



BACCALAUREATE

ACADEMIC CATALOG '23-'24



DISTANCE EDUCATION

Academic Year 2023-2024

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A Note from President Khoury

Unity Environmental University Distance Education Students,

Welcome to Unity!

By choosing Unity Environmental University you are choosing to embrace a sustainability science education anchored in the liberal arts and enhanced by 21st technology. An education that is affordable, flexible, and accessible at an ever-growing university. Your commitment to a Unity education shows you are committed to learning how to be problem solving, culturally competent, critical thinking, skilled, environmental superheroes.

As a student at Unity Environmental University, you are a part of an organization that is teaming with people who are determined to make a difference. At Unity you will learn from people who have the courage to step out of their comfort zones and embrace risks as they seek to make the world more sustainable with every student they teach.

Thank you for joining Unity Environmental University, we look forward to working with you as you make your way through your education journey!

If you need help or have questions, please reach out to your Distance Education Concierge or Distance Education Advisor.

With Pride,



Dr. Melik Peter Khoury
Unity Environmental University President



SECTION 1: INTRODUCTION

The Unity Environmental University Mission

We are dedicated to delivering quality education and experiences that produce outstanding environmentally competent professionals and inspire individuals from all walks of life to steward sustainable ecosystems.

The Unity Environmental University Distance Education Baccalaureate Catalog

The Distance Education Catalog contains the policies, procedures, and guidelines applicable to the Distance Education Strategic Education Business Unit (SEBU) at Unity Environmental University as reviewed and approved by the Unity Environmental University Distance Education administrative team. The Unity Environmental University Distance Education SEBU currently oversees all online baccalaureate programs. All students in those programs/courses will follow the policies and procedures outlined in this catalog.

Unity Environmental University views the *Unity Environmental University Distance Education Catalog* as the primary contract between the University and the student. Students must follow the graduation requirements from the catalog in effect at the time of their matriculation, or students may elect to fulfill the requirements of any subsequent catalog, provided they were enrolled at the time the catalog was published. In either case, the catalog is to be considered in its entirety; students may not fulfill part of their program requirements from one catalog and another part from another catalog. Unity Environmental University reserves the right to change any of the statements made in the catalog by reasonable notice in a supplement or replacement publication.

Distance Education Baccalaureate Programs: Distance Education baccalaureate online programs involve engagement in a small-class setting, with active-learning, and highly engaged instructor feedback and support. Baccalaureate students can expect to see organized, engaging courses that teach knowledge and skills professionals need to succeed in the 21st century.

By accepting admission to Unity Environmental University, students indicate that they are responsible for adhering to the policies and procedures that govern their education at Unity Environmental University. The requirements of the baccalaureate and graduate programs at Unity Environmental University have been instituted so that students, faculty, and administrators are guided by a shared set of expectations for education. We sincerely hope that awareness of these requirements allows each student a fruitful educational experience at Unity Environmental University.

Statement of Accreditation

Unity Environmental University is fully accredited by the New England Commission of Higher

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Education (NECHE) Commission on Institutions of Higher Education (CIHE). NECHE is located at 3 Burlington Woods Drive, Suite 100, Burlington, MA 01803-4514. NECHE may also be contacted by telephone at (781) 425-7785 or through their website at <http://cihe.neasc.org>.

SECTION 2: ADMISSIONS GUIDELINES

Baccalaureate Admissions Requirements

To enroll in a Unity Environmental University Distance Education baccalaureate program, students must meet the following criteria:

- Have graduated High School [or equivalent]
- Acknowledge awareness of and agreement with the [minimum skills for success at Unity Environmental University](#)

To be considered for admission into the Distance Education baccalaureate program, a student must submit the following:

- A Unity Environmental University Distance Education baccalaureate application for admission
- Verification of successful high school completion [upon request].

While unofficial transcripts are accepted during the admissions process, college credits may only be transferred to Unity Environmental University through the submission of an official college transcript. Official transcripts are received from an authorized third party or directly from another institution.

If the student fails to provide official transcripts to Unity Environmental University, transfer credit will not be awarded, and the student may be enrolled in Unity Environmental University courses that would have otherwise been fulfilled through transfer at time of enrollment. The Department of Education may, without notice, require Unity Environmental University to obtain the student's official transcripts for financial aid eligibility.

Admissions Requirement for Homeschooled Students

A homeschooled applicant for admission is required to submit one of the following for review:

- 1) A homeschooled transcript
- 2) A portfolio that has been evaluated by a third party [e.g., a certified teacher]
- 3) A composite SAT score of 1050 or higher; or a composite ACT score of 18 or higher

Readmission to the University

Students enrolled in a degree program may continue to work toward their degree program under the requirements that were in effect at the time they matriculated, providing there have been no breaks of more than twelve (12) months. Students who have a break of more than twelve months must apply to be reinstated to the Distance Education program and meet requirements of the catalog in effect at the time they are reinstated. After 12 months of inactivity, students must contact their academic advisor to express their intent to re-enroll in classes. Students who had a break in attendance for up to two (2) years due to military service are readmitted to their original program and catalog requirements, as long as the program is still active in Distance Education. The University reserves the right to make

substitutions for courses that are no longer offered.

Transfer of Credits

Baccalaureate students may transfer a maximum of 90 baccalaureate credits into baccalaureate programs at Unity Environmental University. Students must earn a 'C-' (1.7) or higher for the credit to be accepted for transfer. The credit-granting institution must also be accredited by a Department of Education-recognized regional or national accrediting body. If an institution is accredited by a DOE recognized agency but has programs and/or courses which are not eligible for Title IV funding, that coursework is not transferable for credit. Some coursework may not be eligible for credit transfer, including remedial/fundamental coursework.

Advanced Placement® (AP®) exams are eligible for transfer credit and count toward the 90-credit maximum for baccalaureate students. A minimum score of 4 is required to earn credit for mathematics and biology courses. For all other courses, a minimum score of 3 is sufficient.

College Level Examination Program® (CLEP®) exams are also eligible for transfer credit and count toward the 90-credit maximum for baccalaureate students. Unity Environmental University considers College Board recommendations for minimum scores when processing transfer credit.

DSST® is a credit-by-examination program often utilized by members of the military. DSST® scores can be submitted to earn college credit toward a degree program. Unity Environmental University will consider current ACE® recommendations for the minimum passing score and amount of credits to be awarded.

Unity Environmental University accepts credits from the International Baccalaureate Diploma Programme for courses graded with a 5 or higher if applicable to the student's major at the college. International Baccalaureate credits are subject to transfer credit limitations.

GED® exams may be eligible for transfer credit and count toward the 90-credit maximum for baccalaureate students. Unity Environmental University considers the recommendations of the American Council on Education (ACE®) guidelines for minimum scores when processing transfer credit. Students may receive up to 3 credits of math elective, 3 credits of biology elective, 3 credits of humanities elective, and 1 credit of general electives based on individual test subject scores.

Active and former military members may receive transfer credit by submitting a Joint Services Transcript. Courses will be evaluated per ACE® recommendations and can be applied to the major (if relevant) or toward general electives.

Students enrolled in a baccalaureate certificate may not transfer more than 25% of that certificate's required credits.

Unity Environmental University reserves the right to determine the eligibility of transfer credits. Transfer credits count only toward the total earned hours, not baccalaureate grade point averages.

Transfer of Credits for Prior Learning

Baccalaureate students may apply to earn credit for experience outside of coursework. Students may receive up to 30 credits toward a program through Credit for Prior Learning and no more than a total of 90 credits combined with Prior learning and Transfer credits. Students must apply through the Credit for Prior Learning Assessment process. All applicants must submit a portfolio that justifies the credits requested for award. The Distance Education Curriculum and Assessment Task Group reviews submitted portfolios and provides a recommendation to the Vice President of Distance Education [VPDE]. The VPDE is responsible for the final decision. The following categories are ways that students may qualify to receive through prior learning experiences:

- Credit for professional licenses and credentials earned
- Credit of a prepared portfolio documenting skills and knowledge
- Credit for exams, trainings, or certifications received

Portfolio must include the following information:

- Course Information – includes the learning outcomes for the specific course you are challenging
- Summary Sheet – matches each course learning outcome to your experience and supporting evidence
- Resume and Biographical Essay – provides an overview of your learning experiences related to the course
- Narrative – demonstrates how you have achieved each course learning outcomes
- Documentary Evidence – supports your claim to knowledge of the learning outcomes

Transfer of Credits from a Quarter System

Unity Environmental University recognizes that some students may transfer in credits earned from a quarter credit system. To convert quarter hours to semester hours, multiply the number of quarter credits earned by 2/3. For example, a course earned at 4.5 quarter credits converts to 3 semester credits.

When the conversion of credit hours completed results in a fraction, the number of credit hours will be rounded up for the benefit of the student by 0.5 semester credits. For example, a course earned at 4 quarter credits converts to 2.67 semester credits, which is rounded up to 3 semester credits. A course earned at 5 quarter credits converts to 3.33 semester credits, which is rounded up to 3.5 semester credits.

International Transfer Credit

International transcripts must be evaluated by a NACES®- or AICE®-approved agency to determine U.S. credit equivalency. Unity Environmental University will not consider foreign credits for transfer without the agency evaluation.

Student Immunization Policy

State of Maine Requirements

Maine law (20A M.R.S.A. 6358, Chapter 262) states that all public and private post-secondary institutions in the State of Maine must require, for all certificate and degree seeking students participating in face-to-face learning, proof of immunization or document immunity against five specific illnesses: diphtheria, tetanus, measles, mumps, and rubella.

Per Maine law, evidence of immunization or immunity can be demonstrated by the following:

1. A certificate of immunization from a physician, nurse, public health official, or school health provider who has administered the immunizing agent(s) to the student must specify the immunizing agent and the date(s) on which it was administered. Secondary school health records may also be accepted as proof of immunization under this rule, in lieu of certificates of immunization, as long as the secondary school health records were compiled and maintained as official documents, were based on certificates of immunization, and state, at a minimum, the month and year that the immunizations was administered.
2. Laboratory results or medical records demonstrating immunity will be considered acceptable evidence of meeting the purpose of this requirement. Secondary school health records may be accepted as proof of immunity if they contain copies of the laboratory evidence of immunity.

Beginning September 1, 2021, students are no longer eligible to claim religious or philosophical exemptions.

The only exemption to this requirement is for students enrolled in a distance education program who do not physically attend any classes or programs at a school facility.

Unity Environmental University requires immunization records for all certificate and degree seeking students where in-person learning is either an option or requirement of the SEBU.

University-Specific Requirements

In addition to the immunization requirements of the State of Maine, Unity Environmental University Enterprise or SEBUs may require additional immunization(s) based on location, program of study, or public health concerns.

SECTION 3: EXPENSES AND FINANCIAL AID

Cost of Attendance

Baccalaureate courses cost \$470 per credit hour. Books, software, hardware, and other materials are not included in the credit hour cost and must be purchased separately.

Graduate courses cost \$650 per credit hour. Books, software, hardware, and other materials are not included in the credit hour cost and must be purchased separately.

Military Differential Tuition: All distance education courses are reduced by 10% for veterans or active military members and their dependents.

Billing

Students will be billed for each term after registering for their courses, and all student accounts must be settled and any financial aid in place before the end of the add/drop period (day 3 of the term). Any outstanding balance will lead to automatic withdrawal from courses. Any outstanding balance must be paid prior to future enrollment.

Payment Plans

Unity Environmental University offers the following payment plan options:

Baccalaureate 5-Week Terms:

A baccalaureate student may select a payment plan per 5-week term. The fee for the plan is \$10 per term and the remaining bill is split across 3 payments. The first payment is due by the start of the course. The second payment is due week two and the third payment is due week five.

Graduate 8-week terms:

A graduate student may select a payment plan per 8-week term. The fee for this plan is \$35 per term and the remaining bill is split across 6 payments. The first payment is due by the first day of the course. The remaining payments are due weeks 2 through 6.

Custom Payment plans:

Advisors may work with students to set up customized payment plans. These plans may be spread across multiple terms and may be requested by the student or to be available to assist a student who may owe a prior balance that may impact a student's ability to attend a future term.

Failure to Pay

Failure to pay bills in full when due may result in revocation of Unity Environmental University privileges, including but not limited to: issuance of grades and/or transcripts, registration for subsequent terms, participation in graduation ceremonies, and participation in registered

classes and examinations. It is imperative that a student contact Student Financial Services if any charges are disputed.

Refund Policy

Distance Education students who drop a course, whether they are active or not, before the end of the add/drop period are eligible for a 100% tuition refund for that course. After midnight of the last day of add/drop, students are no longer eligible for a refund.

If a student takes no action to drop a course and stops participating in the class during the add/drop period, the institution will take action to withdraw the student and the student will be held accountable for the total cost of the course.

Fast-Track Refund Policy

Students who are eligible for a refund may use the Fast-Track Refund process to purchase required course materials and educational resources including books and supplies at the start of a term.

Fast-Track Refunds are issued electronically by the Business Office and availability of a Fast-Track Refund is dependent upon the student:

- having a completed financial aid package with a refund projected to be on their account.
- being enrolled in direct deposit through the student portal. If student is unable to provide bank information, the student should be referred to Student Financial Services [SFS]. SFS will attempt to determine the barrier. If no ACH solution can be determined, a paper check will be requested by SFS.
- completing the Fast-Track Refund Request form.

In exceptional circumstances, when no ACH solution can be determined, the Executive Director of Student Financial Services may request the student receive a paper check.

Failure to Participate

See the Class Participation/Attendance policy in Section 4 of this document for more information.

Financial Aid

Your federal need will be determined based on the income and asset information you provide on the Free Application for Federal Student Aid (FAFSA) online at fafsa.gov. Choose Unity's College Code (006858) to ensure that the federal application data will be transmitted to the Financial Aid Office. Please respond promptly to requests for additional information or clarification concerning your aid application.

Onboarding DE Students with Financial Aid Policy

All incoming students must complete the FAFSA application and required documents, including Promissory Notes and Entrance Counseling sessions before the end of the add/drop period of their first term. The Concierge Team will advise the students of this requirement during the application process and orientation leading up to the start of the term. Students who have not provided all required documentation necessary to disburse aid by the last day of add/drop will be dropped from their first course by their concierge, and

their enrollment will be deferred to the next 5-week term.

Return to Title IV

Students receiving any federally sponsored financial aid, such as Federal Pell Grants, or Federal Stafford Loans, are subject to a separate Federal policy pertaining to the amount of those federal funds they may retain when they withdraw from the University during an academic semester. This policy, called The Return of Title IV Funds Policy, prorates available aid based on the amount of the semester completed. Written examples of the refund calculations are available upon request from Student Financial Services, as well as any further information that may be needed pertaining to the refund or return of Title IV Funds process. Whenever applicable refunds are determined and any federally sponsored programs are involved, the following federally prescribed order of refund distribution is required Prescribed by Law and Regulation TOTAL REFUND:

1. Unsubsidized Federal Stafford Loan
2. Subsidized Federal Stafford Loan
3. Federal Perkins Loan
4. Federal PLUS Loan
5. Federal Pell Grant
6. FSEOG
7. Other Title IV Aid Programs

Financial Aid Available for Distance Education Students

Pell Grant

Matriculated baccalaureate students who complete a FAFSA may be eligible for the Pell Grant. This need-based award does not need to be paid back.

Federal Supplemental Education Opportunity Grant

Matriculated baccalaureate students who receive Pell Grant are eligible for this grant based on fund availability. This award is to Pell-eligible students.

The Direct Subsidized Loan Program

Matriculated baccalaureate students enrolled in three (3) or more credit hours per 5-week term may complete a FAFSA for consideration for this loan. The maximum annual award is based on the student's year in college. The total baccalaureate amount a student may receive is \$23,000.

Repayment on the Subsidized Loan starts no sooner than six (6) months after you graduate or fall below half-time status. There is a ten-year repayment period and other re-payment options.

The Direct Unsubsidized Loan Program

Matriculated baccalaureate students enrolled in three (3) or more credit hours per 5-week term may complete a FAFSA for consideration for this loan. The maximum annual award is based on the student's year in college. The total baccalaureate amount a student may receive

is \$34,500.

Matriculated graduate students enrolled in three (3) or more credits per 8-week term may complete a FAFSA for consideration for this loan. The maximum annual unsubsidized loan is \$20,500. More information about the Direct Unsubsidized Loan will be provided to qualifying students.

The Unsubsidized Loan starts to accrue interest after payment to your account. While in University, you can elect to pay interest on an Unsubsidized Loan, or have it added to the principal. Repayment on the Unsubsidized Loan starts no sooner than six (6) months after you graduate or fall below half-time status. There is a ten-year repayment period and other repayment options.

NOTE: Financial Aid is not available for non-degree seeking candidates.

Private Loans

Private loans may be an option if no other sources of financial aid are available. Unity Environmental University is not permitted to provide counsel about which private loans to choose. For help on this matter, please visit: <http://www.Unity.edu/FastChoice>.

SECTION 4: ACADEMIC POLICIES

Definition of a Distance Education Credit

Unity Environmental University policy defines one baccalaureate credit hour as a semester hour, the standard measure of progress toward a degree at most institutions. For most standard lecture courses, it represents 50 minutes of faculty-directed instruction and 2 hours of self-directed class work each week for a traditional 15-week semester (i.e., one 3 credit baccalaureate class is approximately 135 hours of student work). The table below demonstrates how this standard is applied to Unity Environmental University's baccalaureate term calendar. This credit hour definition follows the guidelines for awarding semester credit hours from the US Department of Education and the New England Commission of Higher Education. While online courses do not have specified time in a physical class, they require an analogous amount of work to a semester credit hour.

Credit Hours	Minimum total required faculty-directed instruction hours	Minimum total student-directed instructional hours	Total Minimum Instructional Hours	Hours per week for 5-week term
3	45	90	135	27

Definition of a Non-Credit Course

Non-credit offerings may be stand-alone courses or instructional programs that do not offer academic credit. The term "program," in this policy, refers to a series of non-credit courses that may lead to a culminating non-credit certification or credential. Non-matriculated students participating in non-credit courses are considered non-degree students. Non-credit courses will appear on the official Unity Environmental University transcript, but do not have final letter grades. Individual assignments, projects, or coursework may receive feedback and/or assessment as relevant to the content and structure of the course. Non-credit courses may be offered simultaneously as a for-credit course; in this case, a student must be registered for the for-credit course by the end of the add/drop period in order to receive academic credit. Participation in non-credit offerings will not yield credit and cannot be converted to academic credit after the fact.

Course Load and Status

The maximum load for all DE baccalaureate students is limited to 6 credit hours per 5-week term. Any increases to the recommended maximum load are contingent upon course availability and must be approved by an Academic Dean. Students taking 24 credits per year (within the eight 5-week terms) are considered full-time. Students who qualify for financial aid must maintain full-time status in order to receive maximum awards. Students enrolled part-time may qualify for a reduced amount of financial aid.

Students should contact their Advisors if they have questions about how part-time enrollment will impact their financial aid awards.

Course Registration

Students will register for courses by working with their Distance Education Concierge/Advisor to select courses that are appropriate for their degree completion. Based on the student's academic plan, the Distance Education Team will register the student for courses.

Course Cancellation

No courses in a specific term are guaranteed and the University may cancel courses due to low enrollment and other circumstances prior to a term start. If this occurs, the University will immediately notify the students to discuss options, and the student's advisor will work with the appropriate Academic Dean to find a substitution. Any payments made for canceled courses will be refunded or applied to a different course within the University.

Add/Drop Courses

During the first three class days, students may add or drop courses for the current term. Students should contact their advisor in order to add or drop a course. Reducing or increasing credit hours during the three add/drop days will result in an appropriate tuition and financial aid change.

Attendance/Class Participation

Active participation in a course is necessary for student success and a lack of activity may have implications on billing and financial aid. Participation in a Distance Education course is evidenced through posting to the discussion board, or the submission of a quiz, test or assignment. Students who fail to participate in their distance education course within the first three [3] days of the term will be automatically dropped from the course. After the Add/Drop period, students must maintain their participation to stay enrolled in their courses.

Students in 5-week courses are required to complete at least one academic activity every 6 days. Students who do not demonstrate academic activity during this time frame will be administratively withdrawn from the course, with an effective date based on their last academic activity for the course.

Students who stop participating after the withdrawal deadline will be withdrawn from the course and a grade of 'WF' will be entered on their record.

Academic activity does not include a] Logging into an online class b] Reading/watching content without posting or submitting an assignment, test or quiz c] posting a response to a Discussion from a prior module or week; or d] speaking with an instructor or advisor to participate in academic counseling or advising.

A student cannot self-certify academic activity.

Course participation, also considered academic activity, is tracked and documented through the Distance Education's learning management system, Canvas. Unity Environmental University Distance Education does not allow students to audit a class for no credit.

Withdrawal from a DE Course

Students who wish to withdraw from a course must do so by the deadlines in the academic calendar by emailing the course instructor and their Distance Education Advisor who will work with the Registrar to complete the course withdrawal. Financial aid awards may be recalculated based on the date of withdrawal, as determined by the student's last day of activity. It is the student's responsibility to contact Financial Services to determine any changes to their award.

A student is considered unofficially withdrawn [ceased attendance without providing official notification or expressed intent to withdraw] if a distance education staff member notifies the Registrar that the student is no longer in attendance, and continued academic activity cannot be established by Unity Environmental University.

Leaves of Absence and Time Limitation for Degree Completion

Distance Education baccalaureate students will have ten (10) consecutive calendar years from their date of matriculation to complete their program of study. Students who do not meet this deadline will be required to reapply for admission and will be subject to current availability of courses and programs, as well as any new program requirements.

Students who wish to remain unenrolled for more than two consecutive terms, should communicate their intent to the Distance Education Advisor in writing. Any student who does not register for classes for two (2) consecutive terms, but is otherwise eligible to continue study, will remain enrolled in the program, but will temporarily lose access to email, CAMS portal, and library services. Account access will be reinstated when the student returns and registers for coursework.

Any student who is inactive for more than one calendar year will be administratively withdrawn from the University and must reapply for admission (see Readmission to the University). Extensions with cause may be requested of the Executive Director of Enrollment Management and are subject to final approval by the Vice President of Distance Education.

Withdrawal from the University

To withdraw from the University is to first contact their Distance Education Advisor. The Advisor will work with the Registrar to complete the withdrawal. The student will be asked to complete an electronic Withdrawal from the University Form upon receipt. All grades for courses in progress as of the withdrawal date are recorded as "W" and all relevant offices and instructors will be notified. Courses whose end date has passed and for which all work has been completed will still receive the grade earned before the withdrawal. Students are considered officially withdrawn when they complete the withdrawal process.

Medical Withdrawal from the University

A student may request a medical withdrawal when an illness or injury occurs that makes it impossible for them to complete their course (when an incomplete arrangement is not

possible) or continue in their current program of studies.

A medical withdrawal may be used in response to matters of both physical and mental health. To be recorded as a medical withdrawal, documentation from a licensed medical practitioner must be submitted to the Executive Director of Enrollment Management outlining the nature of the illness or injury and affirming the student's inability to remain enrolled. Requests should be submitted prior to the end of the term and documentation from a medical professional submitted within 30 days of the end of the term, to be considered and recorded on the academic record. Under extreme circumstances, requests outside of this timeframe may be considered with the approval of the Vice President of DE. Decisions will be communicated to the student within 10 business days after all documentation has been received.

Medical withdrawals from a course will be dated according to the student's last day of participation as recorded by the submission of graded work in a course. The regular refund policy of the University does apply, regardless of the reason for withdrawal. When granted, medical withdrawals will be recorded as a grade of "W" and not be computed in the student's grade point average (GPA). Otherwise, the student will receive their earned grade or a "WF", depending on the last date of activity. Medical withdrawals from the program between terms will be dated according to when the request was received.

Depending on the circumstances leading to the request, a student may be encouraged to take additional terms away from the University to address their health-related needs before seeking to return. This may be a required condition of the withdrawal. In some cases, the University may also request confirmation that the student has addressed these issues and is ready to return to full participation in their educational program before enrolling in future terms, which may include documentation from a licensed healthcare practitioner.

Date of Withdrawal

A student is considered "withdrawn" as of the day they begin the official withdrawal process or notify their Advisor or designee of their withdrawal. Official notice must be written or emailed. In the case of written notice, the date of withdrawal will be the date the written notice is received. Students who do not provide official notice will have their last date of recordable academic activity used as their date of withdrawal.

Academic activity includes [but is not limited to]:

- Submitting academic assignments
- Participating in online discussions

Academic activity does not include:

- Logging into online classes/discussions without active participation
- Speaking with an instructor or advisor to participate in academic counseling or advising

A student cannot self-certify academic activity. Unity Environmental University must be able to establish the date via electronic record. If a student is unable physically or mentally to begin the withdrawal process the school may use the date of the related circumstance [such as an automobile accident] or the date of last academic activity.

Grading Policy

Baccalaureate Grading Scale

A	(94-100%)	Excellent
A-	(90-93.9%)	
B+	(87-89.9%)	
B	(84-86.9%)	Good
B-	(80-83.9%)	
C+	(77-79.9%)	
C	(74-76.9%)	Satisfactory
C-	(70-73.9%)	
D	(60-69.9%)	Poor, but Passing
F	(0-59.9%)	Failing

W – Withdrawal (No credit)

Recorded but not calculated as part of the GPA. Distance Education Faculty may not give a grade of “W.” That grade designation is applied by the Registrar’s office.

WF – Withdrawal Failure (No credit)

Withdrawal Failure. No credit. Shows the student withdrew after the deadline to withdraw published on the academic calendar. Factors into GPA as a failing (F) grade. Distance Education Faculty may not give a grade of “WF.” That grade designation is applied by the Registrar’s office.

I – Incomplete (No credit)

An Incomplete “I” is a temporary grade which may be given at the instructor’s discretion with the approval of the Dean to a student when illness, necessary absence, or other reasons beyond the control of the student prevent completion of course requirements by the end of the academic term. To submit an Incomplete grade, please contact the course instructor to initiate the paperwork.

If a student does not complete the work before the start of the next term, they may not enroll in classes for future terms. Work must be completed by the end of the next term, or the incomplete grade will automatically be changed to the grade earned. Distance Education

Faculty considering granting a final grade of "I" must follow the incomplete grade policy and work with the student to complete the request and submit it to the Academic Dean. A grade of "I" is not factored into a student's GPA. Credits for an "I" grade are factored into attempted (but not completed) credits for the student's cumulative completion rate.

Incomplete grades may be given only in the following circumstances:

- **80%** of all coursework must be completed with a satisfactory grade;
- An illness or other extenuating circumstance legitimately prevents completion of required work by the due date;
- Required work may reasonably be completed in an agreed-upon time frame;
- The incomplete is not given as a substitute for a failing grade;
- The student initiates the request for an incomplete grade before the end of the academic term;
- The instructor and student complete the "Application for Incomplete Grade" form before the end of the academic term.

Appropriate grades must be assigned in other circumstances.

The following provisions for incomplete grades apply:

- The faculty member initiates the digital "Application for Incomplete Grade" in consultation with the student, Assistant Registrar, and the Dean.
- The course work may be completed while the student is not enrolled.
- If Incomplete grades are not resolved by the following academic term, Incomplete grades will change to the grade earned and affect GPA. The Dean reserves the right to make exceptions to this policy on a case by case basis.
- An Incomplete grade may not be considered passing for purposes of determining academic standing, federal financial aid eligibility, or other purposes.
- Students who receive an incomplete grade in a course cannot re-register for the course in order to remove the "I".
- If the faculty member is not available to grade the incomplete work, the Dean will grade it or find a designee.

Calculating Grade Point Average (GPA)

To determine a graduate student's grade point average (GPA), Unity Environmental University uses the following system of quality points:

Letter Grade	4.0 Scale
A	4.0

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A-	3.7
B+	3.3
B	3.0
B-	2.7
C+	2.3
C	2.0
C-	1.7
D	1.0
F	0.0

Change of Final Grade

Except for the grade of "Incomplete," final course grades are not changed after submission to the Registrar except to correct an entry error, or in the result of a successful student grade appeal (see Appeal of Final Course Grade below).

Change of Final Course Grade - Process for Instructors

If an error has been made in the calculation or transcription of the original grade, the instructor will notify the Dean of the error, and the corrected grade will be sent to the Registrar's Office to be processed. An instructor who wishes to change a grade for any other reason must send the request with documentation to the Dean for consideration. The Dean will review the evidence, seek additional information if necessary, and decide the appropriate course of action. If the change is approved, the Dean will forward the change to the Registrar's Office with the appropriate documentation.

Appeal of Final Course Grade - Process for Students

If a student disagrees with their final grade for a course, they may initiate a conversation about it with the instructor. After this conversation, should a student wish to appeal the final course grade, they may appeal the grade to the Academic Dean. The student should contact their academic advisor. The appeal form must be emailed to the Dean no later than 30 days after the final grade was submitted. The Dean will review the appeal along with any other supporting documentation and information provided by the student and the instructor and decide on the appeal within 10 business days.

Repeating Courses

Students with a need to earn a higher grade may repeat a previously taken course. While the grades for both the first and subsequent attempts will remain on the student's transcript and the academic record, the highest grade will be used in computing the cumulative grade point average. Credit can only be earned once for a course, unless specifically stated otherwise in the course description. Courses completed with a grade of C or higher may only be repeated once. Students should be aware that financial aid will cover retaking a previously passed course once.

See the Honor Code policy in the [Student Handbook](#) for guidelines about when prior work may be submitted in a repeated course.

Class Standing

Class standing is determined by the number of credits completed by the student, including those accepted in transfer from other institutions based on the ranges below.

Freshman: 0-29 credits

Sophomore: 30-59 credits

Junior: 60-89 credits

Senior: 90+ credits

Baccalaureate Term Based Honors – Dean's List

Students will be eligible for recognition if they have earned a minimum GPA of 3.5 and successfully completed at least 9 credits in the 4 terms leading up to the time of award. The Dean's List will be published twice per year, in January and June, once grades have been verified. All grades recorded in the period of consideration must be a C+ or higher (no incompletes) for students to be eligible.

Academic Standing

Unity Environmental University has a combined Academic Standing and Title IV Satisfactory Academic Progress [SAP] policy, referred to as the Satisfactory Academic Progress [SAP] policy. Students are assessed for SAP at least biannually, in alignment with each financial aid payment period—although financial aid is disbursed each term, the award year is divided into two payment periods. A student's academic standing and financial aid eligibility may be impacted at the biannual reviews. Additional reviews will be performed for students in an Academic Warning or Academic Probation status.

Review Cycle

Baccalaureates:

- The reviews will be at the end of each payment period, every fourth completed term. A new student will be reviewed at the completion of their fourth term [the first payment period] in and again at the end of their eighth term taken [the second payment period] and at every fourth completed term after that.

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- Students on Academic Warning will also be reviewed at the end of their seventh term.
- Students on Academic Probation will be reviewed at the end of each term.

Minimum Standards for Satisfactory Academic Progress

- Cumulative Grade Point Average [CGPA]: maintaining a minimum cumulative GPA, based on program level:
 - Baccalaureate students: 2.00
- Completion Rate: maintaining the appropriate completion pace, based on program level:
 - Baccalaureate degree students: 67%
- Maximum Time Frame: mathematically able to complete a degree program in a timeframe of no more than 150 percent of the program's average length in terms of credits.

Calculating Minimum Standards for Satisfactory Academic Progress

- Cumulative Grade Point Average: is determined by summing the grade points for Unity courses in all terms and dividing by the total number of credit hours attempted in all terms [total grade points divided by total credit hours = CGPA]. An Incomplete grade will not be considered passing for purposes of determining satisfactory academic progress.
- Completion Rate: The number of credits earned divided by the number of credits attempted. Total attempted credits include the number of credits a student is enrolled in at the end of the Add/Drop period of each semester, and cumulatively includes all accepted transfer credits. Grades of "I" [Incomplete] will be used in this calculation as attempted credits, but not earned credits.
- Maximum Time Frame: Examples: A bachelor's degree program with 120- credit requirement would have, at most, 180 attempted credits covered by financial aid.

Academic Standing

Students must meet the minimum standards for SAP at each biannual review. Students who meet all three components of the minimum standards for SAP are considered in good academic standing. Students who fall below one or more of the minimum standards for SAP at the first biannual review, and are not already on Academic Probation, will be placed on Academic Warning until the next payment period. Students on Academic Warning who remain below the minimum standards for SAP at end of the warning review [7th term] will receive a second notice that they remain on Academic Warning and are in jeopardy of academic suspension and losing financial aid eligibility. Students on Academic Warning who remain below one or more of the minimum standards for SAP at the second biannual [8th term] review will be placed on Academic Suspension. Students on Academic Suspension have the right to appeal, requesting their enrollment and financial aid be reinstated due to extenuating circumstances that prevented them from making satisfactory academic progress. Extenuating circumstances include:

- Illness or injury to the student or close relative; or
- Death of an immediate family member or close associate; or
- Other unusual mitigating circumstances.

To appeal, a student must submit a letter explaining the circumstances that prevented them from meeting SAP criteria. The appeal must include what has changed that will allow the student to obtain SAP at the next evaluation and may include any supporting documentation. The SAP Appeals Task Group will review any appeals initiated by a suspended student and received within the timeframe stipulated in the suspension notification. All appeals must be submitted to registrarsoffice@unity.edu. If an appeal is granted, the student will be placed on Academic Probation until they meet the minimum standards for SAP. Only in extenuating circumstances should a student use the same reason for subsequent appeals. The appeal decisions are final. Students may appeal a maximum of three times as a baccalaureate student and three times as a graduate student. The fourth suspension instance, a student will be considered Academically Dismissed from the University. An Academically Dismissed student is subject to the University's Dismissal policy. Students on Academic Probation will be given an Academic Plan, specific to their program level, they must achieve each term while they are working to meet the minimum standards for SAP. Each term, students on Academic Probation will be reviewed for progress towards meeting the minimum standards for SAP and for meeting the requirements of the Academic Plan. Probationary students who meet the minimum standards for SAP will be moved to good academic standing.

- Probationary students who meet the requirements of the Academic Plan yet remain below one or more of the minimum standards for SAP, will remain on Probation until the minimum standards for SAP are achieved, these students do not need to submit appeals if they are progressing as required in the Academic Plan.
- Probationary students who don't meet the terms of their Academic Plan and continue to fall below one or more of the three criteria for SAP, will be placed on Academic Suspension. These students will need to submit an appeal to continue their studies and financial aid.

Academic Plans for Students on Probation

Baccalaureate Students on Academic Probation must complete all registered courses, each term, with at least a C [no incompletes or withdrawals].

The Right to Suspend or Dismiss

The University reserves the right to suspend or dismiss a student from the University at any time when academic work is unsatisfactory or when conduct is deemed detrimental to the teaching and learning goals of the University community. This suspension or dismissal can be put into place at any time during the academic year and does not require the formal Satisfactory Academic Progress review to have taken place.

Graduation

Application for a Degree

Unity Environmental University confers degrees each term to students completing their degree requirements. Applications are accepted on a rolling basis prior to the conferral of the

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degree. Upon receipt of the application to the Registrar's office, students will be billed a \$100 fee. The application and fee must be submitted in order to confer a degree, even if the student does not plan to attend a commencement ceremony.

Degrees are posted in the student information system within two weeks from the last day of a student's final term, given that the student has applied for degree conferral. Diplomas will be mailed within thirty (30) days of the conferral date once the academic records are certified and all financial obligations to the University have been resolved.

Participation in a Commencement Ceremony

Unity Environmental University celebrates Commencement with an official ceremony each May. There is a smaller ceremony each December. Baccalaureate degree-seeking students are eligible to participate in a commencement ceremony if they have met all academic requirements for their degree or will be within six (6) credits of completing their degree requirements by the date of the ceremony.

Students may only participate in one ceremony per earned degree and must participate within one (1) year of degree conferral.

Certificate students at the baccalaureate level are not eligible to participate in a commencement ceremony.

Diplomas are mailed to the students and are not handed out at the commencement ceremony. Students participating in the ceremony will receive diploma covers.

Students who are eligible and wish to participate in a commencement ceremony must:

1. Submit an application for degree.
2. Have a degree audit completed by the Registrar's office.
3. Pay the \$100 fee.

Students that apply after November 1 to participate in December may not have their information published in commencement materials (program, slideshow) or receive regalia prior to the ceremony.

Students that apply after March 30 to participate in May might not have their information published in commencement materials (slideshow) or receive regalia prior to the ceremony. After April 10, they may also fail to appear in the program.

Academic Honors

Honor designations for baccalaureate degrees are cum laude, magna cum laude, and summa cum laude.

Cum laude is awarded to a degree candidate who graduates with a minimum GPA of 3.50 in all course work taken at Unity Environmental University.

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Magna cum laude is awarded to a degree candidate who graduates with a minimum GPA of 3.7 in all course work taken at Unity Environmental University.

Summa cum laude is awarded to a degree candidate who graduates with a minimum GPA of 3.90 in all course work taken at Unity Environmental University.

Replacement Copies of Diplomas

Graduates may submit a request for a replacement diploma through the Registrar's Office. Replacement diplomas shall carry all information contained on the original, except that all signatories will be current administrators. Graduates requesting a replacement diploma will be subject to the current fee for such diplomas.

Unclaimed Diplomas

Unclaimed, undeliverable, or withheld diplomas are retained in the Registrar's Office for a period of (5) five years, after which they may be destroyed. Graduates wishing to replace an unclaimed, destroyed diploma must request a replacement diploma as described above.

Second Bachelor's Degree

A student who has completed a bachelor's degree from an accredited institution may pursue a program leading to a second bachelor's degree at Unity Environmental University. This includes students who have graduated with a bachelor's degree from the Unity Environmental University Flagship campus. In this case, the student must complete the following requirements to earn a Unity Environmental University bachelor's degree:

1. Complete the Environmental Professional Core (15 credits)
2. Complete the Major Core for the program (credits dependent on major)
3. Earn a minimum of 30 credits at Unity Environmental University
4. Maintain a cumulative GPA of 2.00 or higher
5. Some programs may require the completion of identified prerequisite courses. If a student has not completed the course(s) identified in their previous degree, they may be required to take them at Unity Environmental University.

SECTION 5: BACCALAUREATE ACADEMIC PROGRAMS

Requirements for All Bachelor's Degree Programs

Each Distance Education baccalaureate academic program is comprised of four elements:

General Education Core (27-37 credits; requirements are program-specific)

General education core requirements help learners to build broad foundational skills related to communication, analysis, and critical thinking and support their exploration of diverse academic disciplines, including language, social sciences, natural sciences, and arts.

The following Unity Environmental University courses satisfy the General Education **Humanities** requirement. Transfer courses in the areas of literature, history, cultural studies, religion, or philosophy also meet this requirement.

1. ENVJ 201 Understanding Diversity and the Environment
2. ENVJ 203 History of Creating Environmental Social Change
3. ENVJ 301 Fire and Culture
4. HUMN 103 Environmental Documentary Films
5. SUST 301 Sustainable Horticulture Practices in Indigenous Communities

The following Unity Environmental University courses satisfy the General Education **Social Sciences** requirement. Transfer courses in the areas of anthropology, economics, geography, political science, psychology, sociology also meet this requirement.

1. ECON 301 Microeconomics for Ecological Sustainability
2. ECON 303 Macroeconomics for a Sustainable Planet
3. ENVS 303 Social Science for Environmental Professionals
4. PSYC 101 Introduction to Psychology
5. PSYC 301 Environmental Psychology
6. SOCI 101 Introduction to Environmental Sociology

Environmental Professional Core (13 credits)

These five courses provide opportunities for learners to develop and apply foundational skills necessary to address complex environmental problems in collaborative and professional contexts.

*Major Core (27-42 credits; requirements are program-specific)

The major core courses enable learners to develop and apply core knowledge and skills specific to each program.

*Electives (28-50 credits)

In order to earn a bachelor's degree, students must complete a total of 120 credits. The number of elective credits in each program is equal to 120 minus the total of General Education, Environmental Professional Core, and Major Core requirements. Learners can enroll in any of the baccalaureate courses in the DE catalog that are not already required by

their program to fulfill the remaining credits needed for degree completion.

Learners will achieve the following outcomes through completion of the requirements within the General Education Core and Environmental Professional Core:

- Identify and use strategies for expanding knowledge through research, data analysis, and reflection.
- Develop and share observations using appropriate modes of expression.
- Analyze complex environmental issues from multiple perspectives.
- Assert an ethical framework to guide personal, civic, and professional life.
- Develop a leadership plan to guide career success.

By completing the Major Core, learners will achieve discipline-specific outcomes that are described at the top of each program-specific page within this catalog.

** Excluding the Environmental Studies program. Note that the distribution of credit requirements for the Environmental Studies program is unique due to the substantial overlap between outcomes within the Environmental Professional Core and the Major Core for this program.*

Agroforestry

Agroforestry professionals plan, develop, and monitor multi-use land systems that integrate trees and shrubs with agricultural systems that produce food, fiber, and fuel through crops and livestock. In this program, learners will draw from the fields of forestry, ecology, agriculture, and economics to select species and identify practices (including alley cropping, riparian forest buffers, and windbreaks) suitable for specific contexts and purposes. They will learn how to apply quantitative and qualitative approaches to forecast and measure agroforestry system outputs and services, including crop yields, carbon sequestration, and human behavior and health effects. Learners will have opportunities to develop and apply skills related to communication and community engagement as they design sustainable agroforestry systems that maximize provisional output, cultural value, and ecosystem services. Program graduates will be prepared to apply their skills in a variety of occupations within both public and private sectors, including agroforestry or sustainable agriculture design or consultation, land management, community development, and permaculture design.

Graduates of the B.S. in Agroforestry will be able to:

1. Describe and measure the ecological, social, and economic benefits of agroforestry.
2. Conduct site assessment, species selection, and spatial planning to design systems that integrate crops, trees and shrubs, and livestock.
3. Select and apply appropriate methods to monitor and manage agroforestry systems.
4. Assess market opportunities for agroforestry products and develop business plans for agroforestry enterprises.
5. Evaluate the potential of agroforestry systems and projects to contribute to the

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development and sustainability of resilient communities.

General Education Core

ARTS 101 Composing the Landscape: Introduction to Landscape Photography

BIOL 103 Biology: Foundations of Life

BIOL 104 Biology: Foundations of Life Laboratory

BIOL 105 Biological Diversity, Ecology, and Evolution

BIOL 106 Biological Diversity, Ecology, and Evolution Laboratory

COMM 101 Writing for Environmental Professionals or

COMM 201 Multimedia Communication for Environmental Professionals

COMM 303 Communicating to Stakeholders or

COMM 403 Environmental Crisis Communication

ENVS 201 The Warming Planet: Understanding Climate Change

MATH 101 College Algebra for Environmental Professionals or

MATH 105 Precalculus

PSYC 301 Environmental Psychology

SUST 301 Sustainable Horticultural Practices in Indigenous Communities

A Language course

Environmental Professional Core

EVPC 100 Ecoliteracy

EVPC 201 Environmental Issues: Deforestation, Biodiversity Loss, and Overpopulation or

EVPC 202 Environmental Issues: Energy, Water Scarcity, and Waste

EVPC 301 Environmental Justice or

EVPC 305 Building a Better World: Ethical Decision-Making

EVPC 401 Transformational Leadership

EVPC 490 Transdisciplinary Capstone

Program Core

AGRO 101 Introduction to Agroforestry

AGRO 201 Nutritional and Medicinal Resources of North American Forests

AGRO 301 Agroforestry Systems Design

ANIM 205 Animal Nutrition

ANIM 310 Sustainable Livestock Health, Nutrition, and Care

BIOL 201 Organisms That Sustain the Earth: Understanding Plants

BIOL 330 Integrated Pest Management
BIOL 340 Forest Ecology
BIOL 350 Arboriculture
CHEM 101 Chemistry I
ENVJ 307 Food Systems and Social Justice
ESCI 301 Soil Analysis
GISC 101 Introduction to Geographic Information Systems (GIS)
MATH 203 Applied Mathematics for Land Management
SUST 401 Building and Sustaining Urban Food Forests
30 credits of general electives

University Wide Requirements: *A minimum of 120 earned credit hours, 30 credits at the 300 level or above, a minimum of 30 credits earned at Unity, and an overall cumulative GPA of 2.0 or above*

Animal Health and Behavior

The B.S. in Animal Health and Behavior degree prepares students for careers at zoos and aquariums, in the veterinary fields, as animal welfare officers, and for a future focused on the care and well-being of wild and captive animals around the world. This degree provides students with the essential knowledge and professional skills to succeed in settings such as veterinary medicine degree programs, companion and wild animal care facilities, wildlife rehabilitation, and preserves.

Graduates of the B.S. in Animal Health and Behavior will be able to:

1. Explain biological, ethical, psychological, medical, legal, and social concepts underlying the care and maintenance of wild and captive animals.
2. Choose and demonstrate appropriate laboratory techniques used in the care of animals in both wild and captive settings.
3. Identify and explain the training, health, and habitat needs for optimal wild or captive animal health.
4. Critically evaluate information using scientific and quantitative reasoning skills.

General Education Core

BIOL 103 Biology: Foundations of Life
BIOL 104 Biology: Foundations of Life Laboratory
BIOL 105 Biological Diversity, Ecology, and Evolution
BIOL 106 Biological Diversity, Ecology, and Evolution Laboratory
COMM 101 Writing for Environmental Professionals **or**
COMM 201 Multimedia Communication for Environmental Professionals

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COMM 303 Communicating to Stakeholders or

COMM 403 Environmental Crisis Communication

ENVS 201 The Warming Planet: Understanding Climate Change

MATH 101 College Algebra for Environmental Professionals or

MATH 105 Precalculus

MATH 201 Statistics for Environmental Professionals

PSYC 101 Introduction to Psychology

An Arts course

A Humanities course

A Language course

Environmental Professional Core

EVPC 100 Ecoliteracy

EVPC 201 Environmental Issues: Deforestation, Biodiversity Loss, and Overpopulation or

EVPC 202 Environmental Issues: Energy, Water Scarcity, and Waste

EVPC 301 Environmental Justice or

EVPC 305 Building a Better World: Ethical Decision-Making

EVPC 401 Transformational Leadership

EVPC 490 Transdisciplinary Capstone

Program Core

ANIM 103 Animal Training and Care

ANIM 205 Animal Nutrition

ANIM 301 Animal Husbandry and Genetics

ANIM 302 Animal Comparative Anatomy

ANIM 304 Animal Comparative Physiology

ANIM 305 Animal Health and Disease

ANIM 307 Designing Captive Animal Environments

ANIM 401 Animal Care Technical Skills

BIOL 203 Ecological Principles: Applications to Conservation and Wildlife

BIOL 301 Animal Behavior: The Evolution, Ecology, and Social Behavior of Animals

42 credits of general electives

University Wide Requirements: *A minimum of 120 earned credit hours, 30 credits at the 300 level or above, a minimum of 30 credits earned at Unity, and an overall cumulative GPA of 2.0 or*

above

Animal Science

The B.S. in Animal Science prepares students to apply animal biology, chemistry, nutrition, and physiology to the study of animal breeding and genetics, growth, behavior, and management. The curriculum can be applied to a great variety of species, from livestock to companion animals to pets. The animal science major provides excellent preparation for students who wish to find positions immediately upon graduation, as well as those who plan to enter graduate or veterinary schools to obtain advanced degrees.

Graduates of the B.S. in Animal Science will be able to:

1. Describe basic principles of animal genetics, nutrition, reproduction and physiology, and explain how they inform best practices in animal husbandry
2. Apply knowledge of animal husbandry, behavior and handling techniques to effectively interact with animals in a safe and humane manner.
3. Describe the breadth of animal sciences in terms of the variety of career paths, the diversity of the animal industries, and the many roles of animals in society.
4. Use scientific methods in solving 'real-world' problems including collecting and evaluating information, forming predictions, collecting and interpreting data and implementing action.
5. Effectively use communication skills (both oral and written) to build and sustain professional relationships and engage in productive discourse and/or work related to challenging issues with animals at local, national, and/or international levels.

General Education Core

BIOL 103 Biology: Foundations of Life

BIOL 104 Biology: Foundations of Life Laboratory

BIOL 105 Biological Diversity, Ecology, and Evolution

BIOL 106 Biological Diversity, Ecology, and Evolution Laboratory

CHEM 101 Chemistry I

CHEM 102 Chemistry I Laboratory

COMM 101 Writing for Environmental Professionals **or**

COMM 201 Multimedia Communication for Environmental Professionals

COMM 303 Communicating to Stakeholders **or**

COMM 403 Environmental Crisis Communication

ENVS 201 The Warming Planet: Understanding Climate Change

MATH 201 Statistics for Environmental Professionals **or**

MATH 215 Calculus

An Arts course

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A Humanities course
A Language course
A Social Science course

Environmental Professional Core

EVPC 100 Ecoliteracy
EVPC 201 Environmental Issues: Deforestation, Biodiversity Loss, and Overpopulation **or**
EVPC 202 Environmental Issues: Energy, Water Scarcity, and Waste
EVPC 301 Environmental Justice **or**
EVPC 305 Building a Better World: Ethical Decision-Making
EVPC 401 Transformational Leadership
EVPC 490 Transdisciplinary Capstone

Program Core

ANIM 205 Animal Nutrition
ANIM 301 Animal Husbandry and Genetics
ANIM 302 Animal Comparative Anatomy
ANIM 304 Animal Comparative Physiology
BIOL 301 Animal Behavior: The Evolution, Ecology, and Social Behavior of Animals
BIOL 310 Microbiology
BIOL 315 Cell Biology
CHEM 103 Chemistry II
CHEM 104 Chemistry II Laboratory
CHEM 201 Organic Chemistry I
CHEM 202 Organic Chemistry I Laboratory
CHEM 301 Biochemistry
CHEM 302 Biochemistry Laboratory
32 credits of general electives

Please work with your advisor to choose your required track.

Companion Animal Care and Training Track

ANIM 103 Animal Training and Care
ANIM 306 Understanding the Role of Emotional Support and Service Animals

Sustainable Livestock Management Track

ANIM 310 Sustainable Livestock Health, Nutrition, and Care

ANIM 410 Sustainable Livestock Management

Equine Science and Management Track

ANIM 315 Equine Health, Nutrition, and Care

ANIM 415 Horse Facility Management

University Wide Requirements: *A minimum of 120 earned credit hours, 30 credits at the 300 level or above, a minimum of 30 credits earned at Unity, and an overall cumulative GPA of 2.0 or above*

Environmental Science and Climate Change

The B.S. in Environmental Science and Climate Change degree enables students to work effectively as environmental inspectors, consultants, engineers, or urban/regional planners. Learning through the lens of climate change adaptation and mitigation, this program also prepares students with a sound understanding of modern environmental issues and the professional skills needed for effective functioning in modern natural resource organizations.

Graduates of the B.S. in Environmental Science and Climate Change will be able to:

1. Assess the political, legal, economic, and social dynamics associated with environment issues and the management of environmental issues.
2. Draw on cross-disciplinary knowledge in the biological, physical, and social sciences to propose, evaluate, and explain management solutions to environmental problems.
3. Explain pressing environmental issues through the lens of climate change.
4. Choose and implement appropriate laboratory techniques for environmental analysis
5. Evaluate information using scientific and quantitative reasoning skills.

General Education Core

BIOL 103 Biology: Foundations of Life

BIOL 104 Biology: Foundations of Life Laboratory

BIOL 105 Biological Diversity, Ecology, and Evolution

BIOL 106 Biological Diversity, Ecology, and Evolution Laboratory

COMM 101 Writing for Environmental Professionals **or**

COMM 201 Multimedia Communication for Environmental Professionals

COMM 303 Communicating to Stakeholders

ENVS 201 The Warming Planet: Understanding Climate Change

MATH 201 Statistics for Environmental Professionals

An Arts course

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A Humanities course
A Language course
A Social Science course

Environmental Professional Core

EVPC 100 Ecoliteracy
EVPC 201 Environmental Issues: Deforestation, Biodiversity Loss, and Overpopulation **or**
EVPC 202 Environmental Issues: Energy, Water Scarcity, and Waste
EVPC 301 Environmental Justice **or**
EVPC 305 Building a Better World: Ethical Decision-Making
EVPC 401 Transformational Leadership
EVPC 490 Transdisciplinary Capstone

Program Core

BIOL 201 Organisms that Sustain the Earth: Understanding Plants
BIOL 203 Ecological Principles: Applications to Conservation and Wildlife
CHEM 101 Chemistry I
CHEM 102 Chemistry I Laboratory
ENCJ 305 Natural Resource Law and Policy
ESCI 101 Geology and Our Environment
ESCI 301 Soil Analysis
ESCI 303 Hydrology, Wetlands, and Water Policy
ESCI 305 Environmental Remediation and Toxicology
ESCI 401 Environmental Science Field Techniques
MATH 401 Statistics for Wildlife Professionals **or**
ENVS 303 Social Science for Environmental Professionals.
44 credits of general electives

University Wide Requirements: *A minimum of 120 earned credit hours, 30 credits at the 300 level or above, a minimum of 30 credits earned at Unity, and an overall cumulative GPA of 2.0 or above*

Environmental Studies

The B.S. in Environmental Studies at Unity Environmental University prepares students for a wide range of environmental careers. This transdisciplinary program provides students with a

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holistic understanding of environmental issues. The program teaches students to use tools and perspectives from a variety of disciplines including the natural sciences, the social sciences, and the humanities to understand the causes and consequences of environmental problems. Graduates will be able to enter a wide variety of environmental careers.

Graduates of the B.S. in Environmental Studies will be able to:

1. Explain their role as environmental actors and citizens in a global context.
2. Describe and explain core environmental concepts through the perspective of multiple disciplines.
3. Consider the perspectives of multiple stakeholders and draw on knowledge of society, ecology, and the economy to propose and/or evaluate solutions to environmental problems.
4. Explain the importance for, and process for, consensus building and working with groups to solve environmental problems.

General Education Core

COMM 101 Writing for Environmental Professionals or

COMM 201 Multimedia Communication for Environmental Professionals

COMM 303 Communicating to Stakeholders or

COMM 403 Environmental Crisis Communication

ENVS 201 The Warming Planet: Understanding Climate Change

An Arts course

A Humanities course

A Language course

A Life Science course

A Quantitative Skills course

A Social Science course

Program Core

COMM 203 Environmental Communication or

COMM 401 Using Social Media in a Global World

EVPC 100 Ecoliteracy

EVPC 201 Environmental Issues: Deforestation, Biodiversity Loss, and Overpopulation

EVPC 202 Environmental Issues: Energy, Water Scarcity, and Waste

EVPC 301 Environmental Justice or

EVPC 305 Building a Better World: Ethical Decision-Making

EVPC 401 Transformational Leadership

EVPC 490 Transdisciplinary Capstone

74 credits of general electives

University Wide Requirements: *A minimum of 120 earned credit hours, 30 credits at the 300 level or above, a minimum of 30 credits earned at Unity, and an overall cumulative GPA of 2.0 or above*

Marine Biology and Sustainable Aquaculture

The B.S. in Marine Biology and Sustainable Aquaculture prepares students for a broad range of careers helping protect, preserve, maintain, and grow marine organisms and environments. Graduates can obtain employment immediately after graduation with private firms, aquariums, and various government agencies as marine animal trainers, aquaculture scientists, and fisheries technicians. This degree provides students with a broad emphasis on both marine biology and aquaculture and encompasses coursework with the rigor to prepare students for further study in graduate school or even starting their own aquaculture enterprise.

Graduates of the B.S. in Marine Biology and Sustainable Aquaculture will be able to:

1. Explain the underlying biological principles and functioning of marine and aquatic organisms at structural levels ranging from molecular to ecosystem.
2. Choose and implement appropriate laboratory and field techniques used in marine organismal observation, research, management, and care, including those in wild, cultured, and farmed settings.
3. Compare and contrast the major types and components of aquaculture systems, species, and factors as they relate to both environmental and systematics sustainability.
4. Create local, regional, and global solutions to environmental problems in marine biology and aquaculture.
5. Critically evaluate information using scientific and quantitative reasoning skills.

General Education Core

BIOL 103 Biology: Foundations of Life

BIOL 104 Biology: Foundations of Life Laboratory

BIOL 105 Biological Diversity, Ecology, and Evolution

BIOL 106 Biological Diversity, Ecology, and Evolution Laboratory

COMM 101 Writing for Environmental Professionals or

COMM 201 Multimedia Communication for Environmental Professionals

COMM 303 Communicating to Stakeholders or

COMM 403 Environmental Crisis Communication

ENVS 201 The Warming Planet: Understanding Climate Change

MATH 101 College Algebra for Environmental Professionals or

MATH 105 Precalculus

UNITY ENVIRONMENTAL UNIVERSITY DISTANCE EDUCATION BACCALAUREATE
CATALOG

MATH 201 Statistics for Environmental Professionals

An Arts course

A Humanities course

A Language course

A Social Science course

Environmental Professional Core

EVPC 100 Ecoliteracy

EVPC 201 Environmental Issues: Deforestation, Biodiversity Loss, and Overpopulation **or**

EVPC 202 Environmental Issues: Energy, Water Scarcity, and Waste

EVPC 301 Environmental Justice **or**

EVPC 305 Building a Better World: Ethical Decision-Making

EVPC 401 Transformational Leadership

EVPC 490 Transdisciplinary Capstone

Program Core

BIOL 203 Ecological Principles: Applications to Conservation and Wildlife

CHEM 101 Chemistry I

CHEM 102 Chemistry I Laboratory

MBAQ 105 Introduction to Oceanography

MBAQ 201 Form and Function of Unique Marine Ecosystems

MBAQ 203 Global Diversity of Freshwater and Marine Resources Used in Sustainable Harvest

MBAQ 301 Sustainable Aquaculture Techniques I: Growing Shellfish and Finfish

MBAQ 303 Sustainable Aquaculture Techniques II: Crustaceans and Pathobiology

MBAQ 307 Ichthyology and Fish Health

MBAQ 310 Marine Mammal and Seabird Biology*

MBAQ 315 Diversity of Marine and Aquatic Vegetation*

MBAQ 401 Field Research in Marine Biology and Aquaculture*

38 credits of general electives

**Includes hands-on laboratory or field component option*

University Wide Requirements: *A minimum of 120 earned credit hours, 30 credits at the 300 level or above, a minimum of 30 credits earned at Unity, and an overall cumulative GPA of 2.0 or above*

Sustainable Business Management

Unity Environmental University's B.S. in Sustainable Business Management will prepare students to be innovative sustainability business leaders. This program will provide practical expertise and professional skills to students interested in a profession that advances the sustainable business movement.

Graduates of the B.S. in Sustainable Business Management will be able to:

1. Identify and evaluate sustainable solutions to challenges related to business practices and/or products
2. Apply ethical approaches to decision making.
3. Apply business concepts and approaches for managing organizational change and managing and leading people.
4. Work effectively individually and in groups.

General Education Core

COMM 101 Writing for Environmental Professionals **or**

COMM 201 Multimedia Communication for Environmental Professionals

COMM 303 Communicating to Stakeholders

ECON 301 Microeconomics for Ecological Sustainability

ENVS 201 The Warming Planet: Understanding Climate Change

MATH 201 Statistics for Environmental Professionals

An Arts course

A Humanities course

A Language course

A Life Science course

Environmental Professional Core

EVPC 100 Ecoliteracy

EVPC 201 Environmental Issues: Deforestation, Biodiversity Loss, and Overpopulation or

EVPC 202 Environmental Issues: Energy, Water Scarcity, and Waste

EVPC 301 Environmental Justice or

EVPC 305 Building a Better World: Ethical Decision-Making

EVPC 401 Transformational Leadership

EVPC 490 Transdisciplinary Capstone

Program Core

COMM 401 Using Social Media in a Global World
ECON 303 Macroeconomics for a Sustainable Planet
ENVS 101 Sustainable Solutions to Globalization
FINC 301 Environmental Accounting
FINC 401 Financing a Sustainable World
MGMT 201 Understanding the Sustainable Business Landscape
MGMT 301 Starting Your Small Non-Profit
MGMT 403 Global Chain Supply Operations: Greening Your Business
MGMT 405 Using Data for Sustainable Business Decisions
MKTG 301 Environmental Marketing and Branding
50 credits of general electives

University Wide Requirements: A minimum of 120 earned credit hours, 30 credits at the 300 level or above, a minimum of 30 credits earned at Unity, and an overall cumulative GPA of 2.0 or above.

Sustainable Horticulture

Horticulturalists select, manage, and improve plants and plant products cultivated in a variety of settings, from fields to greenhouses to vertical hydroponic systems. In the Sustainable Horticulture program, learners will develop skills in integrated pest management, seed storage, disease management, safe use of fertilizers, herbicides and pesticides, and the design of plant growing systems. They will also have an opportunity to develop small business skills including financial planning and management and product marketing and apply them to the development of a business plan for a horticulture product or service. Program graduates will be prepared to apply their knowledge of climate-smart agricultural practices in a variety of careers including agronomy, farming, greenhouse management, hydroponics, and seed production.

Graduates of the B.S. in Sustainable Horticulture will be able to:

1. Apply concepts of horticulture science to select, manage, and improve plants and their products.
2. Describe the social, spiritual, economic, and cultural importance of plants to historical and contemporary communities of people.
3. Select and apply methods for identifying, monitoring, and responding to horticultural problems.
4. Explain how global issues, including climate change, energy use, water availability, and/or food safety impact sustainability of horticultural systems.
5. Apply principles of accounting, business law, labor, marketing, and personnel management to a horticultural business.

UNITY ENVIRONMENTAL UNIVERSITY DISTANCE EDUCATION BACCALAUREATE
CATALOG

General Education Core

BIOL 103 Biology: Foundations of Life

BIOL 104 Biology: Foundations of Life Laboratory

BIOL 105 Biological Diversity, Ecology, and Evolution

BIOL 106 Biological Diversity, Ecology, and Evolution Laboratory

CHEM 101 Chemistry I

CHEM 102 Chemistry I Laboratory

CHEM 103 Chemistry II

CHEM 104 Chemistry II Laboratory

COMM 101 Writing for Environmental Professionals or

COMM 201 Multimedia Communication for Environmental Professionals

COMM 303 Communicating to Stakeholders or

COMM 403 Environmental Crisis Communication

ECON 303 Macroeconomics for a Sustainable Planet

ENVS 201 The Warming Planet: Understanding Climate Change

MATH 101 College Algebra for Environmental Professionals or

MATH 105 Precalculus

SUST 301 Sustainable Horticulture Practices in Indigenous Communities

An Arts course

A Language course

Environmental Professional Core

EVPC 100 Ecoliteracy

EVPC 201 Environmental Issues: Deforestation, Biodiversity Loss, and Overpopulation or

EVPC 202 Environmental Issues: Energy, Water Scarcity, and Waste

EVPC 301 Environmental Justice or

EVPC 305 Building a Better World: Ethical Decision-Making

EVPC 401 Transformational Leadership

EVPC 490 Transdisciplinary Capstone

Program Core

BIOL 201 Organisms that Sustain the Earth: Understanding Plants

BIOL 315 Cell Biology

BIOL 320 Plant Breeding

BIOL 325 Plant Pathology

BIOL 330 Integrated Pest Management
CHEM 205 Applications of Chemistry for Horticulture
ENVJ 307 Food Systems and Social Justice
ESCI 301 Soil Analysis
HORT 301 Growing Hydroponic and Aquaponic Crops
HORT 401 Climate-Smart Agriculture
MGMT 301 Starting Your Small Non-Profit
SUFA 201 Sustainable Farm Management
SUFA 301 Sustainable Agriculture for Small Farms
28 credits of general electives

University Wide Requirements: A minimum of 120 earned credit hours, 30 credits at the 300 level or above, 30 credits earned at Unity, and an overall cumulative GPA of 2.0 or above

Wildland Fire Science and Management

Many of the world's ecosystems depend on fire for regeneration and to maintain biodiversity. The Bachelor of Science in Wildland Fire Science and Management focuses on understanding and managing fire to preserve and protect fire-dependent ecosystems, as well as to protecting ecosystems from wildfire damage. This degree program provides students with a deep understanding of fire science, ecology, management, and policy to assess fire environment and behavior and connect these concepts to environmental consequences facing the planet. Graduates of the program will have the academic skills and knowledge to prepare them for jobs in the wildland fire industry as Forestry Technicians, Wildland Fire Specialists, and Fuel Analysts.

Graduates of the B.S. in Wildland Fire Science and Management will be able to:

1. Explain the impact of fire on naturally occurring processes in wildland ecosystems, including water and mineral cycles, energy flow, and plant and animal succession.
2. Develop strategic and operational plans for the use of fire in wildland ecosystems management.
3. Demonstrate knowledge of laws and policies governing the management and restoration of public and private wildlands.
4. Recognize and consider the influence of culture and the needs of diverse entities on strategies for wildland fire management.

General Education Core

BIOL 103 Biology: Foundations of Life
BIOL 104 Biology: Foundations of Life Laboratory

UNITY ENVIRONMENTAL UNIVERSITY DISTANCE EDUCATION BACCALAUREATE
CATALOG

BIOL 105 Biological Diversity, Ecology, and Evolution

BIOL 106 Biological Diversity, Ecology, and Evolution Laboratory

CHEM 101 Chemistry I

CHEM 102 Chemistry I Laboratory

COMM 101 Writing for Environmental Professionals **or**

COMM 201 Multimedia Communication for Environmental Professionals

COMM 303 Communicating to Stakeholders **or**

COMM 403 Environmental Crisis Communication

ENVJ 310 Fire and Culture

ENVS 201 The Warming Planet: Understanding Climate Change

MATH 201 Statistics for Environmental Professionals

PHYS 201 Physics 1

PHYS 202 Physics 1 Laboratory

An Arts course

A Language course

A Social Science course

Environmental Professional Core

EVPC 100 Ecoliteracy

EVPC 201 Environmental Issues: Deforestation, Biodiversity Loss, and Overpopulation **or**

EVPC 202 Environmental Issues: Energy, Water Scarcity, and Waste

EVPC 301 Environmental Justice **or**

EVPC 305 Building a Better World: Ethical Decision-Making

EVPC 401 Transformational Leadership

EVPC 490 Transdisciplinary Capstone

Program Core

BIOL 201 Organisms that Sustain the Earth: Understanding Plants

BIOL 203 Ecological Principles: Applications to Conservation and Wildlife

BIOL 335 Ecology of Fire-Dependent Ecosystems

BIOL 340 Forest Ecology

BIOL 345 Rangeland Ecosystems

ENCJ 305 Natural Resource Law and Policy

ESCI 201 Meteorology

ESCI 405 Wildland Fire Operations & Planning

EVHS 210 Fire Protection and Safety

GISC 101 Introduction to Geographic Information Systems (GIS)

GISC 201 Geographic Information Systems for a Changing World

GISC 405 GIS Applications in Fire Ecology

31 credits of general electives

University Wide Requirements: *A minimum of 120 earned credit hours, 30 credits at the 300 level or above, 30 credits earned at Unity, and an overall cumulative GPA of 2.0 or above*

Wildlife Conservation

The Bachelor of Science in Wildlife Conservation degree enables students to work effectively as wildlife biologists, managers, and ecologists for government agencies, environmental non-profits, and environmental consulting businesses. This program emphasizes sustainable management of wildlife species through consideration of the applicable social, economic, and environmental concepts. This program also prepares students with sound understanding of modern environmental issues and the professional skills needed for effective functioning in modern natural resource organizations.

Graduates of the B.S. in Wildlife Conservation will be able to:

1. Describe fundamental ecological, social, legal, and economic concepts underlying modern wildlife management.
2. Identify species of plants, birds, and mammals of management concerns.
3. Describe significant life history traits of plants and animals that influence wildlife habitat management.
4. Identify management strategies for disease control in wildlife populations
5. Demonstrate ability to choose and implement appropriate field techniques used in wildlife management.

General Education Core

BIOL 103 Biology: Foundations of Life

BIOL 104 Biology: Foundations of Life Laboratory

BIOL 105 Biological Diversity, Ecology, and Evolution

BIOL 106 Biological Diversity, Ecology, and Evolution Laboratory

COMM 101 Writing for Environmental Professionals **or**

COMM 201 Multimedia Communication for Environmental Professionals

COMM 303 Communicating to Stakeholders

ENVS 201 The Warming Planet: Understanding Climate Change

MATH 101 College Algebra for Environmental Professionals **or**

UNITY ENVIRONMENTAL UNIVERSITY DISTANCE EDUCATION BACCALAUREATE
CATALOG

MATH 105 Precalculus

MATH 201 Statistics for Environmental Professionals

An Arts course

A Humanities course

A Language course

A Social Science course

Environmental Professional Core

EVPC 100 Ecoliteracy

EVPC 201 Environmental Issues: Deforestation, Biodiversity Loss, and Overpopulation **or**

EVPC 202 Environmental Issues: Energy, Water Scarcity, and Waste

EVPC 301 Environmental Justice **or**

EVPC 305 Building a Better World: Ethical Decision-Making

EVPC 401 Transformational Leadership

EVPC 490 Transdisciplinary Capstone

Program Core

BIOL 201 Organisms that Sustain the Earth: Understanding Plants

BIOL 203 Ecological Principles: Applications to Conservation and Wildlife

ENCJ 305 Natural Resource Law and Policy

MATH 401 Statistics for Wildlife Professionals

WCON 201 Plant and Wildlife Interactions

WCON 301 Human Dimensions of Wildlife Conservation

WCON 303 Life History and Identification of Birds and Mammals

WCON 305 Wildlife Conservation Genetics

WCON 307 Vectors, Wildlife, and Disease

WCON 403 Habitat Management for Wildlife

WCON 405 Wildlife Population Management

39 credits of general electives

University Wide Requirements: *A minimum of 120 earned credit hours, 30 credits at the 300 level or above, 30 credits earned at Unity, and an overall cumulative GPA of 2.0 or above*

SECTION 6: COURSE DESCRIPTIONS

ADVENTURE ECOTOURISM COURSES

TOUR 201 Recreation, Sport, and Ecological Tourism

Ecological tourism is a growing arm of the tourism industry intended to incorporate natural areas using low-impact and sustainable approaches to build tourism opportunities and drive economic growth. This course introduces students to the fundamentals of tourism and differentiates between recreation, sport and ecological tourism businesses and assesses the economic, social, and environmental costs and benefits associated with adventure-based ecological tourism businesses.

Credits: 3

Prerequisites: None

TOUR 203 Minimal Impact Ecotourism for a Sustainable World

In a world where we have access to some of the most remote places on earth, how do we explore these sensitive ecosystems with as little impact as possible on the landscape and the native people in order to maintain the integrity of the system for others to enjoy in the future? Students will draw on historical and current practices in ecological tourism to identify best practices, sustainable solutions and ethical decision-making principles. These tools are paramount to minimizing the impact of the ecotourism industry. Students will apply these industry leading methods and develop a sustainability management plan for a successful ecotourism business.

Credits: 3

Prerequisites: None

TOUR 301 Eco-Adventure Risk Management and Legal Liability

An integral component to running any business is to have a thorough understanding of risk management and legal liability. In this course students will gain an understanding of the legal liabilities associated with running an ecological tourism business and apply ethical decision making into business planning and practice. Students will develop strategies to mitigate circumstances that may pose risk to the public and/or environment and write a risk management plan for a proposed ecological tourism business.

Credits: 3

Prerequisites: None

AGROFORESTRY COURSES

AGRO 101 Introduction to Agroforestry

In this course, learners will explore the principles, practices, and benefits of agroforestry, an integrated field that combines agriculture and forestry practices to create sustainable land-use systems. By studying examples from a variety of global locations, students will develop an

understanding of how agroforestry systems can help to achieve ecological sustainability and economic viability.

Credits: 3

Prerequisites: None

AGRO 201 Nutritional and Medicinal Resources of North American Forests

Learners will explore the rich diversity of tree, shrub, and plant species found in North American forests, with a focus on species that have historical or contemporary uses related to human health and wellness. Learners will develop skills for identifying species, assessing their nutritional or health-related uses, and evaluating their economic value. They will also identify optimal growth conditions of specific species and assess their contribution to ecosystem services within agroforestry systems. This course integrates elements of agroforestry, ethnobotany, ecology, nutrition, and economics.

Credits: 3

Prerequisites: None

AGRO 301 Agroforestry Systems Design

In this course, learners will analyze and compare the ecological sustainability and economic viability of various agroforestry systems and select an appropriate system to meet the needs of interested and affected parties in a specific context. This course integrates elements of agronomy, forestry, economics, and land-use policy to prepare learners for the practical work of agroforestry systems design and management.

Credits: 3

Prerequisites: AGRO 101, MATH 203

ANIMAL HEALTH AND BEHAVIOR COURSES

ANIM 103 Animal Training and Care

This course is an introduction to the requirements for training and caring for animals in captive and wild settings. Issues covered include habitat maintenance, sanitation, and best care practices. Students will additionally be introduced to and explore the various practices and techniques associated with animal training, with a particular emphasis placed on the skills necessary to train domestic and wild animals for husbandry, handling, and healthcare needs. Best practices related to detailed observation, notation, and data collection will be underscored as students explore the basic principles of animal training and care.

Credits: 3

Prerequisites: None

ANIM 205 Animal Nutrition

This course is focused on the basic concepts of and science behind animal nutrition, including digestion, absorption, dietary requirements, consumption needs from their environment, and formation of regular feedings. This course will introduce the student to the science of animal nutrition. Discussions will be focused on the role nutrition plays in the development of animal disease. A comparative approach will yield insight into the varying nutritional spectrums

across animal groups commonly handled by wildlife and veterinary professionals.

Credits: 3

Prerequisites: None

ANIM 301 Animal Husbandry and Genetics

This course provides an in-depth look at the design, implementation, and optimization of breeding animals, with a particular focus on conservation of genetic diversity. Students will explore the principles of genetic and breeding productivity, inheritance patterns and genetic drift, as well as the basics of quantitative and molecular genetics. Methods covered will help students learn how to create, maintain, and improve the genetics of populations in a variety of controlled environments.

Credits: 3

Prerequisites: Completion of at least 60 baccalaureate credits

ANIM 302 Animal Comparative Anatomy

This course involves detailed study of the different structural systems found in the global array spectrum of animals, including the underlying evolutionary relationships among the groups. Anatomical structures ranging from the cellular to tissue, organ, and organismal levels will be covered. Functional interpretations of anatomy are stressed, as well as their broader connection to the physiology and health of animals.

Credits: 3

Prerequisites: Completion of at least 60 baccalaureate credits

ANIM 303 Animal Science Medical Terminology

Throughout this course, students will become acquainted with multiple veterinary medical concepts, medical terms and scientific principles. Using an approach based on word derivation and combination, students will learn the names and etymology of various animal ailments and diseases, tests used in the analyses of diseases, as well as the treatments and therapeutic techniques used in alleviation and cure of animal health issues. This course will provide students interested in the veterinary medical fields a ground-up and comprehensive understanding of the complex language of veterinary terminology to be productive in a variety of current or future work environments and help understand more advanced veterinary fields.

Credits: 3

Prerequisites: None

ANIM 304 Animal Comparative Physiology

The course is a systematic study of the function of internal animal systems, from the cellular to the organ-system level. Particular emphasis will be placed on processes supporting organismal homeostasis, with examples from animals commonly found in wild and captive veterinary care. Throughout the term, you will investigate how environmental differences dictate the physiological strategies and responses of animals, including consequences to their health and well-being. Additional work will be focused on processes to collect physiological data, including analysis and interpretation for use in care of their health.

Credits: 3

Prerequisites: ANIM 302

ANIM 305 Animal Health and Disease

Maintenance of health is critical for the care of animals. In this course, students will learn about the most prevalent health issues and how to prevent them. Concepts covered will include disease transmission vectors and pathways, zoonotic diseases, and preventative measures. Particular emphasis will be placed on both the diagnostic processes used to assess animal health, as well as the role animal diseases play in the health of ecological populations, communities, and ecosystems.

Credits: 3

Prerequisites: ANIM 205

ANIM 306 Understanding the Role of Emotional Support and Service Animals

This course will explore the differences between companion, emotional support and service animals. Students will review legislation and organizations that guide the use of animals in public spaces. Additional topics will include key principles of human-animal interactions, potential human health benefits, and current controversies regarding the use of animals for support and service roles. Students will evaluate the best practices of training and caring for emotional support and service animals in a way that maximizes both human and animal safety and wellbeing.

3 Credits.

Prerequisites: ANIM 103

ANIM 307 Designing Captive Animal Environments

This course will engage students in the principles of designing, displaying, and enriching the environments of captive animals. Topics covered will include creating basic and complex habits in a wide variety of settings, from zoos and aquariums to wildlife preserves, as well as forming environments which promote the enrichment, engagement, and promotion of health outcomes which reflect the animals' natural behaviors while in captivity. Particular emphasis will be placed on promoting animal welfare and creating productive environments for animal husbandry and veterinary care.

Credits: 3

Prerequisites: ANIM 103

ANIM 310 Sustainable Livestock Health, Nutrition, and Care

This course will focus on sustainable practices that lead to proper health, nutrition, and care of livestock animals. Topics include the science behind livestock nutrition and best husbandry practices for monitoring, handling, and training of livestock species. Students will learn how to measure and document livestock behavior and how to use behavior as an indicator of proper health and welfare.

Credits: 3

Prerequisites: ANIM 205

ANIM 315 Equine Health, Nutrition, and Care

This course will lead you through an understanding of equine nutritional needs and the essential elements of maintaining a healthy horse. Students will learn the basics of nutrition, including feeds and feeding, diet, and its relationship to health and performance, plus key environmental factors in horse health. *Please note that you do not need access to a horse, or own your own horse to participate and be successful in this course.*

Credits: 3

Prerequisite: ANIM 205

ANIM 401 Animal Care Technical Skills

In this course, students learn and apply various clinical and laboratory techniques used in the animal care and veterinary medical fields. Emphasis is placed on acquiring new skills and putting the skills to practice to improve abilities. Skills will be focused on those used in both clinic (e.g., drawing blood samples) and lab (e.g., molecular techniques, software applications for analysis) settings, and include reference to those used in wildlife and game preserves (e.g. chemical immobilization).

Credits: 3

Prerequisites: ANIM 103, ANIM 305

ANIM 410 Sustainable Livestock Management

In this course, students will learn how to integrate principles of sustainability into livestock management practices. Students will identify strengths and weaknesses of traditional methods of farm animal management and compare those with sustainable methods and regenerative practices. Students will examine links between livestock management and consumer supply chains while considering best practices that prioritize environmental sustainability, animal welfare, and economic success. Students will seek ways to integrate these in real world applications by designing their own life cycle assessment.

Credits: 3

ANIM 415 Horse Facility Management

In this course, students will study important aspects of running an equine establishment, including barn hygiene, air quality, safety audits, and fencing and pasture maintenance and improvement. Students will learn the importance of properly managing the natural environment and built facilities to optimize the health of horses, including concepts related to natural ecosystems, ecosystem services, and beneficial management practices. The relationship between the health and well-being of the environment and the health and well-being of the horse will be explored.

Credits: 3

ARTS COURSES

ARTS 101 Composing the Landscape: Introduction to Landscape Photography

This course is an exploration of landscape photography. Students will examine its history, study its masters and work on developing their own visions. Over the span of the semester, students will gain an understanding of the medium while trying their own eye at creative expression. The first 2 weeks will re-fresh students on the basic camera functions and making good exposures as well as a “get to know you” assignment. The bulk of the semester will be spent learning the variations of landscape photography by both studying significant photographers and their work as well as exploring the variations with their own cameras, culminating in a portfolio project.

Credits: 3

Prerequisites: None

ARTS 105 Environmental Storytelling for Social Change

Humans make sense of the world, and choose how to act within it, through the medium of storytelling. American pragmatist and philosopher Kenneth Burke argues that stories shape our thoughts and reality. More specifically, for this class, they are our most ancient and advanced tools for changing minds. Thus social change cannot happen without storytelling. In this class, students will learn how to construct the stories that drive and guide environmental intervention. Students will also learn practical strategies for engaging in the struggle over narrative, and how to deal with the increasing agency of individuals to decide which stories are worth listening to. Great stories demand an audience; great stories about our world, and its problems, demand action. Storytelling organizes and mobilizes people, spurs donations, and shapes public opinion. Nonprofits, foundations, and socially responsible businesses are looking for people who know how to leverage effective stories to drive action and energize supporters. This class will teach students how to tell those kinds of stories about environmental issues, and become changemakers in their profession.

Credits: 3

Prerequisites: None

BIOLOGY COURSES

BIOL 103 Biology: Foundations of Life

Introduction to fundamental biological principles emphasizing common attributes of all living organisms. Unifying concepts include chemical structure of living matter, structure and function of the eukaryotic cell, including characteristics of plant and animal cells, respiration, photosynthetic pathways, genetics, and microevolution.

Credits: 3

Prerequisites: None

BIOL 104 Biology: Foundations of Life Laboratory

This course includes the laboratory experiences focused on basic biology to accompany BIOL 103.

Credits: 1

Prerequisites: None

BIOL 105 Biological Diversity, Ecology, and Evolution

An introduction to biological diversity, macroevolution, population genetics, and organismal structure and function. Students will examine such topics as: Origin of life, mechanisms of

evolution, diversity, animal and plant morphology, reproduction, behavior, population biology and ecology.

Credits: 3

Prerequisites: None

BIOL 106 Biological Diversity, Ecology, and Evolution Laboratory

This course includes the laboratory experiences focused on biological diversity, ecology, and evolution to accompany BIOL 105.

Credits: 1

Prerequisites: BIOL 105 (or concurrent enrollment)

BIOL 201 Organisms that Sustain the Earth: Understanding Plants

Plants, as the most prominent primary producers in terrestrial systems due to photosynthesis, are the base source of energy in the most ecosystems. This course will introduce students to the factors that influence the growth, distribution and abundance of plants, the influence of plants on energy and nutrient flow, and key features of plant biology. Students will experience the diversity of plants and how major taxa differ in form and function. Case studies will illustrate the role of plants in ecosystem function, human culture, and animal ecology.

Credits: 3

Prerequisites: None

BIOL 203 Ecological Principles: Applications to Conservation and Wildlife

In this course students will explore key concepts of ecology. The course emphasizes concepts applicable to understanding and mitigating impacts of climate change, human activities, and invasive species on ecological systems, as well as other concepts underlying conservation ecology and management of wildlife species. Through course activities focused around practical application of concepts, students will gain a basic understanding of evolution, autecology, population ecology, community ecology, and ecosystem ecology.

Credits: 3

Prerequisites: BIOL 105 and MATH 201

BIOL 301 Animal Behavior: The Evolution, Ecology, and Social Behavior of Animals

In this course, students will explore principles of animal behavior. They will discuss how evolution, environment, and life experience interact to influence the behavior of animals. Students will be introduced to the history of animal behavior as a scientific discipline, learn how to define behavior, and apply behavioral principles to measure and analyze behavior. The course will also cover topics related to social behavior including group living and animal communication as well as reproduction, mating, and parental care. Finally, students will explore other important survival behaviors such as predator avoidance, foraging, and predation. Skills learned in this class can be applied in both captive and wildlife animal fields to increase the wellbeing of a wide variety of animal species.

Credits: 3

Prerequisites: BIOL 103 or BIOL 105

BIOL 305 Conservation Biology

There's a popular axiom in science that "all biology is now conservation biology." This

statement is telling in two ways: First, in the modern era it is hard to find a biological system that is untouched by humankind. Second, perhaps more than any other discipline conservation biology is highly integrative, bringing together such disparate fields as ecology, evolutionary biology, public policy, and sociology. In this course, we will lay the foundation for any field within the natural sciences or environmental studies. Specific topics that we will cover include the status of biodiversity, the threats facing biodiversity, the importance of ecosystem services, conservation policy, design and management of protected areas, and habitat restoration.

Credits: 3

Prerequisites: BIOL 103 or BIOL 105

BIOL 310 Microbiology

This course focuses on the diversity of microorganisms found throughout the earth, with a particular focus on their taxonomy, ecology, and evolutionary relationships. Not only the source for many of the serious animal diseases, microorganisms serve many ecological roles in nature. Fundamental topics exploring these roles and the impact of microorganisms on animal health and welfare will be nutrient cycling, genetic diversity, food production, and biotechnological applications. Students will additionally be exposed to the variety of processes and techniques related to assessing microbial communities and their diversity.

Credits: 3

Prerequisites: BIOL 103 and CHEM 101

BIOL 315 Cell Biology

This course is an in-depth exploration into the biology of cells of higher organisms. As the fundamental unit of life, cells play an integral role into the functioning of tissues, organs, and ultimately organisms. The topics in this course will be underpinned by an understanding of cellular structure and functioning, with particular emphasis placed on membrane and organelle formation, growth and transformation, transport and communication, and ultimately reproduction, with a brief exploration into the dysfunction and treatment of cellular abnormalities and cancers. Students in this course will additionally become familiar with the methods used for the observation and assessment of cells in laboratories.

Credits: 3

Prerequisites: BIOL 103 and CHEM 101

BIOL 320 Plant Breeding

This course reviews the genetic enhancement of crop value to humans through development and applications of Mendelian, quantitative, and molecular genetics. Students will examine crop genetic improvement methods by discussing the history and current practice of plant breeding, tools available to breeders, choices and modifications of those tools to meet specific objectives, and challenges plant breeders face in developing varieties for the future. Emphasis on pollination syndromes, plant breeding, and the role of genetic modification of plants.

Credits: 3

Prerequisites: BIOL 103

BIOL 325 Plant Pathology

The course introduces the basic concepts of plant disease biology and control, covering disorders caused by fungi, viruses, bacteria, nematodes, as well as the role of environmental factors (including temperature, moisture, and light) in contributing to the development of

diseases. Case studies will be incorporated to ensure students will be able to find, interpret, and use scientific literature on plant diseases and discuss a range of control strategies suitable for both traditional and organic growers.

Credits: 3

Prerequisites: BIOL 201

BIOL 330 Integrated Pest Management

This course will provide a practical investigation of insect structure and function, ecology, behavior, and life history, as well as an in-depth study of strategies of integrated pest management (IPM). Students will explore current topics such as vectors of plant and animal diseases, and the challenges to pollinator populations. Students will learn key practices in IPM, including identification, threshold establishment, monitoring, and sampling methods. They will evaluate the efficacy and risks associated with various pest control strategies separately and as part of an IPM plan.

Credits: 3

Prerequisites: None

BIOL 335 Ecology of Fire-Dependent Ecosystems

The evolution of terrestrial plants introduced the oxygen and vegetation necessary for fire into the Earth system 500 million years ago, and all levels of life, from organisms to ecosystems, have been responding ever since. This course begins by detailing the components of fire as an ecological disturbance regime, scaling up from the chemistry and physics of combustion, to fire behavior at landscape scales, and feedbacks between climate, vegetation, and fire. Both physical impacts to soil as well as the breadth of adaptive traits in plants and animals are reviewed, and essential perspectives on population biology and community ecology taken through the lens of pyrodiversity – the role of heterogeneous fire in creating and conserving Earth's biodiversity.

Credits: 3

Prerequisites: BIOL 203

BIOL 340 Forest Ecology

Forest ecology is the scientific study of forest ecosystems through the interactions with biotic and abiotic factors that affect the structure, composition, function, and dynamics of the systems. Topics covered in this course include tree population and forest community dynamics, ecosystems processes, historical ecology, disturbance ecology, and ecosystem services. Students will apply these concepts to current environmental problems such as biodiversity loss, anthropogenic disturbance, and global environmental change

Credits: 3

Prerequisites: BIOL 201

BIOL 345 Rangeland Ecosystems

This course will examine major ecological principles that influence the functions of many components of rangeland ecosystems with an emphasis on grasslands. Topics such as biogeochemical processes, ecological succession, the role of disturbances, plant/animal diversity, soil-plant interactions, carbon storage, sustainability, nonnative species encroachment, and other ecosystem services will be explored. Understanding how natural processes transform among natural communities that can also be manipulated through

anthropogenic activities will be highlighted. This course will give students the knowledge to distinguish how management of these ecosystems can change plant communities over time.

Credits: 3

Prerequisites: BIOL 203

BIOL 350 Arboriculture

Arboriculture is a comprehensive, in-depth study of the biology, management, and care of trees. Learners will study the physiological processes, structure, and growth patterns of trees and learn to identify tree species using print and/or digital resources. Learners will also explore planting and establishment techniques, pruning methods, structural support systems, and the identification and management of health risks such as pests or diseases.

Credits: 3

Prerequisites: BIOL 201

CHEMISTRY COURSES

CHEM 101 Chemistry I

This course covers the fundamentals of chemistry, with an emphasis on modern and applied chemistry of atomic and molecular matter. Specific emphasis will be on atomic theory, bonding, nomenclature, stoichiometry, molecular structure and reactivity, orbitals and electron configurations, the periodic table, intermolecular forces, aqueous solutions, and basic chemical reactions.

Credits: 3

Prerequisites: None

CHEM 102 Chemistry I Laboratory

This course includes the laboratory experiences focused on basic inorganic chemistry to accompany CHEM 101

Credits: 1

Prerequisites: CHEM 101 (or concurrent enrollment)

CHEM 103 Chemistry II

This course is an introduction to chemical balance, equilibrium, and change. Topics covered include general equilibrium, acid-base chemistry, colligative properties, chemical kinetics, and thermodynamics, including entropy and enthalpy. Additional work will focus on gasses, gas properties, and electrochemistry, and build from topics covered in CHEM 101.

Credits: 3

Prerequisites: CHEM 101

CHEM 104 Chemistry II Laboratory

This course includes the laboratory experiences focused on chemistry to accompany CHEM 103.

Credits: 1

Prerequisites: CHEM 103 (or concurrent enrollment)

CHEM 201 Organic Chemistry 1

This course focuses on the chemistry of organic molecules. Starting with an overview of the

diversity of carbon compounds, topics include organic molecular reactions, shapes and structures of molecules, and the spectroscopic identification of organic molecules. Additional work will examine the processes involved in synthesizing molecules, techniques used in determining molecular structure, and the application of organic chemistry to environmental issues.

Credits: 3

Prerequisites: CHEM 101 and CHEM 103

CHEM 202 Organic Chemistry 1 Laboratory

Throughout this course, students will become acquainted with multiple veterinary medical concepts, medical terms and scientific principles. Using an approach based on word derivation and combination, students will learn the names and etymology of various animal ailments and diseases, tests used in the analyses of diseases, as well as the treatments and therapeutic techniques used in alleviation and cure of animal health issues. This course will provide students interested in the veterinary medical fields a ground-up and comprehensive understanding of the complex language of veterinary terminology to be productive in a variety of current or future work environments and help understand more advanced veterinary fields.

Credits: 1

Prerequisites: CHEM 104 and CHEM 201 (CHEM 201 can be taken concurrently)

CHEM 203 Organic Chemistry 2

This course is a continuation of the concepts covered in CHEM 201, with a particular emphasis on reaction chemistry and the mechanisms of reactions. Specific topics will include use of NMR spectroscopy, mass spectrometry, electronic structure, and bonding in carbonyl compounds. Additional work will be focused on determining the patterns of reactivity in conjugated and aromatic molecules, carbonyl compounds, and biologically important molecules such as carbohydrates and amino acids.

Credits: 3

Prerequisites: CHEM 201

CHEM 204 Organic Chemistry 2 Laboratory

This course includes the laboratory experience focused on organic chemistry to accompany CHEM 203.

Credits: 1

Prerequisites: CHEM 202 and CHEM 203 (CHEM 203 can be taken concurrently)

CHEM 205 Applications of Chemistry for Horticulture

This course examines the use of pesticides, herbicides and fertilizers in horticulture. Students will learn about the modes of action, toxicity, environmental impact, and human health risks of various pesticides and herbicides. Similarly, students will learn about fertilizer types and the conditions under which they are typically used. In addition, the course will cover how fertilizers, herbicides, and pesticides can be applied to minimize risk of human exposure and environmental impact, including the proper use and calibration of equipment. The economic value of chemical pest and weed control and growth promotion will be discussed.

Credits: 3

Prerequisites: CHEM 103

CHEM 301 Biochemistry

This course is an exploration into the link between biology and chemistry and provides an in-depth analysis of the structure and function of biomolecules, including their metabolism and regulation. Topics in areas such as bioenergetics and enzymology will provide the basis to understand major challenges to facing biological systems and organisms, including their pathologies, nutrition, and toxicology. Additional work will focus on using an understanding of biological molecules and their associated processes to analyze an environmental issue facing organisms.

Credits: 3

Prerequisites: BIOL 103 and CHEM 103

CHEM 302 Biochemistry Laboratory

This course includes the laboratory experience focused on biomolecular functioning, metabolism, and regulation meant to accompany CHEM 301.

Credits: 1

Prerequisites: CHEM 301 or concurrent enrollment

COMMUNICATION COURSES

COMM 100 Communication Skills for Online Learners

Learning is an active process that involves intentionally connecting new ideas and experiences to existing knowledge. In an online setting, learners are most successful when they employ specific strategies to engage with the learning materials, their peers, and their instructor. This course will provide learners with opportunities to develop and practice intentional learning strategies and communication skills in an online context.

Credits: 2

Prerequisites: None

COMM 101 Writing for Environmental Professionals

Environmental professionals understand that the ability to communicate effectively in many genres leads to professional success. In this writing course, students will refine and reflect on their writing process, practice writing in multiple genres, and learn about rhetoric. Through eight modules, online discussion, and a series of writing assignments, this course examines the most important aspects of any piece of professional writing: organization, use of evidence, clarity and cohesion, and incorporating feedback during the revision process. Upon completion, students will develop strategies to improve their writing so that they become more persuasive and impactful environmental professionals.

Credits: 3

Prerequisites: None

COMM 201 Multimedia Communication for Environmental Professionals

In COMM 201 Multimedia Communication for Environmental Professionals, students produce collaborative and individual projects that develop critical reading, writing, thinking, and research skills. By applying a rhetorical framework to pressing environmental issues, students will

develop effective, ethical communication in print and digital texts. Projects include oral, written, and visual presentations.

Credits: 3

Prerequisites: None

COMM 203 Environmental Communication

From Ecological Activists to Ecomodernists—how humans think, talk about, and represent nature has had an impact on policymaking, natural resource management, and the place that nature has in our day-to-day lives. This course explores how people communicate about the environment and how such rhetoric is used by advertisers, policy-makers, and opinion leaders. We will also cover how citizens can join (or resist) the effort to manage public opinion about the environment. Topics include environmental rhetoric, media and journalism, public participation in environmental decision making, social marketing and advocacy, and nature in popular culture and green marketing.

Credits: 3

Prerequisites: None

COMM 303 Communicating to Stakeholders

This course teaches students how to communicate real-world issues and problems for a just end. Students will learn how different modes of communication such as storytelling can be used as an effective way to communicate an organization's mission and builds empathy for its cause. Students will learn how to craft values-based communications to persuade stakeholders to support social justice issues such as sustainability, environmental law, and wildlife conservation. Students will learn concepts and skills to build public support for their organization's mission, strategic initiatives, and fund-raising activities. This course will develop skills in written, visual, and oral communication.

Credits: 3

Prerequisites: none

COMM 401 Using Social Media in a Global World

Not only do marketers use social media to communicate with their customers but also as a way to better understand their customers. This course teaches students how to use social media as a global branding and marketing tool, exposes learners to the analytic methods that can be used to convert social media data to marketing insights, and shows learners how social media data can be used to provide insights into market structure and consumers' perceptions of the brand.

Credits: 3

Prerequisites: None

COMM 403 Environmental Crisis Communication

This course introduces students to the key elements of crisis communication, including creating a plan before, during, and after a crisis. Since an organization's reputation is one of its most valuable assets, effective crisis management helps preserve and defend the company's reputation and maintain the organization's operations. This course explores aspects of crisis communications including typology of crises; history of crisis communications; theoretical basis for effective crisis response and communications; and crisis communications planning methodologies and strategies.

Credits: 3
Prerequisites: None

COMPUTER SCIENCE COURSES

CIST 101 Introduction to Coding for Environmental Applications

This course introduces students to fundamental computer science concepts and Python. Students will learn the core skills of Python programming and design and problem-solving approaches using programming. Students will discuss environmental applications of programming and design and write Python programs for environmental applications. *Course meets language requirement unless otherwise noted.*

Credits: 3
Prerequisites: None

CIST 103 Introduction to R

In this course students learn the basics of programming in R, a powerful and commonly used object-oriented programming language for modeling, statistical analysis, and graphic presentation in the ecological sciences. The course covers the basics of using R for data input and import, data subsetting and transformation, data analysis using common statistical approaches, and data visualization. In addition, students will learn to access and use R packages and write their own R functions. Students will learn these aspects of R coding by working through ecological case studies both in practice problems to develop a basic understanding, and then through developing their own code by working through a similar example.

Credits: 2
Prerequisites: None

ECONOMICS COURSES

ECON 301 Microeconomics for Ecological Sustainability

This course applies the principles of microeconomics to ecological and environmental sustainability issues. Students will consider the operation of a market economy and how best to allocate resources, will read case studies that explore how individuals and firms make decisions about production and consumption, and will explore how these decisions impact sustainability. Students will study the laws of supply and demand, explore the various causes of market failure, and examine how economic policies could be designed to correct market failure to maximize ecological sustainability.

Credits: 3
Prerequisites: 100-level MATH course or higher

ECON 303 Macroeconomics for a Sustainable Planet

In this course, students will explore the fundamentals of economics on a national and global scale. Specifically, students will learn how production, distribution and consumption of goods and services, the exchange process, the role of government, the national income and its

distribution, GDP, inflation, trade, and unemployment can be used to design a more sustainable planet.

Credits: 3

Prerequisites: None

ENVIRONMENTAL EMERGENCY MANAGEMENT AND LAW ENFORCEMENT COURSES

EMGT 203 Social Justice Issues in Emergency Management

The primary goal of social justice in emergency management is to ensure all groups have the opportunity to receive resources equitably. This course explores how issues like terrorism become racialized and explores an overview of inequity in how agencies and people respond to natural disasters.

Credits: 3

Prerequisites: None

EMGT 301 Public Policy and Planning for Emergency Management and Law Enforcement

This course focuses on the role of local, state, and federal government in a time of disaster. Students will study key legislation related to disasters, disaster management, law enforcement, and how that legislation has impacted the profession.

Credits: 3

Prerequisites: None

EMGT 305 Planning and Responding to Natural Disasters

In this course, students will review and critique disaster plans and learn components of effective disaster management across jurisdictions.

Credits: 3

Prerequisites: None

EMGT 307 Planning and Responding to Cyberthreats and Terrorism

Students learn the history, methods, and philosophy of terrorism, with an emphasis placed on how governments and law enforcement agencies plan and respond to terrorism and cyberthreats. Students study case studies that explore terrorist activities and the implications for emergency response.

Credits: 3

Prerequisites: None

EMGT 403 Implementation of Emergency Management: Simulation and Exercises

The goal of this course is to prepare students to create and implement their own emergency management simulation. By the end of the course, students will be able to describe the benefits of exercise management; define the parameters and process of the simulation; describe the different phases of exercise management such as planning, conduct, post-

review; and explain how to select the appropriate exercise.

Credits: 3

Prerequisite: None

ENVIRONMENTAL CRIMINAL JUSTICE COURSES

ENCJ 201 Law Enforcement and Emergency Management in the Age of Globalization

This course introduces students to the United States criminal justice system in the age of globalization. Students will develop a general understanding of the criminal justice system's response to crime and how the processes of globalization are changing it. It is an introductory overview of local, state, and federal law enforcement, judicial and corrections agencies, and the criminal justice system processes. Special attention will be paid to the role criminal justice agents play in environmental issues and problems. The course prepares students to take more advanced courses that address the specific components of environmental criminal justice.

Credits: 3

Prerequisites: None

ENCJ 205 Drug Recognition Training

This course will study current drug trends in society exposing students to both use and abuse. We will identify drugs and the observable effects on the human body when abused. The students will become familiar with the signs and symptoms of abuse and be able to differentiate drug impairment with common medical conditions. We will explore the hazards of drug abuse in the working environments that the students are pursuing and identify potential skills to deal with those individuals.

Credits: 3

Prerequisites: None

ENCJ 301 Crime Scene and Forensic Techniques

In this course, students will learn the techniques used in the criminal investigations, introducing students to theories and fundamental knowledge of the investigative process, including special and basic forensic techniques. The course will include some of the following topics: crime scene and incident processing, information gathering techniques, the collection and preservation of evidence, how to write appropriate reports, and other related techniques and topics. Students will then apply what they learn to case studies that involve environmental laws and policies.

Credits: 3

Prerequisites: None

ENCJ 303 Homeland Security and Emergency Management

In this course, students will learn critical concepts to emergency and disaster management, risk prevention and management, counterterrorism, and consequence management and mitigation. This class will also explore the history and evolution of the Department of Homeland Security. Topics will include crisis action planning, including the impact of global

warming; relationships among local, state, and federal agencies during management operations; concepts of emergency management, including mitigation, hazard analysis, and terrorism; and homeland security functions, methodologies, and techniques.

Credits: 3

Prerequisites: None

ENCJ 305 Natural Resource Law and Policy

This survey course addresses not only the creation and management of our natural and wildlife resources on federal and tribal public lands, with a focus on the National Parks, National Forests, and the National Resource Lands (Bureau of Land Management (BLM) regulated lands), as well as the National Wildlife Refuge System and the National Wilderness Preservation System. Students will learn how Native American tribes, interest groups, citizens, and the courts influence the management of natural resources on these lands. After taking the class, students should be familiar with the major public land legislation such as the National Forest and National Park "Organic Acts" and the Wilderness Act; as well as laws that affect our public lands, but apply more broadly, including the Endangered Species Act and the National Environmental Policy Act. Through class work and their papers, students will also be familiar with different perspectives on some of the most important current issues facing our public lands.

Credits: 3

Prerequisites: None

ENCJ 401 Environmental Compliance, Regulation, and Mitigation

Organizations that produce, import, process, handle, or release chemical substances are required by Federal law to comply with many regulatory programs that are implemented by the EPA. This course introduces students to the Federal laws and regulations that apply to environmental compliance and regulation. Upon completion of this course, students develop an understanding of the regulatory process, how specific materials and activities are regulated, and develop skills necessary for applying EPA's standards to operations.

Credits: 3

Prerequisites: None

ENCJ 405 Environmental Criminology

This course explores environmental criminology and law by examining the strengths and weaknesses of federal and state laws that apply to water, air, land, and biodiversity. Specifically, the course explores specific issues that pertain to the nature and responses to environmental law, including crimes against nature, transgressions against humans, environments, and nonhuman animals. Students will also learn broad conceptual knowledge about law enforcement and regulation relevant for a criminological approach to environmental issues.

Credits: 3

Prerequisites: None

ENVIRONMENTAL HEALTH AND SAFETY COURSES

EVHS 205 Occupational Safety and Health

In this course, students examine occupational safety and health practices needed to address occupational safety and health issues in the workplace. Students will employ regulatory standards as a guide to apply policies, procedures, standards and occupational safety and health principles. Topics will include industry recognized best practices, origin of the standards, the process and rules of inspections, citations and penalties, and policies.

Credits: 3

Prerequisite: BIOL 103, BIOL 104, CHEM 101, CHEM 102

EVHS 210 Fire Protection and Safety

This course introduces students to the fundamentals and theories of how fires start, spread, and are controlled. Students will learn about basic fire chemistry principles such as properties of solids, liquids, and gases, and fire combustion and behavior. Students will learn about the laws applied to fire prevention, including federal fire safety requirements for industry and commerce, solving technical problems encountered, recognition of hazards, prevention of fires and inspection techniques. Additionally, students will receive guidance on several fire inspection trainings. These include FEMA: An Introduction to Hazardous Materials and Fire Extinguisher Training.

Credits: 3

Prerequisite: CHEM 101, CHEM 102

EVHS 305 Construction Safety

Construction workers are some of the most at risk workers in any industry. That is why it is important to understand the foundations of accident prevention in the building and construction industry. This class introduces students to practical applications of safety analysis and management. Students will learn about past incidents through case studies and explore topics such as reporting unwanted occurrences, incident databases, safety performance indicators, and accident investigation. Students then will learn about how to prevent accidents for future conditions, learning risk analysis, preliminary hazard analysis, and job safety analysis. This course will emphasize using data and data analysis to make decisions.

Credits: 3

Prerequisites: EVHS 205, MATH 201

EVHS 405 Corporate, Non-profit, and Government EHS Management

In this course, students will profile Environmental Health and Safety (EHS) management at an organization. Students will explore the EHS management's history, motivations, and strategies. The course will introduce students to developing systems of managing an organization's Environmental Health and Safety. Students will also investigate the implications of developing an EHS strategic plan and policies and learn how to communicate that plan and policies to a variety of stakeholders.

Credits: 3

EVHS 410 Sustainable Product Stewardship

In this course, students will learn about sustainable product development and product stewardship. This course will explore key concepts through experiential online activities which will assist learners with integrating sustainability, life cycle thinking (cradle to grave), and sustainable product development and design tools into new product development processes.

Credits: 3

ENVIRONMENTAL HEALTH AND WELLNESS COURSES

EVHW 105 Introduction to Human Health

This class is designed to give students interested in health careers basic knowledge related to health professions. Students will learn foundational concepts in anatomy and physiology, medical terminology, medical ethics, and medical communications.

Credits: 3

Prerequisite: BIOL 103 and BIOL 104

EVHW 205 Health Literacy and Promotion for Leaders

In this course, students will learn about social and demographic factors that contribute to health disparities, both directly and by acting as barriers to health literacy. They will examine health literacy frameworks and adult learning theories to identify best practices for educating and supporting behavior change in adults and apply these tools to create a workplace wellness plan to address a specific healthcare disparity.

Credits: 3

Prerequisite: BIOL 103 and BIOL 104

EVHW 305 Employee Benefits for Wellness

This course focuses on policy and politics about America's healthcare's system, closely examining access, cost and quality. Students will learn about the roles of patients, physicians, hospitals, insurers, and pharmaceutical companies. The interaction between the government and these different groups will also be covered. The course will cover national health care policy initiatives. The course will develop students' critical and analytical skills about the U.S. healthcare system and the people affected by it.

Credits: 3

EVHW 310 Mind, Body, Soul, Planet: Understanding the Mind-Body Connection for Long-Term Health

This course will help students understand what contributes to emotional, physical and spiritual well-being through awareness of the mind-body connection. Students will study the mind-body connection, the stress response, brain training techniques, plus the important roles of nature and positive psychology to understand whole-body health. Students will explore different

techniques that support whole body health such as yoga, reiki, and meditation, along with understanding the role of diet, nature, exercise, relationships, and stress play.

Credits: 3

EVHW 405 Health Coaching: How to Live a Balanced Life

This course provides an overview of the field of health coaching and is designed to develop a skill set for health coaching including: creating relationships, envisioning change, motivational interviewing, planning and goal setting, providing feedback, progression and engagement strategies.

Credits: 3

Prerequisite: PSYC 101

EVHW 410 Worksite Health Environment and Management

In this course, students analyze the principles of developing a successful worksite wellness program. This course introduces WELCOA's 7 benchmarks into worksite wellness, strategies for evaluating wellness programs, resources, and tools. Students will learn about worksite wellness, collaborating with management and other affected/interested parties, creating wellness teams, collecting data, evaluating a strategic plan, designing incentives, creating budgets, understanding legal issues, and fostering supportive environments.

Credits: 3

Prerequisite: PSYC 101

ENVIRONMENTAL JUSTICE AND SOCIAL CHANGE COURSES

ENVJ 201 Understanding Diversity and the Environment

In this course, students develop a critical vocabulary around issues of diversity, sustainability, and the environment. Students learn about the ways people from different backgrounds, whether racial, age, gender, socioeconomic, are treated and affected differently by environmental problems. Finally, students develop ideas about how to make real-world environmental changes that include every stakeholder's voice, especially voices from communities that have otherwise been subordinated, silenced, and marginalized.

Credits: 3

Prerequisites: None

ENVJ 203 History of Creating Environmental Social Change

Although environmental issues are often presented ahistorically, every issue is historically rooted to economic, political, social, and cultural reasons. This course explores the role that historically-rooted lines of power such as race, gender, and class produce patterns of local and global environmental resource use and abuse. Students learn these histories by studying key environmental figures who have fought for environmental justice and social change. Finally, students recognize that history provides a meaningful and important framework for

understanding the present and can be used to provide solutions to some of the most pressing environmental justice issues.

Credits: 3

Prerequisites: None

ENVJ 301 Energy Justice: Local to Global Perspectives

As global patterns of energy use often remain hidden or go undiscussed, it is important to investigate the social and environmental justice implications. In this class, students examine case studies to explore real-world controversies over energy extraction and use. Some questions this course considers are who benefits most from current energy systems? Who pays for it? How does climate change policies affect global energy patterns and use? How do political and economic power drive the conversation and energy policies around the world? In addition to exploring the existing problems, students will consider possibilities for creating more just and sustainable energy systems.

Credits: 3

Prerequisites: None

ENVJ 303 American Government: Foundations in Environmental Law

Passing legislation and enforcing the law are some of the most powerful tools to enact environmental justice and social change. This class provides an overview of the law and legal system, with an emphasis on environmental cases. After covering the basics of American government and the legal system, students focus their learning on the design, implementation, and enforcement of major environmental statutes.

Credits: 3

Prerequisites: None

ENVJ 305 Sustainable Design and Justice

The planning of resilient, sustainable, and socially just urban spaces has become extremely important as more and more of the world population urbanizes. This course teaches students how to use design thinking to work with different stakeholders such as architects, designers, city planners, government, and the local community to ensure that urban planning projects consider and implement social and environmental justice initiatives.

Credits: 3

Prerequisites: None

ENVJ 307 Food Systems and Social Justice

This course explores the social and environmental dimensions of food systems from a global perspective. Through an exploration of the relationships between the natural and built environment, students explore the environmental impacts of food production, food processing, food distribution, and food disposal. Lastly, students learn how power and justice are distributed among the farmers, big agro-business, food industry workers, business owners, policymakers, communities, and consumers.

Credits: 3

Prerequisites: None

ENVJ 310 Fire and Culture

The historian Stephen J. Pyne describes Earth as a uniquely fire planet, and humans as a

uniquely fire species. Using anthropological, ecological, and sociological perspectives, this course explores the human-fire relationship in wildlands and fire-prone ecosystems. Case studies will be used to address Indigenous and Western perspectives related to fire in the United States and countries around the world. Students will be introduced to the diverse ways humans use fire to manipulate and engage with the landscape, and the influence of culture, ethnicity, and policy on human perception and use of fire across different time periods.

Credits: 3

Prerequisites: None

ENVJ 401 Seminar in Environmental Justice: Balancing Equity, Environment, and Enterprise

This course advances students' environmental justice professional skills so that they can find real-world solutions to make sure that the people are treated fairly and have meaningful involvement in the development, implementation, and enforcement of environmental laws, regulations, and policy. Students start to develop their final capstone project that provides a solution to a real-world environmental justice problem and that addresses a key tenant of Environmental Justice: the recognition that environmental goods (such as clean air and water) and environmental harms (such as toxic waste) are not always distributed equitably among populations. Since environmental harms fall more heavily on low-income communities, communities of color, immigrant communities, indigenous peoples, and other population demographics, students examine the various reasons for these disparate impacts and will start to offer possible solutions grounded in law, policy, and practice.

Credits: 3

Prerequisites: ENVJ 201 and ENVJ 303

ENVIRONMENTAL PROFESSIONAL CORE COURSES

EVPC 100 Ecoliteracy

We are living in an era characterized by unprecedented environmental challenges, including water scarcity, climate change, and loss of biodiversity. At Unity Environmental University, we are committed to helping our students build the scientific, social, and emotional knowledge and skills needed to address these complex challenges in their professional, personal, and civic lives. This course is the first step in that journey. Here, learners will develop an understanding of the cycles that sustain life on Earth and cultivate key ecoliteracy practices, including empathy (intellectual and affective) and systems thinking. Learners will build on these foundational skills in subsequent courses within the Environmental Professional Core.

Credits: 1

Prerequisites: None

EVPC 101 Professional Skills

In this course, students will develop professional and academic skills that are applicable in a variety of environmental fields. Through activities focused on reflection, self-assessment, and application, students will acquire techniques and strategies to be a successful learner and a professional. Course activities also include developing research skills, professional communication, critical writing, positive psychology, and media creation. This course serves

as the gateway to the other environmental professions core courses.

Credits: 3

Prerequisites: None

EVPC 201 Environmental Issues: Deforestation, Biodiversity Loss, and Overpopulation

This course is part of a two-course sequence that provides students with an understanding of the interconnectedness of the looming environmental issues that the world faces. This class will provide students with a basic scientific understanding of deforestation, biodiversity, and overpopulation and address what societies can do that they aren't currently doing. Upon completion, students will be able to critically assess these issues and provide models for making more sustainable choices.

Credits: 3

Prerequisites: None

EVPC 202 Environmental Issues: Energy, Water Scarcity, and Waste

This course is part of a two-course sequence that provides students with an understanding of the interconnectedness of looming environmental issues that the world faces. This class will provide students with a basic scientific understanding of energy, water scarcity, and waste, and address what societies can do that they aren't currently doing. Upon completion, students will be able to critically assess these issues and provide models for making more sustainable choices.

Credits: 3

Prerequisites: None

EVPC 301 Environmental Justice

This course examines issues of environmental quality and social justice. The course begins by examining the philosophical foundations and history of the environmental justice movement and foundational concepts such as justice, race, gender, and class. Students will explore these concepts through a series of case studies of urban and rural environmental (in)justice in the United States and move on to environmental justice's role in globalization.

Credits: 3

Prerequisites: None

EVPC 305 Building a Better World: Ethical Decision-Making

Ethical decision making is essential for leadership, and since most decisions leaders make have an ethical dimension, the ability to discern the ethical implications requires a set of skills that are informed by ethical philosophy. This course provides students with strategies, tools, and techniques to make ethical decisions by considering the ethical issue and the people involved, develop a strategy, and implement ethical action possible. Through the use of case studies, students will develop their ethical awareness, learn to distinguish difficult decisions from real ethical dilemmas, and practice deliberating effectively about a variety of ethical issues drawn from social and professional contexts.

Credits: 3

Prerequisites: None

EVPC 401 Transformational Leadership

In this course, students explore strategies needed to become effective instruments of change. Students will examine themselves as leaders, learn how to create meaningful relationships as a leader, and understand the role of leadership within complex systems. By using case studies from a variety of organizational contexts such as business, government, non-profit, community, and education, students explore concepts of organizational behavior and culture, consensus building, and project management to lead effective change towards environmental sustainability. This course is designed to empower and prepare students to become leaders in any profession.

Credits: 3

Prerequisites: None

EVPC 490 Transdisciplinary Capstone

The Capstone course is the culminating course for students in Unity Environmental University bachelor's degrees. In this course, students will develop a project that deals with a real issue and produce a final artifact reporting the project's findings. During this process, students will demonstrate and apply learning from their degree program and their ability to communicate to a broad audience. The course will also cover other important topics that support a student's career development and goals. All projects will be workforce-related products that students can use for their current or pitch to a future employer.

Credits: 3

Prerequisites: Minimum of 90 credits completed

ENVIRONMENTAL SCIENCE COURSES

ESCI 101 Geology and Our Environment

Desertification, acid rain, atmospheric carbon dioxide levels, radon poisoning – what do these have to do with geology? In this course students will explore how the geology of our environment influences ecological processes and environmental issues. Students focus on the influence of geological processes, exploring both the large-scale events of natural disaster such as earthquakes, volcanoes, floods, and landslides, and less obvious influences of geology on pollution, soil loss, groundwater availability, distribution and effect of mining and petroleum exploration, and other environmental issues. Issues will be explored through case studies with an emphasis on recognizing the role of geological process in solving or creating environmental issues.

Credits: 3

Prerequisites: None

ESCI 201 Meteorology

This course will focus on the fundamentals of atmospheric circulation, and the physical and chemical attributes of the atmosphere. Understanding the physiochemical nature of the atmosphere, climate, and weather will provide the basis for building knowledge of energy balances, atmospheric circulation, weather predictability and climate change. The student of weather systems, air pollution and climate, using the scientific method and tools such as Doppler radar and satellites, will be implemented to separate scientific knowledge from anecdote or opinion.

Credits: 3

Prerequisites: None

ESCI 301 Soil Analysis

This course involves detailed study of the biological, chemical, and geological components of soil, soil types, and soil health. Topics covered include principles and processes in soil chemistry, soil taxonomy, soil geography, and erosion. Additionally, students will explore the role of organic materials in soil health and type, general roles of soil properties on vegetative nutrient uptake, and the role of soil on nutrient and chemical cycles. Throughout the course of the term, students will pursue a project related to soil's influence on environmental health and sustainability.

Credits: 3

Prerequisites: None

ESCI 303 Hydrology, Wetlands, and Water Policy

This course is a systematic study of the function of wetlands, including the underlying hydrology and policies controlling their use. Specific topics include water pathway models, reservoirs, groundwater storage and utilization, general wetland ecology, and wetland policy and regulation. Students will additionally explore human impacts on hydrology and wetlands, and work in groups to prepare a wetland restoration plan.

Credits: 3

Prerequisites: None

ESCI 305 Environmental Remediation and Toxicology

This course is focused on the basic concepts of and science behind environmental toxicology, including processes related to remediation and contaminant mediation. Topics include the underlying biological processes such as bacterial metabolism, enzymatic activity, anaerobic and aerobic biodegradation, and an overview of remediation of inorganic contaminants. Students will additionally explore the fate and effects of chemicals in organisms in the environment, including air, water, and ground pollutants.

Credits: 3

Prerequisites: None

ESCI 401 Environmental Science Field Techniques Laboratory

In this course, students learn and apply various field and laboratory techniques used in environmental science. Emphasis is placed on acquiring new skills and putting the skills to practice to improve abilities. Skills will be focused on those used in both field (e.g., wetland delineation, aquatic macroinvertebrate sampling) and lab (e.g., sediment analysis, water chemistry techniques, software applications for analysis) settings, and include reference to those used in various professional scenarios.

Credits: 1

Prerequisites or Corequisites: ESCI 305

ESCI 405 Wildland Fire Operations & Planning

Whether fighting a wildfire or conducting a prescribed burn, managing personnel and equipment safely and effectively are key priorities for wildland fire professionals. This course

reviews the strategies and tactics commonly employed in wildland fire operations conducted across a variety of ecosystems by state and federal agencies, nonprofit land management organizations, and private landowners. Students are introduced to the Incident Command System, risk assessment and mitigation, and principles and best practices for communication and coordination.

Credits: 3

Prerequisites: None

ENVIRONMENTAL STUDIES COURSES

ENVS 101 Sustainable Solutions to Globalization

This course is designed to enhance literacy skills needed to understand major environmental issues facing the world in the 21st century. This and other core courses at Unity are designed to address prominent issues during your education at Unity Online. These are issues that will affect your chosen career, your future lifestyle, and the lives of your family and future generations. What are the most pressing environmental issues of our time? What do we need to know to address them? The course tackles these questions from variety of disciplines to provide the bigger picture and put our environmental challenges in a global context.

Credits: 3

Prerequisites: None

ENVS 201 The Warming Planet: Understanding Climate Change

Climate change is one of the most urgent and complicated issues we face today. This course explores the science of climate change by teaching students how the climate system works; what factors cause climate to change; how climate has changed in the past; how scientists use models, observation, technology, and theory to make predictions about future climate; and the possible consequences of climate change for our planet. Finally, students will explore the connection between human activity and the current warming trend and consider some of the potential social, economic, political, and environmental consequences of climate change.

Credits: 3

Prerequisites: None

ENVS 205 Drone Technology and the Environment

Unmanned Aerial Systems (UAS), most commonly referred to as drones, have become an increasingly valuable tool for the Environmental Science field.

- How can the use of drones advance the ability to make informed decisions about our environment?
- What does it take to fly a drone safely and legally?
- What are the requirements to become a remote pilot?
- How will this exponentially growing industry fare in the future?

This course will investigate these questions and more. It will provide an opportunity to understand drone use in multiple Environmental Science disciplines and will position students well for studying for the FAA Remote Pilot Certification test should they be interested in taking it. Drone Technology and the Environment will also provide hands-on training in planning drone missions, developing policies and procedures, and flying recreational drones- with an emphasis

on drone safety. This is a valuable skill set in a field that is growing exponentially both here in the United States and around the globe. This is an introductory drone course. No prerequisites or prior flight experience is needed. It is my intention to facilitate an inclusive, participatory learning community where each of us is a resource to the other. There will be a variety of activities and assessments to accommodate different learning styles, including reading and written assignments, quizzes, discussions and even a group project.

Credits: 3

Prerequisites: None

ENVS 303 Social Science for Environmental Professionals

Every environmental professional needs to understand how to interpret and use research data because they use data to procure stakeholder buy-in and inform the public about important environmental issues. In this course, students will learn an overview of social science research methodology and how to apply those concepts and tools to current environmental issues. Upon completion, students will gain skills in research, data analysis, data implementation, and communication.

Credits: 3

Prerequisites: MATH 201

ENVS 305 Advanced Drone Skills

Jumpstart your drone career with advanced marketable skills in an industry that is growing exponentially. Students will learn to use drones for monitoring, modeling, and mapping remotely sensed data, plus the requirements to fly drones in the National Airspace. After completion, students will be prepared to take the Remote Pilot exam.

Credits: 3

Prerequisites: ENVS 205 or completion of the free FAA Safety Course: Part 107 small Unmanned Aircraft Systems

FINANCE COURSES

FINC 301 Environmental Accounting

Environmental accounting is increasingly being used in business and government to support the development of sustainable global solutions and government policy. This course will cover what environmental accounting is and how it can help in decision-making. Through an understanding of this field, students will learn how different sectors of the economy affect the environment and how environmental policy affects the economy. Key policy questions related to accounting, and practical considerations needed to make environmental account an enduring reality for business and governments around the world will be addressed.

Credits: 3

Prerequisites: 100-level MATH course or higher

FINC 401 Financing a Sustainable World

Since business plays an important role in developing environmental financial solutions for future generations, this course considers how the tools of finance can address environmental challenges and how market processes can be used to ensure long-term sustainability. Students will learn an overview of business financial management, with an emphasis on

financial statement analysis, management of cash flow, risk and return, and sources of finance. Upon completion, students will be able to interpret and apply principles of financial management to develop sustainable business solutions.

Credits: 3

Prerequisites: 100-level MATH course or higher

GEOSPATIAL TECHNOLOGY COURSES

GISC 101 Introduction to Geographic Information Systems (GIS)

In this course, students will explore key concepts used in Geospatial Technologies. Topics include the use of scale, coordinate systems, geodesy, direction, projections, traditional land surveying techniques, and global positioning systems (GPS). Students explore the fundamental knowledge and techniques used in geospatial technology careers. This course also introduces students to remote sensing, geographic information systems (GIS), and cartography to start identifying and quantifying environmental patterns. Students will critically evaluate information and use quantitative reasoning skills such as patterns with urban heating in relationship to heat stress on a population. Students who finish this course are prepared to continue in GISC 201 Geographical Information Systems for a Changing World.

Credits: 3

Prerequisites: None

GISC 201 Geographic Information Systems for a Changing World

This course covers the theory and practice of geographic information systems (GIS) through applications of environmental science and ecology. Students use a variety of global environmental spatial data types for spatial analysis and data visualization to quantify environmental changes using quantitative datasets. Students learn essential GIS procedures for data viewing, acquisition, manipulation, geographic referencing, and map creation coupled with real-world datasets and meaningful results. Manipulation of common data types such as raster and vector datasets, database operations and applications are covered. Basic methods of GIS analysis are also included in the form of topological relations, buffer, query and map algebra analysis. The end product is the creation of data layouts, feature layers and dynamic and/or static maps allowing students to visualize spatial patterns of global changes.

Credits: 3

Prerequisites: GISC 101

Modality: Online or Hybrid

GISC 301 Integrated Spatial Analysis and GIS Application

This course covers GIS for investigating geographic patterns, relationships and connections. Spatial analysis methods are used for both raster and vector data. This course emphasizes problem-solving and decision-making using GIS. Students will explore the use of advanced ArcGIS Extensions through environmental spatial analysis and modeling of complex terrains, hydrological watersheds, detecting patterns and gaining statistical insights on environmental issues. This course teaches students how to use models and scripts for automating GIS processes also introduced and applied to process large environmental datasets to unlock spatial patterns.

Credits: 3

Prerequisites: CIST 101, GISC 101, GISC 201

GISC 303 Conservation Cartography and Visualization

This course covers fundamental concepts of cartography and visualization using geographic information systems (GIS) and illustration programs (Adobe Illustrator) as it is applied for conservation organizations and projects. Students employ design principles to create effective maps, incorporating data from a variety of formats used to communicate complicated environmental issues to a diverse map user audience. Hardcopy and web maps are produced to communicate conservation patterns and outcomes targeted for a diverse map audience. Infographic, animations, 3D maps, and other visualization techniques are explored to convey the importance of environmental conservation through the science and art of cartography

Credits: 3

Prerequisites: GISC 101, GISC 201

GISC 305 Environmental Impact Using Remote Sensing

This course covers remote sensing fundamentals as they apply to mapping of Earth's surface and understanding how the earth works. These approaches include Earth observation in varying forms such as from sensors on satellites, aircraft, drones and ships. Understanding the electromagnetic spectrum of radiant energy and the radiation emitted from Earth's surface provide a foundation for understanding of the types of imagery available and their characteristics. Image enhancement, classification and quantitative techniques are explored with attention to integration with GIS datasets. Application of remote sensing for land cover change, vegetation classification, and environmental quality are explored. Students will observe environmental changes over spatial and temporal periods through the qualitative and quantitative processing of remote sensing at a local, regional, and global scale.

Credits: 3

Prerequisites: GISC 101, GISC 201

GISC 307 Field Data Collection for GIS

In this course students learn best practices to design, configure and deploy ArcGIS software for field-productivity apps to meet their environmental data collection needs. Put your environmental data collection needs to the test and create a dynamic solution based on your non-profits, governmental agency or conservation data needs. This course covers the design and implementation of geographic databases for GIS data capture and management. Included are essential concepts and practices of relational database management systems, with specific application to GIS. Volunteered geographic information scenarios will be addressed and applied to final project.

Credits: 3

Prerequisites: GISC 101, GISC 201

GISC 401 Advanced GIS Analysis for Environmental Solutions

This course covers data accuracy and quality, and standard and advanced geospatial data models such as changes in glaciers, bird migration, urban heat islands and disappearing coastlines. Students will be exposed to the workflow of processing remote sensing image analysis using R. Students will also learn data integration and analysis, constraint analysis,

location-allocation analysis, and metadata standards and documentation. Geospatial ethics and environmental industry applications of geospatial analysis will also be covered.

Credits: 3

Prerequisites: GISC 101, GISC 201, GISC 301

GISC 405 GIS Applications in Fire Ecology & Management

This is an advanced-level course to cover the utilization of geographic information systems (GIS) for mapping and analyzing wildland fire and resultant ecological processes. The course offers a summary of the fundamentals of wildland fire science and fire management problems, with focus on the relationships of fire to climate variation, land use, and ecosystem processes. The course addresses in more depth the science and techniques used to map fire scars, fuel conditions, and post-fire ecosystem recovery through the use of remote sensing and image processing. Additionally, this course addresses how fire data can be used in a GIS in order to support adaptive land management and critical decision making in the context of wildland fire.

Credits: 3

Prerequisites: BIOL 335, GISC 101, GISC 201

HEMP INDUSTRY AND SCIENCE COURSES

HEMP 201 Law, Society, and the Cannabis, Hemp, and CBD Industry

The 2014 and 2018 U.S. Farm Bills have progressively legalized hemp (*Cannabis sativa*) cultivation, generating tremendous interest in food, oil, and fiber products. In this course, students will gain a broad-based understanding of the industry from seed to sales and explore the legal and regulatory environment and challenges facing the cannabis, hemp, and cannabidiol (CBD) industry today and in the future. Discussions will focus on history, regional regulations, cultural implications, and research into the uses, products, and growth of the cannabis, hemp and CBD industry in the U.S. and abroad.

Credits: 3

Prerequisites: None

HEMP 203 The Science of Hemp and CBD Processing

Do you know the difference between CBD oil and hemp seed oil? The difference between cannabis and hemp? How to extract CBD oil and store it? In this class, students will learn the scientific and technical requirements to develop hemp products, including plant growth requirements, oil extraction, and textiles. Topics include hemp seed germination, differences in genetic strains, oil types and different extraction processes, and technical requirements for processing and creating products, including space, cost, and storage requirements.

Credits: 3

Prerequisites: None

HEMP 301 Hemp Products, Production Systems, and Distribution

Having been cultivated for over 10,000 years, cannabis is one of the oldest agricultural crops in history. These tall, hardy plants were grown by early humans for rope, seed, oil, and fabric. These plants were selectively bred for industrial purposes and have evolved into the type of

cannabis we now know as hemp. Students will study the different products created from hemp, the technical requirements for oil extraction and processing, and distribution challenges and potential. Emphasis will be placed on understanding the costs, challenges, and benefits of each product and market niche, along with the development of socially sustainable hemp businesses. Students will create business plans that demonstrate an understanding of the science and technical needs for a variety of hemp-based products.

Credits: 3

Prerequisites: None

HORTICULTURE COURSES

HORT 301 Growing Hydroponic and Aquaponic Crops

Students will gain experience in the skills needed to successfully grow crops hydroponically. The course focuses on nutrient formulation, fertigation management, plant health monitoring, design, operation, and cultivation of crops in various types of hydroponic systems and environments. This includes aeroponics, aquaponics, controlled environment agriculture (CEA), and vertical growing. Students will read and analyze different scenarios involving hydroponic systems and develop the ability to troubleshoot and solve grower problems.

Credits: 3

Prerequisites: BIOL 201

HORT 401 Climate-Smart Agriculture

In this course, students will explore the impacts of global climate change on food systems. Providing an overview of current and future anthropogenic climate change impacts on food production, the course focuses on holistic perspectives of future climate scenarios and their impact on agriculture systems. Using case studies from around the world, students will discuss ways to mitigate and reduce negative impacts caused by climate change.

Credits: 3

Prerequisites: None

HUMANITIES COURSES

HUMN 101 Pop Culture and the Environment

What is the role of popular culture in society? Does it have the capacity to provoke social change? These are some of the questions students will consider in this class. Students will examine several pop culture artifacts from a global context to discuss how the works use a variety of strategies for understanding, making visible, and at times influencing environmental social change. Finally, students will consider how these artifacts relate to nation, history, gender, class, and sexuality. Through discussions and multimedia activities, students will grapple with interesting and challenging questions and debates around the role popular art plays in influencing the public's opinion(s) about climate change and other sustainability issues.

Credits: 2

Prerequisites: None

HUMN 103 Environmental Documentary Films

Documentary films are a powerful way to inform the public about environmental issues. Because they represent real people, documentaries are a powerful rhetorical tool directors and producers use to provoke a deeper, empathic response. Although documentary films with themes of environmental activism date back to the silent film era, the 21st century has seen a spike in the number of quality films that engage the public in environmental issues. In this class, students will study the documentary film genre, analyze films, discuss the ethics of producing documentary films, and produce their own short documentary project.

Credits: 3

Prerequisites: None

LANGUAGE COURSES

SPAN 101 Introduction to Spanish

Introduction to Spanish will help the student acquire the fundamentals of pronunciation and grammar, practical vocabulary, useful phrases, and the ability to understand, read, write, and speak simple Spanish. Basic relevant information covered includes geographical and historical background of the language. The class will prepare the student for further language study. The student will learn Spanish in the same manner they learned their first language: 1. Listening to the language; 2. Reading the new language; 3. Writing; 4. Reading; 5. Interactive participation.

Credits: 3

Prerequisites: None

SPAN 102 Introduction to Spanish II

Intermediate Spanish is a continuation of Introduction to Spanish by developing their proficiency in speaking, reading, writing, and listening. In Intermediate Spanish, all coursework will be taught entirely in Spanish because learning a language is more than vocabulary and grammar. Students will expand their ability to communicate in written and oral work, and expand their understanding of the rich, diverse Spanish-speaking cultures.

Credits: 3

Prerequisites: None

MANAGEMENT COURSES

MGMT 201 Understanding the Sustainable Business Landscape

This course introduces students to business with a focus on an organization's environmental and social impact. Students will learn about the basics in corporate social responsibility, supply-chain management, finance, and non-financial reporting and accounting. Students will obtain knowledge about how small businesses and corporations integrate corporate social responsibility models in order to identify new markets and opportunities, communicate with their stakeholders, compete in a global marketplace, and address social and

environmental sustainability expectations and requirements.

Credits: 3

Prerequisites: None

MGMT 301 Starting Your Small Non-Profit

The course covers the processes of starting a small business from ideation to implementation, with an emphasis on designing a sustainable business model, writing a business plan, learning forms of ownership, and exploring funding opportunities. Students learn how to meet high standards for social and environmental impacts for small businesses. Upon completion, students will be able to bring all the tools and lessons discussed to launch their own business.

Credits: 3

Prerequisites: None

MGMT 303 Strategic Management for Social Change

Social change is one of the most pressing challenges of conducting business today. A sustainable business must be able to maintain a balance between staying profitable, minimizing its environmental impact, and protecting the well-being of employees, customers, local communities, and other parties affected by its practices. This course explores the business models and tools available to the social change leader responsible for the implementation of business practices that ensure the protection of human rights, fair labor practices, health, safety, wellness, diversity, equity, work-life balance, and empowerment of employees and affected parties as well as opportunities for community engagement, philanthropy, volunteerism, and more. Students will apply their understanding of social change practices to address real-world scenarios.

Credits: 3

Prerequisites: None

MGMT 403 Global Supply Chain Operations: Greening Your Business

In this course, students will learn how to integrate global logistic, purchasing, operations and market channel strategies. The course covers the fundamentals and logistics of network management, consisting of network suppliers, manufacturers, warehouses, distribution centers, wholesalers, and retailers. This course develops the student's understanding of the design, control, and operation of supply chains through the lens of sustainability management.

Credits: 3

Prerequisites: None

MGMT 405 Using Data for Sustainable Business Decisions

This course introduces students of sustainability management to the data analysis techniques and statistical methods that are indispensable to sustainable business management. Students learn how to use statistical information in the context of evaluating environmental issues. Possible topics will include environmental monitoring, impact assessment, environmental valuation techniques and analyses of sustainable development.

Credits: 3

Prerequisites: MATH 201 Statistics for Environmental Professionals

MARINE BIOLOGY AND SUSTAINABLE AQUACULTURE COURSES

MBAQ 105 Introduction to Oceanography

This course provides an overview of oceanography – the chemical, biological, geological, and physical characteristics and patterns of oceans throughout the globe. Topics covered will include the physical characteristics and patterns of oceans throughout the globe. Topics covered will include the physical and chemical properties of seawater, evolution of ocean basins, ocean-atmosphere interactions and cycles, multi-dimensional ocean circulation, and large-scale fluctuations such as tides and waves. Additional work will include an investigation into patterns of sedimentation, plankton and primary productivity, and biogeochemical cycles. Specific emphasis will be placed on how ocean behavior and patterns is impacted by and impacts human development and coastal communities around the world.

Credits: 3

Prerequisites: None

MBAQ 201 Form and Function of Unique Marine Ecosystems

This course is an examination into the structure and dynamics of various saltwater ecosystems and builds from basic ecological principles sustaining marine life. Issues covered include an exploration of habitats ranging from estuaries to the rocky intertidal zone and coral reefs to the open ocean. Major ecological communities will be studied, with a particular focus on those supported by kelp and plankton and include an exploration into unique marine environments such as the deep sea. Additional topics include trophic interactions, energy flow, and community and population organization in select marine habitats. Students will explore the ecological processes controlling the distribution and abundance of marine organisms and community structure and examine the impact of humans on the marine environment.

Credits: 3

Prerequisites: BIOL 203

MBAQ 202 Sea Turtle Rehabilitation

This course will introduce students to sea turtle biology, health and rehabilitation, with a special focus on the sea turtle's role in a 'One Ocean' model. The history of sea turtle rehabilitation, current and future directions will be discussed. Rehabilitative husbandry will be covered, including water quality and chemistry, and nutritional needs. Basic anatomy and physiology will be presented in an organ system format, with an introduction to veterinary techniques in these species as well as common pathologies and current treatments. Finally, specific topics will be covered, to include viruses, parasites, algae blooms, environmental contaminants, field techniques, oil spills, health assessments and fishery interactions, and the role of the rehabilitation in these environments.

Credits: 2

Prerequisites: BIOL 103 or BIOL 105

MBAQ 203 Global Diversity of Freshwater and Marine Resources Used in

Sustainable Harvest

This course will provide an overview of the sustainably harvestable resources found in both aquatic and marine ecosystems. With an underpinning on the contemporary approaches toward habitat and population management, students will learn about capture and growth fisheries and aquaculture, emphasizing the contribution of these to the global food supply. Topics covered will include production methods, environmental and ecological impacts, best practice in growth, capture, and processing, and an overview of marketing of fisheries resources. Additional work will explore the impact of human populations on resource availability and health, as well as the major issues connecting resource extraction and acquisition to environmental degradation. All work will build from basic ecological concepts covered in other coursework and be placed in the context of effective long-term management practices.

Credits: 3

Prerequisites: BIOL 203

MBAQ 301 Sustainable Aquaculture Techniques 1: Growing Shellfish and Finfish

This course covers the theory and practice of aquaculture techniques used in growing shellfish and finfish in both freshwater and marine habitats. Topics covered will include species identification, habitat creation, reproduction, hatchery and nursery operation, and growth promotion. Additionally, students will learn how to manage the health of aquaculture organisms, harvesting principles and techniques, processing procedures, and identifying appropriate markets for sale. Discussions will be based on the biological, chemical, and economic aspects of aquaculture with a strong emphasis on sustainability, underscoring techniques which minimize environmental impact while maximizing human and animal welfare. Students will assess best-practices in the industry which meet sustainability goals.

Credits: 3

Prerequisites: MBAQ 203

MBAQ 303 Sustainable Aquaculture Techniques 2: Crustaceans and Pathobiology

This course covers the theory and practice of aquaculture techniques used in growing crustaceans and algae in both freshwater and marine habitats, as well as the mechanisms and causes of disease in aquaculture organisms. Topics covered will include species identification, habitat creation, reproduction, hatchery and nursery operation, and growth promotion in shrimp, prawns, crayfish, crabs, lobsters, brine shrimp, kelp, and other assorted seaweeds. Additionally, students will learn how to manage the health of these organisms, harvesting principles and techniques, processing procedures, and identifying appropriate markets for sale. Discussions will be focused on the pathobiology of organisms, with topics including cell death, inflammation, infection, metabolic disorders, and neoplasia across all species targeted in the aquaculture industry, as well as practices and techniques to control disease while maintaining a focus on global sustainability.

Credits: 3

Prerequisites: MBAQ 203

MBAQ 307 Ichthyology and Fish Health

This course is an overview of freshwater and marine fishes, their diversity, behavior, and health. Students will learn about the evolution, morphology, physiology, and life history of the global diversity of fishes, with an emphasis on integrating knowledge of fish anatomy and physiology in relation to their survival and wellbeing. Major diseases of captive-raised and farmed fish, including pathogenic control measures will be presented.

Credits: 3

Prerequisites: BIOL 105

MBAQ 310 Marine Mammal and Seabird Biology

This course will provide students with an in-depth exploration into the identification, evolution, anatomy & physiology, population biology, behavior, and ecology of marine mammals and seabirds. We will explore the breadth and evolutionary history of all marine mammals and seabirds, with a particular emphasis on what makes each family and species unique. Students will become acquainted with the primary literature in this field and refine critical thinking and public speaking through in-depth projects. Multiple research projects will be pursued throughout the course across a wide range of topics related to the biology and ecology of these species, with a particular focus on conservation and ecology. In the pursuit of these projects, students will learn of the many sampling techniques used from land and sea platforms and discuss how their data impacts the health and survival of these important organisms.

Credits: 3

Prerequisites: BIOL 105

MBAQ 315 Diversity of Marine and Aquatic Vegetation

This course will provide students with an in-depth exploration into the marine and aquatic photosynthetic organisms, including their identification, classification, and phylogenetic relationships. Topics will explore the ecology, diversity, and biography of algae and plants found in a variety of habitats throughout the globe. Specific work will focus on the propagation, reproduction, and survival of micro- and macroscopic plants, as well as the interaction between humans and vegetative communities. Students will become familiar with the basic sampling techniques used to sample aquatic and marine vegetation. Research projects will be pursued throughout the course across a wide range of topics related to the biology and ecology of these species with a particular focus on their conservation and ecology.

Credits: 3

Prerequisites: BIOL 103 and BIOL 105

MBAQ 401 Field Research in Marine Biology and Aquaculture

This course is focused on providing a broad spectrum of field-based research skills across marine biology and aquaculture. The theme, topic, and suite of skills will vary depending on when it is offered but will rotate when offered across biogeographic areas such as tropical, temperate, and cold-water areas, as well as across differing salinity habitats ranging from marine to freshwater, as well as brackish water and saltmarsh habitats, lakes, rivers, bays, and oceans. Students will conduct original research projects examining how organisms interact with their environment, with a particular focus on gaining proficiency in multiple research and assessment methods of aquatic and marine organisms. Students will use the skills developed

in this course to plan and design their capstone research projects.

Credits: 3

Prerequisites: At least two 300-level MBAQ courses

MARKETING COURSES

MKTG 301 Environmental Marketing and Branding

As businesses become more aware of the need to be sustainable, being green will be the future, and professionals need to help companies with marketing sustainable business practices. This course covers an overview of concepts and techniques related to marketing opportunities, strategies, communication, and effective marketing campaigns within the context of sustainability. Through case studies, students will analyze marketing strategies, plans, and decisions. Students will also explore why environmental marketing is a key aspect in business today.

Credits: 3

Prerequisites: None

MATH COURSES

MATH 101 College Algebra for Environmental Professionals

MATH 101 introduces environmental professionals to core mathematical concepts relevant to everyday life. Practical applications are emphasized throughout the course integrating mathematics with other disciplines in environmental studies. Building on students' knowledge of algebra concepts and the skills to solve more complex mathematical operations and problem-solving, students will learn to apply this knowledge to real-world problems. Students will acquire a range of basic math skills and understand how to apply them in their careers.

Credits: 3

Prerequisites: None

MATH 105 Precalculus

This course introduces the foundations of analysis designed to precede calculus with emphasis on functions and graphs. Topics include properties of absolute value, polynomial, rational, exponential, logarithmic and trigonometric functions, techniques for solving equations and inequalities, and an introduction to the concept of limits and the difference quotient.

Credits: 3

Prerequisites: MATH 101

MATH 201 Statistics for Environmental Professionals

How do we come to know something about our world? Environmental science uses statistics as a tool to aid in this quest. Statistics covers how we collect data, how we characterize it, how we make inferences about the world using it, and what assumptions we make in the process. In this course students will gain an understanding of the basic principles of sampling design, probability and statistical distributions, data characterization, and common

approaches to statistical modeling with an emphasis on regression and correlation and ways to evaluate differences among populations we have sampled. Students will explore literature to understand how these techniques are currently used in environmentally-based professions.

Credits: 3

Prerequisites: None

MATH 203 Applied Mathematics for Land Management

How do you estimate the number of trees in a forest or measure their heights? What variables must be considered to determine which crops to grow and what yields to expect? In this course, students will explore mathematical techniques relevant to land management. Through course activities, students will explore the application of geometry and statistics to design, monitor, and inventory multi-use land systems. Students will apply time series analysis and quadratic programming to model crop yields, predict net returns after harvest, and assess risk associated with growing multiple crops in an agroforestry system. Students will also model crop yield interactions employing both continuous and discrete systems approaches. Finally, students will determine the environmental impact of multi-use land systems related to resource usage and carbon sequestration.

Credits: 3

Prerequisites: MATH 101 or MATH 105

MATH 215 Calculus

This course is focused on functions and calculus computations. Students will use limits, derivatives, and integrals to analyze and describe the behavior of functions. Students will use these tools to solve application problems in a variety of settings, including the biological and social sciences. Topics include areas such as approximations, the fundamental theorem of calculus, extremum problems, curve-sketching, and the utility of derivatives in mathematical problems.

Credits: 3

Prerequisites: MATH 105

MATH 401 Statistics for Wildlife Professionals

Data collected by wildlife biologists often requires forms of analysis not covered in entry-level statistics courses. This advanced statistics course introduces students to techniques currently used by ecologists and covers the components of experimental design that create effective research and monitoring programs. Students will learn the underlying components important for the design and implementation of statistical models used in their research.

Examples will emphasize regression-based approaches to data analysis and explore the impacts of assessment and monitoring on data to inform experimental design. Students will learn to conduct and interpret results from regression analysis, as well as use information-theoretic approaches for model selection.

Credits: 3

Prerequisites: MATH 201

PHYSICS COURSES

PHYS 201 Physics 1

This course is designed to enhance your understanding of fundamental physical principles and phenomena through the study of mechanical motion and thermodynamics. Topics in this course include the three laws of thermodynamics, work and energy, heat transfer, kinematics, Newton's three laws of motion, momentum, and periodic and circular motion. Students will explore these topics and solve a wide array of physical problems using a background in basic algebra.

Credits: 3

Prerequisites: None

PHYS 202 Physics 1 Laboratory

This course includes the laboratory experience focused on mechanics and thermal physics meant to accompany PHYS 201.

Credits: 1

Prerequisites: PHYS 201 or concurrent enrollment

PHYS 203 Physics 2

This course is designed to enhance your understanding of fundamental physical principles and phenomena through a study of topics from fluid dynamics, electromagnetism, and nuclear physics. Concepts in this course include density, pressure, electricity, and magnetic fields. Additional investigations in light, optics, and radiation will also be included. You will explore these topics and solve a wide array of physical problems using a background in basic algebra.

Credits: 3

Prerequisites: None

PHYS 204 Physics 2 Laboratory

This course includes the laboratory experiences focused on fluid dynamics, electricity, magnetism, light, and radiation meant to accompany PHYS 203.

Credits: 1

Prerequisites: PHYS 203 or concurrent enrollment

PSYCHOLOGY COURSES

PSYC 101 Introduction to Psychology

The purpose of this course is to provide a broad overview of the history of the field of psychology as well as its current focal points. Research methods and scientific reasoning underlie the exploration and critical evaluation of the five main subfields of modern psychology: biological, developmental, cognitive, social, and mental health. The course will enable learners to evaluate the methods, practices, and findings of psychological studies, thus becoming critical consumers of this body of knowledge. By integrating information derived from work across the subfields of psychology in the course project, learners will build a more complete understanding of a specific issue related to human behavior.

Credits: 3

Prerequisites: None

PSYC 301 Environmental Psychology

This course explores critical issues in environmental psychology. Starting with foundational theories on place attachment and place identity, students will learn about the interrelationships between ourselves and the environment. Students will develop the ability to analyze environment-and-behavior issues, think more critically about the world around you, and understand the ways that we wield influence on the environment. Some topics the course will address include the history of environmental psychology, theories of environment and human behavior, environmental stress, natural environments, built environments, and changes in behavior as a result of global environmental shifts and sustainability.

Credits: 3

Prerequisites: None

RENEWABLE ENERGY COURSES

RNRG 101 Introduction to Green Energy: Politics and Implementation

This course explores the fundamentals of renewable energy resources including wind, solar, hydroelectric, geothermal, ocean dynamics, hydrogen fuel cell and biofuels. Students will compare and contrast these energy resources. Emphasis will be placed on evaluating the political, social and economic consequences of implementing green technologies in an industry currently based primarily on non-renewable energy resources.

Credits: 3

Prerequisites: None

RNRG 201 Renewable Energy: Science, Technology and Management

This course examines the science, technology and management of renewable energy resources. By assessing the growth potential of renewable energy markets and understanding the challenges of transitioning to green technologies, students will learn and apply the best practices of managing and leading change in the green energy market.

Credits: 3

Prerequisites: None

RNRG 301 Successful Management of Wind and Solar Renewable Energy Projects

This course provides an in-depth look into the technological, political, and permitting challenges associated with bringing solar and wind electricity generation online. Students will model successful business practices at the project level as they plan consider how to manage policy considerations and the political controversies that must be overcome to integrate solar and wind technologies into local energy markets.

Credits: 3

SOCIOLOGY COURSES

SOCI 101 Introduction to Environmental Sociology

In this course, students will learn about basic concepts in sociology and apply them to the study of the relationship between human societies and the larger, natural environment. This course introduces students to the discipline of sociology by providing perspectives on complex social processes that impact our natural environment. Through reviewing and discussing issues such as culture, economics, racial and gender relations, urbanization, and social movements, this course will provide students with a broader understanding of nature and environmental sustainability.

Some questions this course will consider are the following: Why have some societies treated the environment differently than others? Is the reason economic? Is it scientific or technological? Is it religious? How does the distribution of power affect the reasons? This class will cover a wide range of topics in order to give students an opportunity to reflect on how sociology contributes to important debates taking place about society and the environment.

Credits: 3

Prerequisites: None

SUSTAINABILITY COURSES

SUST 301 Sustainable Horticulture Practices in Indigenous Communities

Many of the core practices of contemporary regenerative agriculture originated within indigenous communities that grew and gathered plants for sustenance. In this course, students will investigate the relationship between indigenous cultures, Native plants, and sustainable agriculture practices such as intercropping and polycultures. They will also explore how shifting political and economic landscapes have impacted agricultural practices, food culture and security, and health of Native peoples.

Credits: 3

Prerequisites: None

SUST 401 Building and Sustaining Urban Food Forests

This course is designed to immerse learners in the evolving realm of urban food forests in the United States. The course focuses on the history, development, and significance of urban food forests and their myriad impacts on communities and ecosystems. The course project will provide opportunities for learners to propose and assess strategies for enhancing the sociocultural and economic services provided by a food forest in a specific location.

Credits: 3

Prerequisites: None

SUSTAINABLE FOOD AND FARMING COURSES

SUFA 200 Farm to Table: Exploring Food Production Systems

This course will explore organic food production systems using the three pillars of sustainability—economic, environmental, and social justice. Topics will focus on USDA Organic market garden production but will compare and contrast it to other production systems. Discussions will cover the scientific and cultural underpinnings of sustainable and organic food production to develop the critical thinking and observation skills necessary to grow food using ecologically informed methods. Students will explore the farm and business management skills

necessary to operate a small-scale vegetable farm. We will delve into farm management practices that build healthy soil through cover cropping, crop rotations, crop / livestock integration, and no-till practices. Additionally, we will examine the hand-tools necessary to establish and manage a market garden operation. Farm business skills will focus on designing and creating a farm management plan as well as the record keeping systems necessary to track a crop from seed to plate.

Credits: 3

Prerequisites: None

SUFA 201 Sustainable Farm Management

Students in this course will study environmentally and socially sustainable enterprises to learn about management strategies for running a farming or food-based operation. Discussion will include farm management strategies, such as lean management strategies for farm operations and food establishments. We will also discuss business opportunities within all aspects of the greater food system. How does organic certification, Food Safety Moderation Act (FSMA) and other government regulatory requirements affect a business model? What infrastructure is needed? What is the role of County Extension, conservation districts, and USDA Natural Resources Conservation Services (NRCS)? Students will study the parts of a business plan, competitive business model, and a solid strategic plan. They will consider marketing, accounting, human resources, and strategic planning. Students will learn how to estimate taxes, do break-even analysis, calculate payroll costs and prepare pro forma financial statements.

Credits: 3

Prerequisites: None

SUFA 301 SUSTAINABLE AGRICULTURE FOR SMALL FARMS

This course will address the practical skills and planning necessary for small-scale sustainable farm production. Viewing the farm as an ecosystem, learners will explore the relationships between soil and plant health. They will evaluate strategies for monitoring and maintaining soil health, capturing and using water efficiently, managing pests, and using season extension structures. Learners will practice measuring and observing conditions, recognizing patterns, and employing responsive interventions. The course culminates in the development of a farm management plan that incorporates sustainable practices to deliver the best outcomes.

Credits: 3

Prerequisites: None

VIRTUAL REALITY COURSES

EXRL 101 Introduction to Virtual Reality

This course will explore how Virtual Reality, Augmented Reality and Mixed Reality, collectively called Extended Reality, bring new perspectives to a broad range of fields including environmental science, sustainability, healthcare, design, engineering, architecture, tourism, law enforcement, marketing, and education. Students will engage with a variety of XR modalities, from mobile apps and computer-based simulations to fully immersive virtual reality experiences. Each student will be equipped with a VR head mounted display to discover firsthand the potential impact of this technology. Students will design an original concept for an

XR application. The culmination of this course will be an XR product brief that students can use as a basis for future development, and as a strong portfolio piece for potential employers.

Credits: 2

Prerequisites: None

WILDLIFE CONSERVATION COURSES

WCON 201 Plant and Wildlife Interactions

This course centers around the important role plant communities play in providing resources and habitat for wildlife species. Students will learn about important species interactions within major ecoregions and biomes such as forest, rangeland, grassland, agricultural, and desert environments. Students will also learn how species relationships and biodiversity influence ecosystem health and function. Students will explore species of management concern and learn how ecological interactions are an important facet of species conservation.

Credits: 3

Prerequisites: Any biology course

WCON 301 Human Dimensions of Wildlife Conservation

Wildlife managers influence wildlife species using three 'levers': habitat, populations, or humans. This course addresses the human dimension of wildlife management. During the course students explore social, political, and economic concepts that are involved in effective wildlife management. Students will learn common forms of wildlife governance, the role of stakeholders, concepts from sociology, ethics, economics, management and decision-making as they relate to wildlife management.

Credits: 3

Prerequisites: Any biology course

WCON 303 Life History and Identification of Birds & Mammals

During this course, students will learn to identify avian and mammalian species with a focus on species at which management is often directed. These species include game bird and mammals, common agricultural or urban 'pest' species, and threatened or endangered species. Students will also learn basic life history of these species with a focus on characteristics useful for management. Students will be expected to conduct field activities directed at learning the species prominent in their region.

Credits: 3

Prerequisites: Any biology course

WCON 305 Wildlife Conservation Genetics

Genetics form a key component of modern wildlife management, providing tools aiding our understanding of taxonomy, conservation of small populations, and hybridization, as well as enabling non-invasive population monitoring and enhancing wildlife forensics. During this course, students will encounter the basic concepts of genetics, with an emphasis on population genetics and genetic techniques useful in wildlife management. Prominent topics covered include genetic variation, the role of gene flow and genetic drift on population viability, and key genetic markers used by wildlife biologists. Students will explore case studies illustrating the applicability of concepts in genetics to wildlife management.

Credits: 3

Prerequisites: Any biology course

WCON 307 Vectors, Wildlife, and Disease

Insects, as the largest class of animals, have an extraordinarily large influence on ecosystem function. For humans they are vectors for important zoonotic diseases and pollinators of key food crops. For wildlife species they pollinate and feed on key plant species, vector prominent diseases, create large scale habitat change through plant disease outbreaks, and provide the primary source of animal matter for predators. During this class students will learn basic taxonomy and life history of insects, as well as explore case studies involving the role of insects in plant and animal disease, pollination, biological control, and other influences on ecosystem functioning.

Credits: 3

Prerequisites: Any biology course

WCON 403 Habitat Management for Wildlife

Wildlife managers influence wildlife species using three 'levers': habitat, populations, or humans. This course addresses the habitat dimension of wildlife management. Students will engage in discussions and activities to create understanding of the basic concept of habitat and its components, how various species identify, select, and interact with their habitat, and how this process influences how managers manipulate the environment to influence wildlife populations. Students will also gain familiarity with common habitat management tools and funding programs.

Credits: 3

Prerequisites: BIOL 203 or BIOL 305

WCON 405 Wildlife Population Management

Wildlife managers influence wildlife species using three 'levers': habitat, populations, or humans. This course addresses the population dimension of wildlife management. Students will explore how wildlife biologists measure and monitor demographic parameters of populations, including field techniques and analysis methods, with a focus on understanding strengths, weaknesses, and appropriate use of each technique. Students will consider ecological concepts and management techniques used to manipulate wildlife populations including sustainable harvest, management of threatened and endangered species, and control of overabundant species.

Credits: 3

Prerequisites: BIOL 203 or BIOL 305

SECTION 7: UNIVERSITY POLICIES

Code of Conduct and Honor Code

Distance Education students are expected to abide by the Code of Conduct and Honor Code as set forth in the Distance Education [Student Handbook](#).

The Family Educational Rights and Privacy Act of 1974

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

Inspection of Records

A student has the right to inspect and review their education records within 45 days of the day the University receives a request for access. If a student wishes to inspect their education records, they should contact the Registrar to make arrangements.

Amendment of Records

A student has the right to request the amendment of their education records that the student believes are inaccurate, misleading, or otherwise in violation of the student's privacy rights under FERPA. A student who wishes to ask the University to amend a record should write to the [Registrar](#), clearly identify the part of the record the student wants changed, and specify why it is inaccurate or misleading.

If the University decides not to amend the record as requested, the University will notify the student in writing of the decision and the student's right to a hearing regarding the request for amendment. Additional information regarding the hearing procedures will be provided to the student when notified of the right to a hearing.

Disclosure of Records

Unity Environmental University must obtain a student's written consent prior to disclosure of personally identifiable information contained in educational records except in circumstances permitted by law or regulations, some of which are summarized below.

Directory Information

Unity Environmental University designates the following student information as directory information that may be made public at its discretion: name, address, telephone listing, email address, photograph, date and place of birth, major field of study, grade level, enrollment status, most recent educational agency or institution attended, and student ID number or other identifier other than a Social Security number (but only if the identifiers cannot be used to gain access directly to education records without one or more other factors such as a password), participation and level of students in officially recognized activities, dates of attendance in the University, degrees, honors and awards received, and photographs and videos relating to student participation in campus activities open to the public.

Students who do not want the University to disclose directory information must notify the Registrar's Office in writing. This opt-out request will remain in effect unless and until it is

rescinded by the student in writing.

School Officials with Legitimate Educational Interests

Education records may be disclosed to school officials with a legitimate educational interest. A school official has a legitimate educational interest if they need to review an education record in order to fulfill his/her professional responsibility. School officials include persons employed by the University as an administrator, supervisor, academic or research faculty or staff, or support staff member (including health or medical staff and law enforcement unit personnel); persons or companies with whom the University has contracted to provide specific services (such as attorneys, auditors, medical consultants, field placement supervisors and other related personnel, collection agencies, evaluators or therapists); Board of Trustee members; students serving on official committees or assisting other school officials in performing their tasks; and volunteers who are under the direct control of the University with regard to education records.

Student Identity Verification Policy

In compliance with the provisions of the United States Federal Higher Education Opportunity Act (HEOA) of 2008, Public Law 110-315, concerning the verification of student identity in distance learning, Unity Environmental University has established and will periodically evaluate its process to confirm that person who is enrolling in the University is the person who is completing the enrollment form, that a student taking an examination is the student who registered to take the examination, and that the student who is registered for an online course is the same student who participates in, completes, and receives credit for the course.

To authenticate identities, Unity Environmental University will use one or more of the following methods for verification:

- A secure login with username and password
- Proctored examinations
- New or emerging technologies and practices that are effective in verifying student identification

All methods of verifying student identity must protect the privacy of student information in accordance with the Family Educational Rights and Privacy Act (FERPA), any other applicable laws or regulations regarding the confidentiality of personally identifiable information, and the University's Privacy Policy.

Personally identifiable information collected by the University may be used as the basis for identity verification. This information may include a combination of the following:

- Student ID number
- Last four digits of the student's Social Security Number
- At least two other pieces of information such as the student's email address on file, date of birth, address, or username, etc.

Active Duty and Veteran Students

Unity Environmental University welcomes applications from veterans, active military members, and their dependents. Any student wishing to use educational benefits from the Veterans Administration must submit a copy of a Certificate of Eligibility or Tuition Assistance voucher to their assigned Concierge. Veterans using Vocational Rehabilitation and Employment benefits must inform their VA counselor of their intention to attend Unity Environmental University.

Veterans, active military members, and their dependents are also eligible for a 10% discount on tuition, regardless if they are using VA educational benefits. Such students may disclose their status on their admissions application or notify their DE Concierge to receive the discount.

VA Benefits

The degree programs of Unity Environmental University are approved by the Maine State Approving Agency for Veterans Education Programs for persons eligible for educational benefits (GI Bill®) from the U.S. Department of Veteran Affairs. Students who have questions about their eligibility should visit the Veterans Administration web site at [Veteran Administration](#) or call (888) 442-4551.

Veteran students are expected to complete all registered courses each term. Any change in academic workload must be reported to the University. Failure to do so may result in incurring debt.

Under S2248 PL 115-407 Section 103, Unity Environmental University will not impose a late fee, denial of access to facilities, or other penalty against a veteran or eligible dependent due to a late payment of tuition and/or fees from the VA up to the certified benefits amount. Any portion of the student bill not covered by VA benefits is still expected to be settled by the due date.

Ethical Recruitment of Service Members Policy

This policy places restrictions on recruitment practices and payment of incentivized compensation in the recruitment of service members. Unity Environmental University recruitment practices refrain from high-pressure recruitment tactics such as making multiple unsolicited contacts [three or more] for the purpose of securing service member enrollments.

Unity Environmental University does not offer its employees commission, bonus or other incentive payment based directly or indirectly on securing Service member enrollments or any student enrollments. This applies only to incentive compensation and does not apply to base salary or wages.

The University will not provide any inducements to any individual or entity to secure the enrollment of military service members or obtain military provided tuition assistance. Inducements include any gratuity, favor, discount, entertainment, hospitality, loan, transportation, lodging, meals, or other item having a monetary value of more than a minimal amount.

Military Tuition Assistance

Military tuition assistance [TA] is awarded to a student under the assumption that the student will attend school for the entire period for which the assistance is awarded. When a student withdraws, the student may no longer be eligible for the full amount of TA funds originally awarded. To comply with the Department of Defense [DoD] policy, Unity Environmental University will return to the DoD any unearned TA funds on a prorated basis through at least the 60% portion of the period for which the funds were provided. TA funds are earned proportionally during an enrollment period, with unearned funds returned when a student stops attending. In instances when a Service member stops attending due to a military service obligation, Unity Environmental University will work with the affected service member to identify solutions that will not result in a student debt for the returned portion in compliance with the DoD policy.

Schedule for returning unearned TA

5-Week Courses [35 days in term]

- Drop course before third day of term: 100% returned
- Withdrawal from course, days 4-11: 80% returned
- Withdrawal from course, days 12-17: 60% returned
- Withdrawal from course, days 18-21: 45% returned
- Withdrawal from course, days 22-35: 0% returned

For those courses that have durations differing from those listed above: unearned TA funds will be returned on a prorated basis, depending on the length of the course. To determine the amount of TA that needs to be returned, the institution will determine the date the withdrawal was submitted, then divide that by the number of days in the term to determine the percentage of TA that was earned by the student.

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 website at [GI Bill®](https://www.gibill.gov).

Student Health Insurance Policy

Students are not required to have health insurance and are not eligible to join the Unity Environmental University [UC] sponsored student health insurance plan.

UNITY ENVIRONMENTAL UNIVERSITY DISTANCE EDUCATION BACCALAUREATE
CATALOG

SECTION 9: RESOURCES

Academic Calendar

Please see the webpage for the current academic calendar:
<https://online.unity.edu/academic-calendar/>

Distance Education Student Handbook

<https://unity.edu/unity-college-handbooks/>

University Resources

Financial Aid Consumer Information

Please see the webpage for [institutional information for consumers](#).

University Resources

The mailing address for all Unity Environmental University correspondence is:

Unity Environmental University Distance Education
70 Farm View Drive, Suite 200
New Gloucester, ME 04260

University Switchboard: [207] 509-7100
Distance Education: [207] 509-7155
University Website: www.unity.edu

Distance Education Resources	
ADA Accessibility Office AccessibilityDE@unity.edu	(207)509-7320
Title IX Coordinator dyoung@unity.edu	Denise Young (207) 509-7342

Date Modified: June 14, 2023
Adoption Chain: DE Leadership, President