





DISTANCE EDUCATION

### Academic Year 2024-2025

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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 21<sup>st</sup> 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 teeming 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

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### **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.

<u>Distance Education Baccalaureate Programs</u>: 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 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 Education (NECHE) Commission on Institutions of Higher Education (CIHE). NECHE is

located at 301 Edgewater Place, Suite 210 Wakefield, MA 01880. NECHE may also be contacted by telephone at (781) 425-7785 or through their website at http://www.neche.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 <u>minimum skills for success at Unity Environmental University</u>

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 requesting to be re-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 and that the degree program is still active in Distance Education. Students who have a break of more than twelve months must apply to be re-instated to the Distance Education program and meet requirements of the catalog in effect at the time they are reinstated. 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, and with the understanding that substitutions may be necessary for courses that are no longer offered. The University reserves the right to deny readmission to students,

regardless of the length of break, who are not in good academic and/or financial standing.

### 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 Dean of Baccalaureate Studies will oversee a review of the portfolio by up to three subject matter experts and will make a final recommendation about awarding credit to the Distance Education Curriculum and Assessment Task Group (DE-CATG). The DE-CATG makes a final recommendation to the Executive Vice President of Distance Education, who is responsible for the final decision.

The following categories are ways that students may qualify to receive credit 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 postsecondary 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:

- 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.
- 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

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

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

<u>Military Differential Tuition</u>: 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:

#### Single Payments

Convenient one-time payments for various tuition and fees related expenses. Our system allows you to make incremental payments towards your outstanding balance providing flexibility to manage your finances effectively. The minimum transaction amount for a single payment is \$50. Additionally, if you have a payment plan in place, single payments count toward future planned payments. Payments above the minimum transaction may be required to settle the balance on your bill by the end of the term. Any balances owed after the end of the term are subject to relevant holds and collection policies.

#### **Payment Plans**

Conveniently create a customized payment plan to manage your tuition and fee payments. The initial payment is due at the time the plan is created and subsequent payments are scheduled for Friday, automatically deducting from the card or banking information you provide. There is a minimum transaction fee of \$50. Students have the option to select the overall total they wish to pay via the payment plan as long as it does not exceed the total amount owed. Additionally, you can choose the number of installments you wish to pay as long as they do not exceed the number of weeks within the term.

#### **Recurring Payments**

Convenient automatically recurring payments to manage your tuition and fees payments. Once you set up your plan, automatic payment will continue until your active balance reaches \$0. The minimum transaction fee is \$50.

### 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 diploma, registration for subsequent terms, participation in graduation ceremonies, and participation in registered classes and examinations. It is imperative that a student contact the Bursar at (207) 509 - 7325 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 the Bursar. The Bursar will attempt to determine the barrier. If no ACH solution can be determined, a paper check will be requested by the Bursar.
- · completing the Fast-Track Refund Request form.

In exceptional circumstances, when no ACH solution can be determined, the Bursar 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 <a href="fafsa.gov">fafsa.gov</a>. 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 Financial Aid, 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: <a href="http://www.Unity.edu/FastChoice">http://www.Unity.edu/FastChoice</a>.

### **SECTION 4: ACADEMIC POLICIES**

### **Definition of a University Credit Hour**

A semester hour of credit at Unity Environmental University approximates the amount of effort and engagement required by students and learners, is consistent with the federal definition of the credit hour and commonly accepted practices and standards in U.S. postsecondary education, and allows for outcomes, competency attainment and alternative assessment measures as equivalencies in calculations of student effort and engagement, as opposed to only seat time or contact hours. Equivalencies are determined by faculty and academic administrators with relevant experience and qualifications. Student effort and engagement approximations including alternative measures such as outcomes and competency attainment equivalencies equate to at least 45 hours per semester hour.

### **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 <u>DE baccalaureate</u> 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. A student's enrollment is considered full-time when enrolled in 3 or more credits per five-week term. For financial aid purposes, 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 Aid 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 Dean of Retention and Completion and are subject to final approval by the Executive Vice President of Distance Education.

### Withdrawal from the University

To withdraw from the University, the student must 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%)	
В	(84- 86.9%)	Good
B-	(80- 83.9%)	

C+	(77- 79.9%)	
С	(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 <u>Registrar's office</u>.

### 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, the student should contact the instructor and the instructor contact the Academic Dean 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 student completes the "Request for Incomplete" form .

Appropriate grades must be assigned in other circumstances.

### The following provisions for incomplete grades apply:

- The student completes the "Request for Incomplete" after the Dean provides the link to the form. The Dean reviews the case and forwards to the Registrar if approved.
- 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
A-	3.7
B+	3.3
В	3.0
B-	2.7
C+	2.3
С	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

Instructors will submit a request to change a student's grade using the Grade Change form accessible in the Canvas learning management system. The grade change request will be reviewed by the Dean, who may request further information or documentation from the instructor. Once the Dean has determined whether to approve or deny the request, they will notify the Registrar's Office. The Registrar's Office will make any necessary adjustments to the grade in the student's record.

### 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, the student should contact their academic advisor to complete the Grade Appeal form in the student portal. The Grade Appeal form must be submitted to the Academic Dean no later than 30 days after the final grade was submitted. The Dean will review the appeal along with supporting documentation and information provided by the student and the instructor. They will inform the student and their advisor of the decision whether to grant or deny 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 <u>Student Handbook</u> 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.
- 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:
  - o 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 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. 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 <u>March 30</u> to participate in May might not have their information published in commencement materials (slideshow) or receive regalia prior to the ceremony. After <u>April 10</u>, 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.

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 <u>Registrar's Office</u> 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 (25-35 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. HUMN 103 Environmental Documentary Films
- 4. 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.

- ECON 305 Economic Development within Planetary Boundaries and Sustainable Development Goals
- 2. ENVS 303 Social Science for Environmental Professionals
- 3. PSYC 101 Introduction to Psychology
- 4. PSYC 301 Environmental Psychology
- 5. SOCI 101 Introduction to Environmental Sociology

#### Environmental Professional Core (15 credits)

These 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:

- Communicate effectively with various audiences using appropriate modes of expression.
- Evaluate the credibility and relevance of information and data sources.
- Analyze, critique, and synthesize information to address questions.
- Select and use appropriate technological tools to accomplish tasks and improve performance.
- Analyze complex environmental issues from multiple perspectives.
- Draw on frameworks to develop and evaluate solutions to sustainability challenges

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.

Students entering in the DE5W02.24.25 term or later must take EVPC102, Ecoliteracy for a Sustainable World. Students who already completed EVPC100 and COMM 100 will be able to satisfy their degree requirements with the older courses. All students will be required to take an additional 4 credits of Communication courses for the General Education Core, those requirements can be satisfied by COMM 102 and COMM 301.

### 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.

<sup>\*</sup> 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.

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 development and sustainability of resilient communities.

General	ARTS 101 Composing the Landscape: Introduction to Landscape	3 cr
Education Core	and Nature Photography	
	BIOL 103 Biology: Foundations of Life	3 cr
	BIOL 104 Biology: Foundations of Life Laboratory	1 cr
	BIOL 105 Biological Diversity, Ecology, and Evolution	3 cr
	BIOL 106 Biological Diversity, Ecology, and Evolution Laboratory	1 cr
	COMM 100 Communication Skills for Online Learners	2 cr
	COMM 102 Strategic Writing for Environmental Professionals	2 cr
	COMM 301 Communicating for Impact	2 cr
	ENVS 201 The Warming Planet: Understanding Climate Change	3 cr
	MATH 101 College Algebra for Environmental Professionals or	3 cr
	MATH 105 Precalculus	
	PSYC 301 Environmental Psychology	3 cr
	SUST 301 Sustainable Horticultural Practices in Indigenous	3 cr
	Communities	
	A Language course	3 cr

Environmental	EVPC 100 Ecoliteracy	1 cr
Professional	EVPC 320 Environmental Justice in an Ethical Context	3 cr
Core	EVPC 321 Leading Change: Project Stewardship for	3 cr
	Environmental Transformation	
	EVPC 490 Transdisciplinary Capstone	3 cr
	Choice of 3 credits from the Environmental Issues series:	
	EVPC 210 Environmental Issues: Ocean Acidification	1 cr
	EVPC 211 Environmental Issues: Forever Chemicals	1 cr
	EVPC 212 Environmental Issues: Light and Noise Pollution	1 cr
	EVPC 213 Environmental Issues: Climate Refugee Crisis	1 cr
	EVPC 310 Environmental Issues: Impacts of Renewable Energy on	1 cr
	Marine Ecosystems	
	EVPC 311 Environmental Issues: Environmental Consequences of	1 cr
	Industrial Agriculture	

Program Core	AGRO 101 Introduction to Agroforestry	3 cr
	AGRO 201 Nutritional and Medicinal Resources of North	3 cr
	American Forests	
	AGRO 301 Agroforestry Systems Design	3 cr
	ANIM 205 Animal Nutrition	3 cr
	ANIM 310 Sustainable Livestock Health, Nutrition, and Care	3 cr
	BIOL 201 Organisms that Sustain the Earth: Understanding Plants	3 cr
	BIOL 330 Integrated Pest Management	3 cr
	BIOL 340 Forest Ecology	3 cr
	BIOL 350 Arboriculture	3 cr
	CHEM 101 Chemistry I	3 cr
	ENVJ 307 Food Systems and Social Justice	3 cr
	ESCI 301 Soil Analysis	3 cr
	GISC 101 Introduction to Geographic Information Systems (GIS)	3 cr
	MATH 203 Applied Mathematics for Land Management	3 cr
	SUST 401 Building and Sustaining Urban Food Forests	3 cr

and 30 credits of general electives

Students entering in January 2025 must take EVPC 100 and COMM 100. Students entering in February 2025 or later must take EVPC 102.

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	BIOL 103 Biology: Foundations of Life	3 cr
Education Core	BIOL 104 Biology: Foundations of Life Laboratory	1 cr

BIOL 105 Biological Diversity, Ecology, and Evolution	3 cr
BIOL 106 Biological Diversity, Ecology, and Evolution Laboratory	1 cr
COMM 100 Communication Skills for Online Learners	2 cr
COMM 102 Strategic Writing for Environmental Professionals	2 cr
COMM 301 Communicating for Impact	2 cr
ENVS 201 The Warming Planet: Understanding Climate Change	3 cr
MATH 101 College Algebra for Environmental Professionals <u>or</u>	3 cr
MATH 105 Precalculus	
MATH 201 Statistics for Environmental Professionals	3 cr
PSYC 101 Introduction to Psychology	3 cr
An Arts course	3 cr
A Humanities course	3 cr
A Language course	

Environmental	EVPC 100 Ecoliteracy	1 cr
Professional	EVPC 320 Environmental Justice in an Ethical Context	3 cr
Core	EVPC 321 Leading Change: Project Stewardship for	3 cr
	Environmental Transformation	
	EVPC 490 Transdisciplinary Capstone	3 cr
	Choice of 3 credits from the Environmental Issues series:	
	EVPC 210 Environmental Issues: Ocean Acidification	1 cr
	EVPC 211 Environmental Issues: Forever Chemicals	1 cr
	EVPC 212 Environmental Issues: Light and Noise Pollution	1 cr
	EVPC 213 Environmental Issues: Climate Refugee Crisis	1 cr
	EVPC 310 Environmental Issues: Impacts of Renewable Energy on	1 cr
	Marine Ecosystems	
	EVPC 311 Environmental Issues: Environmental Consequences of	1 cr
	Industrial Agriculture	

Program Core	ANIM 103 Animal Training Care	3 cr
	ANIM 205 Animal Nutrition	3 cr
	ANIM 301 Animal Husbandry and Genetics	3 cr
	ANIM 302 Animal Comparative Anatomy	3 cr
	ANIM 304 Animal Comparative Physiology	3 cr
	ANIM 305 Animal Health and Disease	3 cr
	ANIM 307 Designing Captive Animal Environments	3 cr
	ANIM 401 Animal Care Technical Skills	3 cr
	BIOL 203 Ecological Principles: Applications to Conservation and Wildlife	3 cr
	BIOL 301 Animal Behavior: The Evolution, Ecology, and Social Behavior of Animals	3 cr

### and 42 credits of general electives

Students entering in January 2025 must take EVPC 100 and COMM 100. Students entering in February 2025 or later must take EVPC 102.

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	BIOL 103 Biology: Foundations of Life	3 cr
Education Core	BIOL 104 Biology: Foundations of Life Laboratory	1 cr
	BIOL 105 Biological Diversity, Ecology, and Evolution	3 cr
	BIOL 106 Biological Diversity, Ecology, and Evolution Laboratory	1 cr
	CHEM 101 Chemistry I	3 cr
	CHEM 102 Chemistry I Laboratory	1 cr
	COMM 100 Communication Skills for Online Learners	2 cr
	COMM 102 Strategic Writing for Environmental Professionals	2 cr
	COMM 301 Communicating for Impact	2 cr
	ENVS 201 The Warming Planet: Understanding Climate Change	3 cr
	MATH 201 Statistics for Environmental Professionals or	3 cr
	MATH 215 Calculus	
	An Arts course	3 cr
	A Humanities course	3 cr
	A Language course	3 cr
	A Social Science Course	3 cr

Environmental	EVPC 100 Ecoliteracy	1 cr
Professional	EVPC 320 Environmental Justice in an Ethical Context	3 cr
Core	EVPC 321 Leading Change: Project Stewardship for	3 cr
	Environmental Transformation	
	EVPC 490 Transdisciplinary Capstone	3 cr
	Choice of 3 credits from the Environmental Issues series:	
	EVPC 210 Environmental Issues: Ocean Acidification	1 cr
	EVPC 211 Environmental Issues: Forever Chemicals	1 cr
	EVPC 212 Environmental Issues: Light and Noise Pollution	1 cr
	EVPC 213 Environmental Issues: Climate Refugee Crisis	1 cr
	EVPC 310 Environmental Issues: Impacts of Renewable Energy on	1 cr
	Marine Ecosystems	
	EVPC 311 Environmental Issues: Environmental Consequences of	1 cr
	Industrial Agriculture	

Program Core	ANIM 205 Animal Nutrition	3 cr
	ANIM 301 Animal Husbandry and Genetics	3 cr
	ANIM 302 Animal Comparative Anatomy	3 cr
	ANIM 304 Animal Comparative Physiology	3 cr
	BIOL 301 Animal Behavior: The Evolution, Ecology, and Social	3 cr
	Behavior of Animals	
	BIOL 310 Microbiology	3 cr
	BIOL 315 Cell Biology	3 cr
	CHEM 103 Chemistry II	3 cr
	CHEM 104 Chemistry II Laboratory	1 cr
	CHEM 201 Organic Chemistry I	3 cr
	CHEM 202 Organic Chemistry I Laboratory	1 cr
	CHEM 301 Biochemistry	3 cr
	CHEM 302 Biochemistry Laboratory	1 cr

### and 32 credits of general electives

Students entering in January 2025 must take EVPC 100 and COMM 100. Students entering in February 2025 or later must take EVPC 102.

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 Process Engineering**

The B.S. program in Environmental Process Engineering is designed to equip students with the skills and knowledge necessary to address the increasing environmental challenges faced by modern industrial processes. This program combines fundamentals of engineering, environmental science, and process technology to develop sustainable solutions for pollution prevention, resource conservation, and waste management. Graduates will be prepared for careers in designing, optimizing, and managing processes in industries that prioritize environmental sustainability and compliance.

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

- 1. Apply engineering, environmental science, and process technology principles to solve environmental problems and meet regulatory requirements.
- 2. Evaluate the feasibility and sustainability of solutions for pollution prevention, resource conservation, and waste management.
- 3. Design and optimize processes for environmental sustainability in various industrial sectors.
- 4. Develop engineering solutions that are equitable and inclusive, and that consider the social and cultural dimensions of environmental challenges.

General	CHEM 101 Chemistry I	3 cr
Education Core	CHEM 102 Chemistry I Laboratory	1 cr
	CHEM 103 Chemistry II	3 cr
	CHEM 104 Chemistry II Laboratory	1 cr
	CIST 101 Introduction to Coding for Environmental Applications	3 cr
	or CIST 103 Introduction to R	2 cr
	COMM 100 Communication Skills for Online Learners	2 cr
	COMM 102 Strategic Writing for Environmental Professionals	2 cr
	COMM 301 Communicating for Impact	2 cr
	ECON 305 Economic Development within Planetary Boundaries	3 cr
	ENVS 201 The Warming Planet: Understanding Climate Change	3 cr
	MATH 201 Statistics for Environmental Professionals	3 cr
	MATH 215 Calculus I	3 cr
	An Arts course	3 cr

	A Humanities course	3 cr
Environmental	EVPC 100 Ecoliteracy	1 cr
Professional	EVPC 320 Environmental Justice in an Ethical Context	3 cr
Core	EVPC 321 Leading Change: Project Stewardship for	3 cr
	Environmental Transformation	
	ENGR 490 Transdisciplinary Capstone in Engineering	3 cr
	Choice of 3 credits from the Environmental Issues series:	
	EVPC 210 Environmental Issues: Ocean Acidification	1 cr
	EVPC 211 Environmental Issues: Forever Chemicals	1 cr
	EVPC 212 Environmental Issues: Light and Noise Pollution	1 cr
	EVPC 213 Environmental Issues: Climate Refugee Crisis	1 cr
	EVPC 310 Environmental Issues: Impacts of Renewable Energy on	1 cr
	Marine Ecosystems	
	EVPC 311 Environmental Issues: Environmental Consequences of	1 cr
	Industrial Agriculture	
Program Core	CHEM 220 Organic Chemistry for Engineers	3 cr
	CHEM 225 Environmental Chemistry for Engineers	3 cr
	ENGR 101 Introduction to Environmental Engineering	3 cr
	ENGR 301 Fluid Dynamics	3 cr
	ENGR 303 Water and Wastewater Treatment	3 cr
	ENGR 305 Solid and Hazardous Waste Management	3 cr
	ENGR 307 Thermodynamics and Heat Transfer	3 cr
	ENGR 310 Environmental Regulatory Compliance for Engineers	3 cr
	ENGR 313 Environmental Impact Assessment for Engineers	3 cr
	ENGR 315 Environmental Modeling and Simulation	3 cr
	ENGR 401 Sustainable Process Design	3 cr
	ENGR 403 Industrial Process Dynamics	3 cr
	ENGR 405 Industrial Process Control	3 cr
	ENGR 413 Air Pollution Control Engineering	3 cr

and 4-5 credits of general electives

Students entering in January 2025 must take EVPC 100 and COMM 100. Students entering in February 2025 or later must take EVPC 102.

ESCI 303 Hydrology, Wetlands and Water Policy

MATH 315 Calculus II

MATH 325 Calculus III

PHYS 201 Physics I

PHYS 203 Physics II

MATH 430 Linear Algebra

MATH 435 Differential Equations

PHYS 202 Physics I Laboratory

PHYS 204 Physics II Laboratory

ESCI 305 Environmental Remediation and Toxicology

Catalog Version: DE5W01.13.25

3 cr

1 cr

3 cr

1 cr

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 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.
- 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	COMM 100 Communication Skills for Online Learners	2 cr
Education Core	COMM 102 Strategic Writing for Environmental Professionals	2 cr
	COMM 301 Communicating for Impact	2 cr
	ENVS 201 The Warming Planet: Understanding Climate Change	3 cr
	An Arts course	3 cr
	A Humanities course	3 cr
	A Language course	3 cr
	A Quantitative Skills course	3 cr
	A Social Science course	3 cr

Program Core	COMM 203 Environmental Communication or COMM 401 Using	3 cr
	Social Media in a Global World	
	EVPC 100 Ecoliteracy	1 cr
	EVPC 210 Environmental Issues: Ocean Acidification	1 cr
	EVPC 211 Environmental Issues: Forever Chemicals	1 cr
	EVPC 212 Environmental Issues: Light and Noise Pollution	1 cr
	EVPC 213 Environmental Issues: Climate Refugee Crisis	1 cr
	EVPC 310 Environmental Issues: Impacts of Renewable Energy on	1 cr
	Marine Ecosystems	
	EVPC 311 Environmental Issues: Environmental Consequences of	1 cr
	Industrial Agriculture	

EVPC 320 Environmental Justice in an Ethical Context	3 cr
EVPC 321 Leading Change: Project Stewardship for	3 cr
Environmental Transformation	
EVPC 490 Transdisciplinary Capstone	3 cr

#### and 77 credits of general electives

Students entering in January 2025 must take EVPC 100 and COMM 100. Students entering in February 2025 or later must take EVPC 102.

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 Engineering**

The Bachelor of Science in Environmental Engineering is a dynamic and interdisciplinary program aimed at preparing students to tackle the pressing environmental issues of our time. Rooted in the principles of engineering, environmental science, and sustainability, this program provides a comprehensive education in the design, development, and implementation of systems and solutions that protect and enhance human health and the natural environment. Students will gain a deep understanding of the complex interplay between human activities and environmental ecosystems, learning to innovate in areas such as water and air quality management, water and wastewater treatment, pollution remediation, solid waste management, renewable energy systems, climate change life cycle analysis, climate change prevention and mitigation, and sustainable urban development.

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

- 1. Use modern engineering tools and techniques to design sustainable engineering solutions to diverse problems related to waste management, pollution prevention, and natural resource conservation.
- 2. Apply engineering, natural science, and social science principles to analyze, design, and optimize systems and processes that protect human health and the environment.
- 3. Analyze and apply currently available engineering solutions that are equitable and inclusive, and that consider the social, cultural, legal, and regulatory dimensions of environmental challenges.

General	CHEM 101 Chemistry I	3 cr
<b>Education Core</b>	CHEM 102 Chemistry I Laboratory	1 cr
	CHEM 103 Chemistry II	3 cr
	CHEM 104 Chemistry II Laboratory	1 cr
	CIST 101 Introduction to Coding for Environmental Applications	3 cr
	COMM 100 Communication Skills for Online Learners	2 cr
	COMM 102 Strategic Writing for Environmental Professionals	2 cr
	COMM 301 Communicating for Impact	2 cr

ECON 305 Economic Development within Planetary Boundaries	3 cr
ENVS 201 The Warming Planet: Understanding Climate Change	3 cr
MATH 201 Statistics for Environmental Professionals	3 cr
MATH 215 Calculus I	3 cr
An Arts course	3 cr
A Humanities course	3 cr

Environmental	EVPC 100 Ecoliteracy	1 cr
Professional	EVPC 320 Environmental Justice in an Ethical Context	3 cr
Core	EVPC 321 Leading Change: Project Stewardship for	3 cr
	Environmental Transformation	
	ENGR 490 Transdisciplinary Capstone in Engineering	3 cr
	Choice of 3 credits from the Environmental Issues series:	
	EVPC 210 Environmental Issues: Ocean Acidification	1 cr
	EVPC 211 Environmental Issues: Forever Chemicals	1 cr
	EVPC 212 Environmental Issues: Light and Noise Pollution	1 cr
	EVPC 213 Environmental Issues: Climate Refugee Crisis	1 cr
	EVPC 310 Environmental Issues: Impacts of Renewable Energy on	1 cr
	Marine Ecosystems	
	EVPC 311 Environmental Issues: Environmental Consequences of	1 cr
	Industrial Agriculture	

Program Core	CHEM 220 Organic Chemistry for Engineers	3 cr
	CHEM 225 Environmental Chemistry for Engineers	3 cr
	CIST 203 Robotics and Automation for Environmental Monitoring	3 cr
	DATA 301 Data Management in Python	3 cr
	DATA 302 Data Visualization Laboratory	1 cr
	ENGR 101 Introduction to Environmental Engineering	3 cr
	ENGR 301 Fluid Dynamics	3 cr
	ENGR 303 Water and Wastewater Treatment	3 cr
	ENGR 305 Solid and Hazardous Waste Management	3 cr
	ENGR 307 Thermodynamics and Heat Transfer	3 cr
	ENGR 310 Environmental Regulatory Compliance for Engineers	3 cr
	ENGR 313 Environmental Impact Assessment for Engineers	3 cr
	ENGR 315 Environmental Modeling and Simulation	3 cr
	ENGR 410 Biomimicry for Environmental Engineers	3 cr
	ENGR 413 Air Pollution Control Engineering	3 cr
	ESCI 303 Hydrology, Wetlands and Water Policy	3 cr
	ESCI 305 Environmental Remediation and Toxicology	3 cr
	MATH 315 Calculus II	3 cr
	MATH 325 Calculus III	3 cr
	MATH 430 Linear Algebra	3 cr
	MATH 435 Differential Equations	3 cr
	PHYS 201 Physics I	3 cr

	PHYS 202 Physics I Laboratory	1 cr
	PHYS 203 Physics II	3 cr
	PHYS 204 Physics II Laboratory	1 cr

#### and 3 credits of general electives

Students entering in January 2025 must take EVPC 100 and COMM 100. Students entering in February 2025 or later must take EVPC 102.

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.

#### Food Business and Culinary Entrepreneurship

The future of sustainable food service relies on professions who can source sustainable products to create menus that balance taste with sustainable nutrition. With the growing focus on sustainable and eco-friendly food practices, the degree program in Food Business and Culinary Entrepreneurship is poised to be at the forefront of this transformative shift as it represents a fusion of sustainable foodservice with food science, holistic nutrition and culinary development. It equips graduates with the knowledge and skills needed to create innovative, high quality food products and food service offerings for existing and emerging markets as well as to excel in various culinary and food management roles.

Graduates of the B.S. in Food Business and Culinary Entrepreneurship will be able to:

- 1. Analyze sustainability challenges within the food industry and evaluate the social, economic, and environmental impacts of potential solutions to those challenges.
- 2. Develop unique and sustainable food products and menus, based on ethical procurement, balancing taste with holistic nutrition and lifestyle aspects.
- 3. Demonstrate sustainable business and entrepreneurship skills such as budgeting, business start-up and planning, supply chain management, and creative leadership.
- Identify emerging food and wellness trends and execute effective digital marketing and branding strategies for innovative businesses and products in the food industry.
- 5. Develop and implement operations management, including food safety assurance protocols that reflect and understanding of legal and ethical considerations in the food industry.

General	ARTS 105 Environmental Storytelling for Social Change	3 cr
<b>Education Core</b>	BIOL 103 Biology: Foundations of Life	3 cr
	BIOL 104 Biology: Foundations of Life Laboratory	1 cr
	CHEM 101 Chemistry I	3 cr
	CHEM 102 Chemistry I Laboratory	1 cr
	COMM 100 Communication Skills for Online Learners	2 cr
	COMM 102 Strategic Writing for Environmental Professionals	2 cr

COMM 301 Communicating for Impact	2 cr
ECON 305 Economic Development within Planetary Boundaries	3 cr
ENVS 201 The Warming Planet: Understanding Climate Change	3 cr
MATH 101 College Algebra for Environmental Professionals	3 cr
PSYC 301 Environmental Psychology	3 cr
A Humanities Course	3 cr
A Language course	3 cr

Environmental	EVPC 100 Ecoliteracy	1 cr
Professional	EVPC 320 Environmental Justice in an Ethical Context	3 cr
Core	EVPC 321 Leading Change: Project Stewardship for	3 cr
	Environmental Transformation	
	EVPC 490 Transdisciplinary Capstone	3 cr
	Choice of 3 credits from the Environmental Issues series:	
	EVPC 210 Environmental Issues: Ocean Acidification	1 cr
	EVPC 211 Environmental Issues: Forever Chemicals	1 cr
	EVPC 212 Environmental Issues: Light and Noise Pollution	1 cr
	EVPC 213 Environmental Issues: Climate Refugee Crisis	1 cr
	EVPC 310 Environmental Issues: Impacts of Renewable Energy on	1 cr
	Marine Ecosystems	
	EVPC 311 Environmental Issues: Environmental Consequences of	1 cr
	Industrial Agriculture	

Program Core	ENVJ 307 Food Systems and Social Justice	3 cr
	EVHS 205 Occupational Safety and Health	3 cr
	EVHW 401 Worksite Health Environment and Management	3 cr
	FINC 201 Business Administration: Enterprise Accounting	3 cr
	FINC 401 Investment for a Sustainable World	3 cr
	FOOD 201 Sustainable Culinary Development	3 cr
	FOOD 203 Fermented Foods	3 cr
	FOOD 315 Plant-based Protein Alternatives	3 cr
	MATH 201 Statistics for Environmental Professionals	3 cr
	MGMT 201 Corporate Sustainability: Frameworks and Standards	3 cr
	MGMT 403 Global Supply Chain Operations: Greening Your	3 cr
	Business	
	MGMT 405 Achieving Net Zero through Carbon Accounting	3 cr
	MKTG 301 Introduction to Sustainable Branding	3 cr
	SUFA 200 Farm to Table: Supply Chains and Food Culture	3 cr

and 30 credits of general electives

Students entering in January 2025 must take EVPC 100 and COMM 100. Students entering in February 2025 or later must take EVPC 102.

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.

## Food Equity and Health

The B.S. in Food Equity and Health focuses on the various factors and conditions that influence people's food choices, eating habits, and overall dietary patterns. It examines the interaction between individuals and their surroundings, which can include physical, social, economic, and policy-related aspects. It brings together elements from geography, nutrition, public health, sociology, economics, and other disciplines to enable learners to develop a comprehensive understanding of how the environment in which people live affects their relationship with food.

Graduates of the B.S. in Food Equity and Health will be able to:

- 1. Analyze and evaluate the environmental, social and economic impacts of different food systems.
- 2. Explain the physical, economic, political, and socio-cultural contexts in which people access food and make their dietary choices.
- 3. Use knowledge of dietary guidelines, holistic nutrition and human health to promote food literacy and to evaluate the nutritional value of foods.
- 4. Develop public health promotion, engagement, and advocacy strategies to support equitable food environments.
- 5. Demonstrate research skills such as the ability to collect, analyze, and interpret data related to food insecurity, dietary patterns, and their impact on health outcomes.

General	ARTS 105 Environmental Storytelling for Social Change	3 cr
Education Core	BIOL 103 Biology: Foundations of Life	3 cr
	BIOL 104 Biology: Foundations of Life Laboratory	3 cr
	COMM 100 Communication Skills for Online Learners	2 cr
	COMM 102 Strategic Writing for Environmental Professionals	2 cr
	COMM 301 Communicating for Impact	2 cr
	ENVJ 201 Understanding Diversity and the Environment	3 cr
	ENVS 201 The Warming Planet: Understanding Climate Change	3 cr
	MATH 101 College Algebra for Environmental Professionals	3 cr
	SOCI 101 Introduction to Environmental Sociology	3 cr
	A Language course	3 cr

Environmental	EVPC 100 Ecoliteracy	1 cr
Professional	EVPC 320 Environmental Justice in an Ethical Context	3 cr
Core	EVPC 321 Leading Change: Project Stewardship for	3 cr
	Environmental Transformation	
	EVPC 490 Transdisciplinary Capstone	3 cr
	Choice of 3 credits from the Environmental Issues series:	

EVPC 210 Environmental Issues: Ocean Acidification	1 cr
EVPC 211 Environmental Issues: Forever Chemicals	1 cr
EVPC 212 Environmental Issues: Light and Noise Pollution	1 cr
EVPC 213 Environmental Issues: Climate Refugee Crisis	1 cr
EVPC 310 Environmental Issues: Impacts of Renewable Energy on	1 cr
Marine Ecosystems	
EVPC 311 Environmental Issues: Environmental Consequences of	1 cr
Industrial Agriculture	

Program Core	COMM 401 Using Social Media in a Global World	3 cr
	ENVJ 307 Food Systems and Social Justice	3 cr
	ENVS 303 Social Science for Environmental Professionals	3 cr
	EVHW 105 Introduction to Human Health	3 cr
	EVHW 205 Health Literacy and Promotion for Leaders	3 cr
	EVHW 405 Health Coaching: How to Live a Balanced Life	3 cr
	EVHW 410 Worksite Health Environment and Management	3 cr
	FOOD 310 NGO Project Design and Fundraising	3 cr
	FOOD 410 Public Health Nutrition	3 cr
	MATH 201 Statistics for Environmental Professionals	3 cr
	MGMT 301 Starting Your Small Non-Profit	3 cr
	MGMT 303 Strategic Management for Social Change	3 cr
	PSYC 101 Introduction to Psychology	3 cr
	SUST 401 Building and Sustaining Urban Food Forests	3 cr

and 37 credits of general electives

Students entering in January 2025 must take EVPC 100 and COMM 100. Students entering in February 2025 or later must take EVPC 102.

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.
- 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	BIOL 103 Biology: Foundations of Life	3 cr
Education Core	BIOL 104 Biology: Foundations of Life Laboratory	1 cr
	BIOL 105 Biological Diversity, Ecology, and Evolution	3cr
	BIOL 106 Biological Diversity, Ecology, and Evolution	1 cr
	COMM 100 Communication Skills for Online Learners	2 cr
	COMM 102 Strategic Writing for Environmental Professionals	2 cr
	COMM 301 Communicating for Impact	2 cr
	ENVS 201 The Warming Planet: Understanding Climate Change	3 cr
	MATH 101 College Algebra for Environmental Professionals <u>or</u> MATH 105 Precalculus	3 cr
	MATH 201 Statistics for Environmental Professionals	3 cr
	An Arts course	3 cr
	A Humanities course	3 cr
	A Language course	3 cr
	A Social Science course	3 cr

Environmental	EVPC 100 Ecoliteracy	1 cr
Professional	EVPC 320 Environmental Justice in an Ethical Context	3 cr
Core	EVPC 321 Leading Change: Project Stewardship for	3 cr
	Environmental Transformation	
	EVPC 490 Transdisciplinary Capstone	3 cr
	Choice of 3 credits from the Environmental Issues series:	
	EVPC 210 Environmental Issues: Ocean Acidification	1 cr
	EVPC 211 Environmental Issues: Forever Chemicals	1 cr
	EVPC 212 Environmental Issues: Light and Noise Pollution	1 cr
	EVPC 213 Environmental Issues: Climate Refugee Crisis	1 cr
	EVPC 310 Environmental Issues: Impacts of Renewable Energy on	1 cr
	Marine Ecosystems	
	EVPC 311 Environmental Issues: Environmental Consequences of	1 cr
	Industrial Agriculture	

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Program Core	BIOL 203 Ecological Principles: Applications to Conservation and	3 cr
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	Wildlife	
	i wildile	

CHEM 101 Chemistry I	3 cr
CHEM 102 Chemistry I Laboratory	1 cr
MBAQ 105 Introduction to Oceanography	3 cr
MBAQ 201 Form and Function of Unique Marine Ecosystems	3 cr
MBAQ 203 Global Diversity of Freshwater and Marine Resources	3 cr
Used in Sustainable Harvest	
MBAQ 301 Sustainable Aquaculture Techniques I: Growing	3 cr
Shellfish and Finfish	
MBAQ 303 Sustainable Aquaculture Techniques II: Crustaceans	3 cr
and Pathobiology	
MBAQ 307 Ichthyology and Fish Health	3 cr
MBAQ 310 Marine Mammal and Seabird Biology	3 cr
MBAQ 315 Diversity of Marine and Aquatic Vegetation	3 cr
MBAQ 401 Field Research in Marine Biology and Aquaculture	3 cr

and 38 credits of general electives

Students entering in January 2025 must take EVPC 100 and COMM 100. Students entering in February 2025 or later must take EVPC 102.

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	COMM 100 Communication Skills for Online Learners	2 cr
<b>Education Core</b>	COMM 102 Strategic Writing for Environmental Professionals	2 cr
	COMM 301 Communicating for Impact	2 cr
	ECON 305 Economic Development within Planetary Boundaries	3 cr
	and Sustainable Development Goals	
	ENVS 201 The Warming Planet: Understanding Climate Change	3 cr

MATH 201 Statistics for Environmental Professionals	3 cr
An Arts course	3 cr
A Humanities course	3 cr
A Language course	3 cr
A Life Science course	3 cr

Environmental	EVPC 100 Ecoliteracy	1 cr
Professional	EVPC 320 Environmental Justice in an Ethical Context	3 cr
Core	EVPC 321 Leading Change: Project Stewardship for	3 cr
	Environmental Transformation	
	EVPC 490 Transdisciplinary Capstone	3 cr
	Choice of 3 credits from the Environmental Issues series:	
	EVPC 210 Environmental Issues: Ocean Acidification	1 cr
	EVPC 211 Environmental Issues: Forever Chemicals	1 cr
	EVPC 212 Environmental Issues: Light and Noise Pollution	1 cr
	EVPC 213 Environmental Issues: Climate Refugee Crisis	1 cr
	EVPC 310 Environmental Issues: Impacts of Renewable Energy on	1 cr
	Marine Ecosystems	
	EVPC 311 Environmental Issues: Environmental Consequences of	1 cr
	Industrial Agriculture	

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Program Core	COMM 401 Using Social Media in a Global World	3 cr
	ENVS 101 Sustainable Solution to Globalization	3 cr
	FINC 201 Business Administration: Enterprise Accounting	3 cr
	FINC 401 Investment for a Sustainable World	3 cr
	MGMT 201 Corporate Sustainability: Frameworks and Standards	3 cr
	MGMT 301 Starting Your Small Non-Profit	3 cr
	MGMT 403 Global Chain Supply Operations: Greening Your	3 cr
	Business	
	MGMT 405 Achieving Net Zero through Carbon Accounting	3 cr
	MKTG 301 Introduction to Sustainable Branding	3 cr
	POLI 301 Global Politics and Policy Topics	

#### and 50 credits of general electives

Students entering in January 2025 must take EVPC 100 and COMM 100. Students entering in February 2025 or later must take EVPC 102.

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.

General	BIOL 103 Biology: Foundations of Life	3 cr
Education Core	BIOL 104 Biology: Foundations of Life Laboratory	1 cr
	BIOL 105 Biological Diversity, Ecology, and Evolution	3 cr
	BIOL 106 Biological Diversity, Ecology, and Evolution Laboratory	1 cr
	CHEM 101 Chemistry I	3 cr
	CHEM 102 Chemistry I Laboratory	1 cr
	CHEM 103 Chemistry II	3 cr
	CHEM 104 Chemistry II Laboratory	1 cr
	COMM 100 Communication Skills for Online Learners	2 cr
	COMM 102 Strategic Writing for Environmental Professionals	2 cr
	COMM 301 Communicating for Impact	2 cr
	ECON 305 Economic Development within Planetary Boundaries	3 cr
	and Sustainable Development Goals	
	ENVS 201 The Warming Planet: Understanding Climate Change	3 cr
	MATH 101 College Algebra for Environmental Professionals <u>or</u>	3 cr
	MATH 105 Precalculus	
	SUST 301 Sustainable Horticulture in Indigenous Communities	3 cr
	An Arts course	3 cr
	A Language course	3 cr

EVPC 100 Ecoliteracy	1 cr
EVPC 320 Environmental Justice in an Ethical Context	3 cr

Environmental	EVPC 321 Leading Change: Project Stewardship for	3 cr
Professional	Environmental Transformation	
Core	EVPC 490 Transdisciplinary Capstone	3 cr
	Choice of 3 credits from the Environmental Issues series:	
	EVPC 210 Environmental Issues: Ocean Acidification	1 cr
	EVPC 211 Environmental Issues: Forever Chemicals	1 cr
	EVPC 212 Environmental Issues: Light and Noise Pollution	1 cr
	EVPC 213 Environmental Issues: Climate Refugee Crisis	1 cr
	EVPC 310 Environmental Issues: Impacts of Renewable Energy on	1 cr
	Marine Ecosystems	
	EVPC 311 Environmental Issues: Environmental Consequences of	1 cr
	Industrial Agriculture	

Program Core	BIOL 201 Organisms that Sustain the Earth: Understanding Plants	3 cr
	BIOL 315 Cell Biology	3 cr
	BIOL 320 Plant Breeding	3 cr
	BIOL 325 Plant Pathology	3 cr
	BIOL 330 Integrated Pest Management	3 cr
	CHEM 205 Applications of Chemistry for Horticulture	3 cr
	ENVJ 307 Food Systems and Social Justice	3 cr
	ESCI 301 Soil Analysis	3 cr
	HORT 301 Growing Hydroponic and Aquaponic Crops	3 cr
	HORT 401 Climate-Smart Agriculture	3 cr
	MGMT 301 Starting Your Small Non-Profit	3 cr
	SUFA 201 Sustainable Farm Management	3 cr
	SUFA 301 Sustainable Agriculture for Small Farms	3 cr

and 28 credits of general electives

Students entering in January 2025 must take EVPC 100 and COMM 100. Students entering in February 2025 or later must take EVPC 102.

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 social, legal, and economic concepts underlying modern wildlife management.
- 2. Demonstrate skills in identification of animals and plants of management concern.
- 3. Describe significant life history traits and ecology of plants and animals that influence wildlife habitat management.
- 4. Demonstrate ability to choose and implement techniques used in habitat management including monitoring and modelling populations.
- 5. Demonstrate ability to choose and implement techniques used in wildlife management including monitoring and modelling populations.

General	BIOL 103 Biology: Foundations of Life	3 cr
	U,	
Education Core	BIOL 104 Biology: Foundations of Life Laboratory	1 cr
	BIOL 105 Biological Diversity, Ecology, and Evolution	3 cr
	BIOL 106 Biological Diversity, Ecology, and Evolution Laboratory	1 cr
	COMM 100 Communication Skills for Online Learners	2 cr
	COMM 102 Strategic Writing for Environmental Professionals	2 cr
	COMM 301 Communicating for Impact	2 cr
	ENVS 201 The Warming Planet: Understanding Climate Change	3 cr
	MATH 101 College Algebra for Environmental Professionals or	3 cr
	MATH 105 Precalculus	
	MATH 201 Statistics for Environmental Professionals	3 cr
	An Arts course	3 cr
	A Humanities course	3 cr
	A Language course	3 cr
	A Social Science Course	3 cr

Environmental	EVPC 100 Ecoliteracy	1 cr
Professional	EVPC 320 Environmental Justice in an Ethical Context	3 cr
Core	EVPC 321 Leading Change: Project Stewardship for	3 cr
	Environmental Transformation	
	EVPC 490 Transdisciplinary Capstone	3 cr
	Choice of 3 credits from the Environmental Issues series:	
	EVPC 210 Environmental Issues: Ocean Acidification	1 cr
	EVPC 211 Environmental Issues: Forever Chemicals	1 cr
	EVPC 212 Environmental Issues: Light and Noise Pollution	1 cr
	EVPC 213 Environmental Issues: Climate Refugee Crisis	1 cr
	EVPC 310 Environmental Issues: Impacts of Renewable Energy on	1 cr
	Marine Ecosystems	
	EVPC 311 Environmental Issues: Environmental Consequences of	1 cr
	Industrial Agriculture	

Program Core	BIOL 201 Organisms that Sustain the Earth: Understanding Plants	3 cr
	BIOL 203 Ecological Principles: Applications to Conservation and	3 cr
	Wildlife	
	ENCJ 305 Natural Resource Law and Policy	3 cr
	MATH 401 Statistics for Wildlife Professionals	3 cr
	WCON 201 Plant and Wildlife Interactions	3 cr
	WCON 301 Human Dimensions of Wildlife Conservation	3 cr
	WCON 303 Life History and Identification of Birds and Mammals	3 cr
	WCON 305 Wildlife Conservation Genetics	3 cr
	WCON 307 Vectors, Wildlife, and Disease	3 cr
	WCON 403 Habitat Management for Wildlife	3 cr
	WCON 405 Wildlife Population Management	3 cr

and 39 credits of general electives

Students entering in January 2025 must take EVPC 100 and COMM 100. Students entering in February 2025 or later must take EVPC 102.

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

#### 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 design appropriate systems to meet the needs of interested and affected parties in a specific context. This course integrates elements of agronomy, forestry, and economics 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 introduces students to the basic fundamentals of animal nutrition as they apply to captive and wild animal species. Students will learn about the gastrointestinal tract (GIT) structure and function and how it contributes to the absorption of nutrients. Students will focus on the basic underlying concepts of nutrient classification, digestion, absorption, metabolism, nutrient functionality, dietary requirements as well as management strategies that influence animal health and performance. Students will apply these concepts to better understand how different animals process and utilize nutrients in their environment. Discussions and assignments will be centered around real-world scenarios commonly encountered by animal nutrition 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: BIOL 105

#### 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: None

## 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, with particular emphasis on thermoregulation and the circulatory, respiratory, endocrine, and nervous systems. Special focus will be placed on processes supporting organismal homeostasis, with examples from animals commonly found in wild and captive veterinary care in aquatic and terrestrial environments. Throughout the term, students will investigate how environmental challenges to homeostasis dictate the physiological strategies and responses of animals, including consequences to their health and well-being. Students will also focus on the evaluation of data collection methodologies for use in research and veterinary care.

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

Prerequisites: 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

Prerequisites: None

## 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

Prerequisites: None

#### ARTS COURSES

# ARTS 101 Composing the Landscape: Introduction to Landscape and Nature Photography

The course is an exploration of landscape and nature photography. Students will examine the history of both genres and study the work of relevant photographers to develop their own ideas on what makes a strong photograph. Through hands-on experience photographing and participating in group photo critiques, students will evaluate different perspectives on what defines landscape and nature photography. The course culminates with each student creating a portfolio of their own photographs.

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

This course introduces the fundamental principles common to all living organisms. Learners will explore important biological concepts including the chemical arrangement of living matter, structure and function of cellular components, and key differences between plant and animal cells. They will discuss the importance of energy generation and genetic inheritance in cells and engage in activities that illustrate how the processes of scientific inquiry can be used to solve biological problems.

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: BIOL 103 or concurrent enrollment

## 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 important primary producers in terrestrial systems due to their ability to perform photosynthesis, are the base source of energy and foundation of food webs in 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 explore the diversity of plant traits and how they may be influenced by resource availability, species interactions, and climate. Case studies will illustrate the role of plants, such as in ecosystem function, human culture, and animal ecology. Credits: 3

Prerequisites: None

## BIOL 203 Ecological Principles: Applications to Conservation and Wildlife

Ecological Principles: Applications to Conservation is a comprehensive course that delves into the fundamental concepts of ecology and their relevance in addressing contemporary conservation challenges. Through a combination of theoretical instruction and practical applications, students will explore key ecological principles that help explain and mitigate the impacts of climate change, human activities, and invasive species on ecological systems. Through course activities, students will develop a solid foundation in the key principles of ecology and their direct applications to conservation. This knowledge will enable them to contribute effectively to the understanding and management of ecological systems and the preservation of biodiversity.

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 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 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 350 Arboriculture**

Arboriculture is a comprehensive, in-depth study of the biology, management, and care of woody plants. Learners will study the physiological processes, structure, and growth patterns of woody plants and learn to identify tree and shrub 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, states of matter, 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

This course includes the laboratory experiences focused on basic Organic Chemistry to accompany CHEM 201.

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 patters 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. The economic value of chemical pest and weed control and growth promotion will be discussed.

Credits: 3

Prerequisites: BIOL 103 or BIOL 201 and CHEM 103

## CHEM 220 Organic Chemistry for Engineers

This course offers an in-depth exploration of organic chemistry with a focus on engineering applications. Topics include the structure and function of organic molecules, reaction mechanisms, and organic synthesis, with a strong emphasis on materials, polymers, and chemicals used in engineering processes. Case studies and examples will be used to illustrate how organic chemistry principles are applied in developing new materials and solving engineering problems.

Credits: 3

Prerequisites: CHEM 103

#### CHEM 225 Environmental Chemistry for Engineers

This course explores the chemical and physical processes occurring in the natural environment and the impact of human activities on these processes. Topics include atmospheric chemistry, water chemistry, soil chemistry, and the behavior of organic and inorganic pollutants

Credits: 3

Prerequisites: CHEM 103, CHEM 220

## CHEM 301 Biochemistry

This course is an exploration into the link between biology and chemistry and provides an indepth 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 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 the 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 102 Strategic Writing for Environmental Professionals

Working as an environmental professional requires a multifaceted skill set that centers around the communication of complex ideas to a variety of audiences. Whether working with researchers, shareholders, policy makers, customers, or funders, Unity graduates will need to harness and hone their writing and communication skills throughout their careers. To this end, students will learn how to use various writing strategies to effectively engage specific audiences. Students will also explore the use of and ethics surrounding information sources and how to become critical readers and intentional communicators of environmental knowledge. Upon completion, students will have practiced employing organization, tone, evidence, synthesis, and attribution to improve their writing and their future environmental work.

Credits: 2

Prerequisites: None

#### COMM 301 Communicating for Impact

This course teaches students how to communicate about complex environmental issues and wicked problems they will encounter as environmental problems. Expertise surrounding these issues can take many forms. Learning how to engage with, uplift, and integrate the viewpoints of various community members often promotes more comprehensive, inclusive outcomes. Students will learn how strategic techniques such as audience research and intellectual empathy can improve communications and build generative relationships with various interested and affected parties. Students will learn how to tailor different contextualized communication methods/media to shift perspectives and alter behaviors regarding sustainability and conservation issues.

Credits: 2

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

#### 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

#### CIST 203 Robotics and Automation for Environmental Monitoring

This course provides an introduction to the principles and applications of robotics and automation in the field of environmental monitoring. Students will explore the design, programming, and deployment of robotic systems to collect and analyze environmental data. The course covers sensor integration, autonomous navigation, and data communication technologies, with a focus on real-world environmental applications such as pollution detection, wildlife tracking, and habitat restoration.

Credits: 3

Prerequisites: CIST 101

#### DATA SCIENCE COURSES

## DATA 301 Data Management in Python

This course focuses on the principles and practices of data management using Python. Students will learn to handle, process, and analyze large datasets efficiently. The course covers essential data management techniques, including data cleaning, transformation, storage, and retrieval. Emphasis is placed on practical applications and the use of Python libraries such as Pandas, NumPy, and SQLAlchemy to manage data workflows.

Credits: 3

Prerequisites: CIST 101, MATH 201

#### **DATA 302 Data Visualization Laboratory**

This laboratory course complements the Data Management in Python course, providing hands-on experience in data visualization. Students will learn to create informative and compelling visualizations using Python. The course covers various visualization libraries, such as Matplotlib, Seaborn, and Plotly, enabling students to effectively communicate data insights.

Credits: 1

Prerequisites: DATA 301 (or concurrent enrollment)

#### **ECONOMICS COURSES**

# ECON 305 Economic Development within Planetary Boundaries and Sustainable Development Goals

This course provides a comprehensive exploration of the intricate relationship between economic development, planetary boundaries and the Sustainable Development Goals (SDGs). Incorporating micro and macro approaches, students will analyze the impact of economic activities on the environment and society, considering the broader context of global sustainability. The curriculum draws inspiration from doughnut economics, emphasizing the need to balance social well-being with ecological resilience, while aligning with the United Nations SDGs. Throughout the course, students will engage in empirical research, data analysis, and evidence-based decision making to contribute to sustainable economic development within planetary boundaries guided SDGs.

Credits: 3

Prerequisites: None

#### **ENGINEERING COURSES**

## **ENGR 101 Introduction to Environmental Engineering**

This course provides the learners with an overview of environmental engineering, focusing on the principles and practices used to protect human health and the environment and exposes them to a variety of career options within the field. Topics include the evolution of environmental engineering, employment sectors and pathways, water and air quality, solid waste management, water and wastewater treatment, remediation, and environmental laws and regulations.

Credits: 3

Prerequisites: CHEM 101, PHYS 201

## ENGR 301 Fluid Dynamics

This course provides an introduction to the principles of fluid mechanics and their application in environmental process engineering. Topics include fluid properties, fluid statics, flow dynamics, pipe systems, and open channel flow.

Credits: 3

Prerequisites: PHYS 203, MATH 435

#### **ENGR 303 Water and Wastewater Treatment**

This comprehensive course delves into the technologies and processes used for treating water and wastewater in municipal and industrial settings. Students will explore the major sources of water pollutants, including their characteristics and impacts on treatment processes. The course covers a variety of treatment methods, such as physical separation techniques, chemical treatment processes, and biological treatment methods, with a special emphasis on the application and effectiveness of these processes in real-world scenarios. Advanced topics include emerging contaminants, resource recovery, and the integration of sustainability principles into treatment process design and operation.

Credits: 3

Prerequisites: CHEM 103, CHEM 220

## ENGR 305 Solid and Hazardous Waste Management

In this course, learners will explore the principles, methods, and technologies used in the management of solid hazardous wastes. Topics include landfill types and operations; RCRA Waste Types; waste handling, collection, and transport: treatment technologies; and waste minimization and recycling strategies.

Credits: 3

Prerequisites: None

#### ENGR 307 Thermodynamics and Heat Transfer

This course provides learners with an opportunity to study the principles of thermodynamics and heat transfer with a focus on applications in environmental process engineering such as boilers, chillers and heat pumps. Topics include energy conversion, refrigeration cycles, heat exchanges, and thermal system design

Credits: 3

Prerequisites: PHYS 201, MATH 215, CHEM 101

## ENGR 310 Environmental Regulatory Compliance for Engineers

This course provides comprehensive insights into environmental laws, regulations, and standards affecting engineering practices. Students will learn about the regulatory framework for air and water quality, waste management, and hazardous materials, focusing on how to achieve compliance in engineering projects. Case studies and regulatory compliance strategies will be discussed, along with the role of ethics and corporate responsibility.

Credits: 3

Prerequisites: None

## **ENGR 313 Environmental Impact Assessment for Engineers**

Students will learn to conduct and evaluate Environmental Impact Assessment (EIA) for engineering projects, understanding the process from screening and scoping to impact analysis and mitigation. The course emphasizes the integration of environmental, social, and

economic factors in the decision-making process and the role of public participation and regulatory frameworks. Techniques for predicting and mitigating negative environmental impacts and promoting sustainable development will be covered.

Credits: 3

Prerequisites: ENGR 310, ECON 305

#### ENGR 315 Environmental Modeling and Simulation

This course covers the theory and application of modeling and simulation in environmental engineering. Students will use mathematical and computational models to simulate environmental systems and processes, such as water flow, pollution dispersion, and ecosystem dynamics. The course focuses on model development, calibration, validation, and the use of simulation software to support environmental decision-making and policy development.

Credits: 3

Prerequisites: ENGR 313, MATH 325, MATH 435 ENGR 401 Sustainable Process Design

# This course emphasizes the principles of sustainable engineering and process design, exploring how to create processes that are efficient, economically viable, and environmentally friendly. Topics include resource conservation, energy efficiency, waste reduction, and the integration of sustainable practices into the lifecycle of a process. Students will learn to apply sustainability criteria and tools, such as lifecycle analysis, and green design principles, to evaluate and improve process designs.

Credits: 3

Prerequisites: COMM 301, ENGR 310, ENGR 313, ENGR 403, ENGR 405

## **ENGR 403 Industrial Process Dynamics**

In this course, students explore the dynamic aspects of industrial processes, including the time-dependent behavior of systems and their response to external changes. Topics include process modeling dynamic simulation, and the application of control theory to manage and optimize process operations. Emphasis is placed on the use of computational tools to analyze process stability, performance, and efficiency.

Credits: 3

Prerequisites: MATH 435, ENGR 307

#### **ENGR 405 Industrial Process Control**

This course delves into the control mechanisms used in industrial processes, focusing on the design, analysis, and optimization of control systems. Students will learn about various control strategies, including PID control, feedforward control, and advanced control techniques, applying these concepts to maintain process variables within desired ranges and improve process efficiency and safety.

Credits: 3

Prerequisites: ENGR 403, MATH 435

## **ENGR 410 Biomimicry for Environmental Engineers**

In this course, learners will explore the principles and applications of biomimicry in environmental engineering. Biomimicry involves studying and emulating nature's best designs and processes to create sustainable solutions. The course emphasizes integrating concepts from fluid mechanics, thermodynamics, and environmental engineering to develop innovative, ecofriendly solutions inspired by biological systems. Students will learn to apply biomimetic principles to address environmental challenges such as pollution control, resource management, and sustainable infrastructure development.

Credits: 3

Prerequisites: ENGR 101, ENGR 301, ENGR 307, ENGR 315

#### **ENGR 413 Air Pollution Control Engineering**

This course covers the sources, effects, and control of air pollutants. Topics include the principles of air quality management, engineering approaches to controlling emissions, and the design of control devices and systems and regulations relevant to air pollution control such as the Clean Air Act.

Credits: 3

Prerequisites: ENGR 301, CHEM 225

## **ENGR 490 Transdisciplinary Capstone in Engineering**

Serving as a culminating experience, this capstone course integrates knowledge and skills from across the engineering disciplines. Students will work on projects to address complex real-world problems, applying principles of design, analysis, and project management. The course emphasizes innovative thinking, transdisciplinary collaboration, and sustainable solutions to engineering challenges.

Credits: 3

Prerequisites: 30 Credits of ENGR coursework

# ENVIRONMENTAL EMERGENCY MANAGEMENT AND LAW ENFORCEMENT COURSES

# 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

#### **ENVIRONMENTAL CRIMINAL JUSTICE COURSES**

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# 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 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

Prerequisites: 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 state and federal regulations for fire safety and prevention in private, public, and commercial buildings and adjacent spaces. They will learn to recognize hazards and propose strategies to minimize associated risks and comply with safety regulations. Additionally, students will learn about opportunities to deepen their knowledge related to fire inspection training.

Credits: 3

Prerequisites: 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

Prerequisites: None

#### 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 and management of change.

Credits: 3

Prerequisites: None

#### 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

Prerequisites: 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

Prerequisites: 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

Prerequisites: None

# 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

Prerequisites: None

## EVHW 405 Health Coaching: How to Live a Balanced Life

This course provides an overview of the field of health coaching. Learners will have opportunities to develop important health coaching skills, including creating relationships, envisioning change, motivational interviewing, planning and goal setting, providing feedback, and selecting and using progression and engagement strategies. In addition to skills directly applicable to client interactions, learners will also develop marketing materials to promote health and wellness programs to targeted audiences.

Credits: 3

Prerequisites: 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

Prerequisites: 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 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 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

#### **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 102 Ecoliteracy for A Sustainable World

In a world shaped by complex environmental challenges, this course equips students with the critical literacies needed for the 21st century: ecoliteracy, information literacy, and digital literacy. Students will explore the cycles and systems that sustain life on Earth, gaining an understanding of the interconnectedness between human and natural systems. Students will practice empathy and perspective-taking and build the scientific, social, and emotional knowledge and skills needed to address these complex challenges. Learners will develop the skills to critically evaluate information, integrate diverse perspectives, and use digital tools to enhance research, communication, and problem-solving. Students will cultivate the knowledge and digital fluency needed to address environmental challenges while building strategies for success in academic and professional settings.

Credits: 3

Prerequisites: None

#### EVPC 210 Environmental Issues: Ocean Acidification

Human-generated atmospheric  $CO_2$  is leading to increasingly acidic ocean waters. In this course, learners will explore the impact of increased acidity on marine ecosystems and the human communities that depend on them. They will identify and evaluate strategies to mitigate the problem of ocean acidification and its impacts.

Credits: 1

Prerequisites: None

### EVPC 211 Environmental Issues: Forever Chemicals

Forever chemicals are synthetic compounds that are not broken down by natural or biological processes. In this course, learners will explore the generation, effects, and persistence of these chemicals. They will discuss the impact of chemical pollution and the accumulation of novel entities (like forever chemicals) on ecosystems and human health.

Credits: 1

Prerequisites: None

### EVPC 212 Environmental Issues: Light and Noise Pollution

In this course, learners will explore how energy pollution (light, noise) impacts animal health and behavior and poses a threat to biodiversity. They will evaluate potential mitigation strategies and solutions to the problem, taking into consideration the needs and concerns of diverse interested and affected parties.

Credits: 1

Prerequisites: None

### EVPC 213 Environmental Issues: Climate Refugee Crisis

Increasingly frequent and extreme weather events, flooding, drought, and sea level rise – all connected to human-caused climate change – are contributing to the displacement of millions of the world's most vulnerable people. In this course, learners will explore the issue of climate-induced displacement at local, regional, and global scales.

Credits: 1

Prerequisites: None

#### EVPC 320 Environmental Justice in Ethical Context

Environmental conditions, resource access, and climate change impacts are experienced inequitably across the world. Study of environmental justice and climate justice brings attention to environmental discrimination and highlights the ethical implications of disparity. In this course, students will explore how equity, ethics, and sustainability are interwoven at local and global scales, with implications both for humans and the natural environment. Students will engage with the causes and effects of individual cases through frameworks for ethical decision-making, perspective-taking, and sustainability. Throughout the course, students will consider how a sustainable development approach might promote a more equitable world.

Credits: 3

Prerequisites: None

# EVPC 321 Leading Change: Project Stewardship for Environmental Transformation

This course will equip environmental professionals with the essential decision making and project leadership skills required to effectively develop initiatives that address complex environmental problems and create impact. Using Monitoring, Evaluation, and Learning frameworks, students will learn self-efficacy when developing a strategy to address an environmental issue. Through a scenario-based course project focused on a conservation, sustainability, or environmental regulatory compliance issue, students will learn how to lead and develop essential project elements. Students will hone quantitative literacy skills to establish timelines and deliverables, allocate resources, identify appropriate data and metrics, and evaluate the project's impact. Students will complete this course with an understanding of how to leverage appropriate technologies and existing research for project planning, monitoring, and evaluation to foster better environmental stewardship and sustainability outcomes. This course teaches students decision-making, project leadership, and data skills to plan, manage, and assess environmental projects, using real-world tools to improve sustainability and conservation efforts.

Credits: 3

Prerequisites: None

# EVPC 310 Environmental Issues: Impacts of Renewable Energy on Marine Systems

Generation and capture of energy from renewable resources is critical to our global future. However, renewable energy sources may have unintended consequences in the natural environments in which they are installed. In this course, learners will explore potential solutions to the impact of renewable energy sources on marine environments specifically. Learners will develop a position and justify it with consideration for the interested and affected parties involved.

Credits: 1

Prerequisites: None

# EVPC 311 Environmental Issues: Environmental Consequences of Industrial Agriculture

The "Green Revolution" spawned industrialization of agriculture in the 20<sup>th</sup> century. This led to land clearing for annual crops worldwide and ultimately led to the disruption of biogeochemical cycles, including massive loss of carbon storage in addition to water quality and quantity crises related to irrigation and fertilization. In this course, learners will develop a position and justify it with consideration for the interested and affected parties involved, with a specific focus on US domestic policy.

Credits:1

Prerequisites: None

## **EVPC 490 Transdisciplinary Capstone**

The Capstone course is the culminating course for students in Unity College 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 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 environmental contaminant mediation. Topics include underlying biological processes such as bacterial metabolism, enzymatic activity, anaerobic and aerobic biodegradation, categories of contaminants and a brief overview of remediation of inorganic contaminants. Additionally, students will explore the fate and effects of chemicals in organisms in the environment, including air, water, and soil.

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

#### **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 how we know that climate is changing and why it is changing, as well as the implications of recorded and predicted changes on marine and terrestrial ecosystems, wildlife populations, and human society. The final element of the course recognizes humanity's ability to meet and overcome challenges and investigates a variety of mitigation and adaptation strategies for addressing the climate change crisis.

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

#### FINANCE COURSES

## FINC 201 Business Administration: Enterprise Accounting

This course in Business Administration is designed to equip students with practical skills in Enterprise Accounting. The course covers various topics, including financial reporting, profit & loss statements, budgeting, cost analysis, and strategic financial decision-making. Students will delve into the intricacies of financial reporting, learning how to prepare accurate and informative financial statements. With a focus on budgeting, they will develop the ability to create comprehensive budgets, analyze variances, and make informed adjustments based on performance. Through case studies and practical applications, students will tackle cost analysis, examining how various cost factors impact business operations and profitability. They will also explore strategic financial decision-making, evaluating investment options, and financial planning for long-term success.

Credits: 3

Prerequisites: None

#### FINC 401 Investment for a Sustainable World

This course is designed to equip students with the knowledge and practical skills necessary to engage in ESG investment strategies that contribute to building a more sustainable world. The project-based course combines theoretical frameworks with real-world applications, providing students with a comprehensive understanding of ESG investing and its role in addressing global challenges. Through case studies and projects, students will explore the intersection of finance, social responsibility, and environmental stewardship.

Credits: 3

Prerequisites: 100-level MATH course or higher

#### **FOOD SCIENCE COURSES**

### FOOD 201 Sustainable Culinary Development

This course explores basic methods and principles of food preparation, with applications to sustainable culinary development. Specifically, students consider how to integrate sustainably sourced ingredients and produce foods that apply trends in global fusion cuisine. In this well-rounded introduction, students learn foundational cooking techniques and considerations for creating balanced dishes (such as flavor, texture, and presentation). Students will approach sustainable culinary development and menu planning with accessibility in mind.

Credits: 3

Prerequisites: None

### FOOD 203 Fermented Foods

This course explores the world of fermented foods, including Kimchi, live plain Yoghurt, Sourdough, Kombucha and other fermented vegetables. By taking this course, students will learn about the history, current trends, and culinary science behind fermentation. Students will learn how to safely produce and store fermented foods. The course will also cover the culinary context of how to integrate fermented foods in menu planning as well as their probiotic health benefits.

Credits: 3

Prerequisites: CHEM 101

## FOOD 310 NGO Project Design and Fundraising

This course equips students with the expertise needed to conceptualize, plan, and execute projects effectively. The course imparts strategic skills including crafting compelling project proposals, identifying funding sources, and mastering effective fundraising techniques. Students will learn how to structure grant proposals, identify objectives, goals, and deliverables as well as metrics and milestones. This course also teaches students to research grant opportunities and identify diverse funding sources. Students learn to navigate the evolving landscape of project management and to translate vision into tangible impact.

Credits: 3

Prerequisites: None

### FOOD 315 Plant-Based Protein Alternatives

This course offers a comprehensive exploration of plant-based protein sources, including legumes, grains, nuts, seeds, and algae, and their role in sustainable diets within diverse cultures. Students will learn about the nutritional aspects, environmental impacts, and culinary applications of plant-based proteins.

Credits: 3

Prerequisites: None

#### FOOD 410 Public Health Nutrition

In this course students will embark on a comprehensive exploration of the intricate relationship between nutrition and public health. The course covers fundamental aspects of nutrition science, epidemiology, and health promotion strategies. Emphasis will be placed on understanding the factors influencing dietary choices within a variety of communities. Exploring these factors helps shed light on how dietary patterns impact community health, addressing prevalent issues such as malnutrition and chronic diseases. Students will also acquire practical skills in designing targeted interventions for diverse populations, generating sustainable health outcomes. The course equips learners with the knowledge and tools to make a meaningful impact on public health through sustainable nutrition and food system interventions.

Credits: 3

Prerequisites: ENVJ 307

### GEOSPATIAL TECHNOLOGY COURSES

## GISC 101 Introduction to Geographic Information Systems (GIS)

This course introduces students to the use of remote sensing and geographic information systems (GIS) to identify and quantify environmental patterns. Topics include uses of geospatial data, the importance of map scale, projections and coordinate systems, basic geospatial analysis techniques, and cartography. Students will critically evaluate geospatial information and use quantitative reasoning skills to identify patterns in geospatial data, with an emphasis on environmental applications. This course is taught using ArcGIS Online.

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 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 401 Advanced GIS Analysis for Environmental Solutions

This course covers data accuracy and quality, use of advanced geoprocessing tools and geospatial data models applied to environmental phenomena, such as human impacts on the environment and tracking the movement of plants and animals. Students will be exposed to various industry standard and open source software. Students will also learn data integration and editing, and advanced geospatial workflows such as constraint analysis, network analysis, and use of model builder. Geospatial ethics and environmental industry applications of geospatial analysis will also be covered.

Credits: 3

Prerequisites: GISC 101, GISC 201, GISC 301

#### 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 how climate change is impacting the agricultural systems that feed the 8 billion people on the planet. They will learn how drought, flooding, extreme

temperatures, higher levels of atmospheric CO2, range shifts of invasive species and pests, and other direct effects of climate change are impacting crop choice and productivity and consider the predicted effects of these stressors on agricultural practices and productivity given future climate scenarios. Studying cases from around the world, students will identify and analyze strategies for mitigating the impacts of climate change on agricultural systems. 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 21<sup>st</sup> 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

#### MANAGEMENT COURSES

### MGMT 201 Corporate Sustainability: Frameworks and Standards

This course examines multiple methods to assess environmental risks and develop sustainable solutions for business. It is designed to empower students with the skills and knowledge needed to lead corporate sustainability initiatives effectively, ensuring businesses contribute positively to the environment and society, while maximizing value. Participants will explore prominent sustainability frameworks such as the International Sustainability Standards Board (ISSB), Environmental, Social, and Governance (ESG) criteria, Diversity, Equity, and Inclusion (DEI) initiatives, and Environmental Management Systems. Through a combination of theoretical insights, case studies, and practical applications, students will develop a comprehensive understanding of how corporations hold themselves accountable against external benchmarks by integrating sustainability into their core strategies.

Credits: 3

Prerequisites: None

## MGMT 301 Starting Your Small Business

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

This course provides an in-depth exploration of sustainable business practices applied to a company's supply chain through the lens of circular economy principles and international regulations. The curriculum delves into the essentials of sustainable sourcing, ethical labor practices, toxic substance reduction, carbon footprint reduction, and waste reduction within global supply chains. This course develops the student's understanding of the significant

challenges businesses encounter in balancing their financial objectives with the complexities of global sustainability initiatives.

Credits: 3

Prerequisites: None

## MGMT 405 Achieving Net Zero through Carbon Accounting

This course delves into the quantifiable aspects of Carbon Accounting, equipping students with the tools and methodologies needed to measure, analyze, and manage carbon footprints within organizational contexts. Through practical applications and real-world case studies, students will gain hands-on experience in applying metrics to assess and improve sustainability practices. By the conclusion of the course, students will be adept in using quantitative metrics to assess, measure, and optimize carbon accounting practices within business settings.

Credits: 3

Prerequisites: MATH 201

### 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 neoplasis 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 phylogenic 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 Aguaculture

This course is focused on providing a broad spectrum of field-based research skills across Marine Biology and Aquaculture. Students will be exposed to traditional and novel methods to census benthic organisms, pelagic macro vertebrates, and planktonic organisms. Through immersive activities and case studies, students will practice data collection, implement diverse strategies to investigate marine life, and explore career-based skills needed for field and laboratory research.

Credits: 3

Prerequisites: At least two 300-level MBAQ courses

#### MARKETING COURSES

### MKTG 301 Introduction to Sustainable Branding

In today's business landscape, sustainability is not just a trend but a critical imperative. This course equips students with basic knowledge and skills to navigate environmental and social sustainability within the marketing context. We will use case studies, discussions, and dynamic exercises to explore specific opportunities, challenges, and practices involved in sustainable branding. The course provides an overview on marketing and sustainabilityrelated trends, highlights the importance of ethical marketing to avoid greenwashing, and equips students with basic knowledge on sustainable branding and storytelling, as well as reducing environmental impact on daily marketing operations.

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? How do you maximize space usage when landscaping? 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 delve into applications of geometry and statistics to design and manage horticultural, agricultural, or recreational spaces. In addition to modeling relationships between variables that impact forest, ornamental plants, or crop growth, students will perform time series analysis to identify trends and predict future yields. Finally, students will estimate the environmental footprint and resource requirements for a land management project.

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 315 Calculus II

Calculus II extends the foundational concepts introduced in Calculus I, focusing on integration and its applications, techniques of integration, sequences and series, and parametric equations. Students will explore the mathematical techniques required to solve complex problems in engineering and the sciences.

Credits: 3

Prerequisites: MATH 215

### MATH 325 Calculus III

Calculus III provides a thorough introduction to multivariable calculus, covering topics such as vectors, and the geometry of space partial derivatives, multiple integrals, and vector fields. The course emphasizes the application of these concepts to problems in engineering and the physical sciences.

Credits: 3

Prerequisites: MATH 315

#### 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

### MATH 430 Linear Algebra

Linear Algebra is an essential course that introduces students to the study of vectors, vector spaces, linear transformations, matrices, and systems of linear equations. The course covers the theory and application of these concepts in various fields with emphasis on environmental engineering. Emphasis is placed on developing analytical skills and the ability to apply linear algebra concepts to solve real-world problems.

Credits: 3

Prerequisites: MATH 325

### MATH 435 Differential Equations

Differential Equations focuses on the methods of solving ordinary differential equations (ODEs) and their applications to various fields of engineering and science. Topics include first and second order ODEs, Laplace transforms, systems of ODEs, and an introduction to partial differential equations (PDEs), emphasizing modeling and solving real-world problems.

Credits: 3

Prerequisites: MATH 430

#### PHYSICS COURSES

## PHYS 201 Physics 1

This course is designed to enhance your understanding of fundamental physical principles through a study of topics from kinematics, dynamics, and thermodynamics. Concepts in this course include Newton's laws of motion, gravity, work, energy, and momentum. Additional investigations in wave mechanics, sound, temperature, and heat are also included. You will explore these topics and solve a wide array of applicable problems using a background in basic algebra.

Credits: 3

Prerequisites: None

## PHYS 202 Physics 1 Laboratory

This course includes the laboratory exercises focused on kinematics, dynamics,

thermodynamics, and wave mechanics to accompany the materials in 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

#### POLITICAL SCIENCE COURSES

## POLI 301 Global Politics and Policy Topics

Destinations must follow policies set by local, regional, national, and global entities. At the same time, destinations and organizations establish and maintain their own policies. In this course, students will examine how global policies and geopolitical events impact development and management decisions and how to create their own policies to achieve desired sustainability outcomes. Students will gain skills in understanding and analyzing policies, creating policy briefs, and making connections between global events and local management decisions within their discipline (e.g., how geopolitical tensions influence supply chain management, the role of immigration and travel policy in tourism and hospitality).

Credits: 3

Prerequisites: None

#### **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

Prerequisites: None

#### 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 of 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 cultivation originated within indigenous communities that grew and gathered plants for sustenance. In this course, students will investigate the relationship between indigenous cultures, cultivated plants, and sustainable cultivation practices such as intercropping and polycultures. They will also explore how shifting political and economic landscapes have impacted cultivation 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: Supply Chains and Food Culture

This course aims to equip students with a holistic understanding of the interconnectedness between agriculture, supply chains, and food cultures, fostering a sense of responsibility for sustainable and culturally sensitive practices within the global food system. This course unravels the complexities of the farm-to-fork journey, which includes production, processing, distribution, retail, and resulting diets. Informed by the belief that the farm-to-fork journey shapes not only the physical transition of produce but also influences its quality, safety, and

cultural impact, this course delves into the multifaceted relationship between supply chains and food culture.

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

#### **TOURISM COURSES**

## TOUR 201 Ecological, Sustainable, and Ethical Tourism

Ecological tourism is a growing arm of the tourism industry that makes use of low-impact and sustainable approaches to create business opportunities and drive economic growth in natural areas. This course introduces students to the fundamentals of tourism and differentiates between mass tourism and alternative forms of tourism development, including eco-tourism, sustainable tourism, and ethical tourism. Students will assess the economic, social, and environmental costs and benefits associated with development of ecological tourism businesses. This course culminates in the development of an Environmental Market Analysis and Strategic Management Plan that, when implemented, will both lessen a tourism business' footprint and build competitive advantage.

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 from the 3 P's (People, Planet, Profit) to identify ecotourism best business practices and social and environmental sustainability solutions. These tools are paramount to minimizing the impact of the ecotourism industry. Students will apply these industry leading methods and develop a business plan for a successful ecotourism experience that incorporates sustainable practices.

Credits: 3

Prerequisites: None

## **TOUR 210 Park Visitor Management**

Using case studies, students will critically examine visitation challenges in a variety of park and protected area settings. This course will focus on visitor management interventions for a variety of issues related to visitor safety, conservation of natural and cultural resources, and visitor enjoyment of parks. Students will gain insight into mismanagement and be able to create their own visitor management solutions as part of the Course Project. Solutions to visitor challenges covered might include topics related to Leave No Trace, timed entry, and buffer zones. Students will become familiar with different visitor profiles and understand how those influence engagement in various park spaces. They will learn about common ways to measure visitation to parks (e.g., car counting, camera counting). Students will also become familiar with common regulatory issues around visitor use, safety, and park regulations.

Credits: 3

Prerequisites: None

## **TOUR 213 Threats to Park Management**

Using case studies, students will critically examine visitation challenges in a variety of park and protected area settings. This course will focus on visitor management interventions for a variety of issues related to visitor safety, conservation of natural and cultural resources, and visitor enjoyment of parks. Students will gain insight into mismanagement and be able to create their own visitor management solutions to reduce threats to parks as part of the Course Project. Solutions to visitor challenges covered might include topics related to Leave No Trace, timed entry, and buffer zones. Students will become familiar with different visitor profiles and understand how those influence engagement in various park spaces. They will learn about common ways to measure visitation to parks (e.g., car counting, camera counting). Students will also become familiar with common regulatory issues around visitor use, safety, and park regulations.

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

#### 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 function as 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

### 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

## **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 <u>Student Handbook</u>.

## 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 <u>Registrar</u>, 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.

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### 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.

#### Orders to Perform a Period of Service

Under Public Law 117-328 Title 38 U.S.C § 3691A, when an enrolled student who is a member of the Armed Forces (including reserve components) receive orders to "perform a period of service" (i.e., active duty, inactive duty training, or state service), Unity Environmental University will not assign the member a failing grade, reduce the member's grade point average, characterize any member's absence(s) as unexcused, or assess a financial penalty on a member because of a withdraw or leave of absence due to receiving orders for service.

If a student receives orders after a term start and the orders require the student to begin service before the term has ended, a student has the option of receiving an Incomplete grade for the term or withdrawing and receiving a refund. The student should reach out to their advisor to provide a copy of the orders and discuss arrangement options.

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®.

## Student Health Insurance Policy

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

## **SECTION 8: RESOURCES**

#### Academic Calendar

Baccalaureate Terms	Term Begins	Term Ends
<b>November 2024</b> (DE5W11.18.24)	11/18/2024	12/22/2024
January 2025 (DE5W01.13.25)	1/13/2025	2/16/2025
February 2025 (DE5W02.24.25)	2/24/2025	3/30/2025
April 2025 (DE5W04.07.25)	4/7/2025	5/11/2025
May 2025 (DE5W05.19.25)	5/19/2025	6/22/2025

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

#### Distance Education Student Handbook

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

#### 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

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

#### Registrar

registrarsoffice@unity.edu: (207) 509-7257

Distance Education Resources	
ADA Accessibility Office	
AccessibilityDE@unity.edu	(207) 509-7290
Title IX Coordinator	Doreen Rogan
drogan@unity.edu	(207) 509-7290

Date Modified: June 14, 2023

Adoption Chain: DE Leadership, President

#### DE Baccalaureate Catalog Updates - January 2024

Updated language for Readmission to the University

Updated language for Leaves of Absence and Time Limitation for Degree Completion

Updated description for MGMT 403

Updated description and name for FINC 401

Updated description and name for ARTS 101

Updated description for ESCI 305

Removed EVPC 301

Removed EVPC 305

Removed EVPC 401

Added EVPC 320

Added EVPC 321

Updated language for Participation in a Commencement Ceremony

Updated Academic Calendar

Updated Gen Ed/EPC Learning Outcomes

Updated Wildlife Conservation Course Learning Outcomes

Updated name of MGMT 301

Removed GISC 401

Removed program for BS in Outdoor Recreation and Management

Removed program for BS in Regenerative Agriculture

Removed program for BS in Regenerative Hotel Management

Removed program for BS in Tourism Destination Management

Removed program for BS in Sustainable Food Science and Technology

Removed TOUR 401

	CATALUG
Removed TOUR 310	ONTRESS
Removed TOUR 306	
Removed TOUR 305	
Removed TOUR 303	
Removed TOUR 302	
Removed TOUR 212	
Removed TOUR 211	
Removed TOUR 205	
Removed TOUR 204	
Removed TOUR 202	
Removed TOUR 102	
Removed TOUR 101	
Removed FOOD 305	
Removed FOOD 303	
Removed FOOD 207	
Removed FOOD 205	
Removed FOOD 101	
Removed AGRI 420	
Removed AGRI 410	
Removed AGRI 210	
Added EVPC 102	
Added EVPC 102 language	above University Wide Requirements for each Program
Updated language for Section	on 5: BACCALAUREATE ACADEMIC PROGRAMS