

## HOW TO USE THIS MAP

- UToledo's Major Map is a guide for you to plan for future success while you explore your University experience. The five rows of the map provide a step-by-step guide to integrate your academic courses with experiences on and off-campus that will help build your career readiness.
- Start thinking about life beyond college now and use the map to set short- and long-term goals, such as preparing for graduate or professional schools, preparing for your first career-track job and networking with others in your profession.

## RESOURCES FOR SUPPORT

From orientation to graduation, there are many resources to support your University experience.

Your success coach is like your personal GPS. As you navigate from where you are to where you want to be, coaches offer one-on-one guidance and support through referrals to academic support services and other campus resources, and connections to campus engagement and experiential learning opportunities. Visit [utoledo.edu/success-coach](http://utoledo.edu/success-coach) to connect with your success coach.

Career Services provides comprehensive career planning and preparation services for all UToledo students in order to clarify and implement their academic and career goals. Connect with Career Services during your first year and continue working with them often throughout your academic career. Visit [utoledo.edu/career](http://utoledo.edu/career) to learn more about the programs, services and events to support your success.



### BUILD YOUR EXPERIENCE BEYOND THE CLASSROOM

Service-learning activities offered by our department build job skills and help you network with potential employers. Our students assist the State of Ohio eliminating invasive species and grow food for the community while learning about urban agriculture with our partners at The University Church (TUC) Garden.

Get involved with faculty research projects and learn in the field by doing!

## COLLEGE OF NATURAL SCIENCES AND MATHEMATICS

Department of Environmental Sciences  
Main Campus, Wolfe Hall, Room #1235  
419.530.2009

[envsciences@utoledo.edu](mailto:envsciences@utoledo.edu)  
[utoledo.edu/nsm/envsciences/](http://utoledo.edu/nsm/envsciences/)



FUELING TOMORROWS



## BIOLOGY: ECOLOGY/ORGANISMAL

### TOP FIVE REASONS TO STUDY BIOLOGY: ECOLOGY/ORGANISMAL AT UTOLEDO

- 1** NW Ohio region is a perfect location to study the environment. Its diverse ecosystems – wetlands, savannahs, woodlands – combined with its location near Lake Erie, and a large human population, make for an ideal natural laboratory.
- 2** Experiential learning through hands-on undergraduate research, as early as your first year, working directly with faculty that are experts in their field.
- 3** Work in outstanding labs and facilities such as the UToledo Lake Erie Center, UToledo's Stranahan Arboretum and the UToledo Outdoor Classroom Garden.
- 4** Develop a broad understanding of the ecology of animals, plants and microorganisms and their role in the biosphere.
- 5** Graduate with hands-on research and field-work experience in the U.S. and abroad.

### PUTTING YOUR DEGREE TO WORK

- City, State & Local Government
- Conservation
- Consulting
- Environmental Services
- Food & Beverages
- Forestry & Parks
- Laboratory & Field Research
- Legislative Office
- Non-Profit Organizations
- Public Health
- Post-Graduate Education
- Renewables & Environment

### AMPLIFY YOUR MAJOR

- Study abroad during your junior year in a yearlong exchange program with The University of Salford in Manchester, England. All courses transfer seamlessly.
- Stand out among your peers by getting involved in undergraduate research, including presentation of your results at national conferences, and publication in top-tier journals.

**“As an education and outreach intern at UToledo's Lake Erie Center, I shared my enthusiasm for ecology with many people. My membership in Building Ohio's Sustainable Energy Future (BOSEF), an undergraduate scholarship organization, has ultimately shaped my confidence and passion for conservation issues.”**

YSABELLE YRAD, Education Intern, The Creature Conservancy, Mich., B.S. Biology – Ecology and Organismal, '20

# Biology: Ecology and Organismal

Department of Environmental Sciences



## 1ST YEAR

## 2ND YEAR

## 3RD YEAR

## 4TH YEAR

### EXPLORE YOUR MAJOR AND CAREER PATHWAYS



In the first year, you will have the chance to explore the foundations of Biology with courses such as:

EEES 2150 Biodiversity  
BIOL 2170 Fundamentals of Life Science: Biomolecules, Cells and Inheritance

Meet with your [academic advisor](#) to learn more about your [plan of study](#).

Dive deeper into the discipline of Biology by enrolling in higher-level, challenging courses that satisfy your specific interests.

Explore undergraduate research or volunteer opportunities available with the [UToledo Lake Erie Center](#), [UToledo's Stranahan Arboretum](#) or [faculty labs](#).

Continue working on core requirements as well as your major requirements.

Finish your university core requirements while enrolling in departmental courses that will set you up for advanced laboratory courses, field courses and specific seminars.

Meet with your [academic advisor](#) to:

1. Make sure you are on track for graduation and have planned out your courses for the next year.
2. Plan a summer experience/internship to enhance your learning.

Make sure to finish up all your courses for your major and any optional minor and/or additional major(s).

Final courses include Advanced Lab(s) and Electives – all preparing you for your future after graduation.

Participate in seminars and research-based courses that can lead to graduate school or your future career path.

### CONNECT WITH OTHERS AND BUILD COMMUNITY



Attend the Student Involvement Fair in early fall; explore over 400 [student organizations](#) and attend [campus events](#).

Consider joining a fraternity or sorority and getting involved in [Greek Life](#).

Working on campus is a great way to meet others. Attend the [Job Fair](#) to learn about campus jobs!

Explore organizations that complement your major. Many colleges have academic-focused organizations. Learn more on [InvoNet](#).

Community service is a great way to get experience as well as give back to the community. Consider joining a [volunteer organization](#) or work with community partners such as the Olander Park System, TUC Garden or GUTS (Greening UToledo Through Service).

Consider doing research with a faculty member. UToledo students often apply for and receive funding for their research and present their results at conferences. Check out the [Office of Undergraduate Research](#) to learn more.

Join a professional association related to your interests.

Present your research at a research exhibition on campus. Consider attending and presenting your work at a regional or national conference with a faculty member - this provides great opportunities to learn about graduate school programs, meet alumni and network beyond UToledo.

Be sure to include these experiences in your resume: community service, student leadership, organization membership and philanthropic efforts.

### BUILD YOUR SKILLS THROUGH EXPERIENCE



Meet with an [Environmental Sciences faculty member](#) to discuss creative ways to volunteer or intern in your area of interest.

Consider opportunities outside of the classroom. Join a student organization such as:

- [Building Ohio's Sustainable Energy Future \(BOSEF\)](#)
- [Greening UToledo Through Service Learning \(GUTS\)](#)

Improve your study strategies and visit the [Learning Enhancement Center](#).

Explore summer job opportunities related to your major by scheduling a meeting with [Career Services](#).

Consider applying to the [Office of Undergraduate Research Summer Research and Creative Activities Program](#) to earn a research scholarship.

Interested in undergraduate research? Apply for funding through the [Office of Undergraduate Research](#).

Participate in a [yearlong exchange program](#) with The University of Salford in Manchester, England. All courses transfer seamlessly.

Take an ecology field trip and explore the ecology of the United States or Trinidad and Tobago.

"Employment of conservation scientists and foresters is [projected to grow 7 percent from 2020 to 2030](#)... The median annual wage for conservation scientists was \$63,750 and for foresters was \$64,110 in May 2021." - BLS

Investigate internships or full-time jobs related to your careers of interest by attending events for graduating seniors sponsored by [Career Services](#).

### ENGAGE IN AN INCLUSIVE GLOBAL PERSPECTIVE



Get to know people who are different from you. Connect with the [Office of Multicultural Student Success](#) (OMSS) by attending OMSS [History and Heritage Month](#) events.

Learn another language or culture to develop new perspectives and build your marketable skills. Visit [World Languages and Cultures](#) for more information.

Connect with the [Education Abroad Office](#) to learn more about the opportunities to live and learn in a different country. Meet with your advisor to see how your credit will transfer and discuss the best time to study away.

Consider completing the OMSS [Student Diversity Certificate](#) program.

Attend events sponsored by the [Office of Diversity, Equity and Inclusion](#).

Join an international student organization to learn more about other cultures.

Attend the I-Village event or I-Dinner, two premier UToledo international events.

Build your intercultural competencies by learning more about diversity, equity and inclusion through OMSS and the Office of Diversity, Equity and Inclusion programs.

### PREPARE FOR POST-GRADUATION



Complete your [Handshake Profile](#) (use your UTAD log-in credentials).

Explore [What Can I Do With This Major?](#) and [Candid Career](#) to learn about career paths and employers within your field of study.

Meet with [Career Services](#) to begin developing your resume and a plan to get career ready.

Utilize Handshake and InvoNet to find opportunities to meet employers and expand your network by attending career fairs and other events.

Meet with Career Services to update your [resume](#) and LinkedIn profile.

Use Handshake to apply to part-time jobs, internships or externships to gain practical and relevant experience.

Gain interviewing skills with [Big Interview](#) or schedule an appointment with Career Services for a mock interview.

Join groups on LinkedIn reflecting specific careers or topics of interest in biology and ecology.

Solidify post-graduate plans.

Get help from your academic advisor, faculty and Career Services with job searching, resumes, interviews and graduate school applications.

Learn about [Career Opportunities in Biology/Ecology](#).

### WHAT WILL I LEARN?

Develop your career readiness competencies to ensure you are prepared to launch your career upon graduation:

- Career & Self Development
- Communication
- Critical Thinking
- Equity & Inclusion
- Leadership
- Professionalism
- Teamwork
- Technology

### HOW WILL I USE IT?

Use your degree to attain career positions such as:

- Animal technician
- Aquatic ecology research assistant
- Biological science technician
- Business analyst
- Climate change analyst
- Conservation coordinator
- Ecology and wetlands practice leader
- Education and outreach manager
- Fish and game warden
- Instructor
- Park naturalist
- Preserve manager
- Regulatory technician
- Remedial project manager
- Research scientist
- Researcher
- Science teacher
- Senior research specialist
- Water resource specialist
- Watershed science and restoration director