field of conflict resolution. The research component will be the foundation in which the student can build a plan/program for the practicum experience that follows.

HSV1500L Introduction to the Practicum **CL1 L0 CR1**
Designed to prepare students for human services practicum experiences, this course provides opportunities to identify and practice skills in the areas of interviewing, communications, human relations, research, ethics, and management of time and work. This course is required for all Human Services students.

HSV1610L Human Services Practicum I **CL2 L9 CR5**
A course combining: supervised human services work at a community agency, with instructor-facilitated student peer review. This is an individualized learning experience that enables the student to develop and apply attitudes, skills, and knowledge in a real work setting. Work at the practicum site, along with peer review, self-reflection, and disclosure, combine to create a structure that promotes and supports personal and professional growth. (Prerequisites: HSV1200L and HSV1500L or Permission of Instructor)

HSV1710L Gerontology Practicum I **CL2 L9 CR5**
This course combines supervised human services work at a community agency with instructor facilitated student peer review. This is an individualized learning experience that enables the student to develop and apply attitudes, skills, and knowledge in a real work setting. Work at the practicum site, along with peer review, self-reflection, and disclosure, combine to create a structure that promotes and supports personal and professional growth. (Prerequisites: HSV1300L and HSV1500L or Permission of Instructor)

HSV2140L Meaningful Supports **CL3 L0 CR3**
We all find meaning in how we spend our days- where we choose to go, work, recreate. People with disabilities have gone from a time of segregation to inclusion in their community. This course will look at how to bring meaning to one's day, so that community members with disabilities are contributing members of their community. This course will also examine barriers to full participation and strategies to overcome perceived barriers. (Prerequisite: HSV1120L)

HSV2150L Families and Support Networks **CL3 L0 CR3**
In this course, the student will learn about the importance of relationships, social networks, family support and individualized support for people with disabilities. (Prerequisite: HSV1120L)

HSV2210L Mental Health and Developmental Disabilities **CL3 L0 CR3**
This course introduces students to human services within the fields of mental health and developmental disabilities. Recent developments in the delivery of services that enhance the self-determination of individuals and families will be examined. Students will also be introduced to concepts and methods of family support, community membership, school inclusion, supported employment, stigma, peer support, and recovery. With guidance, students will be responsible to develop and present an individual learning project.

HSV2280L Political/Social Issues of Human Services **CL3 L0 CR3**
This course presents students an opportunity to study and present on topics related to social and political trends and forces that profoundly influence service recipients and service systems. An analysis of historical issues with regard to their impact on current service system trends is conducted. Issues that are expected to have a significant impact on service delivery in the future are discussed.

HSV2300L The Aging Process **CL3 L0 CR3**
This course provides an overview of the processes underlying the phenomena of aging across the lifespan. An overview of genetics and the cellular bases of living and dying as factors of growing older are provided. The effects of aging on organs and bodily system functioning, as well as the impact of life style on health and longevity are reviewed.

HSV2320L Political/Social Issues in Gerontology **CL3 L0 CR3**
This is an opportunity for students to study and present on topics related to social and political trends and forces profoundly affecting aging individuals and their families. Issues are evaluated in a historical context with regard to their impact on current service system trends. Issues that are expected to have a significant impact on service delivery in the future are discussed.

HSV2620L Human Services Practicum II **CL2 L9 CR5**
Building on skills and knowledge gained in Human Services Practicum I (HSV1610L or LHUS1610), students develop more advanced competencies as the basis for the learning experience and will be evaluated using criteria appropriate for second year students. Work at the practicum site, along with peer review, self-reflection, and disclosure, combine to create a structure that promotes and supports a deeper level of personal and professional growth. (Prerequisite: HSV1610L or Permission of Instructor)

HSV2710L Gerontology Practicum II **CL2 L9 CR5**
Building upon attitudes, skills, and knowledge acquired in Gerontology Practicum I (HSV1710L), the student will develop more advanced competencies as a basis for the learning contract and will be evaluated by criteria appropriate for a second year student. Work at the practicum site, along with peer review, self-reflection, and disclosure, combine to create a structure that promotes and supports a deeper level of personal and professional growth. (Prerequisite: HSV1710L or Permission of Instructor)

HUMANITIES

HUMA1300L Introduction to Archeology **CL3 L0 CR3**
This course is an introduction to anthropological archeology. It first examines the history and development of the discipline along with a survey of the methods, theories, and practice in modern archeology. The course then focuses on the major developments in world prehistory. These include human origins and the evolution of culture, prehistoric technology, peopling of the globe, the domestication of plants and animals, prehistoric trade and exchange, the development of tribes and chiefdoms, and the formation of ancient states in the Old and New Worlds.

HUMA1310L Cultural Anthropology **CL3 L0 CR3**
This survey course involves the study of human beings and their cultures, customs, origins and development. Specific topics examined and discussed include human origins and evolution, human cultures, race and ethnicity, religions, taboos, political systems, economic systems, kinship, sexual norms and mores, gender roles, marriage, educational systems, art, and the effects of globalization on local cultures.

HUMA1500L Arabic Language and Culture **CL3 L0 CR3**
This course is designed to teach the students the Arabic alphabet, numbers and their sounds accurately. Also, to teach basic vocabulary words of conversation in the form of politeness, social greetings, etc. Also, the course touches on different Arabic culture, such as education, politics, women's roles, dress code, food, etc.

HUMA1510L Chinese Language and Culture **CL3 L0 CR3**
This course is intended for non-Chinese background students with no previous knowledge of Chinese. Emphasis is placed on developing conversational and reading skills, while some relevant cultural background is also integrated with the language training. The Chinese phonetic system "Pinyin" is introduced at the beginning of the course. Vocabularies of 120 words plus approximately 30 sentence patterns are covered in this course.

HUMA1550L Music Appreciation **CL3 L0 CR3**
This course is designed to see and understand the connection of music to human life and living in order to demonstrate its importance in the world. Throughout this course, music of different cultures and styles will be explored in our societies.

HUMA1600L Introduction to Theatre **CL3 L0 CR3**
This overview of theater through the production process combines a history of theater with elements of stage craft, acting technique, play analysis and script writing. (Prerequisite: ENGL100L or Permission of Instructor)

HUMA1610L Acting and Scene Study I **CL3 L0 CR3**
A workshop-style, basic acting and scene study, this course is based on the Sanford Meisner approach, and an overview of the great theater practitioners from Thespis to Stanislavski. Students participate in vocal and movement activities, as well as theater exercises, and they analyze characters through scene studies of playwrights' texts. (Prerequisite: HUMA1600L)

HUMA2000L Introduction to Canadian Studies **CL3 L0 CR3**
Students acquire an understanding of a nation that is becoming increasingly important to the United States. Why two countries instead of one, free trade, a unified North American economic zone, Quebec separatism or National health care? These and other pertinent issues are studied and discussed. By comparing the United States with Canada, students gain a better understanding of their own culture.

HUMA2500L Humanities in Western Civilization I **CL3 L0 CR3**
This interdisciplinary course examines evolutions of western culture from its classical origins up through 1550 A.D. This is accomplished through the examination of multiple perspectives including literature, art, music, philosophy, politics and theater. Classes consist of lectures, group seminars on readings and student projects.

HUMA2520L Humanities in Western Civilization II **CL3 L0 CR3**
This interdisciplinary course examines the ideological, economic, political, religious, psychological, artistic, social, philosophical, and military components involved in the cause and effect relationships which have molded the western cultural heritage from 1650 to the present. Classes consist of informal lectures, readings, quizzes, seminars on readings, and student presentations.

HVAC (Heating, Ventilating and Air Conditioning)

ESTC 1800L **CL3 L0 CR3**
This course covers residential and commercial heating, ventilation, air-conditioning, and refrigeration systems and operation. Various types of heating and cooling systems are covered in detail. The theories of heat transfer and combustion are covered for a complete understanding of how systems function. Time will also be spent on installation requirements for various systems.

MARINE TECHNOLOGY

MAR1200L Fundamentals of Electricity and Electronics **CL3 L3 CR4**
Theory, principles and measurements of DC and AC electricity and electronics are covered. Schematic and conventional wiring diagram interpretation allows the student to become familiar with common 12-volt marine electrical systems. Hands-on troubleshooting includes various gauge, trim, battery, lighting, ignition feed, dash, engine, accessory, lanyard, relay and other systems found in small craft.

MAR121L Marine Maintenance and Fundamentals **CL4 L3 CR5**
This course provides basic theoretical and foundational principles of two and four cycle engines along with development of common maintenance procedures specific to trailers and marine power packages. Emphasis on basic service operations including safety, use of hand and power tools, marine hardware, service literature, and operating principles of marine power packages. Students will also obtain credit within the Mercury University system.

MAR1220L Basic Service Operations **CL3 L3 CR4**
This course covers basic service shop operations including safety, use of hand and power tools, marine hardware, service literature, and identification and operating principles of marine power packages, and common maintenance procedures. Topics included but not limited to, are shop practices and safety, minor service procedures, engine model identification, service literature, fuel systems and steering systems. Students are responsible for the additional fee associated with the NH Marine Patrol Boater Safety Course as part of Basic Service Operations. See instructor for details.

MAR1240L Starting, Ignition, and Charging Systems **CL3 L3 CR4**
This course will concentrate on theory, setup, maintenance and diagnostic procedures for common inboard and stern drive, starting, charging and ignition systems. Diagnostic exercises include battery point, Delco EST, Thunderbolt IV & V, MEFI and PCM EFI, Waste-fire and other common marine ignition systems. (Prerequisite: MAR1200L with a C or better or POI)

MAR1250L Marine Technician Fundamentals **CL3 L0 CR3**
Materials in this course are offered to the student in various formats including video, CD-ROM and printed text. This course also provides basic theoretical and foundational principles of 2- and 4-stroke engines and other marine propulsion systems. Setup and service literature are stressed. This is a required course for all Marine Technology students.

MAR126L Outboard Engine Maintenance **CL3 L6 CR5**
Entry level fundamentals of recreational marine industry operations to include; but not limited to, model identification, service support literature, rigging and maintenance procedures for warranty support. (Prerequisite: MAR 121L with a C or better)

MAR1703L Independent Study **CL3 L0 CR3**
Students in an independent study option will engage in learning about a topic of special interest and/or need. (Prerequisite: Approval of instructor, advisor, and department chair)

MAR2220L Marina Operations **CL4 L0 CR4**
Marina operations will prepare entry-level technicians to use the Mercury Marine's Midas System including but not limited to, warranty claims, product registration, product history, parts and insurance estimation. (Prerequisite: MAR2310L or POI)

MAR224L Inboard Engine Repair **CL3 L3 CR4**
This course covers internal engine repair, as well as carburetor, fuel injection, ignition, cooling, engine alignment and basic diagnostic methodology. (Prerequisite: MAR121L with a C or better)

MAR226L Marine Drive Systems **CL3 L3 CR4**
This course involves identification, maintenance, setup and repair procedures for common marine stern drive, transom and trim systems. To include MerCruiser Alpha and Bravo drive systems as well as transom maintenance and repair. (Perquisite: MAR121L with a C or better)

MAR232L Outboard Engine Repair **CL3 L6 CR5**
This course reviews two and four cycle engine theory emphasizing the application of fuel injection systems. Topics of theory include; cooling systems, fuel systems, powerheads and power transfer unites. Students learn to use the diagnostic software needed to evaluate components in these advanced systems. (Prerequisite: MAR126L with a C or better)

MAR2350L Marine Engine Diagnostics **CL3 L0 CR3**
This highly specialized course is specifically tailored for technicians who require or seek advanced levels of expertise on MerCruiser and Mercury Outboard EFI Systems technology. The research activities of this course are designed to further improve the working knowledge/skills of experienced technicians on EFI Systems technology, diagnosis and repair procedures. (Prerequisites: MAR2310L and MAR2230L)

MATHEMATICS

MATH0610L* Math Prep **CL3 L0 CR3**
This course provides an extensive review of basic arithmetic and algebra concepts. Topics covered include operations with whole numbers, fractions, and decimals; percent; properties of real numbers; solving linear equations and inequalities; interpreting and solving application problems; graphing linear equations and inequalities; exponents, scientific notation; polynomials, factoring; and measurement in both the U.S. customary and the metric systems. (Credits do not apply to degree requirements).

MATH129L Quantitative Reasoning **CL4 L0 CR4**
This course is designed to expose the student to a wide range of general mathematics. Problem solving and critical thinking skills, along with the use of technology, will be emphasized and reinforced throughout the course as the student becomes actively involved solving applied problems. Topics to be covered include: Number Theory and Systems, Functions and Modeling, Finance, Geometry and Measurement, Probability and Statistics, and selected subtopics related to the student's major field of study. (Prerequisite: Competence as demonstrated on math placement exam.)

MATH1310L Boolean Algebra **CL1 L0 CR1**
This course relates principles of Boolean Algebra directly to elementary circuit analysis. It includes an examination of the decimal, octal, binary, and hexadecimal number systems. The use of NOT, AND, OR, XOR, NAND, and NOR in logic statements, as well as in simple circuit analysis, is covered. (Prerequisite: Competence as demonstrated on math placement exam)

MATH1370L Technical Algebra & Geometry **CL4 L0 CR4**
This course is intended for technical students and introduces concepts from algebra, geometry, and trigonometry that will facilitate the solution of applied problems which could be encountered in technical fields. Topics include measurement, absolute and relative error, linear equations, roots, plane and solid geometric figures and their areas/volumes, finding missing dimensions of plane and solid figures, inscribed and circumscribed angles, radian measure, right triangle trigonometry, and an introduction to personal finance. A grade of C or better must be achieved in this class in order to use it as a prerequisite for a subsequent class. (Prerequisite: Competence as demonstrated on math placement exam)

MATH1420L Essentials of Algebra **CL3 L0 CR3**
This course includes a study of linear equations and their graphs, linear inequalities, an introduction to functions and their graphs, absolute value equations and inequalities, systems of equations in 2 and 3 variables, operations with polynomials, rational expressions, rational exponents, and an introduction to solving quadratic equations. A grade of C or better must be achieved in this class to use it as a prerequisite for a subsequent class. (Prerequisite: Competence as demonstrated on math placement exam.)

MATH2110L College Algebra **CL4 L0 CR4**
This is a comprehensive course that includes the graphs and solutions of linear, radical and quadratic equations; graphs and solutions of linear, compound, absolute value, and nonlinear inequalities; exponential and logarithmic functions and their graphs; systems of equations in 2 and 3 variables, including solutions using matrices; rational exponents; and an introduction to trigonometry. A grade of C or better must be achieved in this class to use it as a prerequisite for a subsequent class. (Prerequisite MATH1420L with a grade of C or better or competence demonstrated on math placement exam).

MATH2160L Statistics **CL4 L0 CR4**
This is a first course in statistics and probability. Analysis of single and bivariate data, algebraic and graphical analysis, sample statistics, probability, probability distributions, sample variability, sample distributions, the Central Limit Theorem, estimation and hypothesis testing, correlation and regression are covered. Emphasis is on applications throughout the course. (Prerequisite: MATH1420L with a grade of C or better or competence demonstrated on math placement exam.)

MATH2250L Finite Math **CL4 L0 CR4**
Topics in this course include linear, quadratic, exponential and logarithmic functions; financial formulas such as rate of change, growth, compounding, etc.; the use of matrices and linear programming techniques in solving multi-variable problems; basic set and probability theory with Venn diagrams, and permutation/ combination formula analysis. (Prerequisite: MATH1420L with a grade of C or better or competence demonstrated on math placement exam.)

MATH2350L Pre-Calculus **CL4 L0 CR4**
Topics in this course include polynomial, rational, trigonometric, logarithmic, and exponential functions and their graphs; trigonometry and the unit circle; trigonometric identities; composite and inverse functions; logarithmic and exponential equations; solution of higher degree equations; quadratic, rational, and absolute value inequalities. (Prerequisite: MATH2110L with a grade of C or better or competence demonstrated on math placement exam.)

MATH2700L Calculus I **CL4 L0 CR4**
This course is designed for the student who has a strong math background. Included is a brief review of topics from Pre-Calculus. Calculus topics include functions, limits, continuity, slope/rate of change and the derivative, rules for and applications of the derivative, derivatives of trigonometric and logarithmic functions, and an introduction to integrals. (Prerequisite: MATH2350L with a grade of C or better or competence demonstrated on math placement exam.)

MATH2710L Calculas II **CL4 L0 CR4**
This course is designed for the student who has a working knowledge of differentiation. Topics include integration techniques and applications, introduction to multi-variable functions, integrals of transcendental functions, calculus in probability, and an introduction to series and sequences. (Prerequisite: MATH2700L with a grade of C or better.)

MATH2750L Math Technologies Explorations **CL1 L0 CR1**
This course will be a directed study using one type of technology (such as a graphing calculator or computer program). The student will, under the direction of the professor, undertake an exploration of the mathematical applications using the chosen technology. (Prerequisite: MATH1420L or Permission of Instructor)

NURSING

NURS1000L Licensed Nursing Assistant **CL2 L9 CR5**
The NH Board of Nursing approved Licensed Nursing Assistant (LNA) program consists of 46 hours of classroom theory/lab and 60 hours of clinical for a total of 106 hours of coursework. The theory portion is delivered at the college. The clinical is arranged at a local health care facility. The College offers semester long and accelerated LNA courses. After successfully completing the LNA program, all students must register for the state competency written and clinical exam and complete criminal background checks/fingerprinting as part of the process to obtain their LNA license with the State of New Hampshire. This course is not part of the Associate Degree in the Nursing Program.

NURS1200L General Pharmacology **CL3 L0 CR3**
This course provides an introduction to the principles of Pharmacology, including: pharmacokinetics and pharmacodynamics, principles of pharmacology, introduction to drug classifications and common drug therapies by body systems. Dosage calculations for common drugs will also be discussed and practiced. (Prerequisite: competency demonstrated on the math placement exam.)

NURS1320L Nursing I **CL5 L4 CR9**
This course provides an introduction to nursing and roles of the nurse in a variety of healthcare systems as well as profession related and patient care concepts. Emphasis is placed on the knowledge and skills needed to provide safe, quality care. The theoretical foundation for basic assessment is integrated with nursing skills. The student is given an opportunity to demonstrate these skills in the clinical and laboratory setting. An introduction to the nursing process provides a decision-making framework to assist students in developing effective clinical judgment skills. (Prerequisite: Admission to the ADN nursing program. Co-requisite: BIOL1450L and PSYC1260L with a grade of C)

NURS1420L Nursing II **CL3 L5 CR8**
This course focuses on the nursing care of the adult patient with health alterations that require medical and/or surgical intervention. Emphasis is placed on health assessment and care of patients with alterations in selected body functions. Concepts of patient centered care, cultural sensitivity, informatics, safe practice, and professionalism are integrated throughout the course. Clinical experiences provide the student an opportunity to apply theoretical concepts and implement safe patient care to adults in a variety of medical surgical settings. (Prerequisites: NURS1320L with a minimum grade of B-, BIOL1450L, PSYC1260L with a minimum grade of C, Co-requisite BIOL1460L, PSYC1250L)

NURS2220L Nursing III **CL5 L4 CR9**
The components comprised in this course are patient care for individuals with complex medical/surgical alterations and patient care for individuals with Mental Health Alterations.

Medical/Surgical: This portion of the course focuses on the care of adult patients with complex medical and surgical health problems. Emphasis is placed on helping patients and their families cope with alterations in body functions. Concepts of pharmacology, health promotion and education, evidence based practice, and interdisciplinary collaboration will be integrated throughout the course. Clinical learning experiences provide an opportunity to apply theoretical concepts and implement safe care to patients and selected groups in a variety of medical surgical settings.

Mental Health: This portion of the course provides a concentrated experience in the specialty area of mental health nursing by addressing the nursing care of pediatric, adult, and geriatric clients with a variety of psychiatric disorders and mental health alterations to include those related to crisis, addiction, and suicide. Emphasis is placed on using effective therapeutic communication techniques, completing a psychiatric nursing assessment, discussion of psychotropic medications and maintaining patient safety as a member of an interdisciplinary team in the care of individuals with mental health needs. Clinical learning experiences include the classroom, simulated learning environment, and patient care settings. (Prerequisite: NURS1320L, NURS1420L with a minimum grade of B-, BIOL1450L, BIOL1460L, PSYC1250L, PSYC1260L with a minimum grade of C, Co-requisite BIOL2410L)

NURS2320L Nursing IV **CL7.5 L 4.5 CR12**
Nursing IV has three components: Leadership and Management, care of Medical/Surgical patients with multisystem disorders and Maternal, Newborn, Pediatrics & Reproductive Health.

Leadership & Management: Emphasis is placed on contemporary issues and management concepts, as well as developing the skills of delegation, conflict management, and leadership. Legal and ethical issues are discussed with a focus on personal accountability and responsibility. Students will use health literacy strategies to identify education needs of a patient in the community. They will use data from a comprehensive assessment to develop an education plan that addresses knowledge deficits related to management of chronic disease including medications, nutrition, health promotion and community resources. Using technology students will present their project to their peers for feedback.

Medical Surgical Multisystem: This portion of the course focuses on advanced concepts of nursing care as they relate to patients across the lifespan with complex, multisystem alterations in health. Emphasis is placed on implementing time management and organizational skills while managing the care of patients with multiple needs and collaborating with the interdisciplinary team. Complex clinical skills, as well as priority setting, clinical judgment, and tenets of legal and ethical practice, are integrated throughout the course. Clinical experiences provide the student an opportunity to apply theoretical concepts and implement safe care to patients and selected groups in a variety of settings.

Maternal Newborn & Pediatrics & Reproductive Health: This portion of the course provides an integrative, family-centered approach to the care of mothers, newborns, and children. Emphasis is placed on normal and high-risk pregnancies, normal growth and development, family dynamics, common pediatric disorders and the promotion of healthy behaviors in families. Clinical experiences provide the student an opportunity to apply theoretical concepts and implement safe patient care to families (including childbearing women, newborns, children and adults with reproductive health alterations) in selected settings. (Prerequisite: NURS1320L, NURS1420L, NURS2220L with a minimum grade of B-, BIOL1450L, BIOL 1460L, BIOL2410L, PSYC1250L, PSYC1260L with a minimum grade of C)

OFFICE TECHNOLOGY MANAGEMENT

OTM1210L Business Documentation I **CL2 L2 CR3**
This course provides training in keyboard skills and document formatting using a word-processing application program. Students participate in simulated office projects to develop competencies in language art skills and document production.

OTM1250L Administrative Office Management **CL3 L0 CR3**
The theory and practice of office management, concepts and applications of personnel, system interactions, and information technology are covered. Keyboarding skills are required.

OTM1310L Medical Terminology **CL3 L0 CR3**
This course establishes the foundation for the medical courses offered in the program. The parts, definitions, applications, and spelling of medical terms will be covered.

OTM1400L Principles of Records Management **CL2 L0 CR2**
A comprehensive course designed to develop proficiency and competency in managing paper and computer records based on ARMA rules.

OTM1560L Law and Ethics for the Medical Professional **CL3 L0 CR3**
Students will gain a working knowledge of the complex legal, moral, and ethical issues pertaining to the health profession.

OTM2210L Business Documentation II **CL2 L2 CR3**
This course focuses on the production of business documents by integrating software applications including word processing, spreadsheets and data management, as well as Windows and desktop publishing. (Prerequisites: OTM1210L with a grade of B or better and CIS1320L or Permission of Instructor or Permission of Department Chair)

OTM2250L Administrative Office Procedures **CL2 L2 CR3**
This course is a systematic simulation-related approach to the increasing complexities of tasks and technology faced by office support personnel. (Prerequisites: OTM2210L, and CIS1320L)

OTM2260L Legal Office Procedures **CL3 L0 CR3**
This course provides a task-related approach to basic law office procedures, as well as general legal research, law office ethics, the court system, etc. (Prerequisites: OTM1250L, and CIS1320L or Permission of Instructor)

OTM2270L Medical Office Procedures **CL2 L2 CR3**
This course provides a realistic approach for students to learn the skills required in a medical office including communications, records management, telecommunications, billing, scheduling and terminology. (Prerequisites: OTM1250L, OTM1310L, and CIS1320L or Permission of Instructor)

OTM2300L Administrative Machine Transcription **CL2 L2 CR3**
This course provides intensive instruction and practice in listening and transcribing from recorded and direct dictation. Emphasis is on accuracy, formatting skills and language arts skills. (Prerequisites: OTM2210L and type a minimum of 50 wpm, or Permission of Instructor)

OTM2320L Medical Machine Transcription I **CL2 L2 CR3**
This course provides intensive instruction and practice in listening and transcribing medical terminology and recorded dictation. Emphasis is on accuracy, formatting skills and language arts skills. (Prerequisites: OTM1310L, and OTM2210L and type a minimum of 50 wpm, or Permission of Instructor)

OTM2330L Medical Machine Transcription II **CL2 L2 CR3**
Medical Machine Transcription II continues building professional medical transcription skills. Students will transcribe chart notes, patient histories, letters, memos and medical reports using computerized dictation methods. Developing accuracy

in transcribing dictated materials will be emphasized. Students will be expected to complete timed writings to increase typing speeds to 70+ wpm. (Prerequisite: OTM2320L)

OTM2520L Medical Insurance Billing **CL3 L0 CR3**
This course develops the skills to apply information using proper coding and billing procedures. (Prerequisites: OTM1210L and OTM1310L or Permission of Instructor)

OTM2550L Computerized Accounting **CL2 L2 CR3**
This course will introduce the student to computerized accounting systems using QuickBooks Pro. The accounting procedures that were done manually in Accounting I will now be performed on the computer using accounting software that is currently being used in business and industry. These procedures include setting up a chart of accounts, entering transactions, summarizing data, generating financial reports, payroll, and banking transactions. The course will cover the accounting cycle for service and merchandising sole proprietorships. (Prerequisites: ACCT1310L and CIS1320L)

OTM2270L Medical Office Procedures **CL2 L2 CR3**
This course provides a realistic approach for students to learn the skills required in a medical office including communications, records management, telecommunications, billing, scheduling and terminology. (Prerequisites: OTM1250L, OTM1310L and CIS1320L or Permission of Instructor)

OTM2720L Medical Coding **CL2 L2 CR3**
This course is designed to teach students the principles of medical coding related to the three main coding manuals: CPT, ICD-10 CM and HCPCS, which will prepare them for a career in medical billing and coding. Emphasis is given to preparing students to take the nationally recognized Certified Professional Coder exam.

PHILOSOPHY

PHIL1290L Introduction to Philosophy **CL3 L0 CR3**
This course is an introduction to the major areas of philosophical thought including metaphysics, the investigation and analysis of what is real; epistemology; ethics, the investigation into how we can live a “good life”; and esthetics.

PHIL2250L Comparative World Religions **CL3 L0 CR3**
The course examines the major “question” or “issues” addressed by religion in general. It then examines major, representative systems of religious belief and practice, as well as their historical and sociological development. These religious systems are analyzed using a “world view outline” which addresses different aspects of religious belief and practice, such as the Absolute, the Human Problem, the Human Solution, Rituals, the Meaning of History, Life After Death, Community and Ethics, and Attitudes Toward Other Religions.

PHIL2270L Ethical Issues **CL3 L0 CR3**
This course examines standards of professional conduct, values identification, moral development and the process of making moral decisions. Major contemporary ethical issues are examined. The emphasis is on acquiring the skills necessary to be able to guide oneself and others in the process of ethical decision-making.

PHIL2300L Introduction to Eastern Philosophy **CL3 L0 CR3**
This introductory survey covers various components of Eastern Philosophy, including Jainism, Hinduism, Theravada Buddhism, Mahayana Buddhism, Taoism, Confucianism and Shintoism. (Prerequisite: PHIL1290L or PHIL2250L or Permission of Instructor)

POLITICS

POLS2220L Current Social and Political Issues **CL3 L0 CR3**
Students learn to understand and analyze important and current events, as well as social, cultural and political issues. Due to the rapid rate of change in our society, specific issues vary depending on what is currently “newsworthy.” General topics, however, include foreign affairs and policy, civil rights and liberties, crime and punishment, economic and welfare issues, political and social reform, gender issues, racial and ethnic disharmony, and other current “hot” issues in American life. Class members not only learn how to understand “both sides of an issue” they also learn how to better articulate their own positions.

POLS2310L American Government **CL3 L0 CR3**
This introductory course in government examines the relationship between government, politics and power. Students discuss how people in a representative democracy can effect change in government to address current and future needs.

POLS2350L Constitutional Law **CL3 L0 CR3**
Constitutional law is an inquiry into constitutional interpretation by the Supreme Court based on examination of leading cases. Particular emphasis is placed on questions of federalism, executive power, civil liberties, and economic regulation. This course is designed to be preparation for students interested in going into law, law enforcement, public service, business, and political science. Students will conduct research, generate case briefs, participate in classroom debates, perform oral arguments, and present on contemporary legal issues. (Prerequisites: POLS2310 with a B or better, equivalent high school-level Citizenship or its equivalent.)

PSYCHOLOGY

PSYC1250L Introduction to Psychology **CL3 L0 CR3**
Various areas of psychology, including scientific investigation, motivation, personality, psychological testing, behavioral deviation, and perception, learning and human development are studied.

PSYC1260L Human Growth and Development **CL3 L0 CR3**
This course surveys physiological, mental and emotional development over the human life span. Using the central concepts of epigenetic stages and interaction with the environment, the course identifies the main trends of human development and explores the needs and typical responses of persons at each stage.

PSYC1900L Research Methods for the Behavioral Science **CL3 L0 CR3**
This course is an introduction to the experimental method, from how to a research question, to the development of an appropriate research design, up to and including data collection, analysis, and interpretation. Topics also include a review of the various ethical principles and issues in behavioral science. (Prerequisite: PSYC1250L.)

PSYC2000L Educational Psychology **CL3 L0 CR3**
Psychological principles are applied to the learning environment. Theories of learning, memory, cognition, and behavior management are discussed in relation to formal education. (Prerequisites: PSYC1250L, Prerequisite or Co-requisite: PSYC1260L)

PSYC2200L Abnormal Psychology **CL3 L0 CR3**
This course is an introduction to the categories, causes and methods of treatment of the major forms of psychopathology: neurosis, psychosis, personality disorders, addictions, sexual deviations, psychophysiological problems. (Prerequisite: PSYC1250L)

PSYC2240L Crisis Psychology **CL3 L0 CR3**
This course covers the basic concepts and theories of human behavior with emphasis on the neurological and biological effects of stress. Traumatic situations such as death and dying, suicide, drug abuse, assaults, and large scale disasters are covered. (Prerequisite: PSYC1250L)

PSYC2300L Theories of Personality **CL3 L0 CR3**
This course explores the development and organization of personality, with evaluation of the major theoretical viewpoints on the structure, dynamics, and development of the personality. Psychoanalysis, behaviorist, humanistic/existential, and social cognitive/cognitive emotive perspectives will be discussing, along with trait and biological theories. (Prerequisites: PSYC1250L)

PSYC2350L Social Psychology **CL3 L0 CR3**
This course explores the theory and research on how interactions with other people influence our own thoughts and behaviors. Specific topics include attitudes and behavior, social perception and cognition, conformity, persuasion, group influence, aggression, attraction, and helping behavior. (Prerequisites: PSYC1250L)

PSYC2900L Cognitive Psychology **CL3 L0 CR3**
This course provides an in-depth review of the cognitive/thinking process, from fundamental sensory processes, through perceptual organization, memory, and the deeper analysis of data used to solve problems and to inform and to form decisions and conclusions. (Prerequisites: PSYC1250L)

SCIENCE

BIOL1270L Nutrition for Health and Fitness with Laboratory **CL3 L2 CR4**
This course is a study of the nutrients and how the body handles the nutrients throughout the life cycle. Topics include metabolism of macro- and micro-nutrients; physiological benefits of an optimal diet with exercise; behavioral issues related to eating; energy balance and weight control; and disease prevention strategies related to diet. Life style

behaviors, which optimize nutritional health and wellness, are also emphasized. The labs are designed to reinforce selected topics covered in the lecture portion of the course. (Credit can only be given for BIOL1270L or BIOL1290.)

BIOL1290L Nutrition for Health and Fitness **CL3 L0 CR3**
This course is a study of the nutrients and how the body handles the nutrients throughout the life cycle. Topics include metabolism of macro- and micro-nutrients; physiological benefits of an optimal diet with exercise; behavioral issues related to eating; energy balance and weight control; and disease prevention strategies related to diet. Life style behaviors, which optimize nutritional health and wellness, are also emphasized.

BIOL1411L Cell Biology **CL3 L2 CR4**
This course offers an introduction to the structure and function of the eukaryotic cell. Addresses the diversity of form and function found in the basic unites of life, the cell. Topics include cell structure, membranes, energy and metabolism, photosynthesis, meiosis, mitosis, DNA, RNA, chromosomes, genes and how they work, biotechnology, genomics and controlling gene expression. Laboratory work will focus on histology, model building, gene mapping with Punnett squares and family trees and biotechnology techniques. (Prerequisites: Competence as demonstrated on math placement exam or Permission of Instructor)

BIOL1440L Human Biology with Lab **CL3 L2 CR4**
This course is a study of the human anatomical structure and physiological systems. It is designed to provide the student with knowledge and perspectives necessary to work cooperatively with professionals in medicine and other human service disciplines. Background topics include chemistry for human biology, cell structure and function, and human organization. Major topics include the digestive, circulatory, lymphatic, respiratory, urinary, skeletal, muscular, nervous, reproductive systems, the senses and genetics. Lab activities are designed to enhance and reinforce selected lecture topics.

BIOL1450L Anatomy & Physiology I **CL3 L2 CR4**
This course offers an introduction to the structure and function of the human body. The course includes a review of the chemical and biological basis of living organisms and the anatomy and physiology of the integumentary, musculoskeletal and nervous systems. Integrated lab experience is provided using anatomical models and dissection of selected specimens, as well as observation of histologic preparations.

BIOL1460L Anatomy & Physiology II **CL3 L2 CR4**
This course offers a sequential study of the structure and function of the human body. The course includes the anatomy and physiology of the blood and lymphatic systems, respiratory system, circulatory system, excretory system, fluid and electrolyte balance and reproductive system. Laboratory work parallels lecture topics, and consists of selected exercises in the study of anatomical models, dissection and physiological experimentation. (Prerequisite: BIOL1450L with a C or better).

BIOL1470L Music and the Brain **CL3 L2 CR4**
This course is an introduction to the structure and function of the special sense of hearing and its relationship to music, including the neurological functions involved in processing sounds and music. We will also examine the relationship between music and the cognitive functions of memory, movement, emotion and identity. Case studies involving music and its effect on humans will be examined. Labs will examine the anatomy and physiology of the ear, auditory nerve and associated brain structures. Subjective assessments of various types of music will also be studied.

BIOL1480L General Biology I **CL3 L3 CR4**
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.

BIOL1490L General Biology II **CL3 L3 CR4**
This course covers the biology of organisms, including the four areas of kingdoms, behavior, evolution and ecology. Laboratory exercises are designed to reinforce theoretical concepts presented in the lecture portion of the course. (Prerequisite: BIOL1480L with a C or better)

BIOL1520L Ecology **CL2 L3 CR4**
Students will study the general ecological principles regarding the relationships between organisms and their physical and biological environments in both lecture and the laboratory. These principles will be used to interpret patterns in the distribution, abundance, and characteristics of organisms over space and time. Students will study the differences among the various segments of ecology including individuals, populations, communities and biomes. The focus of this course is on the scientific and ecological principles basic to understanding environmental issues. Coursework will include lecture,

laboratory exercises, field trips and in-class discussions. (Prerequisite: ENGL100L with a C or better or Permission of Instructor)

BIOL1530L Introduction to Plant Biology **CL3 L2 CR4**
This course is an introduction to the structure, function and diversity of plants. Covered topics include plant structure and function, growth and development, reproduction and genetics, and ecology, identification, classification and naming of plants. Laboratory activities are designed to enhance selected topics.

BIOL1540L Plants & Man **CL3 L2 CR4**
People have depended on plants for food, shelter, clothing, warmth, communication and medicines. This course will present the major processes of biological sciences as applies to topics in the lecture material including plant anatomy and physiology review, plants as food, drink derived from plants, plants and health, and impact of other plant forms on society. Lab activities will be selected to enhance specific topics. (Prerequisite: BIOL1530L with a C or better)

BIOL1550L Biology of AIDS **CL3 L0 CR3**
This course provides the student with an opportunity to explore the biology, immunology, epidemiology and treatment of acquired immune deficiency syndrome, or AIDS. This course includes: 1) the emergence of AIDS and the HIV-AIDS connection; 2) viruses and the human immunodeficiency virus (HIV); 3) the immunology of HIV-AIDS; 4) clinical progression of HIV disease and AIDS; 5) the epidemiology of AIDS; 6) transmission of the HIV virus and preventing HIV transmission; 7) HIV testing and diagnosis; 8) treatment of HIV infection and AIDS; 9) possible HIV vaccines; 10) prevalence of HIV and AIDS in various populations; and 11) the social and political aspects of AIDS worldwide.

BIOL1560L Biology of AIDS Lab **CL0 L2 CR1**
This lab serves as an introduction to the more advanced concepts in biological laboratory science. The course includes: 1) basics of laboratory safety; 2) use, care and handling of the compound microscope; 3) basic lab skills in pipetting, weighing and measuring; 4) preparing and running agarose gel electrophoresis; 5) staining gels and reading DNA "fingerprints"; 6) preparing and running polymerase chain reactions to amplify DNA; 7) learning to avoid DNA contamination; 8) using PCR to diagnose infectious diseases (including detection of the HIV) and other interesting DNA lab work.

BIOL2410L Microbiology **CL3 L2 CR4**
This course offers modern principles and concepts of microbiology. The morphology, physiology, genetics and classification of bacteria, viruses and other organisms are studied. Their relationships to sanitation and infectious diseases are emphasized. The course, nature, incidence and control of communicable diseases, especially those of man, are included. This course includes a laboratory component. (Prerequisite: BIOL1450L with a C or better).

BIOL2460L Introduction to Genetics **CL3 L2 CR4**
This course offers the study of human genetics and its application in various disciplines. It is designed to help students gain knowledge of this subject area and to be able to apply this knowledge in cooperative work with medical, research, criminal justice and many other science-related disciplines. Major topics include introduction and history of genetics, cell reproduction (meiosis and mitosis), genetic pedigrees and inheritance patterns, tools used in genetic testing, mutations and cancer. Lab activities are designed and used to reinforce selected topics. (Prerequisites: C or better in BIOL1440L or BIOL1480L or BIOL1450L, and MATH1420 or competence demonstrated on math placement exam or POI).

CHEM1210L Chemistry I **CL2 L2 CR3**
This course provides an introduction to chemistry on a qualitative level. The major topics covered include measurement, energy, chemical terminology, classification of matter, atomic models, the Periodic Table, sources and types of chemical bonds, chemical reactions, acids and bases, phases of matter and the properties of common gases. This course is not recommended for students in Liberal Arts or Fine Arts, or for pre-nursing students. (Prerequisite: Competence as demonstrated on math placement exam). Credit will only be given for one of the following CHEM1210L or CHEM1360L.

CHEM1340L Chemistry of Cooking **CL3 L2 CR4**
This course is an introduction to the chemical reactions involved in cooking. (Prerequisite: MATH0610L)

CHEM1360L Principles of Chemistry **CL3 L2 CR4**
This algebra-based course with integrated laboratory component provides a college-level introduction to the core concepts of chemistry for students new to, or reviewing, the subject. Beginning with the basic concepts of measurement, energy, classification of substances, and chemical terminology, it examines how the history of atomic models leads to the development of the wave mechanics model of the atom and the modern Periodic Table. These are then used in explaining chemical bonding and the nature of ionic, metallic, and covalent substances. Chemical reactions and the mole concept are then introduced leading to stoichiometry problems. Finally, the kinetic theory of particles is used in explaining

the behavior of the phases of matter. (Prerequisite: MATH1370L or MATH1420L with a C or better or competence as demonstrated on math placement exam.) Credit will not be given for more than one of the following courses: CHEM1210L or CHEM1360L.

CHEM1380L General Chemistry I **CL3 L3 CR4**
This is the first course in a full-year sequence examining the core concepts of chemistry. Students considering this course must have previous exposure to chemistry concepts, and must be prepared to work to develop their problem solving skills. Topics include atomic and molecular structure, stoichiometry, types of reactions, thermochemistry, gases, chemical bonding, molecular structures, intermolecular forces and solutions. The laboratory component is strongly connected to the subject material and promotes student experience with experimental techniques. (Prerequisites: CHEM 1360L with a C or better and MATH2110L with a C or better or competence as demonstrated in math placement exam).

CHEM1390L General Chemistry II **CL3 L3 CR4**
This is the second course in a full-year sequence examining the core concepts of chemistry; further expanding upon the content in General Chemistry I. Topics include kinetics, chemical equilibrium, acids and bases, thermodynamics, electrochemistry, nuclear chemistry, properties of representative elements and transition elements, and an introduction to organic chemistry. The laboratory component is strongly connected to the subject material and promotes student experience with experimental techniques. (Prerequisites: CHEM 1380L with a C or better).

ENVS1120L Energy and Sustainability **CL3 L0 CR3**
In this course energy will be examined holistically and scientifically. As a foundation, this course will first trace how the sun's energy flows through physical matter and all life forms. The interrelationship between energy flows and the earth's climate will also be examined. The course includes an investigation into commercial energy use and conservation. Using scientific inquiry, human sustainability will be examined in light of dwindling stocks of fossil fuels as well as technological advances in renewable energy sources. (Prerequisite: Successful completion of MATH 0610 or competence as demonstrated on math placement exam. MATH 0610L can also be taken concurrently).

ENVS1130L Energy and Sustainability Laboratory **CL0 L2 CR1**
In this lab companion section of the Energy and Sustainability course, students conduct hands-on activities that apply the principles in the classroom section. The lab uses scientific inquiry as a means to understand energy flows, commercial energy use and human sustainability. Students also have the opportunity to design and carry out their own research project. (Prerequisite: Successful completion of ENVS1120L and MATH0610L or competence as demonstrated on math placement exam. MATH0610L can also be taken concurrently).

ENVS1500L Environmental Science **CL3 L2 CR4**
This course provides an introduction to environmental science as a complex, interdisciplinary, scientific area of study. The focus of this course is on the scientific and ecological principles basic to understanding environmental issues. Major themes examined include water quality, human population, sustainability, biodiversity, and the relationship between human society and the natural world. Coursework will include lecture, laboratory exercises, field trips and in-class discussions. (Prerequisite: Competence as demonstrated on math placement exam).

GEOL1600L Introduction to Geology **CL3 L2 CR4**
This course provides an introduction to the geologic processes that make the Earth a very dynamic and active planet. The focus of this course is on discovering why processes such as volcanoes, landslides and earthquakes occur and how these processes shape the Earth's surface on a daily basis. Major themes examined include understanding the Earth's age, the rock cycle, identification of rock types and geologic features, and the interactions of atmosphere and ocean with the geological environment. Coursework will include lecture, homework, oral presentations, laboratory exercises, field trips and in-class discussions. (Prerequisites: Competence as demonstrated on math placement exam or Permission of Instructor.)

PHYS1040L Astronomy and Space **CL3 L2 CR4**
An introductory course designed to acquaint students with the wonders and complexity of the universe. Topics covered include Earth's place in the universe, the day and night skies, the origins of modern astronomy, gravity and orbits, telescopes, the solar system, newly discovered planets around other stars, types of stars, the birth and death of stars, the Milky Way and other galaxies, the Big Bang, Dark Matter and Dark Energy, and the fate of the universe. The lab component consists of outdoor observations, use of telescopes, (weather permitting), computer simulations, and scheduled trips to planetariums. (Prerequisite: Competence as demonstrated on math placement exam)

PHYS1250L Technical Physics **CL2 L2 CR3**
This course is an introduction to the principles and concepts of physics. Math review, vectors, motion, Newton's laws, work, power, energy, friction, equilibrium, torque, concurrent forces, mechanical advantage, simple machines, and the

properties of matter are covered. (Prerequisite: MATH1280L or MATH1370L or MATH2110L with a C or better or competence as demonstrated on math placement exam).

PHYS1280L Introduction to Physical Sciences CL3 L2 CR4
This fast-paced course covers the major concepts of physics and uses them in explaining how our world actually works. These concepts are developed through demonstrations and experiments, and require a minimum of mathematics. What is required is the ability to conceptualize the big underlying ideas, the ability to overcome notions about what we think we see versus what is actually happening, and the ability to combine and apply previously learned concepts to explain technology. The physics content covers motion, mechanics, work and energy, thermodynamics, waves, electricity, magnetism, light, and radioactivity. Among the course topics covered are the workings of air conditioners, electric motors, musical instruments, rockets, hot air balloons, four-stroke automobile engines, and radios. (Prerequisite: Competence as demonstrated on math placement exam)

PHYS2200L College Physics I CL3 L3 CR4
This algebra-based course with integrated laboratory component is designed to help students develop thoughtful problem solving strategies in tandem with the coverage of the course material. Topics include kinematics, dynamics, conservation laws, thermodynamics, and the properties of matter. (Prerequisite: MATH1370L or MATH2110L with a C or better or Permission of Instructor)

PHYS2210L College Physics II CL3 L3 CR4
This course completes the sequence for a year-long algebra-based physics course and includes an integrated laboratory. Continuing the approach used in the previous course, this course promotes student development of thoughtful problem-solving strategies by explicitly identifying and consistently applying methods to obtain solutions while considering a broad variety of problems. Course topics include oscillations and waves, optics, electricity and magnetism, and electromagnetic waves. (Prerequisite: PHYS220L with a C or better)

SCI2610L Independent Study in Science CL3 L2 CR4
Independent Study in Science is an opportunity for a student to enroll in a higher-level science class to explore focused topics in science. Some suggested topics might be the Biology of Cancer, Neuroscience or Environmental Microbiology. This course includes a lab component. (Prerequisites: Permission of department chair, matriculated with a minimum cumulative GPA of 2.0, two or more courses in science with a grade of B or better).

SOCIAL SCIENCES

SOSC1240L Introduction to Sociology CL3 L0 CR3
Our daily lives are affected, consciously and unconsciously, by social forces and influences of which we are largely unaware. This introductory course to sociology, the scientific study of society, explores and uncovers these hidden factors behind the behaviors and attitudes of individuals, groups and societies.

SOSC1280L Chemical Dependency CL3 L0 CR3
This course examines chemical dependency and substance abuse issues including etiology, diagnosis and treatment, the effect of alcohol and drugs on the body, family dynamics of addiction, and special topics selected by students.

SOSC1420L Introduction to World Geography CL3 L0 CR3
An introduction to the physical, cultural and cartographic aspects of the earth's regions, this course is designed to assist students in their understanding of social, political and economic development. Topics covered are location, movement, connection and interaction of populations in Europe, Australia, Pacific areas, South Asia, North, Central and South America, Middle East and Africa.

SOSC2210L Organizational Behavior CL3 L0 CR3
Coursework involves the students developing an understanding of how working together and leading people in organizations leads to the maintenance of healthy future organizations. It includes the challenges of leadership.

SOSC2250L Critical Thinking and Decision Making CL3 L0 CR3
This course focuses on the development of critical thinking skills through analysis and critique. Influences and problems associated with reason and the thinking process are explored, while strategies to develop reason-based decision making are also covered.

SOSC2280L Human Sexuality CL3 L0 CR3
Students learn about sexuality from a developmental perspective, focusing on stages of growth and development. Personal attitudes, values and controversial social issues related to sexuality are examined and discussed. Upon

completion of this course, students will better understand the individual and social impact of human sexuality on thought, feeling and behavior.

SOSC2310L Microeconomics **CL3 L0 CR3**
This course provides an introduction to the economic concepts that are studied in microeconomics. Students gain an understanding of how consumer and producer decision making forms the basis of supply and demand and how the price system operates within a market economy to allocate scarce resources among unlimited wants.

SOSC2320L Macroeconomics **CL3 L0 CR3**
This course provides an introduction and framework to the economic concepts that are studied in macroeconomics. Emphasis is placed on the following topics: physical and financial markets, national income accounting, savings and investment, business cycles, economic growth, inflation, unemployment, money and the central bank, and the role that government plays in the economy.

SOSC2350L Children, Youth and Families **CL3 L0 CR3**
Students are provided an introduction to families from a sociological and systems perspective. The interplay between families and the larger society is the background against which the phenomena of childhood, adolescence and parenting are examined. Topics include, but are not limited to, poverty, delinquency, disability, aging, self-determination, community supports and interventions.

College Directory

Lakes Region Community College is one of seven colleges including six community colleges and one technical institute in the Community College System of New Hampshire.

COMMUNITY COLLEGE SYSTEM OF NEW HAMPSHIRE
BOARD OF TRUSTEES

Jeremy Hitchcock, Chair
Katherine Bogle Shields, Vice Chair
Alison Stebbins, Treasurer
Kim Trisciani, Secretary
Paul Holloway, Past Chair
Allen Damren
Cheryl Kahn
Connie Roy-Czyzowski
Edwin Smith
Jack Calhoun
John Stevens
Rebecca Clerkin
Richard Heath
Sharon Harris
Stephen Ellis
Stephen Guyer
Steve Rothenberg
Tricia Lucas
Steven Slovenski
Krishna Mangipudi
Darrin Daniels
Steven Hattamer
Natalie Baker
Hannah Croce

CHANCELLOR
Dr. Ross Gittell

Lakes Region Community College
Administration

Larissa Ruiz Baia, Ph.D. (2012)
President
Ph.D., University of Florida
M.A., University of Florida
B.A., Brandeis University

Alan Punches, Ph.D. (2015)
Vice President of Academic and Student Affairs
Ph.D., Colorado State University
M.S., Colorado State University
B.A., Colorado State University

Marsha Bourdon (2010)
Business Affairs Office/Chief Financial Officer
A.A.S., New Hampshire Technical Institute

Lake Region Community College Faculty

Janet Bloom (2003)
Professor, Sciences
A.L.M., Harvard University
A.B., Harvard University

Debbie Brady (2007)
Professor, Nursing
M.S., University of New Hampshire
B.S., Syracuse University
A.A.S., State University of New York at Morrisville

John C. Connell (1989)
Department Chair: Fire Technologies, Advanced Manufacturing and Electrical Technologies
Professor, Fire Technologies
Ph.D., Columbia Pacific University
M.Ed., Rivier College
B.S., Southern Illinois University
A.S., Community College of the Air Force

Gary Courtney (1989)
Professor, Fire Technologies
A.D., Oklahoma State University
A.S., Mount San Jacinto College

E. Scott Cracraft (2001)
Professor, History and Political Sciences
Ph.D. Candidate, University of Memphis
M.A., Southeast Missouri State University
B.A., Albion College

Carl Daniels (2009)
Professor, Advanced Manufacturing and Electrical Technologies
M.B.A Plymouth State University
B.A. Southern New Hampshire University
A.S., Lakes Region Community College

Jamie Decato (2002)
Department Chair Automotive and Marine Technologies
Assistant Professor, Automotive Technologies
Master Technician; GM World Class Technician
Certified Master Automotive Technician and Advanced Engine Performance Specialist by National Institute for Automotive Service Excellence
A.A.S., New Hampshire Community Technical College

Nancy Eckert (2007)
Program Coordinator, Sciences
Professor, Biological Sciences
M.S.C.C., Northeastern University
B.S.M.T., University of Connecticut

Keith Fletcher (2010)
Associate Professor, Electrical Technologies
A.A.S., New Hampshire Community Technical College

Stephen Freeborn (2015)
Assistant Professor, English
M.A., Dartmouth College
B.A., University of New Hampshire

Cathy Kubec (2015)
Program Coordinator, Nursing
Professor, Nursing
Ed S., Liberty University
M.S.N., University of Connecticut, Storrs, CT
M.A. in Theological Studies, Liberty University, Lynchburg, VA
B.S.N., Wright State University, Dayton, Ohio
ANCC Board Certified in Psychiatric-Mental Health Nursing

Patrick Hall (2005)
Program Coordinator, Culinary Arts
Professor, Culinary Arts
B.A., Johnson and Wales University

Edna N. Hansen (1970-1991)
Professor Emeritus
B.S., Central Connecticut State College
M.S., Central Connecticut College

Sandra Lavallee (1996)
Department Chair: Computer Technologies and Graphic Design
Professor, Computer Technologies
Doctoral Candidate, Nova Southeastern University
M.B.E., Southern New Hampshire University
M.S., New Hampshire College Graduate School of Business
B.S., New Hampshire College
A.A.S., New Hampshire Technical College

Scott Maltzie (2017)
Assistant Professor, Business Studies
Ph. D. in Business Administration, Northcentral University
M.S. in Business Education, New Hampshire College
MBA, New Hampshire College
B.S. in Business Administration, Plymouth State College

Jacob Marsh (2008)
Program Coordinator, Marine Technology
Assistant Professor, Marine Technology
A.A.S., New Hampshire Community Technical College
Certified Mercury and MerCruiser Specialist

Julie Morin (1994)
Department Chair: Liberal and Professional Studies
Professor, Mathematics
M.S., Rensselaer Polytechnic Institute
B.S. Rensselaer Polytechnic Institute

Martha Pasquali (2004)
Department Chair, Nursing
Professor, Nursing
M.S.N., University of Florida
B.A., University of South Florida
A.D.N., Brevard Community College

Laura Rodgers (2014)
Professor, Nursing
M.S.N., Walden University
B.S.N., University of New Hampshire
A.D.N., New Hampshire Technical Institute

Carlene Rose (2010)
Department Chair: Business Studies & Culinary Programs
Professor, Business Studies
M.S., Southern NH University
B.S., University of New Hampshire
A.S., Franklin Pierce College

Fran Seigle (1992)
Professor, Mathematics
M.Ed., Plymouth State University
B.A., Montclair State College

Joseph Smith (2018)
Instructor, Advance Manufacturing
A.A.S., Lakes Region Community College

Amy Tremblay (2013)
Professor, Nursing
M.S.N., Walden University
A.S.N., NHTI, Concord, NH
General Studies, Indian River CC

William Walsh (2007)
Associate Professor, Culinary Arts
B.S., Nova University
A.S., McIntosh College

Lakes Region Community College Adjunct Faculty

LaShunda Allen (2012)
Culinary Arts
A.S., Johnson & Wales University
Gluten Free Training - Berry Delicious Bakery, Plymouth

Jennifer Anderson (2005)
Human Services and Liberal Studies
C.A.G.S., University of Plymouth
M.S.W., University of New Hampshire
B.A., University of New Hampshire at Manchester

Jay Apicelli (2013)
Human Services
M.S., Springfield College
B.S., University of New Hampshire

Robert Aquilina (2016)
Liberal Studies
M.Ed., Plymouth State University
B.A., Plymouth State University

Ryan Aquilina (2016)
Liberal Studies
M.S., Plymouth State University
B.A., Plymouth State University

Nathan Arnold (2014)
Advanced Manufacturing
Glendale Community College
Society of Manufacturing Engineers
Machinery Technician Certification

Mina Ayers (2005)
Business Studies
M.S., New Hampshire College
B.S., University of Connecticut

Amy Ballou (2014)
Liberal Studies
M.Ed., Plymouth State University
B.A., Keene State College

Nelson Barber
Hospitality Management
Ph.D., Texas Tech University
M.S., Purdue University
B.S., San Jose State University
A.O.S, Culinary Institute of America

Peter Belliveau (2018)
Advanced Manufacturing
B.S.E.E.T. University of Massachusetts-Dartmouth

Owen Bendixsen (2010)
Liberal Studies
M.S., University of South Florida
B.S., Brigham Young University

Jessica Blais (2013)
Human Services
B.A, M.SW., University of New Hampshire
Certified Prevention Specialist

Rosa Blais (2012)
Liberal Studies
M.Ed., Plymouth State College
B.S., Plymouth State College

Ryan Brown (2017)
Fire Technologies
A.S., Lakes Region Community College

Denis Carignan (2018)
Advanced Manufacturing

Franciene Clement (2016)
Licenses Nurses Assistant
B.S.N, Southern New Hampshire University
A.D.N., Lakes Region Community College

Kristen Couture (2012)
Liberal Studies
C.A.G.S., Plymouth State University
M.A., Rhode Island College
B.A., Roger Williams University
A.A., Community College of Rhode Island

Arthur Deleault (2016)
Liberal Studies
M.A., Rivier College
B.A., St. Anselm College

Stacey Dubois (2015)
Fire Technologies
B.S., University of New Haven

Amanda Eason (2013)
Liberal Studies
D.A., Franklin Pierce University
M.Ed., Secondary English Education, University of New Hampshire – Durham
M.Ed., Reading Specialist K-12, University of New Hampshire – Durham

Brian Ellis (2017)
Automotive Technologies
Silver Lake Regional Vocational H.S., Automotive Technology
ASE Certified
Toyota Certification Program, Certified Technician

Raymond England (2013)
Business Studies/Liberal Studies
MBA, Bryant College
B.A., Southeastern Massachusetts University

Christine Evans (2015)
Liberal Studies
M.A., University of Kentucky
B.A., University of Kentucky

Linda Ferruolo (2004)
Program Coordinator, Human Services
M.Ed., Plymouth State University
Certified Marital Mediator, State of NH

Timothy Fillion (2013)
Marine Technology
A.A.S., Lakes Region Community College

Julie Finley (2016)
Liberal Studies
M.A., Plymouth University
B.A.-English, SUNY Genesco
B.A.-Theater, SUNY Genesco

Michele Foye, R.N. (2003)
Licensed Nurses Assistant
A.D.N., New Hampshire Technical Institute
B.S.N., University of New Hampshire

Catherine Fuster (2015)
Computer Technologies
MBA, University of Colorado
B.S., University of Colorado

Katerina Fyntanaki (2013)
Liberal Studies
M.Ed., Plymouth State University
M.A., Strathclyde University, Scotland
B.S., Technological Institute of Athens, Greece

Stephen Gallagher (2016)
Fire Technologies
M.S. Kaplan University
B.S., Kaplan University
A.S. Lakes Region Community College

Ronald L. Garnett (1993)
Business Studies
B.B.S., New Hampshire College

Roberta Gaudette (2007)
Early Childhood Education
M.S., New England College
B.S., College for Lifelong Learning-Concord, NH

Susan Gazda (2003)
Liberal Studies
M.Ed., Notre Dame College
B.S., State College of Boston

Deborah Gibson (2014)
Liberal Studies
M.ME., James Madison University
B.M.E., Shenandoah College and Conservatory of Music

Ashley Gore (2016)
Business Studies
A.S., Granite State College
Certified Medical Coder, AAPC

Thomas Goulette (2016)
Graphic Design
C.A.G.S., Plymouth State College
B.S., University of Maine
A.A.S., New Hampshire Vocational Technical College at Laconia

Leslie Gray (2015)
Liberal Studies
M.S., Southern New Hampshire University
B.S., Southern New Hampshire University
A.S., Southern New Hampshire University

Eric Hagman (2012)
Fire Technologies
M.S., Granite State College
B.S., Granite State College
A.S., Southern Maine Community College

Dawn Hanson-Winters (2012)
Human Services
M.Ed., Goddard College
B.A., Vermont College, Union Institute & University at Montpelier
Certified: Autism-Spectrum Disorder – Antioch College

Hettie Haudenschield (2016)
Fine Arts
MFA, University of New Orleans
BFA, Tufts University

Fred Heinrich (1998)
Fire Technologies
M.Ed., Plymouth State College
B.S., Franklin Pierce College
A.A.S., New Hampshire Community Technical College-Laconia

James Holmes (2016)
Business Studies
B.S., Accounting, Plymouth State University
A.S., Accounting, Lakes Region Community College

Carolyn Hughes (2016)
Early Childhood Education
Post Masters Graduate Certificate, University of Maine
M.Ed., Notre Dame College
B.S., University of New Hampshire – College of Lifetime Learning
A.A.S., New Hampshire Technical Institute

Corey Hoyt (2016)
Business Studies
M.A., Georgetown University
B.S., Johnson & Wales University
A.S., Johnson & Wales University

Deborah Hoyt (2001)
Liberal Studies
M.A., Notre Dame College
B.A., University of New Hampshire

Robert Irish (2006)
Fire Technologies
A.A.S., New Hampshire Community Technical College-Berlin
A.A.S., New Hampshire Community Technical College-Laconia

Linda Jennings (2010)
Liberal Studies
B.A., Ithaca College

Christopher Johnson (2016)
Fire Technologies
B.S., American Military University
A.A.S Lakes Region Community College

Laurie Johnson (2016)
Fire Technologies
A.S., Lakes Region Community College
A.A.S., Portland Community College

Matthew Johnson
Business Studies
M.B.A., Plymouth State University
B.S., University of Maine

Brenda Jones (2014)
Liberal Studies
M.A.T, University of Alaska
M.A., University of Hawaii
B.S., Florida State University

Kimberly Kelliher (2011)
Liberal Studies
M.Ed., University of New Hampshire
B.A., Keene State College

Kathleen Kenney (2016)
Liberal Studies
M.Ed., Notre Dame College
B.A., Mount St. Mary College

Nathalie Khayat (2010)
Liberal Studies
M.Ed., University of the Holy Spirit, Kaslik, Lebanon
B.S., University of the Holy Spirit, Kaslik, Lebanon

Brenda Kummerer-Cyr (2015)
Liberal Studies
M.Ed., Plymouth State University
B.S., Plymouth State University
A.A.S., New Hampshire Vocational Technical College at Claremont

Sandra Larochelle (2007)
Liberal Studies
M.S.T., University of New Hampshire
B.A., Southern New Hampshire University

Francesca Latawiec (2013)
Liberal Studies
M.S., University of New Hampshire
Graduate Studies, Western Illinois University
B.S., Salem State College
A.A.S., Essex Agricultural and Technology

Krista Leigh (2014)
Business Studies
M.A., Texas Women's University
MBA, Franklin Pierce University
B.A., Keene State College

Sue T. Leitch (1997)
Liberal Studies
M.Ed., New Hampshire College
B.A., Trenton State College

W. James Locke (2006)
Fine Arts
B.A., Plymouth State University

Lauren LoPardo (2015)
Liberal Studies
M.Ed., Plymouth State University
B.S., Granite State College

James MacMillan (2012)
Fine Arts
B.F.A., Newark School of Fine & Industrial Arts

Donna Magoon (2001)
Program Coordinator, Early Childhood Education
M.Ed., Plymouth State College
B.S., College for Lifelong Learning
A.S., Hesser College

Christine McClure (2016)
Liberal Studies
M.A., University of Central Florida
M.A., University of Central Florida
Graduate Cert., University of Central Florida
B.S., Granite State College

George McCluskey (2014)
Liberal Studies
MLST., University of Oklahoma
B.A., University of Alabama

David McElroy (2017)
EMS Program Coordinator
NREMT-B, NRAEMT, IC.

Robert McKenney (2007)
Liberal Studies
J.D., Suffolk University Law School
M. Ed., University of Massachusetts
B.A., Boston College

Jeffrey Michaud (2014)
Advanced Manufacturing
M.S., University of New Hampshire
B.S., Granite State College
A.A.S., Mechanical Engineering, New Hampshire Technical Institute
A.A.S., Electro-Mechanical Drafting, New Hampshire Technical Institute

Joseph Montroy (2009)
Fine Arts
M.F.A., Rochester Institute of Technology
K-12 Art Education Certification Program, St. Lawrence University
B.A., State University of New York at Potsdam
A.S., Munson Williams Proctor Institute

Lisa Moody (2016)
Business Studies
M.S., Southern New Hampshire University
B.S., Franklin Pierce University
A.A., Franklin Pierce University

Carolyn Muniz (2017)
Business Studies
B.S. Granite State College
A.S. Lake Region Community College
Clinical Medical Assisting Certification

Lauren Murphy, R.N. (2012)
Nursing and LNA
M.S.N., Walden University
B.S.N., University of New Hampshire
A.S.N., New Hampshire Technical Institute

Steven Oliver (2007)
Liberal Studies
Ph.D., Northeastern University
M.S., Northeastern University
B.S., University of Massachusetts, Amherst

Jay Plyler (2016)
Liberal Studies
M.Ed., Plymouth State University
B.A., California State University

Jonathan Powell (2014)
Liberal Studies
M.Ed., Plymouth State University
B.A., Dartmouth College

Paul Puzzo
Business Studies
M.S. University of Massachusetts
B.B.A. University of Massachusetts
Certified Public Accountant

Linda Radue (2016)
Liberal Studies
M.Ed., Plymouth State University
B.A., Temple University

Doreen Richards (2011)
Liberal Studies and Business Studies
Doctorate, Nova Southeastern University
M.A., Nova Southeastern University
B.S., Nova Southeastern University
A.S., New Hampshire Technical Institute
A.S., New Hampshire Community Technical College-Laconia

David Rogacki (2011)
Liberal Studies
M.S., Southern Connecticut University
B.A. Ed., University of Akron

Thomas Rogers (2010)
Graphic Design
B.S., Keene State College

Joey Rolfe, RN
Nursing-LNA Instructor
NH LPN, River Valley Community College
A.S. New Hampshire Technical Institute
BSN, Chamberlain College

Courtney Sanborn (2015)
Fine Arts
MFA, University of New Hampshire
BFA, Southern Methodist University

Christine Santaniello (2011)
Human Services
M.S.S.W., Kent School of Social Work
B.A., University of New Hampshire

Roger Shelton (2010)
Liberal Studies
M.S., Environmental Science, New Jersey Institute of Technology
M.S., Applied Science, New Jersey Institute of Technology
B.A., Gordon College

James N. Shepherd, Esq. (1988)
Business Studies
J.D., University of Maine School of Law
B.A., University of New Hampshire

Kathleen Sherman (2016)
Nursing
MSN, Loyola University
B.A., University of New Hampshire
A.D.N., NHTI

Steve Snow (2013)
Automotive Technologies
B.S., Keene State College
A.S., Lakes Region Community College

Amanda Stefanik (2014)
Liberal Studies
M.A., Western Governors University
M.Ed., Grand Canyon University
B.A., Elmira College

Christopher Stevens (2015)
Liberal Studies
Master of Divinity, Gordon-Conwell Theological Seminary
B.S., University of Massachusetts

Cheryl Sweeney (2016)
Early Childhood Education
B.A., Rivier College
A.A., White Pines College

Marc Tessier (2015)
Liberal Studies
M.Ed., Antioch University
B.A., St. Anselm's College

Wayne Thayer (2011)
Automotive Technologies
A.A.S., New Hampshire Vocational-Technical College- Manchester
A.S.E. Certified Master Automobile Technician
Toyota Master Technician
NH SI License

Nicole Thomas (2016)
Liberal Studies
Ph.D., Cardiff University
M.A., Cardiff University
B.A., Sacred Heart University

Sean Ware (2015)
Fine Arts
MFA, University of New Hampshire
B.A., Berea College

M. Cathy Weigel, R.N. (2010)
LNA Program, Business Technologies
M. Ed., Plymouth State College
B.S.N., University of Lowell

Elizabeth Wilson (2013)
Program Coordinator, Fine Arts
M.F.A., University of New Hampshire
B.S., Skidmore College

Lakes Regions Community College
Staff

Admissions

Joyce Larson (2017)
Director of Enrollment Management and Onboarding
M.Ed., Plymouth State University
B.A., St. Olaf College

Elizabeth Lofgren (2018)
College Services Representative
B.S., Bridgewater State University

Erin Roark (2016)
Recruiter, Admissions
B.S., Keene State College

ACADEMIC and STUDENT AFFAIRS

Jennifer Aiken (2005)
Assistant to the Vice President of Academic and Student Affairs
B.A., Sociology, Keene State College

Kathy Mather (2007)
Secretary, Academic and Student Affairs
A.S., Lakes Region Community College

Andrée Thibault (2008)
Administrative Secretary, Academic and Student Affairs
A.A.S., New Hampshire Community Technical College-Berlin

Automotive Technologies

Sharon Cardarelli (2018)
Secretary, Automotive Technologies
A.S., Cape Cod Community College

Bookstore

Holly Cantrell
Bookstore Manager

Business Office

Holly Danby (2013)
Bursar
A.A.S. Business Administration, New Hampshire Technical Institute

Carol Dudley (1991)
Senior Account Technician

Campus Safety

Matthew Mercier (2018)
Campus Safety Coordinator
A.S., New Hampshire Technical Institute

Eric Walsh (2016)
Campus Safety Officer
B.A., Saint Anselm College

Financial Aid

Kristen M. Purrington (2009)
Financial Aid Director
B.A., Lyndonville State College, VT

Kimberly Bean (2005)
Assistant, Financial Aid

Human Resources

Stacey Emerton (2017)
Human Resources Officer
M.P.S., University of Denver
B.S., Marquette University

Library

Penelope Garrett (2008)
Library Director
M.S.L.S, Clarion University
B.A. Human Services, Granite State College

Maintenance

Roger Lajoie (2005)
Plant Maintenance Engineer

Todd Calder (2017)
Maintenance Mechanic Foreman

John Bernard (2006)
Maintenance Mechanic

Scott Bryant (1994)
Building Service Worker

Dan Earnshaw (2014)
Building Service Worker

Jason Graves (2013)
Building Service Worker

Vera Jenot (2014)
Building Service Worker

Lisa Moulton (2012)
Building Service Worker Supervisor

President's Office

Elizabeth Lawton (2014)
Executive Assistant to the President
A.S., Lakes Region Community College

Public Relations

Vacant
Marketing Assistant

Registrar's Office

Laura LeMien (2013)
Registrar
M.S. Southern New Hampshire University
B.S., Southern New Hampshire University
A.A.S., Lakes Region Community College

Melissa Daigle (2012)
Assistant Registrar

Running Start

Wayne D. Fraser (1998)
Running Start Coordinator
Graduate Studies, Plymouth State College
B.A., University of New Hampshire

Stock Control

Scott Bryant (1994)
Stock Clerk

Residential Life

Timothy Ford
Resident Director
B.S. Southern New Hampshire University
A.S. New Hampshire Technical Institute

Student Support Counselors

Melissa Plyler (2013)
Student Support Counselor
M.S., Clinical Psychology, College of St. Joseph
B.A., Johnson State College

Marti Bolduc (2015)
Student Support Counselor
M.S.W. Social Work, University of New Hampshire
B.A. Sociology, University of New Hampshire

Teaching, Learning and Career Center

Maureen J. Baldwin-Lamper (2000)
Director of the Teaching, Learning and Career Center
M.Ed., Rhode Island College
B.A., Rhode Island College
Specialist in the Assessment of Intellectual Functioning, Rivier College

Deborah Fifield (2006)
Master Tutor
M.Ed., Notre Dame College
B.A., Tufts University

Gloria Moulton (2006)
Master Tutor
B.A., Plymouth State College

Technical Support

Christopher J. Crowley (1999)
Technical Support Specialist
B.S., Northeastern University

John McNamara (2015)
Technical Support Specialist

Workforce Development

Andrew Duncan (2013)
Workforce Development Coordinator
Ph.D., University of Michigan, School of Natural Resources & Environment
B.A., Macalester College
BPI Building Analyst, BPI Leakage Control Installer

Academic Calendar

LRCC FALL 2018 ACADEMIC CALENDAR

August	M	T	W	TH	F
DR=16		**14**	**15**	**16**	**17**
CD=5	**20**	**21**	**22**	**23**	**24**
	27	28	29	30	31

September	M	T	W	TH	F
DR=19	**X**	4	5	6	7
CD=19	10	11	12	13	14
	17	18	19	20	21
	24	25	26	27	28

October	M	T	W	TH	F
DR=23	1	2	3	4	5
CD=23	8	9	10	11	12
	15	16	17	18	19
	22	23	24	25	26
	29	30	31		

November	M	T	W	TH	F
DR=19				1	2
CD=19	5	6	7	8	9
	X	13	14	15	16
	19	20	21	**X**	**X**
	26	27	28	29	30

December	M	T	W	TH	F
DR=11	3	4	5	6	7
CD=10	10	11	12	13	14
	17				

Bolded=Days of Responsibility/No Classes X = Holidays/No
Total Days of Responsibility = 176 Total Class Days =

August	13	Faculty Return
	16	System Symposium - NHTI
	27	Fall Semester begins
September	**3**	**Labor Day/Holiday-College Closed**
	14	*Last Day to Resolve "I"(Incomplete) from Summer*
October	8	Columbus Day – All classes will be held as scheduled
November	**12**	**Veteran's Day Holiday Observed-College Closed**
	21	No evening Classes
	22-23	**Thanksgiving/Holiday-College Closed**
December	10	Curriculum Committee deadline for submission for January In-Service Week meeting
	14	Fall Semester ends
	17	**Winter Break begins**
	17	**Last Day of Faculty Responsibility for Fall Semester**

SPRING 2019 ACADEMIC CALENDAR

January	M	T	W	TH	F
		8	**9**	**10**	**11**
DR=17	**14**	**15**	**16**	**17**	**18**
CD=8	**X**	22	23	24	25
	28	29	30	31	

February	M	T	W	TH	F
					1
DR=19	4	5	6	7	8
CD=19	11	12	13	14	15
	X	19	20	21	22
	25	26	27	28	

March	M	T	W	TH	F
					1
DR=16	4	5	6	7	8
CD=16	11	12	13	14	15
	X	**X**	**X**	**X**	**X**
	25	26	27	28	29

April	M	T	W	TH	F
	1	2	3	4	5
DR=22	8	9	10	11	12
CD=22	15	16	17	18	19
	22	23	24	25	26
	29	30			

May	M	T	W	TH	F
			1	2	3
DR=14	6	7	8	9	10
CD=8	**13**	**14**	**15**	**16**	**17**
	20				

January	7	*Winterim Session Begins*
	9	Faculty Return
	18	Winterim Session ends
	21	**Martin Luther King Jr. Day/Holiday-College Closed**
	22	Spring Semester begins
February	8	*Last Day to Resolve "I" (Incomplete) Grades from Fall Semester*
	18	**President's Day/Holiday-College Closed**
March	**18-22**	**Spring Break - No Day or Evening Classes**
May	10	**Spring Semester ends**
	18	**Commencement - 11:00 a.m.**
	20	**Last day of Faculty Responsibility for Spring Semester**