



CHOOSE COMMUNITY



[lrcc.edu](http://lrcc.edu)

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## Programs of Study

### ASSOCIATE DEGREES

Accounting  
Advanced Manufacturing  
Art-Art Education Track  
Art-Studio Track  
Automotive Service Education Program (GM ASEP)  
Automotive Technology  
Business Management  
Computer Information Systems  
Culinary Arts  
Early Childhood Education  
Electrical Power and Control Technologies  
Electrical Systems Installation and Maintenance  
Electro-Mechanical Technologies  
Fire Science  
Graphic Design  
Hotel and Restaurant Operations  
Human Services  
Human Services-Concentration in Gerontology  
Interdisciplinary Studies  
Liberal Arts  
Marine Technology-Business Track (Teach Out)  
Marine Technology-Technical Track (Teach Out)  
Nursing  
Pastry Arts  
Toyota/Lexus T-Ten

### CERTIFICATES

#### Advanced Manufacturing

Advanced Manufacturing

#### Transportation Technologies

Basic and Advanced Automotive  
Marine Maintenance Certificate  
Marine Diagnostics and Repair Certificate (Teach Out)  
Toyota/Lexus T-Ten

#### Computer Information Systems

PC Applications  
Technologist  
Programming

#### Business Studies

Accounting  
Business Management

#### Hospitality Programs

Culinary Arts  
Hotel and Restaurant Operations  
Pastry Arts

#### Early Childhood Education

Associate Teacher  
Early Childhood Education Advanced  
Lead Teacher

#### Electrical Technologies

Electrical Power and Control Technologies  
Electrical Systems Installation and Maintenance

#### Electro-Mechanical Technologies

Machine Maintenance Technician

#### Fire Technologies

Fire Science

#### Graphic Design

Advanced Certificate Graphic Design  
Foundations of Graphic Design

#### Human Services

Developmental Disabilities  
Gerontology  
Human Services

#### Paramedic

## **Our Mission/Vision**

### **Lakes Region Community College Mission**

Lakes Region Community College provides a dynamic, community-based, high-quality learning environment, delivering a personalized education experience that prepares learners for success.

### **Lakes Region Community College Vision**

Lakes Region Community College will continue its development as a learning-centered institution, characterized by innovation, responsiveness, flexibility, caring, collegiality, accountability, and educational excellence.

## **Accreditations and Memberships**

### **Accreditation**

The New England Commission of Higher Education (NECHE) accredits Lakes Region Community College. NECHE is a regional accreditation agency for colleges and universities in New England. The U.S. Secretary of Education and the Council for Higher Education Accreditation recognize the Commission

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 Commission of Higher Education should be directed to the administrative staff of the College. Individuals may also contact the New England Commission of Higher Education, 209 Burlington Woods Drive, Burlington, MA 01803, (781) 425-7785.

### **Membership**

Lakes Region Community College is one of seven colleges in the Community College System of New Hampshire.

## 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 twelve (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:*

	<u>CL</u>	<u>LAB</u>	<u>CR</u>	
BIOL145L Anatomy & Physiology I	3	2	4	$4 - 3 = 1 \times 110 = \$110$

### Academic Fees

Student Personal Professional Liability Insurance (per year for programs w/clinical) \$10 to \$65

Automotive Supply Fee (excludes AUTO175L, AUTO176L, AUTO275L, AUTO290L, co-ops) \$40

Automotive Tool Fee (one time) \$420

Automotive Certification Fee \$40

Information Technology Vendor (Test Out) Fee \$129

CIS 133L, 136L, 261L, 267L, 262L, 252L, 248L

Culinary/Pastry Arts Supply Fee

(CULA146L, 147L, 151L, 22L, 225L, 254L, 255L, 256L, HOS113L, 133L, 202L) \$200

LNA Competency exam – written \$110

LNA Competency exam – clinical \$80

Medical Assisting Liability Insurance \$20

Medical Assisting Certification Exam \$160

Medical Assisting Criminal Background Check \$25

Nursing Simms Kit fee (NURS132L, NURS222L) \$41

Immunization Tracker Fee \$35

Nursing Clinical Surcharge per semester .....\$500

Drug Testing Fee (NURS132L, NURS222L) \$42

Nursing Liability Insurance Fee \$20

ATI Nursing Exam Prep Fee (NURS132L, 142L, 222L, 232L) (Paid to ATI) \$612.50

NABCEP Associate (students) \$80

NABCEP Associate (non-students) (determined on a case by case basis) \$100

CPR Certification Fee (FIRE225L and 238L, PAMD110L) \$20

Fire Academy Fee (FIRE200L) \$1000

Fire Academy Fee (FIRE180L) \$2000

SCBA (Self Contained Breathing Apparatus) (FIRE136L, FIRE180L and FIRE200L) \$350

Turn Out Gear\* (FIRE136L, 180L, and 200L) \$100

Compliance Tracker (FIRE 225L, PAMD 110L) Fee \$35

EMS Uniform Polo Shirt (FIRE 225L, 238L, PAMD 110L, 120L, 210L, and 220L) Fee \$30

Fire Academy T-Shirt (FIRE 136L, 180L, and 200L) Fee \$10

Drug Testing Fee (PAMD 110L, 210L, and 220L) Fee \$42

Paramedic Clinical Surcharge (PAMD110L& 120L) \$500

EMT Materials and Equipment Fee (FIRE 225L) \$100

NREMT EMT Practical Exam Fee (FIRE 225L) \$150

NREMT Cognitive Exam Fee (FIRE225L) \$136

AEMT Materials and Equipment Fee (FIRE 238L) \$125

NREMT AEMT Practical Exam Fee (FIRE 238L) \$200

NREMT Cognitive Exam Fee (FIRE 238L) \$136

NREMT Paramedic Practical Exam Fee (FIRE220L) \$200

NREMT Paramedic Cognitive Exam Fee (FIRE220L) \$125

Advanced Cardiac Life Support Fee (FIRE110L) \$150

Pediatric Advanced Cardiac Life Support Fee (FIRE120L) \$150

FISDAP EMS Tracker Fee (PAMD 110L) \$226

Paramedic Materials and Equipment Fee (PAMD 110L & 120L) \$150

Mercury Marine MTF Certification Test \$25



### **Non-Academic Fees/Fines**

Acts of Vandalism Materials & Labor plus 10%  
Alcohol Violation/Smoking Second Offense \$100  
Alcohol/Smoking Violation each additional offense after second violation \$200  
Alcohol/Smoking Violation First Offense \$50  
Credit by Exam \$25/credit  
Damage to Common Areas \$25  
Deep Apartment Cleaning Materials & labor plus 10%  
Diploma Replacement \$20  
Drug Testing Fee per Test Up to \$125  
Experiential Learning 50% of credit cost of tuition  
False Fire Alarm Fee \$350  
Housing Activity Fee (per semester) \$75  
Housing Deposit (Damage Deposit) \$250  
Housing Double (ASEP/Toyota/Lexus T-TEN) \$3083  
Housing Parking Fee \$10/semester  
Housing Summer Weekly Rate-Double \$130  
Housing Summer Weekly Rate-Single \$185  
Housing-Double (per semester) \$4110  
Housing-Single (ASEP/Toyota/Lexus T-TEN) \$3458  
Housing-Single (per semester) \$4610  
International Student Admissions Fee \$100  
Key Replacements Materials & labor plus 10%

Late Payment Fee \$50

Library late fees (cost of replacement for lost or damaged materials) \$.25/item/day

Parking Violation for each additional offense after the third violation \$75

Parking Violation Third Offense \$50

Parking Violations First Offense \$10

Parking Violations Second Offense \$20

Payment Plan Fee (when applicable) \*\$30

Proctor Exam Fee for non-CCSNH students \$50

Protested Checks Fee\*\$35

Proximity Badge Replacement \$25

Public Safety (reckless operation of vehicle) \$100

Public Safety first offense \$20

Public Safety for third and each additional offense \$100

Public Safety Second Offense \$50

Repairs Apartments Materials & Labor plus 10%

Replacement Student ID \$10

Skill Assessment Manager \$9

Smoking Damage Abatement Costs plus 10%

Standard Apartment Cleaning \$100

Tampering with Fire/Life Safety Equipment \$100

Transcript \$5

### **ALL FEES/FINES 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**

Payment or arrangements for payment is required 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) have space available. Each semester/session of the academic year, including summer sessions, is billed separately and 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 are 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/view 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, a request in writing should be submitted 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.

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 should be made.
- The agreement shall be dated and signed by the president and student.
- The agreement shall be filed in the Bursar's Office.

### **Payment Plan**

A payment plan is available through NELNET. Students may sign up for a payment plan by logging into their Student Information System (SIS) then click on the student tab, student account, "View, and Pay Account". For questions, please contact the Business Office at 603-366-5245.

### **Late Payment**

Students who do not pay or make arrangement for payment within the timeframes listed above, will be assessed a \$50 late payment fee. Students using VA Educational benefits are not assessed a late payment fee.

### **Tuition Refund Policy**

Students who officially withdraw from the college or an individual course by the end of the fourteenth (14<sup>th</sup>) calendar day of the term 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 term to withdraw for a full refund. If the seventh (7<sup>th</sup>) or fourteenth (14<sup>th</sup>) 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 Assistance Return Schedule**

#### **16-week Course Withdraw submitted**

- Before or during weeks 1-2 100% return
- During weeks 3-4 75% return
- During weeks 5-8 50% return
- During weeks 9 40% return (60% of course is completed)
- During weeks 10-16 0% return

#### **8-week Course Withdraw submitted**

- Before or during week 1 100% return
- During week 2 75% return
- During weeks 3-4 50% return
- During week 5 40% return (60% of course is completed)
- During weeks 6-8 0% return

### **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 One-Stop. 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 may include a death in the family or a medical emergency. 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, students must be admitted into a program of study that leads to a degree or certificate and must be making satisfactory academic progress. 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.studentaid.gov](http://www.studentaid.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.

### Grants

#### Federal Pell Grants

The Federal Pell grant program provides need-based grants to low-income students. Pell grants range from \$346 to \$6895 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](http://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](http://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 the Financial Aid webpage.

#### 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 the Financial Aid webpage.

#### Federal Work-Study Program

There are several different work-study opportunities at Lakes Region Community College. Hourly wages range from \$9-\$9.50 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](http://www.lrcc.edu) for more scholarship opportunities and applications. The following are examples of such voluntary assistance:

#### **Lakes Region Scholarship Foundation**

Several scholarships are offered to residents of Laconia, Gilford, or Belmont, or to graduates of Laconia, Gilford, or Belmont High Schools. Applicants are selected based on 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](http://www.sema.org/scholarships).

### **Other Sources of Financial Aid**

#### **Veterans Administration Assistance Program**

Programs of the Lakes Region Community College are approved by the New Hampshire State Approving Agency for Veterans Education Programs for persons eligible for educational benefits (GI BILL®). 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 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](http://www.va.gov) for more information.

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

### **Refund of Title IV 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**

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

#### **Minimum Cumulative Grade Point Average Required for the Program**

<b>Total Credits Earned Toward Program</b>	<b>Certificate</b>	<b>Associate</b>
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 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**

When is my academic progress reviewed?

Are there probationary periods?

Is there an appeal process?

Can you re-gain Financial Aid eligibility once you lose it?

#### **Answer**

At the end of each semester

Yes, Probation prior to Suspension

Yes

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 audit. 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.

- Not all courses are appropriate for credit by examination. Departments will be responsible for determining if a course is eligible for credit by examination.
- Credit by examination may be earned only by a matriculated student who, by study, training or experience outside the CCSNH College has acquired skill or knowledge equivalent to that acquired by a student enrolled in the College. A student is eligible for a maximum of sixteen (16) credits through credit by examination.
- If the student passes the exam, using criteria developed by the respective department, appropriate credit(s) shall be applied to the student's academic record and a notation entered on the student's transcript indicating successful completion. Since a traditional grade (A-F) is not entered, the Credit by Exam is not calculated into the student's GPA. If the student fails to pass the exam, no entry is made on the academic transcript, but a record of the unsuccessful completion will be maintained in the student's file.
- A student who does not pass the Credit by Exam will be ineligible for another Credit by Exam in that course.

### **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 approved, 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 the Financial Aid webpage.

### **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
- Complete [VA Form 22-1990](#) (Application for Educational Benefits, GI BILL®). 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 in the LRCC One-Stop.

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

"GI Bill® is a registered trademark of the U.S. Department of Veterans Affairs (VA). More information about education benefits offered by VA is available at the official U.S. government [web site](#).

# Student Services and Resources

## Academic Advising

Academic advising is available to all admitted students. A faculty advisor is assigned to assist students from admission 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.

## 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

Activity periods 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 12:00-1:00pm and Wednesdays, 12:00pm – 1:00pm**

## 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 or email [lrccinfo@ccsnh.edu](mailto:lrccinfo@ccsnh.edu).

## 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 eligible students. The only non-cash services offered are based on written authorization from approved agencies.

The Bookstore 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 two weeks starting the week of finals.

For more information and store hours contact the Bookstore at 603-524-0697 or the [bookstore website](#).

## Student Success Center

The Student Success Center provides training in organizational and study skills, note taking, career planning and time budgeting. Tutoring is offered in most subject areas. Students who need academic support or who want to advance more rapidly in an academic area may contact the Student Success Center 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 Student Success Center 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.

## Counseling

Student support counselors provide general support, including course registration, referral to outside agencies and mental health referrals to all students. Counselors are available Monday through Friday and are located in the Student Success Center (Turner 119). These services are offered free to students with the aim of assisting students in successfully meeting academic and/or professional goals.



LRCC collaborates with [Lakes Region Mental Health](#) 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 provided by LRMH is confidential.

### **Tutoring**

Tutoring is an important service the school provides to our students free of charge. Students requesting tutoring services should contact the tutor coordinator at [LRCCTutoring@ccsnh.edu](mailto:LRCCTutoring@ccsnh.edu). Tutors are available for most courses including math, college writing, accounting, computers, and business courses

### **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 Accessibility Coordinator to discuss support services options at [LRCCAccessibility@ccsnh.edu](mailto:LRCCAccessibility@ccsnh.edu) or by calling 603-366-5243.

### **Disabilities Service Mission**

It is the mission of the Disability Services Center at Lakes Region Community College to provide equal educational access, opportunities, and experiences to all qualified students with documented disabilities. Reasonable accommodations are provided for students so that they can 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.

### **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 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.

### **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 be admitted to a program carry a minimum course load of twelve (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 are available on the [LRCC webpage](#) or by calling 603-366-5387.

### **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.

### **Navigate**

Students may access their student planner, register for courses, view advisor information, and to-do checklist in Navigate. Navigate is found on the student resources page. From the LRCC homepage select myLRCC and then choose the Navigate for students' button.

**Student Information System**

Students may access their college information online by clicking on myLRCC on the LRCC webpage. 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.

**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. For more information, please email LRCCSenate@ccsnh.edu.

**National Honor Society**

Students who have completed a minimum of twelve (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 potential
- 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 Educated 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 ESNT120L 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 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
- 7-8 credits Quantitative Reasoning/Mathematics
- 6-8 credits Natural or Physical Sciences (including at least one lab science)
- 7-8 credits Social Sciences
- 9 credits Humanities/Fine Arts/Foreign Language
- 

### **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 that students

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

Colleges reserve the right to automatic conferral of certificate programs.

### **Assignment of Credits**

A credit hour shall be allocated based on the below:

<b>Category</b>	<b>Contact Hours/Week</b>	<b>Contact Hours/Semester (based on a minimum 15-week semester)</b>
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 labs, clinical, cooperative education, internship, or practicum hours per week. The third number represents the total number of credits.

Example:

BIOL145L Anatomy and Physiology 3-2-4

PSYC125L 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, PSYC125L 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 fifteen (15) semester hours from Lakes Region Community College. At least eight (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 nine (9) credits or 25% of the credits, whichever is larger, from Lakes Region Community College. For a certificate, students must complete at least six (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 does not 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 are 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, flex courses, 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. The Registrar of the College is responsible for the final audit before the student is awarded a degree or certificate. Students receiving a certificate do not participate in the commencement ceremony.

### **Transcripts**

LRCC has partnered with the National Student Clearinghouse (NSC) to process official transcripts. All college obligations must be met, including student loan payments, outstanding tuition, and payment of fines. Additionally, any library materials must be 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), the NSC link on the Registrar's Office webpage, or via transcript request form which is available on the college website. There is a five-dollar fee charge for an official transcript, this fee is paid to the NSC upon request or at the college if a paper copy is required. Unofficial transcripts can be viewed 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 Academic and 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:

- 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.
- Add the quality points from all the courses taken in the semester. Total the number of credits separately.
- Divide the total quality points by the total number of credits. This gives the semester grade point average.

Example	Letter Grade	Grade Points	Number of Credits	Quality Points
ENGL100L English Composition	A	(4)	4	$4 \times 4 = 16$
BIOL144L Human Biology with Lab	B+	(3.3)	4	$3.3 \times 4 = 13.2$
MATH129L Quantitative Reasoning	C	(2)	4	$2 \times 4 = 8$
PSYC125L Introduction to Psychology	D	(1)	<u>3</u>	<u><math>1 \times 3 = 3</math></u>
<b>TOTAL</b>			15	40.2

A total of 40.2 quality points divided by fifteen (15) credits = 2.68 semester grade point average (GPA)

## Grades are recorded as follows:

A	4.0 Points
A-	3.7 Points
B+	3.3 Points
B	3.0 Points
B-	2.7 Points
C+	2.3 Points
C	2.0 Points
C-	1.7 Points
D+	1.3 Points
D	1.0 Points
D-	.7 Points
F	.0 Points

## 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).

**TR:** Transfer (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:** Courses that have an asterisk following the course name, are computed in the 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 valid grounds for a grade appeal will use the following process to resolve the issue:

#### Meet with the instructor

The student shall contact the faculty member and schedule a meeting to discuss the grade appeal and attempt to resolve the conflict. The faculty member and student shall meet within five business days.

#### Meet with the Program Coordinator/Department Chair

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.

#### Meet with the Vice President of Academic and Student Affairs

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.

## **Satisfactory Academic Progress Standards**

If you receive VA benefits, you must maintain satisfactory academic progress in your chosen program of study. We suggest you familiarize yourself with these requirements.

Veteran students will be ineligible for VA benefits for one term if they do not meet these standards. That means you will not receive your benefits for the term following such a determination. See 34 CFR §668.34.

## **Early Alerts**

Reporting students with poor academic performance is referred to as an early alert. The early alert process allows faculty, and the student support counselors to help students receive the academic or emotional support needed to be successful.

How to determine if you should report a student as an early alert,

- The student is missing three or more assignments.
- The student has missed one or more classes having rigorous lab time.
- The student has failed two or more assignments or exams.
- Other areas you feel will hinder the student's academic success

It is extremely important to report students timely to allow time for the student to improve. LRCC has many academic and emotional supports in place to assist our students.

**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 12 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 an appeal clearly defining the basis for the appeal to the Vice President of Academic and Student Affairs within seven (7) business days following the letter is sent. The Vice President of Academic and Student Affairs will review the appeal and provide an email to the student of the outcome of the appeal.

Student appealing their academic decision are referred to the Student Support Counselors (SSC) to make an appointment.

The Support Counselors will:

- complete an appeal form and create an academic plan;
- send the request for an appeal to the Vice President of Academic and Student Affairs.

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 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. Although grades will not be counted in the student's CGPA, 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 based on 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 (Canvas). 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 or discredit 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](#).

## **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. It is understood 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 plan 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.



- Everyone 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 the student will attend all scheduled classes, laboratories, and clinics. Students not attending the first class of the semester who have not processed a course drop 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 financial aid 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 if pre-requisites are met, or the student receives instructor approval. Current students must register using Navigate or the Student Information System (SIS)

Students should understand that 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 (7<sup>th</sup>) calendar day of the semester, providing there is space in the class. A course may be added after the seventh (7<sup>th</sup>) calendar day of the semester 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). ***The 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 advisors and a support counselor. The student must complete the withdrawal form and participate in an exit interview with a support counselor, the Financial Aid Office and the Bursar's Office. Failure to attend classes does not constitute withdrawal from LRCC.

Students may withdraw from LRCC up to one week before the end of the semester. The notification date of the withdrawal is reflected on the students' academic college record, as needed, for students receiving scholarships, veteran's benefits, or for recipients of Title IV financial aid or other awards with special attendance requirements. A student who has withdrawn from the College must apply for readmission.

### **Student Status**

A **matriculated** student is a student 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 a student not admitted to a program 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**

The medical leave policy applies to a matriculated student with a **serious medical condition** requiring extended in-patient treatment, and/or ongoing outpatient medical treatment affecting the student to complete his/her academic requirements. The medical leave policy also applies to matriculated students unable to meet the program technical standards and/or the requirements of the Student Code of Conduct. A medical leave absence can be granted 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 [Michelle's Law](#) 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 decide the appropriateness of the leave request and notify the student in writing whether the request for a medical leave of absence was granted and what conditions may apply. Students granted a medical leave will not need to re-apply for admission at the end of the leave period, if all requirements are followed for the leave of absence.

Conditions for granting a medical leave of absence may include, but are not limited to, submission of documentation from a licensed health care professional *directly involved in the treatment* of the student's particular condition. Documentation must sufficiently provide reasonable assurance that the returning student will be able to meet all college and program academic, technical, and behavioral requirements.

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**

Enrollment Status refers to the number of credits a student takes during a semester and determines 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: Twelve (12) or more credits, or registered for ASEP or Toyota T-Ten Cooperative Education

Three-quarter time: Nine (9) – Eleven (11) credits

Half time: Six (6) – Eight (8) credits

Less than half time: One (1) – Five (5) credits

A student must register for twelve (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 the Registrar receives a written request.

**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. Students requesting their parent(s) to have information about any aspects of their progress at the college, 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 arrange for access and notify the student of the time and place where the records may be. If the college official does not maintain the records requested, the official should advise the student of correct official.
- The right to request the amendment of the student's education records that the student believes 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 personnel and health staff). A school official also refers to 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 as 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 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 documents.

## 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

Cooperative education 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.

Each college department sets standards for eligibility to participate in a cooperative education, approve cooperative education sites and determine cooperative education requirements (papers, journals, etc.). Grading cooperative education courses follows the College's grading system. Cooperative education is required for the GM ASEP, Toyota/Lexus (T-TEN), Culinary Arts, Hotel and Restaurant Operations and Pastry Arts 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. Approval of the Department Chair and Vice President of Academic and Student Affairs is required for all other programs.

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

The student's cooperative education academic advisor assists students in preparation for cooperative education, usually two to four weeks prior to the session.

LRCC retains its right to remove a student from a 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. Courses three years older or longer in Computer Information Systems will need to be re-taken.

### **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. An official transcript from other colleges is required to start the transfer process

The Academic and Student Affairs Office, Registrar's Office and along with Department Chairs, coordinate the transfer credit process. Students should consider, transfer credits might lessen their financial aid eligibility by reducing the course load from full-time to part-time status. Students using Veterans benefits must transfer credit into LRCC if the credit meets graduation requirements. 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 and are prepared and proctored 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. It is required that the exam be taken and graded within the first seven days of the semester. The student and the Registrar receive notification of the course exam results.

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:  $0.50 \times \text{current tuition rate} \times 12$  credits).

**Running Start**

High school students have an 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**

Early College is a dual enrollment program where high school students take college courses for both college and high school credit. Early College Students are charged half of tuition and no fees, although students are responsible for books and supplies. The earned college credits not only satisfy your high school requirements for graduation but may be applied directly towards a degree at Lakes Region Community College (LRCC) they may transfer to another college or university.

**High School and College Articulations**

Some high schools and four-year institutions 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 or transferring to a four-year institution with junior status. Speak with your advisor for a list of articulation agreements in your program.

## **Programs of Study**

### **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 various business concepts, including management, economics 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 who complete the program will:**

- Have a practical working knowledge of financial and managerial accounting.
- Demonstrate the ability to operate at least one accounting software program
- Demonstrate the ability to use and analyze modern information technology, including spreadsheets and basic database.
- Demonstrate the ability to be able to prepare a complex individual tax return.
- Be able to prepare accurate and well-organized financial statement.
- 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;
- Apply reading, thinking, writing, and oral communication skills to convey ideas, information, and intentions effectively and in a manner that is appropriate to a professional organization or business.
- Apply appropriate analytical tools and critical thinking to identify core issues, evaluate alternatives, and make informed decisions to solve problems in complex business situations.
- Recognize ethical issues, apply ethical frameworks to analyze them, differentiate between ethical and unethical behavior and integrate ethical understanding and societal responsibility into decision-making.
- Professional competence of business subject matter knowledge of in the core business areas of accounting, management, economics, and law.

#### **FIRST YEAR**

##### **Fall Semester**

	<b>CL</b>	<b>LAB</b>	<b>CR</b>
ACCT131L Accounting I.....	3	0	3
BUS130L Introduction to Business .....	3	0	3
ENGL100L English Composition.....	4	0	4
CIS133L Introduction to Information Technology .....	2	2	3
ESNT120L College Essentials .....	1	0	1
<b>Total .....</b>	<b>13</b>	<b>2</b>	<b>14</b>

##### **Spring Semester**

	<b>CL</b>	<b>LAB</b>	<b>CR</b>
ACCT132L Accounting II.....	3	0	3
ENGL124L Business Communications .....	3	0	3
SOSC231L Microeconomics			
<b>OR</b>			
SOSC232L Macroeconomics .....	3	0	3
Business Elective .....	3	0	3
Mathematics Elective .....	4	0	4
<b>Total .....</b>	<b>16</b>	<b>0</b>	<b>16</b>

**Total Credits for Year = 30**



**SECOND YEAR****Fall Semester**

	<b>CL</b>	<b>LAB</b>	<b>CR</b>
ACCT251L Federal Taxes .....	3	0	3
ACCT235L Managerial Accounting.....	3	0	3
BUS231L Principles of Management.....	3	0	3
BUS238L Business Law I .....	3	0	3
Humanities/Fine Arts/Foreign Language Elective .....	3	0	3
<b>Total .....</b>	<b>15</b>	<b>0</b>	<b>15</b>

**Spring Semester**

	<b>CL</b>	<b>LAB</b>	<b>CR</b>
ACCT231L Cost Accounting .....	3	0	3
ACCT273L Introduction to Computerized Accounting .....	2	2	3
CIS235L Spreadsheets .....	2	2	3
Science Elective .....	3	0	3
Social Science Elective .....	3	0	3
<b>Total .....</b>	<b>13</b>	<b>4</b>	<b>15</b>

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

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

**Accounting  
Certificate**

	<b>CL</b>	<b>LAB</b>	<b>CR</b>
ACCT131L Accounting I.....	3	0	3
ACCT132L Accounting II.....	3	0	3
ACCT231L Cost Accounting .....	3	0	3
ACCT235L Managerial Accounting.....	3	0	3
ACCT251L Federal Taxes .....	3	0	3
ACCT273L Introduction to Computerized Accounting .....	2	2	3
CIS235L Spreadsheets .....	2	2	3
CIS133L Introduction to Information Technology .....	2	2	3
ESNT120L College Essentials .....	1	0	1
<b>Total .....</b>	<b>22</b>	<b>6</b>	<b>25</b>

## 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 who complete the program will:

- Demonstrate arithmetic 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.
- Read and interpret blueprints and engineering drawings.
- Understand machine tools and machine tool operations such as milling, turning, drilling, cutting, grinding, and chamfering.
- Demonstrate 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.
- Demonstrate 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.
- Demonstrate 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.
- Understand procurement, inventory movement, storage of materials, and production flows.
- Understand 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
MANF142L	Machine Processes .....	2	3	3
MANF131L	Blueprint Reading.....	3	0	3
MANF145L	Manufacturing Processes.....	3	0	3
ESNT120L	College Essentials.....	1	0	1
	Social Science Elective .....	3	0	3
<b>Total .....</b>		<b>17</b>	<b>3</b>	<b>17</b>

Spring Semester		CL	LAB	CR
MANF132L	Solid Modeling.....	2	3	3
MANF151L	CNC Machines I .....	2	0	2
MANF152L	CNC Machines I Lab .....	2	6	2
MATH137L	Technical Algebra & Geometry .....	4	0	4
	Humanities/Fine Arts/Foreign Language Elective .....	3	0	3
<b>Total .....</b>		<b>13</b>	<b>11</b>	<b>14</b>

**Total Credits for Year = 31**

**SECOND YEAR****Fall Semester**

	<b>CL</b>	<b>LAB</b>	<b>CR</b>
MANF211L CNC Machines II .....	1	0	1
MANF212L CNC Machines II Lab .....	2	6	2
MANF230L CAD/CAM .....	2	3	3
MANF240L Lean Manufacturing.....	3	0	3
PHYS125L Technical Physics.....	2	2	3
Liberal Arts Elective.....	3	0	3
<b>Total.....</b>	<b>13</b>	<b>11</b>	<b>15</b>

**Spring Semester**

	<b>CL</b>	<b>LAB</b>	<b>CR</b>
MANF250L Advanced CNC Machine Processes .....	2	6	4
BUS232L Operations Management.....	3	0	3
MANF220L Properties of Materials .....	3	2	4
MANF270L Advanced Manufacturing Capstone .....	3	0	3
<b>OR</b>			
MANF280L Advanced Manufacturing Internship.....	0	9	3
<b>Total.....</b>	<b>11</b>	<b>8/17</b>	<b>14</b>

**Total Credits for Year = 29****Total for A.S. Degree = 60****Advanced Manufacturing  
Certificate**

	<b>CL</b>	<b>LAB</b>	<b>CR</b>
ESNT120L College Essentials.....	1	0	1
MANF120L Machine Tool Math.....	3	0	3
MANF131L Blueprint Reading.....	2	3	3
MANF142L Machine Processes .....	3	0	3
MANF151L CNC Machines I .....	2	0	2
MANF152L CNC Machines I Lab .....	0	6	2
MANF211L CNC Machines II .....	1	0	1
MANF212L CNC Machines II Lab .....	0	6	2
<b>Total.....</b>	<b>12</b>	<b>15</b>	<b>17</b>

# Art

## Associate in Arts

An associate degree in Art at LRCC offers a choice of two concentrations: Art Education and Studio Art. They share a core of 4 classes in studio foundations and history. Both tracks offer a strong arts foundation for entry into the field and several options for transferring to 4-year programs.

The Studio Art track focuses on drawing and painting and has elective options in printmaking, ceramics, and digital media. Students will leave the program with a sense of their own creative process and a personal website to market themselves and their work to galleries, job prospects or transfer to a 4-year program. With this degree a student is prepared for entry into the field or continued education.

The Art Education track provides students with a survey of studio art courses and art education courses. Students will spend time in elementary, middle or high school art classrooms, observing and interacting with students and teachers. Upon completion of the degree students will be prepared to teach art in a private setting or to transfer to a 4-year institution to complete their Bachelors in Art Education and earn their teaching certificate.

### Students who complete the program will:

- translate the 3D world onto a 2D surface through drawing, painting, or digital media,
- 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 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.

### Art Education Track

#### FIRST YEAR

Fall Semester	CL	LAB	CR
ARTS111L Introduction to Drawing .....	2	3	3
ARTS150L Introduction to Art Education .....	3	0	3
ARTS120L 2D Design.....	2	3	3
ENGL100L English Composition .....	4	0	4
ESNT120L College Essentials.....	1	0	1
Social Science Elective .....	3	0	3
<b>Total .....</b>	<b>15</b>	<b>6</b>	<b>17</b>

Spring Semester	CL	LAB	CR
ARTS125L 3D Design.....	2	3	3
ARTS136L Art History: Renaissance to Modernism.....	3	0	3
English Elective .....	3	0	3
Mathematics Elective .....	3	0	3
Social Science Elective .....	3	0	3
<b>Total .....</b>	<b>14</b>	<b>3</b>	<b>15</b>

**Total Credits for Year = 32**

#### SECOND YEAR

Fall Semester	CL	LAB	CR
ARTS131L Art History: Pre-Historic to Gothic .....	2	3	3
ARTS240L Painting I.....	2	3	3
ARTS251L Issues in Contemporary Art.....	1	0	1
Art Elective .....	3	0	3

Science Elective .....	3	0	3
Social Science Elective .....	3	0	3
<b>Total .....</b>	<b>14</b>	<b>6</b>	<b>16</b>

<b>Spring Semester</b>	<b>CL</b>	<b>LAB</b>	<b>CR</b>
ARTS216L Drawing: Figure in Value .....	2	3	3
ARTS235L 20 <sup>th</sup> Century Art .....	3	0	3
ARTS266L Portfolio .....	2	0	2
Mathematics Elective .....	4	0	3
Science Elective .....	2	3	4
<b>Total .....</b>	<b>13</b>	<b>6</b>	<b>15</b>

**Total Credits for Year = 31**

**Total for A.A. Degree = 63**

## Studio Art Track

### FIRST YEAR

<b>Fall Semester</b>	<b>CL</b>	<b>LAB</b>	<b>CR</b>
ARTS111L Introduction to Drawing .....	2	3	3
ARTS120L 2D Design.....	2	3	3
ARTS131L Art History: Prehistoric to Gothic .....	3	0	3
ENGL100L English Composition .....	4	0	4
ESNT120L College Essentials.....	1	0	1
Social Science Elective .....	3	0	3
<b>Total .....</b>	<b>15</b>	<b>6</b>	<b>17</b>

<b>Spring Semester</b>	<b>CL</b>	<b>LAB</b>	<b>CR</b>
ARTS125L 3D Design.....	2	3	3
ARTS136L Art History: Renaissance to Modernism.....	3	0	3
English Elective .....	3	0	3
Mathematics Elective .....	3	0	3
Social Science Elective .....	3	0	3
<b>Total .....</b>	<b>14</b>	<b>3</b>	<b>15</b>

**Total Credits for Year = 32**

### SECOND YEAR

<b>Fall Semester</b>	<b>CL</b>	<b>LAB</b>	<b>CR</b>
ARTS116L Drawing: Personal Voice .....	2	3	3
ARTS240L Painting I.....	2	3	3
ARTS251L Issues in Contemporary Art.....	1	0	1
Art Elective .....	3	0	3
Science Elective .....	3	0	3
Social Science Elective .....	3	0	3
<b>Total .....</b>	<b>11</b>	<b>6</b>	<b>16</b>

<b>Spring Semester</b>	<b>CL</b>	<b>LAB</b>	<b>CR</b>
ARTS216L Drawing: Figure in Value .....	2	3	3
ARTS266L Portfolio .....	2	0	2
Art <b>OR</b> Graphic Design Elective.....	3	0	3
Mathematics Elective .....	4	0	3
Science Elective .....	2	3	4
<b>Total .....</b>	<b>13</b>	<b>6</b>	<b>15</b>

**Total Credits for Year = 31**

**Total for A.A. Degree = 63**

# **Automotive Technologies**

## **Associate in Applied Science**

### **Automotive Service Education Program (GM ASEP)**

GM 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. GM ASEP students are already working while in school. They receive training on specific products and dealership operations. GM 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 GM 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 are carefully selected after 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 GM 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 who complete the program will:**

- 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**

<b>Fall Semester</b>		<b>CL</b>	<b>LAB</b>	<b>CR</b>
AUTO121L	Automotive Systems.....	2	9	5
AUTO128L	GM Automotive Electricity .....	2	8	4
ENGL100L	English Composition .....	4	0	4
ESNT120L	College Essentials.....	1	0	1
	Social Science Elective .....	3	0	3
<b>Total .....</b>		<b>12</b>	<b>17</b>	<b>17</b>

<b>Winter Semester</b>		<b>CL</b>	<b>LAB</b>	<b>CR</b>
AUTO170L	GM Cooperative Education I .....	0	12	4
<b>Total .....</b>		<b>0</b>	<b>12</b>	<b>4</b>

<b>Spring Semester</b>		<b>CL</b>	<b>LAB</b>	<b>CR</b>
AUTO225L	GM Chassis Systems .....	2	8	4
AUTO126L	GM Engine and Engine Related Electrical Systems .....	2	9	5
ENGL124L	Business Communications .....	3	0	3
	Mathematics Elective .....	4	0	4
<b>Total .....</b>		<b>11</b>	<b>17</b>	<b>16</b>

<b>Summer Semester I</b>		<b>CL</b>	<b>LAB</b>	<b>CR</b>
AUTO200L	GM Heating, Ventilation & Air Conditioning .....	2	8	3
AUTO211L	GM Supplemental Inflatable Restraint & Accessories .....	2	8	3
<b>Total .....</b>		<b>4</b>	<b>16</b>	<b>6</b>

<b>Summer Semester II</b>				
AUTO176L	GM Cooperative Education II .....	0	6	2
<b>Total .....</b>		<b>0</b>	<b>6</b>	<b>2</b>

**Total Credits for Year = 45**

**SECOND YEAR**

<b>Fall Semester</b>		<b>CL</b>	<b>LAB</b>	<b>CR</b>
AUTO275L	GM Cooperative Education III .....	0	12	4
<b>Total .....</b>		<b>0</b>	<b>12</b>	<b>4</b>

<b>Winter Semester</b>		<b>CL</b>	<b>LAB</b>	<b>CR</b>
AUTO222L	GM Drive Trains .....	2	9	5
AUTO134L	GM Fuel and Emissions .....	2	8	4
PHYS128L	Introduction to Physical Sciences .....	3	3	4
	Humanities/Fine Arts/Foreign Language Elective .....	3	0	3
<b>Total .....</b>		<b>10</b>	<b>20</b>	<b>16</b>

<b>Spring Semester</b>		<b>CL</b>	<b>LAB</b>	<b>CR</b>
AUTO290L	GM Cooperative Education IV .....	0	12	4
<b>Total .....</b>		<b>0</b>	<b>12</b>	<b>4</b>

**Total Credits for Year = 24**

**Total for A.A.S. Degree = 69**

# 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. Master Certified Technicians teach classes 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);
- be able 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 who complete the program will:

- 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
AUTO120L Introduction to Automotive Service .....	2	4	3
AUTO150L Suspension and Steering .....	3	7	4
AUTO138L Electrical/Electronics I .....	3	5	4
ENGL100L English Composition .....	4	0	4
ESNT120L College Essentials .....	1	0	1
<b>Total .....</b>	<b>13</b>	<b>16</b>	<b>16</b>

#### Spring Semester

	CL	LAB	CR
AUTO139L Electrical/Electronics II .....	3	5	4
AUTO140L Braking Systems .....	3	4	4
ENGL124L Business Communications .....	3	0	3
Mathematics Elective .....	3	0	3

<b>Total .....</b>	<b>12</b>	<b>9</b>	<b>14</b>
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<b>Summer Semester</b>	<b>CL</b>	<b>LAB</b>	<b>CR</b>
AUTO145L Heating, Ventilation and Air Conditioning.....	3	7	4
AUTO137L Engine Mechanical .....	3	5	4
Social Science Elective .....	3	0	3
<b>Total .....</b>	<b>9</b>	<b>12</b>	<b>11</b>

**Total Credits for Year = 41**

## SECOND YEAR

<b>Fall Semester</b>	<b>CL</b>	<b>LAB</b>	<b>CR</b>
AUTO240L Manual Drive Train .....	3	4	4
AUTO245L Engine Performance I.....	3	5	4
Science Elective .....	3	0	3
Liberal Arts Elective.....	3	0	3
<b>Total .....</b>	<b>12</b>	<b>9</b>	<b>14</b>

<b>Spring Semester</b>	<b>CL</b>	<b>LAB</b>	<b>CR</b>
AUTO246L Engine Performance II.....	3	5	4
AUTO265L Automatic Transmission and Transaxles .....	3	6	4
AUTO270L Advanced Technology Systems.....	3	0	3
Humanities/Fine Arts/Foreign Language Elective .....	3	0	3
<b>Total .....</b>	<b>12</b>	<b>11</b>	<b>14</b>

**Total Credits for Year = 28**

**Total for A.A.S. Degree = 69**

## Basic Automotive Certificate

	<b>CL</b>	<b>LAB</b>	<b>CR</b>
AUTO120L Introduction to Automotive Services.....	2	4	3
AUTO137L Engine Mechanical .....	3	5	4
AUTO138L Electrical/Electronics I .....	3	5	4
AUTO139L Electrical/Electronics II.....	3	5	4
AUTO140L Braking Systems .....	3	4	4
AUTO150L Suspension and Steering .....	3	7	4
ESNT120L College Essentials.....	1	0	1
<b>Total .....</b>	<b>18</b>	<b>30</b>	<b>24</b>

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

## Advanced Automotive Certificate

	<b>CL</b>	<b>LAB</b>	<b>CR</b>
AUTO120L Introduction to Automotive Service.....	2	4	3
AUTO137L Engine Mechanical .....	3	5	4
AUTO138L Electrical/Electronics I .....	3	5	4
AUTO139L Electrical/Electronics II.....	3	5	4
AUTO140L Braking Systems .....	3	4	4
AUTO145L HVAC.....	3	7	4
AUTO150L Suspension and Steering .....	3	7	4
AUTO240L Manual Drive Train .....	3	4	4
AUTO245L Engine Performance I .....	3	5	4
AUTO255L Engine Performance II.....	3	5	4
AUTO265L Automatic Transmission and Transaxles .....	3	6	4
ESNT120L College Essentials.....	1	0	1
<b>Total .....</b>	<b>33</b>	<b>57</b>	<b>44</b>

## 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 will 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 are 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 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 who complete the program will:

- 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

<b>Fall Semester</b>	<b>CL</b>	<b>LAB</b>	<b>CR</b>
AUTO125L Introduction to Toyota/Lexus Automotive Systems .....	1	6	4
AUTO131L Toyota/Lexus Electrical I .....	1	6	4
AUTO135L Toyota/Lexus Electrical II .....	1	6	4
ENGL100L English Composition .....	4	0	4
ESNT120L College Essentials .....	1	0	1
<b>Total .....</b>	<b>8</b>	<b>18</b>	<b>17</b>

<b>Winter Semester</b>	<b>CL</b>	<b>LAB</b>	<b>CR</b>
AUTO175L Toyota/Lexus Cooperative Education I .....	0	2	1
<b>Total .....</b>	<b>0</b>	<b>2</b>	<b>1</b>

<b>Spring Semester</b>	<b>CL</b>	<b>LAB</b>	<b>CR</b>
AUTO141L Toyota/Lexus Brakes .....	1	6	4
AUTO151L Toyota/Lexus Suspension, Steering and Handling .....	1	6	4
AUTO210L Toyota/Lexus Heating, Ventilation & Air Conditioning .....	1	6	4
ENGL124L Business Communications .....	3	0	3
Mathematics Elective .....	4	0	4
<b>Total .....</b>	<b>10</b>	<b>18</b>	<b>19</b>

<b>Summer Semester I</b>	<b>CL</b>	<b>LAB</b>	<b>CR</b>
AUTO257L Toyota/Lexus Engine Repair .....	1	10	6
Social Science Elective .....	3	0	3
<b>Total .....</b>	<b>4</b>	<b>10</b>	<b>9</b>

<b>Summer Semester II</b>	<b>CL</b>	<b>LAB</b>	<b>CR</b>
AUTO280L Toyota/Lexus Cooperative Education II .....	0	2	1
<b>Total .....</b>	<b>0</b>	<b>2</b>	<b>1</b>

**Total Credits for Year = 47**

## SECOND YEAR

<b>Fall Semester</b>	<b>CL</b>	<b>LAB</b>	<b>CR</b>
AUTO281L Toyota/Lexus Cooperative Education III .....	0	2	1
<b>Total .....</b>	<b>0</b>	<b>2</b>	<b>1</b>

<b>Winter Semester</b>	<b>CL</b>	<b>LAB</b>	<b>CR</b>
AUTO255L Toyota/Lexus Engine Control Systems I .....	1	6	4
AUTO256L Toyota/Lexus Engine Control Systems II .....	1	6	4
AUTO152L Toyota/Lexus Manual Drive Trains .....	1	6	4
PHYS128L Introduction to Physical Sciences .....	3	2	4
Humanities/Fine Arts/Foreign Language Elective .....	3	0	3
<b>Total .....</b>	<b>9</b>	<b>20</b>	<b>19</b>

<b>Spring Semester</b>	<b>CL</b>	<b>LAB</b>	<b>CR</b>
AUTO267L Toyota/Lexus Automatic Transmissions .....	1	6	4
AUTO282L Toyota/Lexus Cooperative Education IV .....	0	2	1
<b>Total .....</b>	<b>0</b>	<b>8</b>	<b>5</b>

**Total Credits for Year = 25**

**Total for A.A.S. Degree = 72**

## Toyota/Lexus T-TEN Level One Certificate

### First Year

Fall Semester		CL	LAB	CR
AUTO125L	Introduction to Toyota/Lexus Automotive Systems.....	1	6	4
AUTO131L	Toyota/Lexus Electrical I .....	1	6	4
AUTO135L	Toyota/Lexus Electrical II .....	1	6	4
ESNT120L	College Essentials.....	1	0	1
<b>Total .....</b>		<b>4</b>	<b>18</b>	<b>13</b>
Winter Semester		CL	LAB	CR
AUTO175L	Toyota/Lexus Cooperative Education I .....	0	2	1
<b>Total .....</b>		<b>0</b>	<b>2</b>	<b>1</b>
Spring Semester		CL	LAB	CR
AUTO141L	Toyota/Lexus Brakes.....	1	6	4
AUTO151L	Toyota/Lexus Steering Suspension, Steering and Handling.....	1	6	4
AUTO210L	Toyota/Lexus HVAC.....	1	6	4
<b>Total .....</b>		<b>3</b>	<b>18</b>	<b>12</b>
<b>Total for Certificate= 26</b>				

## Toyota/Lexus T-TEN Level Two Certificate

### FIRST YEAR

Fall Semester		CL	LAB	CR
AUTO125L	Introduction to Toyota/Lexus Automotive Systems.....	1	6	4
AUTO131L	Toyota/Lexus Electrical I .....	1	6	4
AUTO135L	Toyota/Lexus Electrical II .....	1	6	4
ESNT120L	College Essentials.....	1	0	1
<b>Total .....</b>		<b>4</b>	<b>18</b>	<b>13</b>
Winter Semester		CL	LAB	CR
AUTO175L	Toyota/Lexus Cooperative Education I .....	0	2	1
<b>Total .....</b>		<b>0</b>	<b>2</b>	<b>1</b>
Spring Semester		CL	LAB	CR
AUTO141L	Toyota/Lexus Brakes.....	1	6	4
AUTO151L	Toyota/Lexus Steering Suspension, Steering and Handling.....	1	6	4
AUTO210L	Toyota/Lexus HVAC.....	1	6	4
<b>Total .....</b>		<b>3</b>	<b>18</b>	<b>12</b>
Summer Semester I		CL	LAB	CR
AUTO257L	Toyota/Lexus Engine Repair .....	1	10	6
<b>Total .....</b>		<b>1</b>	<b>10</b>	<b>6</b>
Summer Semester II		CL	LAB	CR
AUTO280L	Toyota/Lexus Cooperative Education II .....	0	2	1
<b>Total .....</b>		<b>0</b>	<b>2</b>	<b>1</b>

### SECOND YEAR

Fall Semester		CL	LAB	CR
AUTO281L	Toyota/Lexus Cooperative Education III .....	0	2	1
<b>Total .....</b>		<b>0</b>	<b>2</b>	<b>1</b>



<b>Winter Semester</b>		<b>CL</b>	<b>LAB</b>	<b>CR</b>
AUTO255L	Toyota/Lexus Engine Control Systems I .....	1	6	4
AUTO256L	Toyota/Lexus Engine Control Systems II .....	1	6	4
AUTO152L	Toyota/Lexus Manual Drive Trains .....	1	6	4
<b>Total .....</b>		<b>3</b>	<b>18</b>	<b>12</b>

<b>Spring Semester</b>		<b>CL</b>	<b>LAB</b>	<b>CR</b>
AUTO267L	Toyota/Lexus Automatic Transmission .....	1	6	4
AUTO282L	Toyota/Lexus Cooperative Education IV .....	0	2	1
<b>Total .....</b>		<b>1</b>	<b>8</b>	<b>5</b>

**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, 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 who complete the program will:

- apply reading, thinking, writing, and oral communication skills to convey ideas, information, and intentions effectively and in a manner that is appropriate to a professional organization or business.
- apply appropriate analytical tools and critical thinking to identify core issues, evaluate alternatives, and make informed decisions to solve problems in complex business situations.
- work effectively in a team environment by working cooperatively and collaboratively to help their team achieve a common objective by leveraging the strengths of others, and developing trusting and supportive relationships with teammates, managing conflicts within the team, and adapting to the needs of the team.
- recognize ethical issues, apply ethical frameworks to analyze them, differentiate between ethical and unethical behavior and integrate ethical understanding and societal responsibility into decision-making.
- demonstrate the effective use of the leadership skills of adaptability, influence, vision, organization, and motivation to make responsible decisions within an organization and achieve organizational objectives.
- understand information technology as it affects the structure of and processes of organizations and economics, and how the use of technology manifests itself in the establishment and accomplishment of strategic goals of the organization.
- understand and manage cultural differences, diversity issues, and participation in a global economy as they relate to business functions and processes in domestic and global settings.
- professional competence of business subject matter knowledge of in the core business areas of accounting, management, economics, and law.

### FIRST YEAR

#### Fall Semester

	CL	LAB	CR
ACCT131L Accounting I.....	3	0	3
BUS130L Introduction to Business.....	3	0	3
CIS133L Introduction to Information Technology .....	2	2	3
ENGL100L English Composition .....	4	0	4
ESNT120L College Essentials.....	1	0	1
<b>Total.....</b>	<b>14</b>	<b>2</b>	<b>15</b>

<b>Spring Semester</b>		<b>CL</b>	<b>LAB</b>	<b>CR</b>
ACCT132L	Accounting II.....	3	0	3
BUS260L	Principles of Marketing.....	3	0	3
ENGL124L	Business Communications.....	3	0	3
SOSC231L	Microeconomics.....	3	0	3
<b>OR</b>				
SOSC232L	Macroeconomics.....	3	0	3
	Mathematics Elective.....	4	0	4
	<b>Total</b> .....	<b>15</b>	<b>0</b>	<b>15</b>

**Total Credits for Year =30**

## **SECOND YEAR**

<b>Fall Semester</b>		<b>CL</b>	<b>LAB</b>	<b>CR</b>
BUS231L	Principles of Management.....	3	0	3
BUS135L	Small Business Management.....	3	0	3
BUS240L	Introduction to Project Management.....	3	0	3
	Business Elective*.....	3	0	3
	Science Elective.....	3	0	3
	<b>Total</b> .....	<b>15</b>	<b>0</b>	<b>15</b>

<b>Spring Semester</b>		<b>CL</b>	<b>LAB</b>	<b>CR</b>
BUS238L	Business Law I.....	3	0	3
BUS252L	Introduction to International Business.....	3	0	3
	Business Elective*.....	3	0	3
	Humanities/Fine Arts/Foreign Language Elective.....	3	0	3
	Social Science Elective.....	3	0	3
	<b>Total</b> .....	<b>15</b>	<b>0</b>	<b>15</b>

**Total Credits for Year = 30**

**Total for A.S. Degree = 60**

<b>*Business Electives</b>		<b>CL</b>	<b>LAB</b>	<b>CR</b>
BUS150L	Principles of Customer Service.....	3	0	3
BUS175L	Cooperative Education/Internship I.....	0	9	3
BUS233L	Supervision.....	3	0	3
BUS239L	Business Law II.....	3	0	3
BUS241L	Human Resource Management.....	3	0	3
BUS232L	Operations Management.....	3	0	3
BUS261L	Social Media Marketing.....	3	0	3
BUS264L	Business and Sustainability.....	3	0	3
BUS280L	Cooperative Education/Internship II.....	3	0	3
CIS234L	Website and Design Development.....	2	2	3
CIS235L	Spreadsheets.....	2	2	3
ENGL260L	Public Speaking.....	3	0	3
FIN180L	Personal Financial Management.....	3	0	3
OTM121L	Business Documentation I.....	2	2	3
SOSC221L	Organizational Behavior.....	3	0	3
SOSC231L	Microeconomics.....	3	0	3
SOSC232L	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
ACCT131L Accounting I.....	3	0	3
ACCT132L Accounting II.....	3	0	3
BUS130L Introduction to Business.....	3	0	3
BUS135L Small Business Management.....	3	0	3
BUS231L Principles of Management.....	3	0	3
BUS260L Principles of Marketing.....	3	0	3
CIS133L Introduction to Information Technology.....	2	2	3
ENGL124L Business Communications.....	3	0	3
ESNT120L College Essentials.....	1	0	1
BUS233L Supervision.....	3	0	3
<b>OR</b>			
BUS241L Human Resource Management .....	3	0	3
<b>Total .....</b>	<b>27</b>	<b>2</b>	<b>28</b>

# Computer Information Systems Associate in Science

Computer Information Systems Associate of Science degree provides students with the opportunity to be well rounded in technology its effect on business and users. A degree in Computer Information Systems will allow students to get core foundations in many different areas of the computer industry. Students will learn programming, networking, databases, web design, hardware, software, communication, and business skills to prepare them for a position succeeding in any of those areas. This degree will set students up to transfer to many different schools in New Hampshire and New England, as well as the rest of the country and world should they choose. This degree provides students with flexibility to work in many capacities within IT for not just IT companies, but also for any business that would have an IT department or need. Students will look to gain employment as Computer Support Specialists, Network and Systems Administrators, Web or Programming Developers, and Information Systems Managers. Several stackable certificates are available during the program, including PC Applications Specialist, CIS Tech Certificate and a Programmer Certificate.

## Program Objectives:

1. Introduce students on how Computer Information Systems integrates with technology and business.
2. Provide students with the foundational knowledge in web development and object-oriented programming language and logic.
3. Prepare students to use the systems development life cycle along with its tools, techniques, methodologies, and processes, to develop computer-based information systems that meet the needs of businesses and organizations.
4. Provide students with database skills to design, implement, maintain and analyze those systems.
5. Introduce students to networking and data communication skills and security concepts.
6. Help students to explore career pathways in information technology to allow them to find a career that is right for them.

## Learning Outcomes:

1. Demonstrate a foundation of Computer Information Systems technical skills, knowledge and a basic understanding of computer applications.
2. Demonstrate a broad understanding of how people, processes and data work together to become Information Systems.
3. Demonstrate the ability to work as a part of an information technology team with effective use of the internet and the ability to disseminate information strategically.
4. Demonstrate the ability to think logically in troubleshooting computer problems and finding possible solutions.
5. Demonstrate proficiency with English Composition and Business fundamentals.
6. Demonstrate a basic understanding of various forms of programming languages and how to construct programming logic.
7. Demonstrate the basic understanding of relational databases
8. Demonstrate the ability to understand operating systems and networking solutions to connect those systems securely.

## FIRST YEAR

### Fall Semester

	CL	LAB	CR
CIS133L Introduction to Information Technology .....	2	2	3
CIS136L Fundamentals of Information Technology .....	2	2	3
CIS141L Information Systems.....	2	2	3
ENGL100L English Composition.....	4	0	4
ESNT120L College Essentials.....	1	0	1
<b>Total .....</b>	<b>11</b>	<b>6</b>	<b>14</b>

### Spring Semester

	CL	LAB	CR
CIS140L Introduction to Programming .....	3	2	4
CIS210L Operating Systems.....	2	2	3
<b>OR</b>			
CIS261L Installing and Configuring Window Servers .....	2	2	3
<b>OR</b>			
CIS262L Introduction to Linux .....	2	2	3
CIS252L Managing and Troubleshooting PCs.....	2	2	3

BUS130L	Introduction to Business .....	3	0	3
	Mathematics Elective .....	3	0	3
	<b>Total .....</b>	<b>13</b>	<b>6</b>	<b>16</b>

**Total Credits for Year = 30**

## **SECOND YEAR**

<b>Fall Semester</b>		<b>CL</b>	<b>LAB</b>	<b>CR</b>
CIS248L	Introduction to Networks .....	2	2	3
CIS215L	Intermediate Programming .....	3	2	4
CIS271L	Analyzing Software Requirements .....	2	2	3
	Humanities/Fine Arts/Foreign Language Elective .....	3	0	3
	Social Science Elective .....	3	0	3
	<b>Total .....</b>	<b>13</b>	<b>6</b>	<b>16</b>

<b>Spring Semester</b>		<b>CL</b>	<b>LAB</b>	<b>CR</b>
CIS242L	Database Management Systems .....	2	2	3
CIS261L	Installing and Configuring Window Servers .....	2	2	3
<b>OR</b>				
CIS262L	Introduction to Linux .....	2	2	3
<b>OR</b>				
CIS267L	Administering Windows Servers .....	2	2	3
CIS234L	Website Design and Development .....	2	2	3
	Science Elective .....	3	0	3
	Computer Information Systems Elective .....	2	2	3
	<b>Total .....</b>	<b>11</b>	<b>8</b>	<b>15</b>

**Total Credits for Year = 31**

**Total for A.S. Degree=61**

<b>*Computer Information System Electives</b>		<b>CL</b>	<b>LAB</b>	<b>CR</b>
CIS216L	Advanced Programming .....	3	2	4
CIS292L	Mobile Applications Development .....	3	2	4
CIS200L	Help Desk Skills .....	2	2	3
CIS253L	MacOS and Networking .....	2	2	3
CIS291L	Ethical Hacking .....	2	2	3
CIS295L	Internship .....	0	9	3
CIS296L	Cyber Defense .....	2	2	3

## **PC Applications Certificate**

		CL	LAB	CR
CIS133L	Introduction to Information Technology .....	2	2	3
CIS136L	Fundamentals of Information Technology .....	2	2	3
CIS141L	Information Systems.....	2	2	3
CIS235L	Spreadsheets .....	2	2	3
BUS130L	Introduction to Business .....	3	0	3
ESNT120L	College Essentials .....	1	0	1
	<b>Total .....</b>	<b>12</b>	<b>8</b>	<b>16</b>

## **Technologist Certificate**

		CL	LAB	CR
CIS133L	Introduction to Information Technology .....	2	2	3
CIS136L	Fundamentals of Information Technology .....	2	2	3
CIS141L	Information Systems.....	2	2	3
CIS248L	Introduction to Networks.....	2	2	3
CIS261L	Installing and Configuring Windows Services .....	2	2	3
CIS252L	Managing and Troubleshooting PCs .....	2	2	3
CIS210L	Operating Systems.....	2	2	3

**OR**



CIS262L	Introduction to Linux .....	2	2	3
ESNT120L	College Essentials .....	1	0	1
<b>Total .....</b>		<b>15</b>	<b>14</b>	<b>22</b>

## Programming Certificate

		<b>CL</b>	<b>LAB</b>	<b>CR</b>
CIS136L	Fundamentals of Information Technology .....	2	2	3
CIS140L	Introduction to Programming .....	3	2	4
CIS215L	Intermediate Programming .....	3	2	4
CIS216L	Advanced Programming .....	3	2	4
CIS234L	Website Design and Development .....	2	2	3
CIS292L	Mobile Applications Development .....	3	2	4
ESNT120L	College Essentials .....	1	0	1
<b>Total .....</b>		<b>17</b>	<b>12</b>	<b>23</b>

## 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 who complete the program will

- 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
CULA146L	Bakery Production .....	1	4	3
CULA151L	Culinary Fundamentals .....	1	6	3
CULA152L	Sanitation & Safety .....	3	0	3
ENGL100L	English Composition.....	4	0	4
ESNT120L	College Essentials.....	1	0	1
<b>Total .....</b>		<b>10</b>	<b>10</b>	<b>14</b>

Spring Semester		CL	LAB	CR
CULA158L	Restaurant Facility & Menu Design.....	3	0	3
CULA159L	Cost Control .....	3	0	3
HOS113L	Introduction to Worldwide Cuisine.....	1	6	3
HOS114L	Dining Room Management I.....	0	6	3
	Mathematics Elective .....	3	0	3
<b>Total .....</b>		<b>10</b>	<b>12</b>	<b>15</b>

Summer Semester		CL	LAB	CR
CULA232L	Culinary Co-operative Education (300 hours required).....	0	9	3
<b>Total .....</b>		<b>0</b>	<b>9</b>	<b>3</b>

**Total Credits for Year = 32**

**SECOND YEAR****Fall Semester**

	<b>CL</b>	<b>LAB</b>	<b>CR</b>
CULA253L Introduction to Garde Manger.....	1	6	3
CULA254L Classical Cuisine.....	1	6	3
HOS222L Quantity Food Purchasing.....	3	0	3
BIOL127L Nutrition for Health and Fitness w/Lab .....	3	2	4
Social Science Elective .....	3	0	3
<b>Total .....</b>	<b>11</b>	<b>14</b>	<b>16</b>

**Spring Semester**

	<b>CL</b>	<b>LAB</b>	<b>CR</b>
CULA147L Hot and Cold Plated Desserts.....	1	4	3
CULA255L Italian Cuisine.....	1	6	3
CULA256L U.S. Regional & Infusion Cuisine .....	1	6	3
English Elective .....	3	0	3
Humanities/Fine Arts/Foreign Language Elective.....	3	0	3
<b>Total .....</b>	<b>9</b>	<b>16</b>	<b>15</b>

**Total Credits for Year = 31****Total for A.S. Degree=63****Culinary Arts  
Certificate**

	<b>CL</b>	<b>LAB</b>	<b>CR</b>
CULA146L Bakery Production.....	1	4	3
CULA151L Culinary Fundamentals.....	1	6	3
CULA152L Sanitation & Safety.....	3	0	3
CULA254L Classical Cuisine.....	1	6	3
CULA253L Introduction to Garde Manger.....	1	6	3
HOS113L Introduction to Worldwide Cuisine.....	1	6	3
CULA147L Hot and Cold Plated Desserts.....	1	4	3
CULA255L Italian Cuisine.....	1	6	3
CULA256L U.S. Regional & Infusion Cuisine.....	1	6	3
ESNT120L College Essentials.....	1	0	1
<b>Total.....</b>	<b>12</b>	<b>44</b>	<b>28</b>

## Early Childhood Education Associate in Science

Early Childhood employment opportunities in New Hampshire remain excellent and 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 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 partial requirements of the New Hampshire Childcare Bureau of Licensing requirements for certification as a childcare director or teacher. Students seeking certification must meet all requirements of the NH Childcare Bureau of Licensing. This program also provides 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. Contact the New Hampshire Bureau of Childcare Standards and Licensing for questions regarding certification restrictions

### Students who complete the program will

- demonstrate knowledge of theories and developmentally appropriate practices (DAP) to foster child development and knowledge.
- apply understanding and application of NAEYC Standards
- demonstrate knowledge of advancing child development and learning
- create healthy, considerate, caring, and inspiring learning conditions for young children
- support and engage children's families, and their community through the development of positive relationships
- recognize the diversity of family dynamics and apply cultural competency in meeting the needs of their families / communities.
- justify and integrate a variety of assessments, observations and documentation to assist in curriculum planning and guidance for positive behaviors.
- continue to use reflective practices and resources to develop as a professional
- demonstrate ethical practices and integrity, in tandem with a collegial and collaborative disposition towards co-workers, families and the community.

### FIRST YEAR

Fall Semester		CL	LAB	CR
ECE212L	Teaching with Technology .....	3	0	3
ECE121L	Growth and Development of the Young Child .....	3	0	3
ECE123L	Foundations of Early Childhood Education .....	3	0	3
ENGL100L	English Composition .....	4	0	4
ESNT120L	College Essentials .....	1	0	1
<b>Total.....</b>		<b>14</b>	<b>0</b>	<b>14</b>

Spring Semester		CL	LAB	CR
ECE122L	Curriculum Development in Early Childhood .....	3	0	3
ECE124L	Health, Nutrition and Safety in Child Care .....	3	0	3
PSYC125L	Introduction to Psychology .....	3	0	3
MATH129L	Quantitative Reasoning .....	4	0	4
	Open Elective .....	3	0	3
<b>Total.....</b>		<b>16</b>	<b>0</b>	<b>16</b>

**Total Credits for Year = 30**  
**SECOND YEAR**

<b>Fall Semester</b>		<b>CL</b>	<b>LAB</b>	<b>CR</b>
ECE126L	Infant/Toddler Development.....	3	0	3
ECE165L	Practicum I in Early Childhood Education .....	1	6	3
ECE216L	Young Children's Special Needs .....	3	0	3
SOSC235L	Children, Youth and Families.....	3	0	3
	Open Elective.....	3	0	3
	<b>Total.....</b>	<b>13</b>	<b>6</b>	<b>15</b>

<b>Spring Semester</b>		<b>CL</b>	<b>LAB</b>	<b>CR</b>
ECE265L	Practicum II in Early Childhood Education.....	1	9	4
ECE230L	Developing and Administering a CC & Ed. ....	3	0	3
PHIL227L	Ethical Issues .....	3	0	3
	Science Elective.....	3	0	3
	Open Elective.....	3	0	3
	<b>Total.....</b>	<b>13</b>	<b>9</b>	<b>16</b>

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

**Associate Teacher  
Certificate**

		<b>CL</b>	<b>LAB</b>	<b>CR</b>
ECE121L	Growth and Development of the Young Child	3	0	3
ECE124L	Health, Nutrition and Safety in Child Care .....	3	0	3
ECE126L	Infant/Toddler Development.....	3	0	3
ESNT12L	College Essentials .....	1	0	1
	<b>Total.....</b>	<b>10</b>	<b>0</b>	<b>10</b>

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

**Lead Teacher  
Certificate**

		<b>CL</b>	<b>LAB</b>	<b>CR</b>
ECE121L	Growth and Development of the Young Child	3	0	3
ECE122L	Curriculum Development in Early Childhood .....	3	0	3
ECE123L	Foundations of Early Childhood Education.....	3	0	3
ECE124L	Health, Nutrition and Safety in Child Care .....	3	0	3
ECE126L	Infant/Toddler Development.....	3	0	3
ECE165L	Practicum I in Early Childhood Education.....	2	6	3
ESNT120L	College Essentials .....	1	0	1
	<b>Total.....</b>	<b>18</b>	<b>6</b>	<b>19</b>

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

**Early Childhood Education  
Advanced Certificate**

		<b>CL</b>	<b>LAB</b>	<b>CR</b>
ECE121L	Growth and Development of the Young Child	3	0	3
ECE122L	Curriculum Development in Early Childhood .....	3	0	3
ECE123L	Foundations of Early Childhood Education.....	3	0	3
ECE124L	Health, Nutrition and Safety in Child Care .....	3	0	3
ECE126L	Infant/Toddler Development.....	3	0	3
ECE165L	Practicum I in Early Childhood Education.....	2	6	3
ECE224L	Math and Science in Early Childhood .....	3	0	3
<b>OR</b>				
ECE231L	Early Literacy Development .....	3	0	3
ENGL100L	English Composition .....	3	0	4
ESNT120L	College Essentials .....	1	0	1
	Literature Elective .....	3	0	3
	<b>Total.....</b>	<b>27</b>	<b>6</b>	<b>29</b>

## **Electrical Technologies Associate in Applied Science**

Electrical Technologies offers degree programs in Electrical Systems Installation and Maintenance (ESIM) and Electrical Power and Control Technologies (EPCT). Electrical Technologies students acquire a broad range of knowledge allowing them to begin at entry-level positions in different aspects of the field.

The Electrical Systems Installation and Maintenance 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 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**

A successful ESIM or EPCT 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 who complete the program will**

- 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 in order to generate 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

<b>Fall Semester</b>	<b>CL</b>	<b>LAB</b>	<b>CR</b>
EETEC126L Residential Wiring and Electrical Blueprint Reading .....	3	0	3
EETEC127L Residential Wiring and Electrical Blueprint Reading Lab.....	0	6	2
EETEC124L AC/DC Theory .....	4	3	5
EETEC141L NEC I .....	2	0	2
ENGL100L English Composition.....	4	0	4
ESNT120L College Essentials .....	1	0	1
<b>Total .....</b>	<b>14</b>	<b>9</b>	<b>17</b>

<b>Spring Semester</b>	<b>CL</b>	<b>LAB</b>	<b>CR</b>
EETEC128L Fundamentals of Electrical Control .....	2	6	4
EETEC130L Rotating Machinery .....	2	6	4
EETEC142L NEC II.....	2	0	2
MATH137L Technical Algebra & Geometry .....	4	0	4
<b>Total .....</b>	<b>10</b>	<b>12</b>	<b>14</b>

**Total Credits for Year = 31**

## SECOND YEAR

<b>Fall Semester</b>	<b>CL</b>	<b>LAB</b>	<b>CR</b>
EETEC143L NEC III.....	2	0	2
EETEC215L Photovoltaics .....	2	3	3
EETEC240L Stationary Machinery.....	2	6	4
PHYS125L Technical Physics .....	2	2	3
Liberal Arts Elective.....	3	0	3
<b>Total .....</b>	<b>11</b>	<b>11</b>	<b>15</b>

<b>Spring Semester</b>	<b>CL</b>	<b>LAB</b>	<b>CR</b>
EETEC210L Introduction to Electrical Estimating and Design.....	2	2	3
EETEC234L Construction Site Safety .....	3	0	3
EETEC235L Programmable Controllers .....	2	4	3
Social Science Elective .....	3	0	3
Humanities/Fine Arts Foreign Language Elective.....	3	0	3
<b>Total .....</b>	<b>13</b>	<b>6</b>	<b>15</b>

**Total Credits for Year = 30**

**Total for A.A.S. Degree = 61**

## Electrical Power and Control Technologies Certificate

	<b>CL</b>	<b>LAB</b>	<b>CR</b>
EETEC126L Residential Wiring and Electrical Blueprint Reading .....	3	0	3
EETEC127L Residential Wiring and Electrical Blueprint Reading Lab.....	0	6	2
EETEC124L AC/DC Theory .....	4	3	5
EETEC128L Fundamentals of Electrical Control .....	2	6	4
EETEC130L Rotating Machinery .....	2	6	4
EETEC141L NEC I .....	2	0	2
EETEC142L NEC II.....	2	0	2
MATH137L Technical Algebra & Geometry .....	4	0	4

ESNT120L	College Essentials .....	<u>1</u>	<u>0</u>	<u>1</u>
	<b>Total .....</b>	<b>20</b>	<b>21</b>	<b>27</b>

## Electrical Systems Installation and Maintenance

### Students who complete the program will

- demonstrate the mathematical 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

<b>Fall Semester</b>	<b>CL</b>	<b>LAB</b>	<b>CR</b>
EETEC126L Residential Wiring and Electrical Blueprint Reading.....	3	0	3
EETEC127L Residential Wiring and Electrical Blueprint Reading Lab.....	0	6	2
EETEC124L AC/DC Theory .....	4	3	5
EETEC141L NEC I .....	2	0	2
ENGL100L English Composition.....	4	0	4
ESNT120L College Essentials.....	1	0	1
<b>Total .....</b>	<b>14</b>	<b>9</b>	<b>17</b>

<b>Spring Semester</b>	<b>CL</b>	<b>LAB</b>	<b>CR</b>
EETEC123L Wiring Theory and Techniques (Commercial) .....	4	6	6
EETEC142L NEC II.....	2	0	2
MATH137L Technical Algebra and Geometry.....	4	0	4
Social Science Elective .....	3	0	3
<b>Total .....</b>	<b>13</b>	<b>6</b>	<b>15</b>

**Total Credits for Year = 32**

### SECOND YEAR

<b>Fall Semester</b>	<b>CL</b>	<b>LAB</b>	<b>CR</b>
EETEC143L NEC III.....	2	0	2
EETEC215L Photovoltaics .....	2	3	3
EETEC230L Electrical Motor Control .....	2	3	3
PHYS125L Technical Physics .....	2	2	3
Open Elective .....	3	0	3
<b>Total .....</b>	<b>11</b>	<b>8</b>	<b>14</b>

<b>Spring Semester</b>	<b>CL</b>	<b>LAB</b>	<b>CR</b>
EETEC210L Introduction to Electrical Estimating and Design.....	2	2	3
EETEC224L Wiring Theory and Techniques (Industrial) .....	3	3	4
EETEC234L Construction Site Safety.....	3	0	3
Humanities/Fine Arts/Foreign Language Elective .....	3	0	3
Liberal Arts Elective.....	3	0	3
<b>Total .....</b>	<b>14</b>	<b>5</b>	<b>16</b>

**Total Credits for Year = 30**

**Total for A.A.S. Degree = 62**

## Electrical Systems Installation and Maintenance Certificate

	<b>CL</b>	<b>LAB</b>	<b>CR</b>
ETEC126L Residential Wiring and Electrical Blueprint Reading .....	3	0	3
ETEC127L Residential Wiring and Electrical Blueprint Reading Lab.....	0	6	2
ETEC123L Wiring Theory and Techniques (Commercial) .....	4	6	6
ETEC124L AC/DC Theory .....	4	3	5
ETEC141L NEC I .....	2	0	2
ETEC142L NEC II .....	2	0	2
ETEC143L NEC III .....	2	0	2
MATH137L Technical Algebra and Geometry .....	4	0	4
ESNT120L College Essentials .....	1	0	1
<b>Total .....</b>	<b>22</b>	<b>15</b>	<b>27</b>

# 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 skills 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 who complete the program will

- demonstrate 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.
- understand machine tools and machine tool operations such as milling, turning, drilling, cutting, grinding, and chamfering.
- demonstrate 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.
- demonstrate 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.
- understand AC/DC Electrical Theory and the application to CNC Machine diagnostics.
- interpret electrical control diagram, prints, and logic.
- understand electrical controls and programmable controllers.
- understand motors including drive motors and drive systems.
- troubleshoot skills for programmable controllers, motor drive units, and electrical controls.
- demonstrate an understanding of hydraulic and pneumatic fluid power systems' theories, operation, and troubleshooting.

### FIRST YEAR

Fall Semester		CL	LAB	CR
ENGL100L	English Composition.....	4	0	4
ETEC124L	AC/DC Theory .....	4	3	5
ELMT120L	Fluid Power Systems.....	2	6	4
ESNT120L	College Essentials.....	1	0	1
	Humanities/Fine Arts/Foreign Language Elective .....	3	0	3
<b>Total .....</b>		<b>14</b>	<b>9</b>	<b>17</b>

Spring Semester		CL	LAB	CR
ETEC128L	Fundamentals of Electrical Controls .....	2	6	4
ETEC130L	Rotating Machinery .....	2	6	4
MANF151L	CNC Machines I .....	2	0	2
MANF152L	CNC Machines I Lab .....	0	6	2
MATH137L	Technical Algebra & Geometry .....	4	0	4
<b>Total .....</b>		<b>10</b>	<b>18</b>	<b>16</b>

**Total Credits for Year = 33**

### SECOND YEAR

Fall Semester		CL	LAB	CR
PHYS125L	Technical Physics.....	2	2	3
MANF230L	CAD/CAM.....	3	0	3
MANF211L	CNC Machines II .....	1	0	1
MANF212L	CNC Machines II Lab .....	0	6	2
	Social Science Elective .....	3	0	3
<b>Total .....</b>		<b>9</b>	<b>8</b>	<b>12</b>





<b>Spring Semester</b>		<b>CL</b>	<b>LAB</b>	<b>CR</b>
ETEC235L	Programmable Logic Controllers.....	2	3	3
ELMT210L	Mechanical Drive Systems .....	2	4	4
ELMT270L	Electro-Mechanical Capstone .....	3	0	3
<b>OR</b>				
ELMT280L	Electro-Mechanical Internship.....	0	9	3
	Liberal Arts Elective.....	3	0	3
	Open Elective .....	3	0	3
	<b>Total</b> .....	<b>13</b>	<b>7/16</b>	<b>16</b>

**Total Credits for Year = 28**

**Total for A.S. Degree = 61**

## **Machine Maintenance Technician Certificate**

### **FIRST YEAR**

#### **Fall Semester**

		<b>CL</b>	<b>LAB</b>	<b>CR</b>
ESNT120L	College Essentials.....	1	0	1
MATH137L	Technical Algebra & Geometry.....	4	0	4
ETEC124L	AC/DC Theory.....	4	3	5
ELMT120L	Fluid Power Systems.....	2	6	4
	<b>Total</b> .....	<b>11</b>	<b>9</b>	<b>14</b>

<b>Spring Semester</b>		<b>CL</b>	<b>LAB</b>	<b>CR</b>
MANF151L	CNC Machines I.....	2	0	2
MANF152L	CNC Machines I Lab.....	0	6	2
ELMT210L	Mechanical Drive Systems.....	2	4	4
ETEC 128L	Fundamentals of Electrical Controls.....	2	6	4
	<b>Total</b> .....	<b>6</b>	<b>16</b>	<b>12</b>

**Total Credits for Certificate=26**

# Fire Technologies

## Associate in Science

**Please Note: The Fire Protection degree and certificate is currently in a teach-out phase and LRCC is not currently accepting students into this program.**

Fire Technologies offers degrees in Fire Science. 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 provide 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 covers 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's degree programs.

### **Students who complete the program will**

- 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.
- 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.

## Fire Science

The student who successfully completes this program will:

- be prepared for employment in a fire department;
- understand policies and procedures involving emergency responder 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
FIRE124L	Principles of Emergency Services.....	3	0	3
FIRE180L	Firefighter I & II.....	4	12	8
ENGL100L	English Composition.....	4	0	4
ESNT120L	College Essentials.....	1	0	1
<b>Total.....</b>		<b>12</b>	<b>12</b>	<b>16</b>

Spring Semester		CL	LAB	CR
FIRE127L	Fire Behavior and Combustion .....	3	0	3
FIRE131L	Fire Protection Systems .....	3	0	3
FIRE140L	Building Construction for Fire Protection.....	3	0	3
FIRE225L	Emergency Medical Technician .....	1	6	3
	Mathematics Elective .....	3	0	3
<b>Total.....</b>		<b>13</b>	<b>6</b>	<b>15</b>

**Total Credits for Year = 31**

### SECOND YEAR

Fall Semester		CL	LAB	CR
FIRE160L	Fire Prevention .....	3	0	3
FIRE250L	Fire Protection Hydraulics and Water Supply .....	3	0	3
FIRE224L	Strategy and Tactics.....	3	0	3
	Science Elective .....	2	2	3
	Humanities/Fine Arts/Foreign Language Elective .....	3	0	3
<b>Total.....</b>		<b>14</b>	<b>2</b>	<b>15</b>

Spring Semester		CL	LAB	CR
FIRE234L	Fire & Emergency Services Safety & Survival .....	3	0	3
	Fire Science Elective.....	6	0	6
	English Elective .....	3	0	3
	Social Science Elective .....	3	0	3
<b>Total.....</b>		<b>15</b>	<b>0</b>	<b>15</b>

**Total Credits for Year = 30**

**Total for A.S. Degree = 61**

### Fire Science Electives:

**Fire Science students must have a total of 6 credits in Fire Science Electives**

		CL	LAB	CR
FIRE230L	Advanced Fire Codes and Standards .....	3	0	3
FIRE236L	Fire Investigation I.....	3	0	3
FIRE238L	Advanced Emergency Medical Technician .....	4	6	6
FIRE243L	Educational Methodology .....	3	0	3
FIRE245L	Fire & Life Safety Education .....	3	0	3
FIRE281L	Fire and Emergency Services Administration .....	3	0	3

## Fire Science Certificate

Fall Semester		CL	LAB	CR
FIRE124L	Principles of Emergency Services.....	3	0	3
FIRE160L	Fire Prevention .....	3	0	3
FIRE180L	Firefighter I & II .....	4	12	8
ESNT120L	College Essentials.....	1	0	1
<b>Total .....</b>		<b>11</b>	<b>12</b>	<b>15</b>

Spring Semester		CL	LAB	CR
FIRE127L	Fire Behavior and Combustion .....	3	0	3
FIRE131L	Fire Protection Systems .....	3	0	3
FIRE140L	Building Construction for Fire Protection.....	3	0	3
FIRE225L	Emergency Medical Technician .....	1	6	3
FIRE236L	Fire Investigation I .....	3	0	3
FIRE281L	Fire & Emergency Services Administration.....	3	0	3
<b>Total .....</b>		<b>16</b>	<b>6</b>	<b>18</b>

**Total for Certificate = 33**

## Fire Protection

Please Note: The Fire Protection degree and certificate is currently in a teach-out phase and LRCC is not currently accepting students into this program.

### FIRST YEAR

Fall Semester		CL	LAB	CR
FIRE124L	Principles of Emergency Services.....	3	0	3
FIRE160L	Fire Prevention .....	3	0	3
FIRE245L	Fire and Life Safety Education .....	3	0	3
FIRE255L	Occupational Health and Safety for Emergency Services .....	3	0	3
ENGL100L	English Composition.....	4	0	4
ESNT120L	College Essentials.....	1	0	1
<b>Total .....</b>		<b>17</b>	<b>0</b>	<b>17</b>

Spring Semester		CL	LAB	CR
FIRE127L	Fire Behavior and Combustion .....	3	0	3
FIRE131L	Fire Protection Systems .....	3	0	3
FIRE140L	Building Construction for Fire Protection .....	3	0	3
FIRE236L	Fire Investigation I .....	3	0	3
	Social Science Elective .....	3	0	3
	Mathematics Elective .....	3	0	3
<b>Total .....</b>		<b>18</b>	<b>0</b>	<b>18</b>

**Total Credits for Year = 35**

### SECOND YEAR

Fall Semester		CL	LAB	CR
FIRE250L	Fire Protection Hydraulics and Water Supply .....	3	0	3
FIRE256L	Community and Risk Analysis.....	3	0	3
FIRE269L	Legal Aspects of Emergency Services.....	3	0	3
	Science Elective .....	2	2	3
	Humanities/Fine Arts/Foreign Language.....	3	0	3
<b>Total .....</b>		<b>14</b>	<b>2</b>	<b>15</b>

<b>Spring Semester</b>		<b>CL</b>	<b>LAB</b>	<b>CR</b>
FIRE231L	Hazardous Materials Chemistry .....	3	0	3
FIRE237L	Fire Investigation II .....	3	0	3
FIRE230L	Advanced Fire Codes and Standards .....	3	0	3
	English Elective .....	<u>3</u>	<u>0</u>	<u>3</u>
	<b>Total .....</b>	<b>12</b>	<b>0</b>	<b>12</b>

**Total Credits for Year = 30**

**Total for A.S. Degree = 62**

**Fire Protection  
Certificate**

<b>Fall Semester</b>		<b>CL</b>	<b>LAB</b>	<b>CR</b>
FIRE124L	Principles of Emergency Services.....	3	0	3
FIRE236L	Fire Investigation I .....	3	0	3
FIRE245L	Fire and Life Safety Education .....	3	0	3
FIRE255L	Occupational Health and Safety for Emergency Services .....	3	0	3
FIRE269L	Legal Aspects of Emergency Services.....	3	0	3
ESNT120L	College Essentials .....	<u>1</u>	<u>0</u>	<u>1</u>
	<b>Total .....</b>	<b>16</b>	<b>0</b>	<b>16</b>

<b>Spring Semester</b>				
FIRE127L	Fire Behavior and Combustion.....	3	0	3
FIRE131L	Fire Protection Systems .....	3	0	3
FIRE140L	Building Construction for Fire Protection.....	3	0	3
FIRE231L	Hazardous Materials Chemistry .....	3	0	3
FIRE256L	Community Fire and Risk Analysis .....	<u>3</u>	<u>0</u>	<u>3</u>
	<b>Total .....</b>	<b>15</b>	<b>0</b>	<b>15</b>

**Total for Certificate = 31**

# Graphic Design

## Associate in Science

The Graphic Design program offers a diverse educational experience in all phases of visual communication including; web design, illustration, logo design, identity systems, posters, packaging, publications, animation and many media applications. The program exposes the student to a thorough scope of the design industry standard software, 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.

Students completing the program will be well-versed in the industry standards and will have a variety of employment options. The designer for digital media includes jobs with publishers, game and video organizations, and various businesses where branding, marketing and advertising materials are needed. Web design development is a multi-faceted specialty with a growing demand. Animation options include gaming industry, video marketing and web advertising, as well as motion components embedded in websites.

### 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 who complete the program will:

- 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
ESNT120L College Essentials.....	1	0	1
GRA120L Design Software Essentials.....	2	3	3
GRA125L Foundations of Design .....	2	2	3
MATH211L College Algebra.....	4	0	4
<b>Total.....</b>	<b>13</b>	<b>5</b>	<b>15</b>

#### Spring Semester

	CL	LAB	CR
BUS261L Social Media Marketing .....	2	2	3
GRA134L Typography .....	2	2	3
GRA137L Aspects of Graphic Communication .....	2	2	3
Social Science Elective .....	3	0	3
English Elective .....	3	0	3
<b>Total.....</b>	<b>12</b>	<b>6</b>	<b>15</b>

**Total Credits for Year = 30**



## SECOND YEAR

### Fall Semester

	CL	LAB	CR
ARTS212L Introduction to Digital Photography .....	2	2	3
CIS234L Website and Design Development.....	2	2	3
GRA136L Digital Illustration .....	2	2	3
GRA224L Publication Design.....	2	2	3
Science Elective .....	3	0	3
<b>Total .....</b>	<b>11</b>	<b>8</b>	<b>15</b>

### Spring Semester

	CL	LAB	CR
GRA228L Motion Gaming Graphics.....	2	3	3
ARTS280L Creative Entrepreneurship .....	3	0	3
CIS276L Developing Web Applications .....	2	2	3
GRA271L Screen Process Printing.....	2	2	3
GRA280L Graphic Design Capstone .....	2	0	3
<b>Total .....</b>	<b>11</b>	<b>7</b>	<b>15</b>

**Total Credits for Year = 30**

**Total for A.S. Degree = 60**

## Foundations of Graphic Design Certificate

	CL	LAB	CR
ARTS212L Introduction to Digital Photography .....	2	2	3
CIS 234L Website and Design Development.....	2	3	3
ESNT120L College Essentials.....	1	0	1
GRA120L Design Software Essentials.....	2	3	3
GRA125L Foundations of Design .....	2	3	3
GRA134L Typography .....	2	3	3
GRA136L Digital Illustration .....	2	3	3
<b>Total .....</b>	<b>12</b>	<b>19</b>	<b>19</b>

## Graphic Design Advanced Certificate

	CL	LAB	CR
ARTS280L Creative Entrepreneurship .....	3	0	3
CIS 276L Developing Web Applications.....	2	3	3
ESNT120L College Essentials.....	1	0	1
GRA137L Aspects of Graphic Communications .....	2	3	3
GRA224L Publication Design.....	2	3	3
GRA271L Screen Process Printing.....	3	0	3
<b>OR</b>			
GRA228L Motion Gaming Graphics.....	2	3	3
GRA280L Graphics Capstone.....	3	0	3
<b>Total .....</b>	<b>15/16</b>	<b>12</b>	<b>19</b>

## Hotel and Restaurant Operations Associate in Science

A degree in Hotel and Restaurant Operations prepares students for careers in the world's largest industry, offering opportunities for growth and career advancement. This program, in partnership with leading Hotel and Restaurant businesses in New Hampshire, combines a rigorous academic program with relevant industry practical experience for those professionals in the hotel and restaurant industry and those wanting to enhance their career opportunities. The Hotel and Restaurant 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 Hotel and Restaurant Operations degree will gain knowledge and competencies in several critical areas such as hotel and resort operations, restaurant, event management, food and beverage management, customer service, hotel and restaurant law, human resource management, as well as marketing, budgeting and finance. During the student's time in this program, they will complete 400 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.

### Requirements:

#### Students who complete the program will:

- 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 400 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
BUS150L Principles of Customer Service.....	3	0	3
ENGL100L English Composition .....	3	0	4
ESNT120L College Essentials .....	1	0	1
CULA151L Culinary Fundamentals .....	1	6	3
HOS120L Introduction to Hospitality Management .....	3	0	3
HOS114L Dining Room Management I .....	0	6	3
<b>Total.....</b>	<b>11</b>	<b>12</b>	<b>17</b>

Spring Semester	CL	LAB	CR
ACCT131L Accounting I .....	3	0	3
BUS260L Principles of Marketing.....	3	0	3
HOS125L Hotel and Lodging Operations .....	3	0	3
HOS178L Restaurant Cooperative Education .....	0	0	2
Humanities/Fine Arts/Foreign Language Elective.....	3	0	3
<b>Total.....</b>	<b>12</b>	<b>0</b>	<b>14</b>

**Total Credits for Year =31**

## SECOND YEAR

<b>Fall Semester</b>		<b>CL</b>	<b>LAB</b>	<b>CR</b>
BUS231L	Principles of Management .....	3	0	3
ENGL124L	Business Communications.....	3	0	3
HOS213L	Event Planning and Design.....	3	0	3
HOS223L	Accounting Applications for Hotels and Restaurants.....	3	0	3
	Mathematics Elective .....	<u>3</u>	<u>0</u>	<u>3</u>
<b>Total.....</b>		<b>15</b>	<b>0</b>	<b>15</b>

<b>Spring Semester</b>		<b>CL</b>	<b>LAB</b>	<b>CR</b>
BUS238L	Business Law I.....	3	0	3
BUS241L	Human Resource Management .....	3	0	3
HOS230L	Hotel Cooperative Education .....	0	0	2
	Social Science Elective .....	3	0	3
	Science Elective .....	<u>3</u>	<u>0</u>	<u>3</u>
<b>Total.....</b>		<b>12</b>	<b>0</b>	<b>14</b>

**Total Credits for Year = 29**

**Total for A.S. Degree = 60**

## Hotel and Restaurant Operations Certificate

		<b>CL</b>	<b>LAB</b>	<b>CR</b>
BUS241L	Human Resource Management .....	3	0	3
ESNT120L	College Essentials.....	1	0	1
BUS150L	Principles of Customer Service .....	3	0	3
BUS231L	Principles of Management.....	3	0	3
BUS260L	Principles of Marketing.....	3	0	3
ACCT131L	Accounting I.....	3	0	3
<b>Select Two:</b>				
HOS125L	Hotel and Lodging Operations .....	3	0	3
HOS213L	Event Planning and Design .....	3	0	3
HOS223L	Accounting Applications for Hotels and Restaurants .....	3	0	3
HOS178L	Restaurant Cooperative Education .....	0	0	2
<b>OR</b>				
HOS230L	Hotel Cooperative Education .....	<u>0</u>	<u>0</u>	<u>2</u>
<b>Total.....</b>		<b>21</b>	<b>2</b>	<b>21</b>

## 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 who complete the program will:

- 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.
- need to have emotional stability, the ability to exercise sound judgment, accept direction and guidance from a supervisor or faculty coordinator, establish rapport and maintain sensitive interpersonal relationships with employees, customers, and/or clients and their families.
- works 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.
- submit to an examination of driving record prior to acceptance and background checks in many circumstances will occur.

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.

## Human Services

### FIRST YEAR

#### Fall Semester

	CL	LAB	CR
ENGL100L English Composition.....	4	0	4
HSV110L Professional Seminar .....	3	0	3
HSV120L Introduction to the Human Services Profession .....	3	0	3
PSYC125L Introduction to Psychology .....	3	0	3
ESNT120L College Essentials .....	1	0	1
Mathematics Elective .....	3	0	3
<b>Total .....</b>	<b>17</b>	<b>0</b>	<b>17</b>

#### Spring Semester

	CL	LAB	CR
ENGL124L Business Communications .....	3	0	3
<b>OR</b>			
ENGL260L Public Speaking.....	3	0	3
HSV126L Learning and Behavior .....	3	0	3
HSV128L Individual Assessment and Planning .....	3	0	3
HSV130L Gerontology .....	3	0	3
HSV150L Introduction to Practicum.....	1	0	1
SOSC128L Chemical Dependency .....	3	0	3

<b>Total .....</b>	<b>16</b>	<b>0</b>	<b>16</b>
<b>Total Credits for Year = 33</b>			

## SECOND YEAR

<b>Fall Semester</b>	<b>CL</b>	<b>LAB</b>	<b>CR</b>
HSV161L Human Services Practicum I .....	2	9	5
HSV221L Mental Health/Developmental Disabilities .....	3	0	3
PSYC126L Human Growth and Development .....	3	0	3
SOSC235L Children, Youth, and Families .....	3	0	3
<b>Total .....</b>	<b>11</b>	<b>9</b>	<b>14</b>

<b>Spring Semester</b>	<b>CL</b>	<b>LAB</b>	<b>CR</b>
HSV228L Political/Social Issues in Human Services .....	3	0	3
HSV262L Human Services Practicum II .....	2	9	5
PHIL227L Ethical Issues .....	3	0	3
Human Services Elective* .....	3	0	3
Science Elective with Lab .....	3	2	4
<b>Total .....</b>	<b>14</b>	<b>11</b>	<b>18</b>

**Total Credits for Year = 32**

**Total for A.S. Degree = 65**

## Concentration in Gerontology

### FIRST YEAR

<b>Fall Semester</b>	<b>CL</b>	<b>LAB</b>	<b>CR</b>
ENGL100L English Composition .....	4	0	4
HSV110L Professional Seminar .....	3	0	3
HSV120L Introduction to the Human Services Profession .....	3	0	3
PSYC125L Introduction to Psychology .....	3	0	3
ESNT120L College Essentials .....	1	0	1
Mathematics Elective .....	3	0	3
<b>Total .....</b>	<b>17</b>	<b>0</b>	<b>17</b>

<b>Spring Semester</b>	<b>CL</b>	<b>LAB</b>	<b>CR</b>
ENGL124L Business Communications .....	3	0	3
HSV126L Learning and Behavior .....	3	0	3
HSV128L Individual Assessment and Planning .....	3	0	3
HSV130L Gerontology .....	3	0	3
HSV150L Introduction to Practicum .....	1	0	1
SOSC128L Chemical Dependency .....	3	0	3
<b>Total .....</b>	<b>16</b>	<b>0</b>	<b>16</b>

**Total Credits for Year = 33**

## SECOND YEAR

<b>Fall Semester</b>	<b>CL</b>	<b>LAB</b>	<b>CR</b>
CIS133L Introduction to Information Technology .....	2	2	3
HSV131L Psychosocial Aspects of Aging .....	3	0	3
HSV171L Gerontology Practicum I .....	2	9	5
HSV230L The Aging Process .....	3	0	3
PSYC126L Human Growth and Development .....	3	0	3
<b>Total .....</b>	<b>14</b>	<b>11</b>	<b>17</b>

<b>Spring Semester</b>	<b>CL</b>	<b>LAB</b>	<b>CR</b>
HSV228L Political/Social Issues in Human Services .....	3	0	3
HSV271L Gerontology Practicum II .....	2	9	5
PHIL227L Ethical Issues .....	3	0	3
BIOL144L Human Biology with Lab .....	3	2	4

**OR**

BIOL145L	Anatomy & Physiology I .....	3	2	4
SOSC221L	Organizational Behavior .....	3	0	3
<b>Total .....</b>		<b>14</b>	<b>11</b>	<b>18</b>

**Total Credits for Year = 35**

**Total for A.S. Degree = 68**

<b>*Human Services Electives</b>		<b>CL</b>	<b>LAB</b>	<b>CR</b>
HSV112L	Overview Developmental Disabilities .....	3	0	3
HSV113L	Community Inclusion .....	3	0	3
HSV122L	Supportive Communication Skills .....	3	0	3
HSV140L	Justice and the Community .....	3	0	3
HSV145L	Foundations of Conflict Resolution .....	3	0	3
HSV214L	Meaningful Supports .....	3	0	3
HSV215L	Family and Support Networks .....	3	0	3
HSV230L	The Aging Process .....	3	0	3

## **Human Services Certificate**

		CL	LAB	CR
ENGL100L	English Composition.....	4	0	4
HSV120L	Introduction to the Human Services Profession .....	3	0	3
HSV110L	Professional Seminar .....	3	0	3
HSV126L	Learning and Behavior .....	3	0	3
HSV128L	Individual Assessment and Planning .....	3	0	3
HSV150L	Introduction to the Practicum.....	1	0	1
HSV161L	Human Services Practicum I .....	2	9	5
PSYC126L	Human Growth and Development.....	3	0	3
ESNT120L	College Essentials .....	1	0	1

### **Choose 3 credits**

HSV130L	Gerontology .....	3	0	3
HSV221L	Mental Health/Developmental Disabilities .....	3	0	3
SOSC128L	Chemical Dependency .....	3	0	3
<b>Total .....</b>		<b>25</b>	<b>9</b>	<b>29</b>

## **Gerontology Certificate**

		CL	LAB	CR
ENGL100L	English Composition.....	3	0	4
HSV110L	Professional Seminar .....	3	0	3
HSV130L	Gerontology .....	3	0	3
HSV131L	Psychosocial Aspects of Aging .....	3	0	3
HSV150L	Introduction to the Practicum.....	1	0	1
HSV171L	Gerontology Practicum I.....	2	9	5

### **OR**

NURS100L	Licensed Nursing Assistant .....	2	9	5
HSV230L	The Aging Process .....	3	0	3
SOSC128L	Chemical Dependency .....	3	0	3
ESNT120L	College Essentials .....	1	0	1

### **Choose 3 credits**

HSV232L	Political/Social Issues in Gerontology .....	3	0	3
PSYC126L	Human Growth and Development .....	3	0	3
SOSC124L	Introduction to Sociology .....	3	0	3
<b>Total .....</b>		<b>22</b>	<b>9</b>	<b>29</b>

## **Developmental Disabilities Certificate**

	CL	LAB	CR
ENGL100L English Composition.....	4	0	4



ESNT120L	College Essentials .....	1	0	1
HSV112L	Overview of Developmental Disabilities .....	3	0	3
HSV113L	Community Inclusion .....	3	0	3
HSV150L	Introduction to the Practicum.....	1	0	1
HSV161L	Human Services Practicum I .....	2	9	5
HSV214L	Meaningful Supports .....	3	0	3
HSV215L	Families and Support Networks .....	3	0	3
<b>Choose 3 credits</b>				
HSV120L	Introduction to the Human Services Profession .....	3	0	3
HSV221L	Mental Health and Developmental Disabilities .....	3	0	3
HSV228L	Political/Social Issues of Human Services .....	<u>3</u>	<u>0</u>	<u>3</u>
<b>Total .....</b>		<b>22</b>	<b>9</b>	<b>26</b>

## Interdisciplinary Studies Associate in Science

The Interdisciplinary Studies degree is for students seeking to create a self-designed program to meet personal or career goals, complete course work to meet admission requirements for a desired program or wishing to matriculate while awaiting admission to competitive degree programs. The Interdisciplinary Studies experience provides students with an alternative to the existing programs available at Lakes Region Community College. The program provides flexibility by encouraging students to select courses from multiple academic disciplines and allows students design their own educational path. Students in this program are required to consult with an academic advisor to gain approval of their degree plan.

The Interdisciplinary Studies degree offers two options:

**Option One:** Students selecting this option will work with their academic advisor to create an area of concentration consisting of thirty-six credits. Within the area of concentration, students must earn at least eight (8) credits in 200-level courses. Students awaiting admission to the Nursing program can utilize this option to fulfill admission pre-requisites and/or general education requirements.

**Option Two:** Students may work with an academic advisor to determine a path with more than one area of focus. This option is for those exploring different career paths as they are undecided on one program. Students will work with their academic advisor to develop an area of interest, which may result in transfer to an established degree program; however, successful completion of an approved exploration can result in the awarding of this degree. Students are required to earn a least eight (8) credits in 200- level courses to earn this degree.

Students are strongly advised to select option one to improve employment opportunities. Since this program allows for exploration of options, it is imperative students formulate and identify their own career and/or transfer goals with the assistance of an assigned academic advisor upon admission. All college policies, including residence credits, apply to this degree.

### Students who complete the program will:

- Demonstrate leadership, integrity, responsibility, perseverance, tolerance, and productive teamwork.
- Evaluate information, thoughts, opinions, and ideas rationally, objectively, and consistently.
- Demonstrate scientific thought both quantitatively and qualitatively, recognizing and formulating questions and offering solutions to problems related to science and scientific investigation.
- Perform operations and skill sets related to the personal and professional requirements of the student's desired program goal.

### FIRST YEAR

Fall Semester		CR
ENGL100L	English Composition.....	4
ESNT120L	College Essentials.....	1
CIS133L	Introduction to Information Technology .....	3
SOSC121L	Ethnography of Work.....	3
	Program Elective .....	3
<b>Total .....</b>		<b>14</b>

Spring Semester		CR
	English Elective .....	3
	Mathematics Elective .....	3
	Program Electives.....	9
<b>Total.....</b>		<b>15</b>

**Total Credits for Year = 29**

**SECOND YEAR****Fall Semester****CR**

Humanities/Fine Arts/Foreign Language Elective .....	3
Science Elective .....	4
Program Electives .....	<u>9</u>
<b>Total.....</b>	<b>16</b>

**Spring Semester****CR**

IDS290L    IDS Capstone .....	3
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**OR**

IDS291L    IDS Internship.....	3
Program Electives .....	<u>12</u>
<b>Total .....</b>	<b>15</b>

**Total Credits for Year = 31****Total for A.S. Degree = 60**

## Liberal Arts 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. Upon completion, 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 who complete the program will:

- communicate effectively both written 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 HUMA160L
Humanities	ENGL235L, ENGL224L, ENGL225L, ENGL235L, ENGL236L ENGL246L, ENGL251L, ENGL256L, ENGL257L, ENGL299L, and courses with ARTS, FREN, HIST, HUMA, PHIL and SPAN prefix
Literature	ENGL223L, ENGL234L, ENGL225L, ENGL246L, ENGL251L, ENGL256L, ENGL257L, ENGL299L, and HUMA160L
Mathematics	Courses with MATH prefix
Science	Courses with BIOL, CHEM, ENVS, GEOL, PHYS prefix
Social Science	HUMA130L, HUMA131L, HUMA250L, HUMA252L, and courses with HIST, PHIL, POLS, PSYC and SOSC prefix

### FIRST YEAR

Fall Semester		CR
ENGL100L	English Composition.....	4
ESNT120L	College Essentials.....	1
	Mathematics Elective .....	3
	Science Elective w/lab.....	3
	Social Science Elective (SOSC121L recommended) .....	3
	<b>Total.....</b>	<b>14</b>

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

**Total Credits for Year = 31**

## SECOND YEAR

### Fall Semester

CR

Humanities/Fine Arts Foreign Language Elective .....	3
Liberal Arts Elective.....	3
Liberal Arts Elective.....	3
Open Elective .....	3
Social Science Elective .....	3
<b>Total.....</b>	<b>15</b>

### Spring Semester

CR

Humanities/Fine Arts Foreign Language Elective .....	3
Liberal Arts Elective.....	3
Liberal Arts Elective.....	3
Open Elective* .....	3
Open Elective** .....	3
<b>Total.....</b>	<b>15</b>

**Total Credits for Year = 30**

**Total for A.A. Degree = Minimum of 61 credits**

**\*Students must have at least 12 credits in Liberal Arts electives, which may be satisfied by three 4-credit courses if needed to ensure minimum credits for degree requirements.**

# Marine Technologies

## Associate in Applied Science

**Please Note: The Marine Technology Associate Degree and Diagnostic Repair Certificate are currently in a teach-out phase and LRCC no longer is accepting students into these programs.**

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

LRCC offers two certificates and two-degree pathways. The Marine Maintenance certificate is for those who are looking for basic maintenance training in order to enter the workforce as soon as possible. The Marine Diagnostic and Repair certificate is for those who seek the career of a marine technician. It includes all of the marine maintenance courses as well as the diagnostic and repair courses. Should you seek a degree, LRCC offers a Marine Business degree for those seeking a technical education accompanied by a business perspective. This pathway is best suited for an individual looking for a management position or possible ownership of a marina. The Marine Technical degree is for those who want the most concentrated marine engine repair training available. These students will earn both certificates, a degree and become factory certified with Mercury Marine through our Advanced Marine Systems course.

There are opportunities for marine technicians in coastal and lakeside communities. Graduates will find employment as inboard drive, or outboard technicians, service managers, parts management or even business owners. There are many other opportunities in the recreational off-road vehicle market, such as motorcycle, watercraft and snowmobile technician. Those recreational products are closely related in design and concept; skill sets would be easily transferable.

### Program Outcomes

#### **Students who complete the program will:**

- Perform preventative maintenance of marine engines including oil changes, tune-ups, lower unit fluid change, water pump impeller replacement and fuel filter maintenance.
- Execute basic marine engine winterizing techniques such as fogging engines, preserving fuel systems and draining engine cooling systems.
- Complete a boat trailer inspection including the service of the trailer wheel bearings and adjustment of rollers and bunks to fit the boat hull.
- Identify American Boat and Yacht Council safety standards related to marine fuel and electrical systems.
- Operate a Digital Volt Ohm Meter and test circuits for current flow, resistance and voltages.
- State basic electrical theory as it pertains to marine DC electrical systems.
- Diagnose and repair basic marine starting and charging systems.
- Identify specific colors of wire and state their functions related to typical marine electrical systems
- State theory related to propeller design and define the terms, pitch, ventilation and cavitation
- Perform basic tasks related to the un-boxing and installation of outboard engines including steering systems, control cables, fuel lines and electrical connections.

#### **Students who complete the Marine Diagnostic and Repair certificate and associate degree program will:**

- Have a working knowledge and the ability to diagnose and repair marine fuel injection systems including outboard and sterndrive engine packages.
- Identify marine engine cooling system operation, diagnostics and repair.
- Overhaul a marine engine outdrive, including bearings, shafts and related shiming techniques.
- Make major repairs to marine engines using service literature to guide them.
- Resource service procedures and execute the process as published by the engine manufacture.
- Be proficient in the use of electronic diagnostic equipment to evaluate engine running problems.

## Marine Technology Business Track

### FIRST YEAR

<b>Fall Semester</b>	<b>CL</b>	<b>LAB</b>	<b>CR</b>
ESNT120L College Essentials .....	1	0	1
MAR121L Marine Maintenance and Fundamentals .....	4	3	5
MAR126L Outboard Engine Maintenance .....	3	6	5
MAR127L Marine Electrical Systems .....	3	6	5
<b>Total.....</b>	<b>11</b>	<b>15</b>	<b>16</b>

<b>Spring Semester</b>	<b>CL</b>	<b>LAB</b>	<b>CR</b>
MAR227L Marine Drive Systems Diagnostics and Repair.....	3	6	5
MAR228L Inboard Engine Diagnostics and Repair.....	3	6	5
MAR232L Outboard Engine Diagnostics and Repair.....	<u>3</u>	<u>6</u>	<u>5</u>
<b>Total .....</b>	<b>9</b>	<b>18</b>	<b>15</b>

<b>Summer Semester</b>	<b>CL</b>	<b>LAB</b>	<b>CR</b>
MAR170L Independent Study .....	<u>3</u>	<u>0</u>	<u>3</u>
<b>Total .....</b>	<b>3</b>	<b>0</b>	<b>3</b>

**Total Credits for Year = 34**

### SECOND YEAR

<b>Fall Semester</b>	<b>CL</b>	<b>LAB</b>	<b>CR</b>
ENGL100L English Composition.....	4	0	4
BUS130L Introduction to Business .....	3	0	3
BUS150L Principles of Customer Service .....	3	0	3
Mathematics Elective .....	3	0	3
Social Science Elective .....	<u>3</u>	<u>0</u>	<u>3</u>
<b>Total .....</b>	<b>13</b>	<b>9</b>	<b>16</b>

<b>Spring Semester</b>	<b>CL</b>	<b>LAB</b>	<b>CR</b>
BUS135L Small Business Management.....	3	0	3
English Elective .....	3	0	3
Humanities/Fine Arts/Foreign Language Elective .....	3	0	3
Liberal Arts Elective.....	<u>3</u>	<u>0</u>	<u>3</u>
Science Elective .....	3	0	3
<b>Total .....</b>	<b>15</b>	<b>3</b>	<b>15</b>

**Total Credits for Year = 31**

**Total for A.A.S. Degree = 65**

## Marine Technology Technical Track

### FIRST YEAR

<b>Fall Semester</b>	<b>CL</b>	<b>LAB</b>	<b>CR</b>
ESNT120L College Essentials .....	1	0	1
MAR121L Marine Maintenance and Fundamentals .....	4	3	5
MAR126L Outboard Engine Maintenance .....	3	6	5
MAR127L Marine Electrical Systems .....	3	6	5
<b>Total.....</b>	<b>11</b>	<b>15</b>	<b>16</b>

<b>Spring Semester</b>	<b>CL</b>	<b>LAB</b>	<b>CR</b>
MAR227L Marine Drive Systems Diagnostics and Repair.....	3	6	5
MAR228L Inboard Engine Diagnostics and Repair.....	3	6	5
MAR232L Outboard Engine Diagnostics and Repair.....	<u>3</u>	<u>6</u>	<u>5</u>
<b>Total .....</b>	<b>9</b>	<b>18</b>	<b>15</b>



<b>Summer Semester</b>		<b>CL</b>	<b>LAB</b>	<b>CR</b>
MAR170L	Independent Study .....	3	0	3
<b>Total .....</b>		<b>3</b>	<b>0</b>	<b>3</b>
<b>Total Credits for Year = 34</b>				

## **SECOND YEAR**

<b>Fall Semester</b>		<b>CL</b>	<b>LAB</b>	<b>CR</b>
ENGL100L	English Composition.....	4	0	4
MAR270L	Advanced Marine Systems I.....	3	0	3
	Humanities/Fine Arts/Foreign Language Elective .....	3	0	3
	Mathematics Elective .....	3	0	3
	Social Science Elective .....	3	0	3
<b>Total .....</b>		<b>13</b>	<b>9</b>	<b>16</b>

<b>Spring Semester</b>		<b>CL</b>	<b>LAB</b>	<b>CR</b>
MAR272L	Advanced Marine Systems II.....	4	6	6
	English Elective .....	3	0	3
	Liberal Arts Elective.....	3	0	3
	Science Elective .....	3	0	3
<b>Total .....</b>		<b>13</b>	<b>3</b>	<b>15</b>

**Total Credits for Year = 31**  
**Total for A.A.S. Degree = 65**

## **Marine Technology Maintenance Certificate**

		<b>CL</b>	<b>LAB</b>	<b>CR</b>
ESNT120L	College Essentials.....	1	0	1
MAR121L	Marine Maintenance and Fundamentals.....	4	3	5
MAR123L	Outboard Engine Maintenance .....	3	6	5
MAR127L	Marine Electrical Systems .....	3	6	5
<b>Total.....</b>		<b>11</b>	<b>15</b>	<b>16</b>

**Total for Certificate= 16**

## **Marine Technology Marine Diagnostics and Repair Certificate**

<b>Fall Semester</b>		<b>CL</b>	<b>LAB</b>	<b>CR</b>
ESNT120L	College Essentials.....	1	0	1
MAR121L	Marine Maintenance and Fundamentals.....	4	3	5
MAR123L	Outboard Engine Maintenance .....	3	6	5
MAR127L	Marine Electrical Systems .....	3	6	5
<b>Total.....</b>		<b>11</b>	<b>15</b>	<b>16</b>

<b>Spring Semester</b>		<b>CL</b>	<b>LAB</b>	<b>CR</b>
MAR170L	Independent Study/Internship .....	3	0	3
MAR227L	Marine Drive Systems Diagnostics and Repair.....	3	6	5
MAR228L	Inboard Engine Diagnostics and Repair.....	3	6	5
MAR232L	Outboard Engine Diagnostics and Repair.....	3	6	5
<b>Total.....</b>		<b>12</b>	<b>18</b>	<b>18</b>

**Total for Certificate= 34**

## **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. Access to the New Hampshire Board of Nursing's website is found at [www.state.nh.us/nursing](http://www.state.nh.us/nursing).

The associate degree nursing program at Lakes Region Community College meets the state education requirements for a Registered Nurse license in the state of New Hampshire. Lakes Region Community College has not determined if the associate degree nursing program at Lakes Region Community College meets the state education requirements in any other state, any U.S. Territory, or the District of Columbia. Contact the state regulatory agency for nursing in any other state for which this information is needed.

The Associate Degree Nursing Program is approved by the New Hampshire Board of Nursing (NHBON). Upon satisfactory completion of the program, the graduate is eligible to apply to the New Hampshire Board of Nursing (NHBON) and Pearson VUE NCLEX Candidate Services for the National Council Licensing Examination for Registered Nurses (NCLEX-RN). The New Hampshire Board of Nursing's licensing regulations may restrict candidates who have been involved in civil or criminal legal proceedings. Questions about licensing restrictions should be addressed to the New Hampshire Board of Nursing, 121 South Fruit Street, Concord, NH 03301.

The associate degree nursing program at Lakes Region Community College (LRCC) located in Laconia, NH is accredited by the Accreditation Commission for Education in Nursing (ACEN); 3343 Peachtree Road NE, Suite 850; Atlanta, GA 30326 (404) 975-5000. The most recent accreditation decision made by the ACEN Board of Commissioners for the LRCC associate degree nursing program is Initial Accreditation. View the public information disclosed by the ACEN regarding this program at <http://www.acenursing.us/accreditedprograms/programSearch.htm>

### **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. Address questions about licensing restrictions 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 with Southern New Hampshire University (SNHU) and Colby Sawyer College. Students planning to continue their education toward the bachelor or Master 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:**

- Meet all general college admissions requirements
- Provide Documentation of completion of high school or college algebra, chemistry with lab and biology with lab classes all with a minimum grade of "C" or higher
- Submit a completed college application for admission.
- Early notification applicant's deadline is December 15. If the 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 the LRCC Admissions Office receives all required documentation prior to the above deadlines.
- 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%
- English – 66.7%
- Applicants are permitted to take this test 3 times in a calendar year.
- Each attempt must be no less than six weeks apart
- Test scores are valid for a period of two years.
- LRCC offers the TEAS exam. Test dates are available on the LRCC nursing [website](#).
- 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
- TEAS scores are valid for two years
- Registration and payment for the TEAS exam is done at [atitesting.com](http://atitesting.com)
- Submit a 300 to 500-word essay to the admissions office. Directions for completing the essay can be found on the LRCC [website](#).
- All science courses required to complete a degree in Nursing must be taken in person. Online science courses will not be accepted.
- Applicants who have completed all of the admission requirements are strongly encouraged to meet with their nursing advisor or the nursing department chair.

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 criminal background check
- Complete a Department of Health and Human Services NH Child Abuse Central Registry Name Search
- 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 a 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:

- All nursing courses must have been completed with a grade of B- or better.
- All required science courses must have been completed within the 5 years of starting the nursing program with a grade of C or better.
- If any required science courses have been completed greater than 5 years before entry into the nursing program, applicants can must re-take the course.
- A science course that is being repeated must be completed by the end of the semester in which it is designated as a co-requisite.
- All pre-requisite and co-requisite courses must be completed with a grade of C or better.
- 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, 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 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:

- Meet all pre-requisites for the RN program excluding completion of the TEAS exam.
- All nursing courses must have been completed with a grade of B- or better.
- Meet all the co-requisite requirements for the first semester of the nursing program.
- Hold an unencumbered New Hampshire LPN license
- Complete the NLN NACE I exam with a minimum grade of 74%
- 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 National League for Nursing Testing Services for 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 auscultatory 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
BIOL145L Anatomy and Physiology I (co-requisite).....	3	2	4
ENGL100L English Composition .....	4	0	4
ESNT120L College Essentials.....	1	0	1
NURS132L Nursing I .....	5	12	9
<b>Total .....</b>	<b>13</b>	<b>14</b>	<b>18</b>

### Spring Semester

	CL	LAB	CR
BIOL146L Anatomy & Physiology II (co-requisite) .....	3	2	4
NURS142L Nursing II .....	3	15	8
PSYC125L Introduction to Psychology .....	3	0	3
PSYC126L Human Growth and Development.....	3	0	3
<b>Total .....</b>	<b>12</b>	<b>17</b>	<b>18</b>

**Total Credits for Year = 36**

## SECOND YEAR

### Fall Semester

	CL	LAB	CR
BIOL241L Microbiology (co-requisite) .....	3	2	4
NURS222L Nursing III .....	5	12	9
PHIL227L Ethical Issues .....	3	0	3
<b>Total .....</b>	<b>11</b>	<b>14</b>	<b>16</b>

### Spring Semester

	CL	LAB	CR
NURS232L Nursing IV .....	8	12	12
Mathematics Elective (MATH216L Statistics recommended) .....	3	0	3
English Elective .....	3	0	3
<b>Total .....</b>	<b>14</b>	<b>12</b>	<b>18</b>

**Total Credits for Year = 34**

**Total for A.S. Degree = 70**

## Paramedic Certificate

The Paramedic certificate program is designed for both students new to the field of Emergency Medicine and current emergency responders seeking to further their education. Successful completion of the program will prepare students as entry-level Paramedics eligible to sit for the National Registry of Emergency Medical Technicians Paramedic certification exam. Students will be educated on system structure and operations, therapeutic communications, pharmacology, anatomy and physiology, assessment and treatment of medical illnesses and traumatic injuries as well as multi-system trauma, airway management, public health, special populations, and critical care.

The curriculum complies with the National Emergency Medical Service Education Standards and is designed to meet the standards of the Commission on Accreditation of Allied Health Education Programs (CAAHEP).

The goal of the Paramedic Program is, "To prepare competent entry-level Paramedics in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains with or without exit points at the Advanced Emergency Medical Technician and/or Emergency Medical Technician, and or Emergency Medical Responder Levels

The Paramedic Certificate track will have several stackable certificates that will include, Advanced Cardiac Life Support certification, Pediatric Advanced Life Support certification, and Prehospital Trauma Life Support certification.

### Program Objectives:

- Introduce students to paramedicine and the healthcare system.
- Provide students with foundational knowledge expected of an entry level paramedic including the emergency medical services system, patient assessment, emergency care of the trauma and medical patient, special populations, and public health.

### Students who complete the program will:

- Demonstrate the ability to comprehend, apply, and evaluate information expected of an entry level paramedic.
- Demonstrate the ability to think critically and thoroughly assess a patient utilizing various diagnostic tools and procedures.
- Demonstrate the ability to communicate verbally and in writing and the ability to interact effectively and professionally with patients, family, clinical, and non-clinical persons in various settings.
- Demonstrate personal responsibility, professionalism, ethical judgement, and collaboration.

Fall Semester		CL	LAB	CR
ESNT120L	College Essentials .....	1	0	1
PAMD110L	Paramedic I .....	8	4	12
<b>Total</b>	.....	<b>9</b>	<b>4</b>	<b>13</b>

Spring Semester		CL	LAB	CR
PAMD120L	Paramedic II .....	5	4	11
PAMD210L	Paramedic III .....	0	0	5
<b>Total</b>	.....	<b>5</b>	<b>4</b>	<b>16</b>

Summer Semester		CL	LAB	CR
PAMD220L	Paramedic IV .....	0	1	8
<b>Total</b>	.....	<b>0</b>	<b>1</b>	<b>8</b>

**Total for Certificate=37**



## Pastry 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 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 who complete the program will:

- 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 bakeshops, 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.
- Display knowledge of nutritional baking and practices.

### FIRST YEAR

<b>Fall Semester</b>	<b>CL</b>	<b>LAB</b>	<b>CR</b>
ENGL100L English Composition.....	4	0	4
ESNT120L College Essentials.....	1	0	1
CULA145L Breads and Rolls.....	1	4	3
CULA146L Bakery Production.....	1	4	3
CULA152L Sanitation & Safety.....	3	0	3
<b>Total.....</b>	<b>10</b>	<b>8</b>	<b>14</b>

<b>Spring Semester</b>	<b>CL</b>	<b>LAB</b>	<b>CR</b>
ENGL124L Business Communications.....	3	0	3
CULA147L Hot & Cold Plated Desserts.....	1	4	3
CULA148L Cake Decorating.....	1	4	3
CULA159L Cost Control.....	3	0	3
Mathematics Elective.....	3	0	3
<b>Total.....</b>	<b>11</b>	<b>8</b>	<b>15</b>

<b>Summer Semester</b>		<b>CL</b>	<b>LAB</b>	<b>CR</b>
CULA230L	Pastry Arts Cooperative Education (300 hours required) .....	<u>0</u>	<u>9</u>	<u>3</u>
<b>Total .....</b>		<b>0</b>	<b>9</b>	<b>3</b>

**Total Credits for Year = 32**

## **SECOND YEAR**

<b>Fall Semester</b>		<b>CL</b>	<b>LAB</b>	<b>CR</b>
BIOL127L	Nutrition for Health and Fitness w/Lab .....	3	2	4
CULA210L	Nutritional & Alternative Baking .....	1	4	3
CULA220L	Advanced Cake Decorating .....	1	4	3
	Liberal Arts Elective .....	3	0	3
	Social Science Elective .....	<u>3</u>	<u>0</u>	<u>3</u>
<b>Total .....</b>		<b>11</b>	<b>10</b>	<b>16</b>

<b>Spring Semester</b>		<b>CL</b>	<b>LAB</b>	<b>CR</b>
CULA149L	Baking and Pastry Technologies .....	3	0	3
CULA158L	Restaurant Facility & Menu Design .....	1	4	3
CULA225L	Advanced Pastry and Confections .....	1	4	3
CULA231L	Pastry Arts Capstone .....	1	0	1
	Humanities/Fine Arts/Foreign Language Elective .....	<u>3</u>	<u>0</u>	<u>3</u>
<b>Total .....</b>		<b>9</b>	<b>8</b>	<b>13</b>

**Total Credits for Year = 29**

**Total for A.S. Degree = 61**

## **Pastry Arts Certificate**

ESNT120L	College Essentials .....	1	0	1
CULA145L	Breads and Rolls .....	1	4	3
CULA146L	Bakery Production .....	1	4	3
CULA148L	Cake Decorating .....	1	4	3
CULA152L	Sanitation and Safety .....	<u>3</u>	<u>0</u>	<u>3</u>
<b>Total .....</b>		<b>7</b>	<b>12</b>	<b>13</b>

<b>Spring Semester</b>		<b>CL</b>	<b>LAB</b>	<b>CR</b>
CULA147L	Hot and Cold Plated Desserts .....	1	4	3
CULA149L	Baking and Pastry Technologies .....	3	0	3
CULA220L	Advanced Cake Decorating .....	1	4	3
CULA225L	Advanced Pastry and Confections .....	<u>1</u>	<u>4</u>	<u>3</u>
<b>Total .....</b>		<b>6</b>	<b>12</b>	<b>12</b>

<b>Summer Semester</b>				
CULA230L	Pastry Arts Co-op .....	<u>0</u>	<u>9</u>	<u>3</u>
<b>Total .....</b>		<b>0</b>	<b>9</b>	<b>3</b>

**Total for Certificate=28**

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

#### **ACCT131L 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.

#### **ACCT132L 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: ACCT131L with a grade of C or better or Permission of Department Chair)

#### **ACCT231L 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: ACCT132L)

#### **ACCT235L 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: ACCT132L)

#### **ACCT251L 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: ACCT132L)

#### **ACCT273L Introduction to Computerized Accounting CL2 L2 CR3**

This course will introduce students to computerized accounting systems using QuickBooks Accountant and MS Excel. 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, controlling inventory, processing sales, maintaining fixed asset and depreciation schedules, and preparing payroll. Additional procedures students will perform include setting up a chart of accounts, summarizing data, generating financial reports, and banking transactions. (Prerequisites: ACCT131L)

### ADVANCED MANUFACTURING

#### **MANF120L 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.

#### **MANF131L Blueprint Reading CL3 L0 CR3**

Students will learn the fundamentals of blueprint 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.

**MANF132L 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: MANF131L.)

**MANF141L 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)

**MANF142L Machine Processes CL2 L3 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.

**MANF145L 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.

**MANF151L 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.

**MANF152L 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: linear and circular interpolation, canned cycles, and sub programming.

**MANF211L 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. (Pre-requisite and MANF151L.)

**MANF212L 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. (Pre-requisite: MANF142L)

**MANF220L 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 is 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: MATH137L with a grade of C or better and PHYS125L)

**MANF230L 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).

**MANF240L 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.

**MANF250L 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.

**MANF270L 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.

**MANF280L 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 lifes 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 at helping the student find their "personal" drawing Voice. They will explore what they are using art to say and how they are 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)

**ARTS120L 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.

**ARTS125L 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 principal 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 textbook as well as opportunities for student reflection.

**ARTS136L Art History: Renaissance to Modernism CL3 L0 CR3**

This course covers the principal 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 textbook as well as opportunities for student reflection.



**ARTS140L 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.

**ARTS145L 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.

**ARTS150L 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.

**ARTS163L 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: ARTS163L or GRA271L.

**ARTS212L 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, and 2-4g memory card. Optional equipment: tripod.

**ARTS213L Advanced Digital Photography  
CL2 L2 CR3**

This course builds on skills covered in ARTS212L and is the choice for the more advanced student. Technical skills using a wide variety of camera settings are covered, as are more advanced Photoshop techniques. Students will develop a keener artistic eye, greater

creative capacity, and a broader range of photographic skills, such as nighttime-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: ARTS212L 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 from 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)

**ARTS235L 20<sup>th</sup> 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 19<sup>th</sup> through 20<sup>th</sup> century.

**ARTS240L 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.

**ARTS245L The Clay Experience II CL2 L3 CR3**

This course offers a continuation and expansion of concepts and skills established in ARTS145L. 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: ARTS145L or Permission of Instructor)

**ARTS251L 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.

**ARTS255L Printmaking CL2 L3 CR3**

An introductory studio course in the methods and materials of printmaking, building on principles and concepts of design established in 2-D Design. A variety of printmaking techniques will be introduced including woodblock printing, etching, linocut-printing, embossing and collagraph. (Prerequisite: ARTS111L or ARTS120L)

**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.

**ARTS270L 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: ARTS240L)

**ARTS275L 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)

**ARTS280L 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****AUTO120L 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.

**AUTO121L 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.

**AUTO125L 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.

**AUTO126L Introduction to Toyota/Lexus Automotive Systems II CL 1 L0 CR1**

This course builds on the three credit Introduction to Toyota Lexus which is Introduction to Automotive Service course that transferred from the Running Start course or by articulation. 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 (Pre-requisite AUTO225L with a grade of C or higher)

**AUTO128L 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.

**AUTO129L GM Automotive Electricity I CL3 L0 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.

**AUTO130L 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: AUTO129L or AUTO138L)

**AUTO131L Toyota/Lexus Electrical I  
CL1 L6 CR4**

This class includes discussion of 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: AUTO125L with a C or better. AUTO125L may be taken concurrently.)

**AUTO132L 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 devices; battery, charging and starting systems.

**AUTO133L 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.

**AUTO134L 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: Successful completion of AUTO275L)

**AUTO135L 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: AUTO125L and AUTO126L with a C or better.)

**AUTO136L 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: AUTO121L and AUTO129L)

**AUTO137L 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: AUTO120L with a grade of C- or better or Permission of Instructor)

**AUTO138L 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.

**AUTO139L 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.

**AUTO140L 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: AUTO120L with a grade of C- or better or Permission of Instructor)

**AUTO141L 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: AUTO125L, AUTO131L and AUTO135L with C or better.)

**AUTO145L 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: AUTO120L with a grade of C- or better or Permission of Instructor)

**AUTO150L 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: AUTO120L with a grade of C- or better or Permission of Instructor)

**AUTO151L 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: AUTO135L with C or better.)

**AUTO152L 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. Students 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: AUTO135L with a C or better.)

**AUTO170L GM ASEP Cooperative Education I CL0 L12 CR4**

This course provides the opportunity to receive hands-on experience in an automotive service 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. (Prerequisites: AUTO128L or AUTO129L and AUTO130L with a grade of C or higher and a 2.0 CGPA)

**AUTO175L 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: AUTO125L and AUTO135L with a C or better.)

**AUTO176L GM ASEP Cooperative Education II CL0 L6 CR2**

This course provides the opportunity to receive hands-on experience in an automotive service 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. (Prerequisites: AUTO200L and AUTO211L with a grade of C or higher and a 2.0 CGPA)

**AUTO200L 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: Successful completion of AUTO136L with a grade of C or higher and a CGPA of 2.0 or higher.)

**AUTO210L 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: AUTO135L with C or better.)

**AUTO211L 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: AUTO136L with a grade of C and a CGPA of 2.0 or higher)

**AUTO222L 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: Successful completion of AUTO 275L)

**AUTO225L 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: Successful completion of AUTO170L)

**AUTO230L 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.

**AUTO240L Manual Drive Trains 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: AUTO120L with a grade of C- or better or POI)

**AUTO245L 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: AUTO120L with a grade of C- or better or Permission of Instructor)

**AUTO246L 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: AUTO120L and AUTO245L with a grade of C- or better or Permission of Instructor)

**AUTO255L 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: AUTO135L with a C or better.)

**AUTO256L 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: AUTO255L with a C or better.)

**AUTO257L 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: AUTO125L, AUTO131L, and AUTO135L with a C or better.)

**AUTO265L 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.

**AUTO267L 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: AUTO135L.)

**AUTO270L 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: AUTO120L with a grade of C- or better or Permission of Instructor)

**AUTO275L GM ASEP Cooperative Education III  
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: Successful completion of AUTO176L and a 2.0 CGPA)

**AUTO280L 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: AUTO210L with a C or better.)

**AUTO281L 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: AUTO141L, AUTO151L and AUTO152L with a C or better.)



**AUTO282L 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: AUTO255L, AUTO256L and AUTO257L with a C or better.)

**AUTO290L GM ASEP Cooperative Education IV  
CL0 L12 CR4**

This course provides the opportunity to receive hands-on experience in an automotive service 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. (Prerequisites: AUTO222L and AUTO134L with a grade of C or higher and a 2.0 CGPA)

**BUSINESS MANAGEMENT****BUS115L 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.

**BUS130L 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.

**BUS135L 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.

**BUS150L 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.

**BUS175L 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)

**BUS231L 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

**BUS232L 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 principles will be discussed throughout the course.

**BUS233L 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.

**BUS238L 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.

**BUS239L 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: BUS238L)

**BUS240L 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.

**BUS241L Human Resource Management CL3 L0 CR3**

The study of human resource issues affecting employees in present and future organizations.

**BUS252L 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: BUS130L, SOSC231L or SOSC232L or Permission of Department Chair)

**BUS260L Principles of Marketing CL3 L0 CR3**

This course studies product, pricing, promotion and channels of distribution. Marketing in retail, wholesale, service and manufacturing companies.

**BUS261L 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.

**BUS264L 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

considering 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 this 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.

**BUS265L 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.

**BUS280L 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)

**FIN180L 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****ESNT120L College Essentials CL1 L0 CR1**

This course helps new students learn to be confident and master the skills needed to succeed at Lakes Region Community College. New students are required to take this course during their first semester of enrollment. Topics include accessing college resources and services, navigating the learning management system, information literacy, time-management, self-confidence, and self-motivation in an academic environment, long and short-term goal setting, career goals, maintaining physical, mental, financial, and emotional health. A minimum grade of C in this course is required.

## **COMPUTER INFORMATION SYSTEMS**

### **CIS130L Computer Ethics Privacy and Security CL1 L2 CR1**

This course provides students the skills to use modern technology. Topics include computer ethics, techniques to protect privacy and how to protect your devices from malicious attacks. Students will learn terminology as well as examine current trends and laws concerning technology. Students will also learn how to safeguard against health hazards that can be associated with computer use.

### **CIS133L Introduction to Information Technology CL2 L2 CR3**

This course is a fundamental technology course promoting skills and knowledge for students to apply academically and professionally. Concepts covered include computing basics, internet, hardware, software, file management, viruses, and spyware. Additionally, a good portion of the class is dedicated to applications used for email, word processing, presentations, spreadsheets and databases. This class will use simulation and live software projects.

### **CIS136L Fundamentals of Information Technology CL2 L2 CR3**

Students will learn the basics of computer hardware, software, digital security, networking, internet. A look at operating systems, digital data, algorithms, and digital security will also be considered. Students will begin to learn a systems thinking approach to problem solving.

### **CIS140L Introduction to Programming CL3 L2 CR4**

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 as an introduction into object-oriented and web-development concepts.

### **CIS141L Information Systems CL2 L2 CR3**

This course will give students the foundational concepts for Information systems. Looking at people, technology and processes that work together to make up information systems. Students will understand how businesses use information systems, and the types of information systems that are used. Preliminary IT concepts are presented in the context of business and not just as stand-alone ideas.

### **CIS170L 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)

### **CIS200L Help Desk Skills CL2 L2 CR3**

This course enables the student to understand and develop appropriate help desk techniques. Topics include roles of help-desk personnel, ticketing systems, process workflow, issue documentation, knowledge base use and how to trouble shoot hardware and software problems. Also covered will be end user management.

### **CIS210L Operating Systems CL2 L2 CR3**

Students in this course will look at various operating systems and their role in an organization. Concepts will be covered regarding installation, configuration, most used features, troubleshooting methods and where to go for help when issues arise. Students will also gain a key understanding of why each operating system may be used and best practices.

### **CIS215L Intermediate Programming CL3 L2 CR4**

Students will learn object-oriented programming concepts and programming techniques. They will learn coding in a logical, structured, organized programming using current object-oriented programming languages. This will be the second language students are exposed to, so understanding similarities and differences with languages will be presented. Program documentation and troubleshooting will also be covered. Exposure to SDK and IDE will also be explored.

### **CIS216L Advanced Programming CL3 L2 CR4**

Students in this course will continue their education programming focused on the object-oriented languages. Language may change for this course, but concepts related to developing functional, secure, proficient, and professional code will be covered. A functional project will cap off this course.

### **CIS227L 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 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.



**CIS233L 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: CIS136L)

**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.

**CIS235L 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.

**CIS238L 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: CIS136L, CIS140L, and CIS233L which may be taken concurrently)

**CIS239L 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: CIS132L or Permission of Instructor)

**CIS240L 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)

**CIS242L 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.

**CIS244L 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.

**CIS245L 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: CIS136L)

**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: CIS140L and CIS242L)

**CIS248L 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.

**CIS249L 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.

**CIS250L 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: CIS136L or equivalent)

### **CIS251L 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: CIS136L)

### **CIS252L Managing & Troubleshooting Personal Computers 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.

### **CIS253L 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.

### **CIS259L 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: CIS253L)

### **CIS261L 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.

### **CIS262L 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: CIS250L)

### **CIS265L 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)

### **CIS267L 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.

### **CIS268L Advanced Windows Server Configuration CL2 L2 CR3**

This course covers advanced network services, file services, dynamic access control, network load balancing, and failover clustering and disaster recovery. (Prerequisites: CIS261L)

### **CIS269L 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: CIS261L)

### **CIS271L 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: CIS130L)

### **CIS272L 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: CIS140L 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 140L or permission of department chair)

**CIS275L 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: CIS140L or equivalent)

**CIS276L 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 234L or permission of Department Chair).

**CIS277L Programming for Games CL2 L2 CR3**

This is 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: CIS140L)

**CIS278L 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: CIS140L or Permission of Instructor)

**CIS280L Capstone Project CL2 L2 CR3**

This course is intended to provide the vehicle for students to show overall competency in Computer Information Systems and the specialties that have been a part of their 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.

**CIS282L 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: CIS248L with a C- or better)

**CIS283L 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: CIS282L with a C- or better)

**CIS284L 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: CIS282L with a grade of C- or better)

**CIS292L 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: CIS140L or Permission of Instructor)

**CIS295L Internship CL0 L9 CR3**

This course is an internship course for the student. A minimum of 60 hours must be completed in a preapproved internship in the field in which the student wants to seek employment. Approval will be at the Department Chair's discretion.

**CIS291L Ethical Hacking CL2 L2 CR3**

Students in this course will gain skills for moving into the Cyber Security field. Topics covered will include: Reconnaissance, Scanning, Gaining Access, Maintaining Access and Avoiding Detection. This course

prepares student to take the EC-Council Certified Ethical Hacker certification. (Prerequisite: CIS248L or department chair approval)

### **CIS296L Cyber Defense CL2 L2 CR3**

Students in this course will gain skill for moving into the Cyber Security field. Topics covered will include: threats and vulnerabilities, software systems, compliance and assessment, security operations and monitoring, and incident response. (Prerequisites: CIS248L or permission of department chair.)

## **CULINARY ARTS/PASTRY ARTS**

### **CULA145L 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 creation 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.

### **CULA146L 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, pâte 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.

### **CULA148L 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.

### **CULA149L 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 be better prepared to gain positions as a pastry chef or patisserie.

### **CULA151L 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.

### **CULA152L 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.



**CULA158L 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.

**CULA159L 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.

**CULA210L Nutritional & Alternative Baking  
CL1 L4 CR3**

This course introduces students into not only the nutritional aspects of baking, but the alternative baking world. Alternative baking includes 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.

**CULA220L 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: CULA148L).

**CULA225L 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 pastiche, pouring sugar and confection artistry will also be covered, researched, and practiced. Students will fine tune their skills and challenge themselves both technically and artistically. (Prerequisites: CULA146L).

**CULA230L 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: Permission of Instructor)

**CULA231L 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.

**CULA232L 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: CULA151L)

**CULA253L 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.

**CULA254L 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.

**CULA255L 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.

**CULA256L 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****ECE121L 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.

**ECE122L 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.

**ECE123L Foundations of Early Childhood Education CL3 L0 CR3**

This course covers the history of early childhood education and childcare, 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.

**ECE124L 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 childcare 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.

**ECE126L 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.

### **ECE162L 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 to 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: ECE121 or ECE126L and ECE122L)

### **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: ECE121L, ECE123L, ECE124L, and ECE126L. ECE126L may be taken concurrently.)

### **ECE210 Positive Behavior Guidance in ECE CL3 L0 CR3**

This course provides strategies to promote developmentally appropriate positive guidance for young children in a group context. Emphasis is to prepare young children to become confident and cooperative individuals, placing a strong foundation on social emotional learning. Using the pyramid model, Adverse Childhood Experiences (ACE) and other resources, strategies for identifying risk factors, conflict resolution, and crisis management techniques, will be studied. Exploration of topics related to positive guidance will include family engagement, cultural competencies, curriculum design, environment classroom design and classroom management tools, in tandem with theories and current research. (Prerequisite: ECE121L)

### **ECE212L Teaching with Technology CLL L0 CR3**

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.

### **ECE 216L 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.

### **ECE224L 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.

### **ECE225L 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.



**ECE230L 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 childcare facility. Staffing and supervision, including orientation, training, and motivation and evaluating staff are explored as they relate to the business of childcare. 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.

**ECE231L Early Literacy Development CL3 L0 CR3**

Early Literacy Development involves listening, speaking, drawing, singing and acting, as well as reading. It includes all the methods 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, ECE122L and 230L. ECE 122L and ECE230L may be taken concurrently.)

**ELECTRICAL TECHNOLOGIES****ESTC150L 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. Students should have a basic understanding of electricity fundamentals before enrolling in this class. (Prerequisites: ETEC124L)

**ETEC123L 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: ETEC126L or Permission of Instructor)

**ETEC124L 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.

**ETEC126L 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.

**ETEC127L 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).

**ETEC128L 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: ETEC124L or Permission of Instructor)

**ETEC130L Rotating Machinery 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: ETEC124L)

**ETEC141L NEC I CL2 L0 CR2**

National Electrical Code I introduces the student to the structure, interpretation, enforcement, and compliance with NFPA 70, the code to which all electrical installations shall conform. Students will learn the scope of the document and common definitions of terms used, basic requirements for all electrical installations, proper sizing and wiring of branch circuits, and sizing and installing feeders and services. This course also covers the proper sizing and application of over current protection and requirements for grounding and bonding of electrical systems.

**ETEC142L NEC II CL2 L0 CR2**

National Electrical Code II covers general requirements for wiring methods and materials used in electrical installations, such as conductor selection and rating and electrical box selection and sizing. This course also covers the uses permitted and uses not permitted for all cable and raceway-based wiring methods recognized by the Code. Students will also learn the codes associated with Equipment for General Use, including switches, receptacles, luminaires, panel boards and heating systems. (Prerequisite: ETEC141L or Permission of Instructor)

**ETEC143L NEC III CL2 L0 CR2**

National Electrical Code III covers the proper sizing of protection for electric motor, air conditioning, and transformer equipment installations. Students will also learn the requirements for hazardous locations, swimming pools, renewable energy and stand by power generation systems. Students will also conduct calculations and locating rules and regulations in the code. (Prerequisite: ETEC142L or Permission of Instructor)

**ETEC210L 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.

**ETEC215L 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 but will serve as an important first step in preparing individuals to become highly skilled, qualified, and experienced trades people in the PV industry. 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: ETEC215L or ESTC150L. (Prerequisite: ETEC124L)

**ETEC224L 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: ETEC123L)

**ETEC230L 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: ETEC124L or Permission of Instructor)

**ETEC235L Programmable Controllers CL3 L4 CR4**

This course covers industrial programmable controllers and program writing including; but not limited to, Boolean Algebra directly related to elementary circuit analysis, basic relay logic programming, program control instructions, sequence instructions, data manipulation, math instructions, program editing and troubleshooting. (Prerequisites: ETEC128L or Permission of Instructor)

**ETEC240L 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: ETEC124L, ETEC130L)

## **ELECTRO-MECHANICAL TECHNOLOGIES**

### **ELMT120L 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.

### **ELMT210L 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.

### **ELMT270L 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.

### **ELMT280L 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's 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**

### **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: SAT scores or competence as demonstrated on placement exam.)

### **ENGL124L Business Communications CL3 L0 CR3**

Effective communication strategies and writing techniques that inform much of the business world are introduced and examined. Emphasis is placed on developing an awareness of professional conventions and genres while building tangible skills relating to research, design, collaboration, and writing. (ENGL100L may be taken concurrently)

### **ENGL223L 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. (ENGL100L may be taken concurrently)

### **ENGL224L 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. (ENGL100L may be taken concurrently)

### **ENGL225L Film as Literature CL3 L0 CR3**

The world is full of moving images. Think of the number of movies you have seen this month. Think of the number of video recordings that are uploaded to YouTube every minute. In a world where screens have become more prevalent, it makes sense that we should expand our understanding of what is considered a text. This course explores film as literary text, more specifically focusing on how theme is developed through this medium. These emerging ideas and observations will then be considered within the larger framework of providing new perspectives on societal and cultural concerns. (Prerequisite: ENGL100L may be taken concurrently or POI.)

### **ENGL235L Creating Writing: Nonfiction CL3 L0 CR3**

This course focuses on the reading and writing of creative nonfiction or, in essence, "true stories well told." Students will be creative in their study and use of literary techniques to present factually accurate prose about real people and events in a compelling and dramatic manner with the goal being to make nonfiction stories read like fiction. Nonfiction includes a broad category of prose works such as personal and narrative essays, memoirs, travel writing, observational or descriptive essays, and so on. Professional and student work will be read, and workshopped throughout the semester. (ENGL100L may be taken concurrently)

**ENGL236L Creative Writing: Fiction, Poetry, and Drama CL3 L0 CR3**

Through their writing, students will strive to make the ordinary extraordinary in this course. While honing their creative writing skills by writing short fiction, poetry, and drama, students will also read, examine, and discuss works in the various genres. Using these readings as models for understanding, students will examine elements of style, form, and meaning while developing voice and technique. Feedback on writing will be given during workshop sessions. (ENGL100L may be taken concurrently)

**ENGL246L 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 20<sup>th</sup> century fantasy literature is considered. (ENGL100L may be taken concurrently)

**ENGL251L Introduction to Literature CL3 L0 CR3**

This course delves into the reading and analyzing of literary works in order to develop an appreciation for the place literature has in its influence on culture and society. Selections will be taken from four literary genres: Poetry, drama, the novel, and the short story. By becoming familiar with and applying key literary terms and various approaches to literary criticism to reading, students will be able to hone their abilities to write in an analytical manner while engaging with primary and secondary sources. (ENGL100L may be taken concurrently)

**ENGL256L 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. (ENGL100L may be taken concurrently)

**ENGL257L 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. (ENGL100L may be taken concurrently)

**ENGL260L 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. (ENGL100L may be taken concurrently)

**ENGL299L Topics in Literature CL2 L0 CR3**

In this course, focus will be given to a particular genre, theme, or issue within literature to enable comparison and analysis of several texts. While the topics may change per semester, emphasis is placed on critical methods of thinking, reading, and writing. May be repeated for credit when course content changes; may be taken with other topics courses during the same semester. (ENGL100L may be taken concurrently)

**ENGL299AL Topics in Lit: Concepts of Evil CL3 L0 CR3**

The recognition and appropriation of the term evil is one that is being constantly negotiated in society. It is a term that represents one of the core dichotomies that defines humanity: does a man or woman act in terms of good or evil? Historically, this term has followed an evolution of sorts that begins within Platonic idealism, becomes central within the birth of the Judeo-Christian world, is grasped at through theodicy, and then fractured through the 1775 Lisbon earthquake and the horrors of Auschwitz during World War II. This course will question the concept of evil in its various forms and explanations in an attempt to better understand its historical context, but also how it has come to be used and understood in today's society. Students will read and analyze various literary, philosophical, and cultural primary and secondary texts that consider manifestations of evil in violence, suffering, scapegoating, and apathy as they appear in characters such as Satan and witches and historical circumstances such as the Grand Inquisition, a modern plague, and Nazi Germany.

**ENGL299BL Topics in Lit: Black Mirror CL3 L0 CR3**

Episodes from the British television series, Black Mirror, have been produced and aired since 2011. Seen by many as an homage to older anthology series such as The Twilight Zone, The Outer Limits, and Alfred Hitchcock Presents, this series explores society's engagement with technology. Often critiquing this engagement, the series depicts dystopian situations that tie closely to current events and technological developments. To better understand the societal implications that arise from a thematic analysis, this course will explore specific episodes from Black Mirror that reflect current cultural and technological trends. As well, the course will provide a collaborative research platform for students to engage and reflection on these topics.



## **FIRE TECHNOLOGIES**

### **FIRE124L 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 fire protection systems, introduction to fire strategy and tactics; life safety initiatives.

### **FIRE127L Fire Behavior and Combustion**

#### **CL3 L0 CR3**

This course explores the theories and fundamentals of how and why fires start, spread and are controlled.

### **FIRE131L 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.

### **FIRE136L 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.

### **FIRE140L 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.

### **FIRE160L 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.

### **FIRE180L Firefighter I & II CL4 L12 CR8**

This course teaches the student basic and advanced fireground topics including fire department organization, fire behavior, personal protective equipment, fire attack hose handling, ventilation, rescue skills, incident

command, vehicle extraction, water supply, and other subjects necessary for entry-level firefighters. Successful completion of this course provides PRO BOARD certification in Firefighter I and II through the New Hampshire Fire Standards and Training Commission.

### **FIRE200L 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: FIRE136L).

### **FIRE224L Strategy and Tactics CL3 L0 CR3**

This course provides the principles of fire-ground control through utilization of personal, equipment, and extinguishing agents. (Prerequisite: FIRE127L and FIRE140L).

### **FIRE225L 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.

### **FIRE 230L 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: FIRE160L)

### **FIRE231L 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.

### **FIRE234L 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: FIRE224L)

**FIRE236L 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: FIRE127L and FIRE140L).

**FIRE237L 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: FIRE236L).

**FIRE238L 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.

**FIRE243L 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.

**FIRE245L Fire & Life Safety Education CL3 L0 CR3**

This course provides information relating to the field of fire and life safety education.

**FIRE250L 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)

**FIRE251L 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)

**FIRE252L 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)

**FIRE255L 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.

**FIRE256L Community Fire and Risk Analysis CL3 L0 CR3**

This course provides training in analyzing data, identifying problems, and formulating objectives, analyzing causal 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.

**FIRE269L 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.

**FIRE281L 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: FIRE124L)

**FOREIGN LANGUAGES****FREN120L 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.

**FREN121L Elementary French II CL3 L0 CR3**

This course offers a continuation of FREN120L with the same emphasis on listening, speaking, reading, and writing. (Prerequisite : FREN120L)

**SPAN120L Spanish Language and Culture CL3 L0 CR3**

The study of the Spanish language in context exploring the culture of the Spanish speaking areas of the world in both contemporary and historical frameworks. Developing awareness, understanding and appreciation of the culture, products, practices, and perspectives. Students will begin to develop Spanish language proficiency in interpersonal, interpretive, and presentational modes of communication through individual & group work and topical discussions using authentic and studio-based multi-media materials.

**SPAN121L Spanish Language and Society CL3 L0 CR3**

The study of the Spanish language through the investigation of major currents of change in modern Spanish-speaking societies. Topics include, but not limited to, political climate, environment, immigration, health, social justice, gender issues, technology, the arts education etc. This class will provide knowledge and skills that are increasingly essential in global society. Students will begin to develop Spanish language proficiency in interpersonal, interpretative, and presentational modes of communication through individual and group work and topical discussions using authentic and studio-based multi-media materials.

**GRAPHIC DESIGN****GRA120L Design Software Essentials CL3 L2 CR3**

In Design Software Essentials, students cover the necessary functions of Photoshop and Illustrator. These are the two major 2D image creation and editing software. These programs form the foundation of digital imaging in both print screen and video graphics. Students will learn through several lab assignments that cover pixel manipulation, composing, adjusting, and resizing in Photoshop. In Illustrator, students will learn how to properly and efficiently manipulate vectors; how to create and use color properly, and finally how to efficiently output vector images for screen or print. Concepts learned in this course carry over into animation, motion graphics, 3D design, and more.

**GRA125L Foundations of Design CL2 L2 CR3**

This course covers the major principles and elements of design, which form the basis for visual communications by introducing students to creative processes in which designers use to create work. Exposing students to the technical processes and theories used in graphic design; including sequential gaming, animation art, print and publishing, digital expressive illustration, silkscreen and sign design processes.

**GRA127L UX Foundations CL2 L3 CR3**

User Experience (UX) 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: GRA120L and GRA125L)

**GRA134L 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.

**GRA136L 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: GRA120L, ARTS111L)

**GRA137L Aspects of Graphic Communication**

In this course students will be given projects that will incorporate all aspects of graphic design. Focused study, exploring the branding process from the ground up, using the principles and elements of design, color theory, typography and layout, students will learn the methods of visual identity, branding, moving images, and web development. Students are introduced to visual communication strategies, communication theory, and the message of language in design, through issues of form, color, texture, hierarchy, imagery, animated movement, typography and narrative, learning how to harness these elements to communicate concepts clearly, effectively and expressively. (Prerequisites: GRA120L and GRA125L)

**GRA224L 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: GRA120L and GRA134L)

**GRA226L 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: GRA120L)



**GRA227L 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: GRA120L and GRA226L)

**GRA228L Motion Gaming Graphics CL2 L3 CR3**

This course introduces the fundamental principles of expression through movement in time, sequential composition editing, and image sequence and as well as sound integration, editing and story structure using current digital software. Students explore the techniques and software to incorporate illustrations and graphics into moving animated designs in both 2D and 3D using Blender, Photoshop, and other current software for gaming designs. Students develop sketches for a series of short projects to apply basic animation principles. (Prerequisites: GRA120L and GRA1360L.)

**GRA229L 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: GRA120L and GRA226L)

**GRA266L 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)

**GRA271L 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: GRA125L or GRA135L)

**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 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: GRA224L, may be taken concurrently)

**HISTORY****HIST131L 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.

**HIST132L 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.

**HIST138L 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.

**HIST140L 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.

**HIST210L 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".

**HIST220L 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".

**HIST225L 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.

**HIST235L 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. Discussion of the music, art, literature and other elements of "popular culture" associated with these movements are examined.

**Hotel and Restaurant Operations****HOS101L 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.

**HOS109L 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. The instructor and the department chair must approve subject matter. (Prerequisite: A matriculated student, permission of department chair and a minimum cumulative GPA of 2.0)

**HOS113L Introduction to Worldwide Cuisine CL1 L6 CR3**

The student will apply concepts and skills learned 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 covered. Students will continue to operate a restaurant that is open to the public. (Prerequisite: CULA151L or Permission of Instructor)

**HOS114L 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.

**HOS116L 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)

**HOS120L 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.

**HOS124L 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.

**HOS125L Hotel and Lodging Operations CL3 L0 CR3**

This course deals with lodging operations such as hotel, motels, inns and bed-and-breakfast operations. It considers the operational structure of the property and the functions of the individual departments including the front office, sales, housekeeping, engineering and maintenance, catering, and food and beverage operations. The standard budgeting, pricing and control processes of the lodging industry will also be examined with special emphasis on the guest cycle and night audit accounting. This course is designed around a one-hour lecture each week with a four-hour on-site lab component. (Prerequisite: HOS120L)

**HOS178L Restaurant Cooperative Education CL0 L0 CR2**

Co-operative education provides the opportunity for students to utilize learned Restaurant course competencies in a real-life setting. Students will gain valuable experience and first-hand knowledge as to what a career in the restaurant field outside the classroom entails. (Prerequisite: HOS120L and HOS126L and instructor approval of workplace site.)

**HOS213L Event Planning and Design CL3 L0 CR3**

Strategic and logistical considerations in managing the planning, development, marketing and implementation of meetings, conventions, and events. (Prerequisite: HOS126L)

**HOS216L 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.

**HOS222L 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.

**HOS223L 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 (ACCT131L) and their applications to the hotel and restaurant industry. Course projects will specifically deal with cost controls within the hospitality industry. (Prerequisite: ACCT131L or Permission of Instructor)

**HOS230L Hotel Cooperative Education CL L0 CR2**

Co-operative education provides the opportunity for students to utilize learned Restaurant course competencies in a real-life setting. Students will gain valuable experience and first-hand knowledge as to what a career in the restaurant field outside the classroom entails. Students are expected to complete 200 hours of coop experience. (Prerequisite: HOS120L and HOS125L and site approval from instructor.)

**HUMAN SERVICES****HSV110L 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)

**HSV112L 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.

**HSV113L 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)

**HSV120L 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.

**HSV122L 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.

**HSV126L 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.

**HSV128L 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.

**HSV130L 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.

**HSV131L 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.

**HSV140L 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.

**HSV145L 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.

**HSV150L 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.

**HSV161L 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: HSV120L and HSV150L or Permission of Instructor)

**HSV171L 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: HSV130L and HSV150L or Permission of Instructor)



**HSV214L 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: HSV112L)

**HSV215L 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: HSV112L)

**HSV221L 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 for developing and presenting an individual learning project.

**HSV228L 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.

**HSV230L 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 lifestyle on health and longevity are reviewed.

**HSV232L 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.

**HSV262L Human Services Practicum II CL2 L9 CR5**

Building on skills and knowledge gained in Human Services Practicum I (HSV161L), 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: HSV161L or Permission of Instructor)

**HSV271L Gerontology Practicum II CL2 L9 CR5**

Building upon attitudes, skills, and knowledge acquired in Gerontology Practicum I (HSV171L), 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: HSV171L or Permission of Instructor)

**HUMANITIES****HUMA130L 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.

**HUMA131L 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.

**HUMA132L Native Peoples of N. America  
CL3 L0 CR3**

This anthropological survey course covers the prehistory, history, cultural characteristics, and diversity of native peoples of North America. Culture areas investigated include Arctic, Subarctic, Northwest Coast, Plateau, California, Great Basin, Southwest, the Great Plains, Eastern Woodlands (Northeast and Southeast), Mesoamerica, and the Caribbean Islands. The course will also cover the impacts of European contact, adaptations, the revival of native culture, and contemporary issues of native peoples today.

**HUMA156L Music Appreciation: Medieval to 18<sup>th</sup>  
Century CL3 L0 CR3**

This course will complement your appreciation of music from its basic elements through a historical reflection of music in society. The ability to discern musical examples will heighten the enjoyment and understanding of music as it is explored from the Medieval Ages through to the end of the 18th Century.

**HUMA157L Music Appreciation: 19<sup>th</sup> and 20<sup>th</sup>  
Centuries CL3 L0 CR3**

This course will build an appreciation of music from its basic elements through a historical reflection of music in society. The ability to discern musical examples will heighten the enjoyment and understanding of music as it is explored in the 19th and 20th centuries.

**HUMA160L 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.

**HUMA161L 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.

**HUMA250L 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.

**HUMA252L 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.

**HUMA299L Special Topics in Humanities:  
CL3 L0 CR3**

The Humanities explores what it means to be human within a contemporary or historical context. The Humanities provided us with the broad frameworks within which enduring questions of existence, relationships, values, and aesthetics can be examined from multiple perspectives. The Special Topics in Humanities course changes thematically each semester and may explore ideas around evil, love, race, gender, sport, spirituality, and those strands which connect us and make us human. May be repeated for credit when course content changes; may be taken with other topics courses during the same semester.

**HUMA299AL Special Topics in Humanities: Cultural  
Studies  
CL3 L0 CR3**

Cultural Studies is not the "study of cultures" in the way one might imagine; rather, it is an effort to understand the context of any given moment in space and time. It investigates how people's everyday lives are structured and organized in contradictory ways by social, economic, political, and cultural relations of power, as well as the historical possibilities of changing those lived realities—the ways one imagine(d) life could be otherwise. This is a course designed to confront many of the assumptions students may have about the world as well as the ways that different disciplines in the college teach one to think. It will demand that students think more complexly, work more collaboratively, and produce work that matters. Students will develop a core understanding of these issues by unpacking and analyzing selected readings and participating in discussions as well as completing short writings and research.

**HUMA299BL Special Topics in Humanities:  
On Violence  
CL3 L0 CR3**

Violence, Humans in Dark Times is a course that has arisen from a series of conversations Brad Evans and Natasha Lennard have had with a wide range of cutting-edge thinkers on the intersections of violence with society. First published in the New York Times and the Los Angeles Review of Books, these conversations will frame the foundation of the course as students use it to deeply explore how violence is understood and used in modern society and ways in which to combat its presence. Students will develop a core understanding of these issues by unpacking and analyzing selected conversations through readings and discussions, but will then work to bring a practical application to these issues as they consider how to shift these theoretical conversations to real-world action

## **HVAC (Heating, Ventilating and Air Conditioning)**

### **ESTC 180L Introduction to Heating, Ventilation and Air Conditioning**

#### **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.

## **INTERDISCIPLINARY STUDIES**

### **IDS290L Interdisciplinary Studies Capstone**

#### **CL3 L0 CR3**

This course allows senior students to demonstrate and reflect on what they have learned throughout their degree program. The project and portfolio presented in this course will serve as a representation of their skills gained through their chosen program(s) and work experience.

### **IDS2291L Interdisciplinary Studies Internship**

#### **CL0 L9 CR3**

This course is an internship for the Interdisciplinary Studies Program. A minimum of 60 hours must be completed in a preapproved internship field in which the student wants to seek employment or continued education. Approval will be at the discretion of the Department Chair and Vice President of Academic and Student Affairs.

## **MARINE TECHNOLOGY**

### **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.

### **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, and rigging and maintenance procedures for warranty support. (Prerequisite: MAR 121L with a C or better)

### **MAR127L Marine Electrical Systems CL3 L6 CR5**

This course focuses on theory, principles and measurements of AC and DC electricity and electronics

are covered. Setup, Maintenance, and diagnostic procedures for common inboard, stern drive, outboard starting and charging systems. Schematic and conventional wiring diagram interpretation allows the student to become familiar with common 12-volt marine electrical systems, such as helm harnesses, gauge packages and accessory lighting circuits.

### **MAR170L 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)

### **MAR227L Marine Drive Systems Diagnostics and Repair CL3 L6 CR5**

This course examines the maintenance, diagnostics and repair procedures for common marine stern drive engine packages. Drive-by-wire systems will be explored in depth along with maintenance and service procedures related to inboard engine transmissions. (Pre-requisite: MAR121L with C or better)

### **MAR228L Inboard Engine Diagnostics and Repair CL3 L6 CR5**

This course will cover theory and repair of stern drive engine systems such as internal engine, fueling, and electrical systems. Diagnostics skills will be developed as each system and its repair process is thoroughly examined. (Pre-requisite: MAR127L with C or better.)

### **MAR232L Outboard Engine Diagnostics and 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)

### **MAR270L Advanced Marine Systems I CL3 L0 CR3**

This course will provide students basic theory and operation of marine engines, electrical/electronic systems, and other related subjects necessary for modern marine technicians. Success of this course reflects the completion of the online training prerequisite for Mercury Marine Certificate, (Prerequisite: Marine Diagnostic and Repair certificate with minimum 2.0 GPA)

### **MAR272L Advanced Marine Systems II CL4 L6 CR6**

This course will provide students diagnostic and advanced repair skills on marine engines, electrical/electronic systems, and other related subjects necessary for modern marine technicians. Successful completion of this course reflects the student credential of Mercury Marine certified technician. (Prerequisite: MAR270L)



## **MATHEMATICS**

### **MATH061L\* 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.)

### **MATH137L 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)

### **MATH142L 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.)

### **MATH211L 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 MATH142L with a grade of C or better or competence demonstrated on math placement exam).

### **MATH216L 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: MATH 129L or MATH 137L or MATH142L with a grade of C- or better or competence demonstrated on math placement exam.)

### **MATH225L 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: MATH142L with a grade of C or better or competence demonstrated on math placement exam.)

### **MATH235L 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: MATH211L with a grade of C or better or competence demonstrated on math placement exam.)

### **MATH270L 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: MATH235L with a grade of C or better or competence demonstrated on math placement exam.)

**MATH271L Calculus 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: MATH270L with a grade of C or better.)

**MATH275L 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: MATH142L or Permission of Instructor)

**NURSING****NURS100L 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.

**NURS132L 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: BIOL145L and PSYC126L with a grade of C)

**NURS142L 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: NURS132L with a minimum grade of B-, BIOL145L, PSYC126L with a minimum grade of C, Co-requisite BIOL146L, PSYC125L)

**NURS222L Nursing III CL5 L4 CR9**

The components of the 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: NURS132L, NURS142L with a minimum grade of B-, BIOL145L, BIOL146L, PSYC125L, PSYC126L with a minimum grade of C, Co-requisite BIOL241L)

**NURS232L 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: NURS132L, NURS142L, NURS222L with a minimum grade of B-, BIOL145L, BIOL 146L, BIOL241L, PSYC125L, PSYC126L with a minimum grade of C)

## **PARAMEDIC**

### **PAMD110L Paramedic I CL8 L4 CR12**

A comprehensive course that includes an introduction to paramedicine, foundations of EMS, wellness of the paramedic, pathophysiology and the theory, knowledge, and skills to manage medical, cardiac, and traumatic emergencies, pharmacology, life span development, and public health issues relating to EMS. Critical thinking and problem solving will be developed using a case-based approach. The student will also demonstrate intravenous skills and medication administration in a laboratory environment.

### **PAMD120L Paramedic II CL5 L4 CR11**

A comprehensive course that builds on Paramedic I and includes the theory, knowledge, and skills necessary to assess and manage medical, cardiac, and traumatic conditions in obstetric, pediatric, adult, geriatric, special population patients and patients at risk. Case-based approaches will be employed to develop critical thinking, scene management, and problem solving. Students will be introduced to the clinical environment via an orientation that includes mandatory in-service trainings, and procedure and Advanced Emergency Medical Technician skill totaling 90 hours. Skills will be demonstrated in a laboratory environment using case

management scenarios and clinical experiences will provide a student an opportunity to apply concepts and skills.

### **PAMD210 Paramedic III CL0 L0 CR5**

A comprehensive course of clinical rotations that focuses on patient assessments, medical theory, developing and implementing treatment plans and skills while working with preceptors in a variety of clinical settings, and affective behaviors expected of an entry level paramedic. A minimum of 225 hours is required

### **PAMD220L Paramedic IV CL0 L1 CR8**

A field internship course that provides students an opportunity to apply their didactic skills in a fast-paced, progressive EMS environment under the direct supervision of a dedicated preceptor. It will be broken into two phases including a formative (team member) and capstone (team lead) where students will be responsible to ride for at least 315 hours of field time and perform at least 75 total patient assessments and developing and implementing treatment plans. Students will also participate in bi-weekly class designed to bring students and educators together to discuss and review calls using a wholistic approach in discussing medical, social, socioeconomic, political, and other perspectives in preparation for the National Registry certification exam.

## **PHILOSOPHY**

### **PHIL129L 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.

### **PHIL225L 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.

### **PHIL227L 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.

## **POLITICAL SCIENCE**

### **POLS222L 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.

### **POLS231L American Government**

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.

### **POLS235L Constitutional Law**

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: POLS231L with a B or better, equivalent high school-level Citizenship or its equivalent.)

## **PSYCHOLOGY**

### **PSYC125L Introduction to Psychology**

Various areas of psychology, including scientific investigation, motivation, personality, psychological testing, behavioral deviation, and perception, learning and human development are studied.

### **PSYC126L Human Growth and Development**

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.

### **PSYC200L Educational Psychology**

Psychological principles are applied to the learning environment. Theories of learning, memory, cognition, and behavior management are discussed in relation to

formal education. (Prerequisites: PSYC125L, Prerequisite or Co-requisite: PSYC125L)

### **PSYC220L Abnormal Psychology**

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

### **PSYC230L Theories of Personality**

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: PSYC125L)

### **PSYC235L Social Psychology**

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: PSYC125L)

### **PSYC290L Cognitive Psychology**

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: PSYC125L)

## **SCIENCE**

### **BIOL127L Nutrition for Health and Fitness with Laboratory**

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.)



**BIOL144L 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.

**BIOL145L 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.

**BIOL146L 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: BIOL145L with a C or better).

**BIOL148L 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.

**BIOL149L 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: BIOL148L with a C or better)

**BIOL152L 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

**BIOL153L 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.

**BIOL 241L 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: BIOL145L with a C or better).

**BIOL246L 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

**CHEM121L 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 CHEM121L or CHEM136L.

**CHEM136L 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: MATH137L or MATH142L 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: CHEM121L or CHEM136L.

**CHEM138L 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 136L with a C or better and MATH211L with a C or better or competence as demonstrated in math placement exam).

**CHEM139L 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 138L with a C or better).

**ENVS112L 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 061L can also be taken concurrently).

**ENVS113L 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 ENVS112L and MATH061L or competence as demonstrated on math placement exam. MATH061L can also be taken concurrently)

**ENVS150L Environmental Science CL3 L2 CR4**

This course introduces 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.

**GEOL160L 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.)

**PHYS104L 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.

**PHYS125L 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: MATH129L or MATH137L or MATH211L with a C or better or competence as demonstrated on math placement exam).

**PHYS128L 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)

**PHYS220L 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: MATH137L or MATH211L with a C or better or Permission of Instructor)

**PHYS221L 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)

**SCI261L 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****SOSC121L Ethnography of Work CL3 L0 CR3**

This course introduces students to anthropological perspectives and social science research methods as they investigate a range of careers. The course approaches work as a cultural system invested with meanings, norms, values, customs, behavioral expectations, and hierarchies. Through ethnographic techniques, students evaluate the myths and stereotypes about work, as well as gain insight into how and why work matters to individuals. Work life is examined in the context of contemporary dynamics of disruption, uncertainty, innovation, and diversity. Assignments encourage students to draw connections between the self and work so they are prepared to make informed decisions about majors and career paths.

**SOSC124L 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.

**SOSC128L 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.

**SOSC142L 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.

**SOSC221L 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.



**SOSC231L Microeconomics CL3 L0 CR3**

This course introduces 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.

**SOSC232L 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.

**SOSC235L 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.

**SOSC299L Special Topics in Social Science CL3 L0 CR3**

Researchers in the Social Sciences ask and answer a broad range of questions about who we are, how we navigate society, and how society shapes the choices and options that are made available to us. Many of these questions are briefly discussed in introductory courses, but time constraints limit the attention that can be given to each topic. This course

provides space to further explore some of these key questions and themes. The theme of this course changes each semester, but possible areas of focus include delinquency and deviance, education, and social inequality.

**SOSC299L Special Topics in Social Science CL3 L0 CR3**

Researchers in the Social Sciences ask and answer a broad range of questions about who we are, how we navigate society, and how society shapes the choices and options that are made available to us. Many of these questions are briefly discussed in introductory courses, but time constraints limit the attention that can be given to each topic. This course provides space to further explore some of these key questions and themes. The theme of this course changes each semester, but possible areas of focus include delinquency and deviance, education, and social inequality. May be repeated for credit when course content changes; may be taken with other topics courses during the same semester.

**SOSC299AL Juvenile Delinquency CL3 L0 CR3**

We will study juvenile delinquency through a sociological lens, focusing on the following questions: What is juvenile delinquency? What theories help us understand the causes and consequences of delinquency? What is the relationship between juveniles and the justice system? What policies and practices best address delinquency? Throughout the course, we will focus on applying social science theories to current events and policy issues in this field.

# College Directory

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## **Lakes Region Community College Administration**

### **Patrick Cate (2018)**

*Interim President*

*Vice President of Academic and Student Affairs*

*M. Ed. Plymouth State University*

*B.A. Keene State College*

### **Cathy Kubec**

*Interim Vice President of Academic and Student Affairs*

### **Business Affairs Officer**

*Vacant*

### **Laura LeMien (2013)**

*Associate Vice President of Academic and Student Affairs*

*M.S. Higher Education Southern New Hampshire University*

*B.S. Southern New Hampshire University*

## **Lake Region Community College Faculty**

### **Timothy Barraclough (2021)**

*Associate Professor, Toyota T-TEN*

A.A.S., New Hampshire Community Technical College

### **Jamie Decato (2002)**

*Department Chair: Transportation 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

### **Keith Fletcher (2010)**

*Program Coordinator, Electrical Technologies*

*Associate Professor, Electrical Technologies*

A.A.S., New Hampshire Community Technical College

### **Stephen Freeborn (2015)**

*Department Chair, Liberal and Professional Studies*

*Assistant Professor, English*

M.A., Dartmouth College

B.A., University of New Hampshire

### **Catherine Fuster (2015)**

*Department Chair, Computer Information Systems,  
Graphic Design, Human Services and Interdisciplinary  
Studies*

*Associate Professor, Computer Technologies*

M.B.A. University of Colorado

B.A. Colorado State University

### **Kayla Harper (2022)**

*Associate Professor, Culinary Arts*

B.A. Johnson & Wales University

A.S., Lakes Region Community College

### **Edna N. Hansen (1970-1991)**

*Professor Emeritus*

B.S., Central Connecticut State College

M.S., Central Connecticut College

### **Diane Lewis (2022)**

*Program Coordinator, Early Childhood Education*

M.Ed., University of Arizona

B.A., Notre Dame College

### **Scott Maltzie (2017)**

*Assistant Professor, Business Studies*

Ph. D., Northcentral University

M.S., New Hampshire College

MBA, New Hampshire College

B.S., 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

### **Nick Mercuri (2021)**

*Department Chair, Fire Technology*

*Professor, Fire Technology*

M.H.A. New England College

B.S. Boston College

### **Julie Morin (1994)**

*Professor, Mathematics*

M.S., Rensselaer Polytechnic Institute

B.S. Rensselaer Polytechnic Institute

### **Lauren Murphy (2012)**

*Associate Professor, Nursing*

M.S.N., Walden University

B.S.N., University of New Hampshire

A.S.N., New Hampshire Technical 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

### **Forrest Powers (2022)**

*Assistant Professor, GM ASEP*

A.A.S. Lakes Region Community College

### **Carlene Rose (2010)**

*Department Chair: Business Studies*

*Professor, Business Studies*

*Marketing*

M.S., Southern New Hampshire University

B.S., University of New Hampshire

A.S., Franklin Pierce College

### **Gary Romagnoli (2021)**

*Associate Professor Electrical Technologies*

B.S. Franklin Pierce University

A.S. NH Technical Institute

### **Matthew Simon (2020)**

*Program Coordinator, Math and Science*

*Associate Professor, Science*

M.S., University of New England

B.S., University of Pittsburgh

### **Ted Smarzynski (2021)**

*Program Coordinator, Human Services*

M.S. Southern New Hampshire University

B.A. Granite State College

**Joseph Smith (2018)**

*Department Chair: Advanced Manufacturing and  
Electrical Technologies*

*Instructor, Advance Manufacturing*

A.A.S., Lakes Region Community College

**Kimberly Stevenson (2021)**

*Instructor, Toyota T-TEN*

**Dustin Stream (2021)**

*Associate Professor, Fire Technology*

B.A. University of Maryland

**Rachel Sullivan (2021)**

*Assistant Professor, Social Sciences*

M.S. University of Albany, SUNY

B.A. university of Nebraska, Lincoln

**Amy Tremblay (2013)**

*Professor, Nursing*

M.S.N., Walden University

A.S.N., New Hampshire Technical Institute

General Studies, Indian River Community College

**William Walsh (2007)**

*Department Chair Hospitality Programs*

*Associate Professor, Culinary Arts*

B.S., Nova University

A.S., McIntosh College

**Elizabeth Wilson (2013)**

*Program Coordinator, Art*

M.F.A., University of New Hampshire

B.S., Skidmore College

**Laura Zakorchemny (2020)**

*Associate Professor, Nursing*

D.N.P. Regis College

M.S.N. Wilmington University

B.S.N. Neumann University

L.P.N. Camillus Mercy School

## Lakes Region Community College Adjunct Faculty

### **Zachary Allen (2019)**

*Fine Arts*

M.F.A., Massachusetts College of Art and Design

B.A., Montana State University

### **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

### **Carolyn Arcabascio (2017)**

*Fine Arts*

B.F.A., University of Massachusetts

### **Donna Armes-Thomas (2021)**

*Computer Information Systems*

B.B.A., Davenport University

M.B.A., Davenport University

Ph.D., Eastern Michigan University

### **Nathan Arnold (2014)**

*Advanced Manufacturing*

Glendale Community College

Society of Manufacturing Engineers

Machinery Technician Certification

### **Joel Austin-Shortt (2018)**

*Advanced Manufacturing*

Certificate, River Bend Career & Technical Center

A.S., Lakes Region Community College

### **Mina Ayers (2005)**

*Business Management*

M.S., New Hampshire College

B.S., University of Connecticut

### **Timothy Baker (2021)**

*Computer Information Systems*

B.S., University of Missouri, St. Louis

### **Kate Barber (2022)**

*Liberal Arts (English)*

M.A., Southern New Hampshire University

B.A., Keene State College

### **Megan Baxter (2021)**

*Liberal Arts (English)*

MFA, Vermont College of Fine Arts

BFA, Goddard College

### **Matthew Beem (2018)**

*Liberal Arts*

M.Div., Fuller Theological Seminary

B.A., Arizona State University

### **Steven Bell (2005)**

*Marine Technologies*

MerCruiser Certified Technician

### **Owen Bendixsen (2010)**

*Liberal Studies*

M.S., University of South Florida

B.S., Brigham Young University

### **Bradford Bishop (2020)**

*Electrical Technologies*

A.S., White Mountains Community College

A.S. – ESIM, Lakes Region Community College

A.S. – EPCT, Lakes Region Community College

### **Jessica Blais (2013)**

*Human Services*

B.A., M.S.W., University of New Hampshire

Certified Prevention Specialist

### **Karen Boutwell (2018)**

*Computer Information Systems*

B.A., Walden University

A.S., Lakes Region Community College

### **Debbie Brady (2020)**

*Nursing*

M.S., University of New Hampshire

B.S., Syracuse University

A.A.S., State University of New York at Morrisville

### **Ryan Brown (2017)**

*Fire Technologies*

A.S., Lakes Region Community College

### **Denis Carignan (2018)**

*Advanced Manufacturing*

A.M. Coursework, Lakes Region Community College

### **Caitlyn Casey (2020)**

*Nursing*

B.S.N., Colby-Sawyer College

### **Jacob Cheverie (2021)**

*Liberal Arts (Math & Science)*

B.S., Mathematics – Keene State College

B.S., Physics – Keene State College

### **Franciene Clement (2016)**

*Licensed Nurses Assistant*

B.S.N., Southern New Hampshire University

A.D.N., Lakes Region Community College

**Kathleen Connors (2022)**

*Computer Information Systems*  
 M.S., Nova Southeastern University  
 B.S., Franklin Pierce College  
 A.S., NHTI, Concord

**Raelyn Cottrell (2020)**

*Program Coordinator – EMT Program*  
 AEMT Certification  
 BSL Certified  
 NH EMS Provider License

**Brittany Courchesne (2019)**

*Early Childhood Education*  
 M.Ed., Lesley University  
 B.S., Plymouth State University

**Arthur Deleault (2016)**

*Liberal Studies*  
 M.A., Rivier College  
 B.A., St. Anselm College

**Christina Denis (2020)**

*Early Childhood Education*  
 D.Ed., Capella University  
 M.S., Wheelock College  
 B.A., University of New Hampshire  
 NH Early Childhood Credential Certification

**Stacey Dubois (2021)**

*Fire Sciences*  
 B.S., University of New Haven

**Sara Dupont (2021)**

*Human Services*  
 M.S., University of New Hampshire  
 B.A., Plymouth State University

**Matthew Durling (2017)**

*Marine Technologies/Mercury Marine*  
 A.S., Manchester Community College

**Raymond England (2013)**

*Business Studies/Liberal Studies*  
 MBA, Bryant College  
 B.A., Southeastern Massachusetts University

**Sylvie Essex (2019)**

*Liberal Studies*  
 B.A., Tufts University  
 M.A.T., Tufts University

**Adam Fanjoy (2021)**

*Fire Sciences*  
 B.S., University of New Hampshire

**Jordan Fansler (2022)**

*Liberal Arts*  
 Ph.D., University of New Hampshire  
 MSc, University of Edinburgh  
 B.A., St. Joseph's University

**Timothy Fillion (2013)**

*Marine Technology*  
 A.A.S., Lakes Region Community College

**John Frick (2021)**

*Fine Arts*  
 M.Ed., Plymouth State University  
 B.S., Millersville University

**Rhonda Gagnon (2021)**

*Nursing*  
 M.S. Candidate, Walden University  
 B.S., Southern New Hampshire University  
 A.S., Lakes Region Community College

**Stephen Gallagher (2016)**

*Fire Technologies*  
 M.S. Kaplan University  
 B.S., Kaplan University  
 A.S. Lakes Region Community College

**Catie Gaudreault (2020)**

*Nursing*  
 M.S.N. in progress, Walden University  
 B.S.N., Walden University  
 A.D.N., NH Technical Institute

**Deborah Gibson (2014)**

*Liberal Studies*  
 M.M.E., James Madison University  
 B.M.E., Shenandoah College and Conservatory of Music

**Celyne Godbout (2022)**

*Liberal Arts*  
 Ph.D. Candidate, Walden University  
 M.S., Walden University  
 B.A., Southern New Hampshire University

**Molly Goggin (2020)**

*Liberal Studies*  
 M.d., Southern New Hampshire University  
 M.Ed., Plymouth State University  
 B.A., Plymouth State College

**William Haynes, Jr. (2021)**

*Automotive Technologies*  
 M.A., Webster University  
 B.S., Campbell University  
 A.A. St. Leo College  
 A.S., Central Texas College



**Fred Heinrich (1998)***Fire Technologies*

M.Ed., Plymouth State College

B.S., Franklin Pierce College

A.A.S., New Hampshire Community Technical College-  
Laconia**Charlotte Hills (2018)***Human Services*

M.Ed., Ashford University

B.A., Ashford University

A.A., University of Phoenix

**James Holmes (2016)***Business Studies*

B.S., Accounting, Plymouth State University

A.S., Accounting, Lakes Region Community College

**Cheryl Hovey (2019)***Early Childhood Education*

Ed.D. in progress, Walden University

M.S., Wheelock University

B.S., Wheelock University

**Corey Hoyt (2016)***Business Studies*

M.A., Georgetown University

B.S., Johnson &amp; Wales University

A.S., Johnson &amp; Wales University

**Deborah Hoyt (2001)***Liberal Studies*

M.A., Notre Dame College

B.A., University of New Hampshire

**Matthew Johnson (2018)***Business Studies*

M.B.A., Plymouth State University

B.S., University of Maine

**Jeffrey LeBlanc (2017)***Fire Sciences*

M.B.A., University of Phoenix

B.S., University of Phoenix

A.S., NH Technical Institute

**Peter Lennon (2021)***Fire Sciences*

B.S., Rivier College

A.S., New Hampshire Community Technical College –  
Laconia**Jonathan (Trevor) Lester (2021)***Liberal Arts (Math & Science)*Ph.D., University of Pittsburgh School of Medicine  
(Interdisciplinary Biomedical Graduate Program)

B.A., Alfred University

**Carl Lindblade (2020)***Hospitality Management*

B.A., Tufts University

**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

**Stacy Luke (2021)***Liberal Studies*

M.Ed., Plymouth State University

M.Ed., University of New Hampshire

B.A., Boston University

**Angel Martinez (2021)***Electrical Power & Technologies*Certificates in Construction Mgmt and Project Mgmt,  
University of HartfordElectrical Installation and Practice, George Washington  
Vocational/Tech, Brooklyn, NY

Master Electrician License, State of New Hampshire

**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

**Robert McIntosh (2021)***Culinary Arts*

A.S., Lakes Region Community College

**Ashley Medas (2021)***Nursing*

M.S.N. in progress, Southern NH University

B.S., University of Massachusetts Dartmouth

**Taryn Merrill (2020)***Culinary Arts*

A.S. Johnson and Wales University

**Jeffrey Michaud (2014)***Advanced Manufacturing*

M.S., University of New Hampshire

B.S., Granite State College

A.A.S., New Hampshire Technical Institute

A.A.S., New Hampshire Technical Institute

**Bryn Neenos***Liberal Studies*

M.A. Georgetown University

B.A Brigham Young University

**Erin Pettengill***Human Services*

M.A., Capella University

B.A., Keene State College

**Cierra Pinkney (2022)***Human Services*

M.Ed, Franklin Pierce University

B.A., Plymouth State University

A.A., Plymouth State University

**Kyle Plante***Liberal Studies*

M.S.Ed, St. Joseph's College

B.S. University of New Hampshire

**Jonathan Powell (2014)***Liberal Studies*

M.Ed., Plymouth State University

B.A., Dartmouth College

**Forrest Powers (2021)***Automotive Technologies*

A.A.S., Lakes Region Community College

**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

**Corie St. Germain (2021)***Nursing*

M.S.N. in progress, Chamberlain University

B.S.N., Chamberlain University

A.D.N., Manchester Community College

**Matthew Schmiermund***Advanced Manufacturing*

A.S., Electro-Mechanical Technologies, LRCC

A.S., Advanced Manufacturing, LRCC

B.S., Michigan Technological University

**Fran Seigle (2021)***Liberal Studies*

M.Ed., Plymouth State University

B.A., Montclair State College

**Kathleen Seigle (2020)***Liberal Studies*

B.S., Villanova University

M.Ed., Plymouth State University

**Roger Shelton (2010)***Liberal Studies*

M.S., New Jersey Institute of Technology

M.S., 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

**Sasha Shunk (2022)***Early Childhood Education*

M.S., University of Maine – Farmington

B.S., University of Maine - Farmington

**Melissa Smith (2019)***Nursing*

M.S.N., Southern New Hampshire University

B.S.N., Southern New Hampshire University

A.D.N., Lakes Region Community College

**Susan Smith (2020)***Nursing*

Graduate Certificate, University of New Hampshire

M.H.A., University of Minnesota

B.S.N., Saint Anselm College

**Lisa Somerville (2018)***Culinary Arts/Baking & Pastry Arts*

B.S., Lyndon State College

A.S., Lyndon State College

**Amanda Stefanik (2014)***Liberal Studies*

M.A., Western Governors University

M.Ed., Grand Canyon University

B.A., Elmira College

**Alexander Sterzin (2022)***Liberal Arts*

MSc, University of Edinburgh

B.A., University of Massachusetts - Amherst

**Christopher Stevens (2015)***Liberal Studies*Master of Divinity, Gordon-Conwell Theological  
Seminary

B.S., University of Massachusetts

**Kurt Stuke (2020)***Liberal Studies*

B.A., St. Anselm College

M.A., St. Louis University

D.A., Franklin Pierce University

**Cheryl Toutaint (2022)***Nursing*

A.S., NHTI - Concord

**Edie Takantjas (2021)***Liberal Studies*

B.A., University of Illinois

M.A., University of Illinois

**Marc Tessier (2015)***Liberal Studies*

M.Ed., Antioch University

B.A., St. Anselm's College

**Richard Underbakke (2017)***Liberal Studies*Post-Doctoral, University of Maryland online and Iowa  
State University

Ph.D., Capella University

MBA, Drake University

B.A., Simpson College

A.S., Des Moines Area Community College

**Jill Vickers (2017)***Graphic Arts & Design*

M.A., New Hampshire Institute of Art

B.F.A., Massachusetts College of Art and Design

Art Education Studies, Franklin Pierce College

A.S., Middlesex Community College

**David Webster (2019)***Liberal Arts (Math & Science)*

M.S., Plymouth State University

B.S., Plymouth State University

**Jennifer Weeks (Fall 2018)***Liberal Arts (English)*

APSI – St. Joseph's College

M.Ed., University of New Hampshire

B.A., St. Michael's College

**Paul Yergeau (2021)***Automotive Technologies*

A.A.S., NHTI - Nashua

**Nathaniel Zemke (2021)***Computer Information Systems*

M.S., West Virginia University

B.A., Eastern Washington University

## **Lakes Region Community College Staff**

### **Academic and Student Affairs Office**

#### **Jennifer Aiken (2005)**

Assistant to the Vice President of Academic and Student Affairs

B.A. Keene State College

#### **Kathy Mather (2007)**

Program Assistant II, Academic and Student Affairs

B.A. Southern New Hampshire University

A.S. Lakes Region Community College

#### **Andrée Thibault (2008)**

Program Assistant II, Academic and Student Affairs,  
Workforce Development

A.A.S. New Hampshire Community Technical College-  
Berlin

### **Automotive Technologies**

#### **Sharon Cardarelli (2018)**

Secretary, Automotive Technologies

A.S. Cape Cod Community College

### **Bookstore**

#### **Kathy Clairmont**

Bookstore Manager

### **Campus Safety**

#### **Christopher MacArthur (2022)**

Campus Safety Officer

#### **Kaitlin Nix (2021)**

Campus Safety Officer

#### **David Stevens (2020)**

Campus Safety Coordinator

NH Police/Corrections Academy

### **Human Resources**

#### **Karen Schaffner (2020)**

Human Resources Manager

A.A.S. Business Administration, Granite State College

### **Library**

#### **Penelope Garrett (2008)**

Library Director

M.S.L.S Clarion University

B.A. Granite State College

### **Maintenance**

#### **Todd Calder (2017)**

Maintenance Mechanic Foreman

#### **Jason Graves (2013)**

Maintenance Mechanic

B.A. Plymouth State University

#### **Michael Hunkins (2017)**

Building Service Worker

#### **Sheila Jenot (2021)**

Building Service Worker

#### **Roger Lajoie (2005)**

Plant Maintenance Engineer

#### **Kevin McCauley (2018)**

Building Service Worker

#### **Lisa Moulton (2012)**

Building Service Worker Supervisor

#### **Renato Rodriguez (2018)**

Building Service Worker

### **LRCC One-Stop**

#### **Alexander Boudreau (2022)**

Associate Director, Enrollment Services

A.A. Lakes Region Community College

B.A. Plymouth State University

#### **Kimberly Bean (2005)**

Assistant, Financial Aid

#### **Tyler Brown**

Admissions Recruiter

B.A. Plymouth State University

#### **Melissa Daigle (2012)**

Assistant Registrar

#### **Brenna Desbiens (2021)**

Assistant Bursar

A.S. Lakes Region Community College

#### **Linda Jennings (2010)**

Bursar

B.A. Ithaca College

#### **Allana Kwet (2022)**

Admissions Specialist

B.S. State University of New York

#### **Kristen M. Purrington (2009)**

Financial Aid Director

B.A. Lyndonville State College

**Shawn C Young (2021)**

Director of Enrollment Management and Onboarding

M.A. New York University

B.A. State University of NY at Stony Brook

**President's Office****Katie Sweet (2022)**

Marketing & Public Relations Manager

B.A. Emerson College

**Purchasing, Shipping & Receiving****Dee Chitty (2021)**

Receiving

**Residential Life****Eric Walsh (2019)**

Campus Life Coordinator

B.S. Saint Anselm College

**Student Success Center****Melissa Ballard (2013)**

Student Support Counselor

M.S. College of St. Joseph

B.A. Johnson State College

**Claudia Larrow (2021)**

Student Support Counselor

M.S. University of Vermont

B.A. University of Connecticut

**Jamie Laurent (2019)**

Campus Accessibility Coordinator

M.A. Plymouth State University

B.S. College of New Jersey

**Andrea Tripple**

Lead College Counselor

M.A Clinical Mental Health Counseling

University of North Carolina

**Technical Support****Christopher J. Crowley (1999)**

Technical Support Specialist

B.S. Northeastern University

**Charmaine Pacot**

Technical Support Specialist

A.S. Great Bay Community College



## Academic/Parts of Term Calendar 2022-2023

Office of Academic and Student Affairs

379 Belmont Road, Laconia, NH 03246

Phone: (603) 524-3207 Fax: (603) 524-8084

### Academic Calendars

<b>Summer 2022</b>	
Saturday, May 14	Commencement
Monday, May 16	Last Day of Responsibility for 10 Month Faculty for Spring Semester (except for commencement and commencement activities), as determined by assigned Commencement duties
Tuesday, May 17	Last Day of Responsibility for 180 Day Staff for Spring Semester, as determined by assigned Commencement duties
Monday, May 23	Summer Semester Classes Begin
Monday, May 30	Memorial Day- All Campus Buildings Closed
Friday, June 10	Last Day to Resolve "I" Grades from Spring 2022
Monday July 4	Independence Day Holiday Campus closed
July 4-July 8	Independence Day Break- No Classes/Campus Open
Thursday, July 7	Last Day of Responsibility for 11 Month Faculty for the 2021-2022 Academic Year
Thursday, August, 11	Last Day of 2021-2022 Academic Year
Saturday, August 20	Last Day of Classes for Summer Semester

<b>Summer 2022 Parts of Term and Important Dates</b>	<b>P/T</b>	<b>BEGIN DATE</b>	<b>END DATE</b>	<b>PAYMENT DUE DATES</b>	<b>LAST DATE TO DROP W/ REFUND</b>	<b>LAST DATE TO DROP W/ "W"</b>	<b>LAST DAY TO SUBMIT AF/WF/WP</b>
Day/Evening/Online Classes	21	5/23/22	8/20/22	5/9/22	5/31/22	7/15/22	8/10/22
6-week Term I	2S1	5/23/22	7/1/22	5/9/22	5/31/22	6/15/22	6/21/22
6-week Term II	2S2	7/11/22	8/20/22	6/27/22	7/18/22	8/4/22	8/10/22
Cooperative Education I	2C1	5/23/22	7/1/22	5/9/22	5/31/22	6/15/22	6/21/22
Cooperative Education II	2C2	7/5/22	8/26/22	6/21/22	7/12/22	8/5/22	8/16/22
10 Week Term	2V1	5/31/22	8/12/22	5/17/22	6/7/22	7/13/22	8/2/22
LNA	2V3	5/23/22	7/29/22	5/9/22	5/31/22	7/2/22	7/19/22
Workshops	2W	5/23/22	8/20/22	14 days prior to start	3 business days prior to start	N/A	N/A



<b>Fall 2022</b>	
Friday, August 12	180 Day Staff Return
Monday, August 15	10 Month and 11 Month Faculty Return
Sunday, August 28	Residential Students Move In to Apple Ridge Student Apartments
Monday, August 29	Fall Semester Classes Begins
August 29– September 2	Welcome Back Week (Sponsored by Student Senate)
Monday, September 5	Labor Day Holiday – All Campus Buildings Closed
Friday September 16	Last Day to Resolve “I” Grades from Summer 2022
Saturday, October 1	FAFSA Application Opens for Academic Year 2023-2024
Wednesday November 3	Last Day to Withdraw From a Full Semester Course with a Grade of “W”
Thursday November 10	Intent to Graduate Form due for Fall Graduates
Friday, November 11	Veterans’ Day Holiday – No Classes/Campus Closed
Wednesday, November 23	All Campus Buildings Close at 4:00pm (No evening classes)
Thursday, November 24-27	Thanksgiving Holiday – All Campus Buildings Closed
Monday, November 28	Canvas Shells are Available for Spring Courses
Saturday, December 17	Last Day of Classes for Fall Semester/Winter Break Begins
Monday, December 19	Last Day of Responsibility for 10 month and 11 month Faculty
Wednesday, December 21	Last Day of Responsibility for 180 Day Staff
Monday, December 26	Christmas Day Holiday Observed- All Campus Buildings Closed
Tuesday, Dec. 27 – Monday, January 2	Winter Recess – All Campus Buildings Closed

<b>Fall 2022 Parts of Term and Important Dates and Deadlines</b>	<b>P/T</b>	<b>BEGIN DATE</b>	<b>END DATE</b>	<b>PAYMENT DUE DATES</b>	<b>LAST DATE TO DROP W/REFUND</b>	<b>LAST DATE TO DROP W/ "W"</b>	<b>LAST DAY TO SUBMIT AF/WF/WP</b>
Day, Evening and Online Classes (Full Term)	21	8/29/22	12/17/22	8/15/22	9/12/22	11/3/22	12/7/22
Late Start	2LS	9/26/22	12/17/22	9/12/22	10/3/22	11/16/22	12/7/22
5 Week Term I	2FH	9/6/22	10/7/22	8/23/22	9/13/22	9/26/22	9/27/22
5 Week Term II	2SH	10/10/22	11/11/22	9/26/22	10/17/22	10/31/22	11/1/22
8-wk Term I	2T1	8/29/22	10/21/22	8/15/22	9/6/22	9/29/22	10/11/22
8-wk Term II	2T2	10/24/22	12/17/22	10/10/22	10/31/22	11/25/22	12/7/22
Cooperative Education	2C1	8/29/22	11/18/22	8/15/22	9/5/22	10/16/22	11/8/22
Toyota/Lexus Term I	2L1	8/29/22	9/23/22	8/15/22	9/5/22	9/13/22	9/13/22
Toyota/Lexus Term II	2L2	9/26/22	10/21/22	9/12/22	10/3/22	10/11/22	10/11/22
Toyota/Lexus Term III	2L3	10/24/22	11/18/22	10/10/22	10/31/22	11/8/22	11/8/22
GM Term I	2G1	8/29/22	10/7/22	8/15/22	9/6/22	9/21/22	9/27/22
GM Term II	2G2	10/10/22	11/18/22	9/26/22	10/17/22	11/2/22	11/8/22
LNA I	2V3	8/29/22	11/4/22	8/15/22	9/6/22	10/8/22	10/24/22
LNA II	2V1	10/17/22	12/9/22	10/3/22	10/24/22	11/17/22	11/29/22
Workshops	2W	8/29/22	12/31/22	14 days prior to start	3 business days prior start	N/A	NA
<b>Winter Cooperative Education</b>	<b>P/T</b>	<b>BEGIN DATE</b>	<b>END DATE</b>	<b>PAYMENT DUE DATES</b>	<b>LAST DATE TO DROP W/REFUND</b>	<b>LAST DATE TO DROP W/ "W"</b>	<b>LAST DAY TO SUBMIT AF/WF/WP</b>
Cooperative Education	2C1	11/21/22	02/24/23	11/7/22	11/28/22	1/17/23	2/14/23
Toyota/Lexus Term I	2L1	11/21/22	12/17/22	11/7/22	11/28/22	12/8/22	12/7/22
Toyota/Lexus Term II	2L2	01/02/23	01/27/23	12/19/22	1/9/23	1/17/23	1/17/23
Toyota/Lexus Term III	2L3	01/30/23	02/24/23	1/16/23	2/6/23	2/14/23	2/14/23

<b>Spring 2023</b>	
Monday, January 2	New Year's Day Holiday Observed- All Campus Buildings Closed
Tuesday, January 3	180 Day Staff Return
Thursday, January 5	10 Month and 11 Month Faculty Return
Thursday, January 12	Winter Convening
Monday, January 16	Civil Rights Day Holiday- All Campus Buildings Closed
Tuesday, January 17	Spring Semester Classes Begins
Wednesday February 1st	Deadline to submit Curriculum Changes to the Curriculum Committee
Friday, February 3	Last Day to Resolve "T" Grades from Fall 2022
Monday, February 20	Presidents' Day Holiday – All Campus Buildings Closed
Monday, March 6	Returning Student Registration for Summer and Fall 2023 and Spring 2024 Begins
Monday, March 13	Open Registration Begins
Friday March 10	Intent to Graduate Form Due for Spring Graduates
Monday March 13	Open Registration Begins
March 13-18	Spring Break – No Classes /Campus Open
Monday March 27	Last Day to Withdraw from a Full Semester Course with a Grade of "W"
Monday April 3	Canvas Shells are Available for Summer Courses
Friday April 14	Intent to Graduate Form Due for Summer Graduates
Saturday, May 6	Last Day of Classes for Spring Semester
Saturday, May 13	Commencement
Monday, May 15	Last Day of Responsibility for 10 Month Faculty for Spring Semester (except for commencement and commencement activities), as determined by assigned commencement duties
Wednesday, May 17	Last Day of Responsibility for 180 Day Staff for Spring Semester, as determined by assigned Commencement duties
Monday, May 29	Memorial Day Holiday – All Campus Buildings Closed
Tuesday, July 4	Independence Day Holiday (Observed)– No Classes/Campus Closed
Thursday, July 6	Last Day of Responsibility for 11 Month Faculty for the 2022-2023 Academic Year
Thursday, August 10	Last Day of 2022-2023 Academic Year

<b>Spring 2023 Drop Date and Deadlines</b>	<b>P/T</b>	<b>BEGIN DATE</b>	<b>END DATE</b>	<b>PAYMENT DUE DATES</b>	<b>LAST DATE TO DROP W/ REFUND</b>	<b>LAST DATE TO DROP WITH "W"</b>	<b>LAST DAY TO SUBMIT AF/WF/WP</b>
Winterim Classes	2WT	1/5/23	1/13/23	12/22/22	1/5/23	1/9/23	1/6/23
Day, Evening and Online Classes (Full Term)	21	1/17/23	5/6/23	1/3/23	1/30/23	3/27/23	4/26/23
Late Start Classes	2LS	2/6/23	5/6/23	1/23/23	2/13/23	3/31/23	4/26/23
6 Week Term I	2FH	1/17/23	2/24/23	1/3/23	1/24/23	2/8/23	4/18/23
6 Week Term II	2SH	3/20/23	4/28/23	3/6/23	3/27/23	4/12/23	3/27/23
8 Week Term I	2T1	1/17/23	3/10/23	1/3/23	1/24/23	2/17/23	3/1/23
7 Week Term II	2T2	3/20/23	5/6/23	3/6/23	3/27/23	4/17/23	4/23/23
9 Week Term	2V2	2/27/23	5/6/23	2/13/23	3/6/23	4/8/23	4/26/23
Cooperative Education	2C1	2/27/23	5/19/23	2/13/23	3/6/23	4/16/23	5/9/23
Toyota/Lexus Term I	2L1	2/27/23	3/24/23	2/13/23	3/6/23	3/14/23	3/14/23
Toyota/Lexus Term II	2L2	3/27/23	4/21/23	3/13/23	4/3/23	4/11/23	4/11/23
Toyota/Lexus Term III	2L3	4/24/23	5/19/23	4/10/23	5/1/23	5/9/23	5/9/23
GM Term I	2G1	2/27/23	4/7/23	2/13/23	3/6/23	3/22/23	4/27/23
GM Term II	2G2	4/10/23	5/19/23	3/27/23	4/17/23	5/3/23	5/9/23
LNA I	2V3	1/17/23	3/10/23	1/3/23	1/24/23	2/17/23	3/1/23
Workshops	2W	1/2/23	5/26/23	14 days prior to start	3 business days prior to start date	N/A	NA

#### Notice of Non-Discrimination

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

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

Inquiries regarding discrimination may be directed to **Larissa Baia**, Lakes Region Community College, (603) 524-3207, or directed to Sara A. Sawyer, Director of Human Resources for the Community College System of NH, 26 College Drive, Concord, NH 03301, 603-230-3503. Inquiries may also be directed to the NH Commission for Human Rights, 2 Industrial Park 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.

#### Disclaimer

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