# Biology MAJOR MAP

Possible Programs of Study:



## **COURSEWORK**

**& MILESTONES** (core courses, requirements, electives...)

## **1ST YEAR**

Explore the foundational principles of Cell and Molecular Biology and Ecology, Evolution, and Biodiversity, and engage in inquiry based learning. Learn about opportunities for majors throughout your time at Winthrop in the Freshmen Symposium in Biology.

#### 2ND YEAR

Delve into the field of genetics and further explore the sub-disciplines of biology. Practice the methods of experimental and applied biology. Take courses in areas of interest and required for pre-professional programs. Consider a minor if you have a particular area of interest.

#### 3RD OR FINAL YEAR

Delve into the field of genetics and further explore the sub-disciplines of biology. Practice the methods of experimental biology. Take courses in areas of interest and required for pre-professional programs. Consider a minor if you have a particular area of interest. Léarn about biological research and career opportunities in the Biology seminar courses.

## **4TH OR FINAL YEAR**

Finish all courses for your major and optional minor. Complete your senior capstone course. Learn about biological research and career opportunities in the Biology seminar courses. Continue to develop as an investigative learner.

Participate in research with faculty

mentors or through research-based

prepare you for graduate programs,

professional schools, or employment.

courses. Complete internships that can

#### **AFTER GRADUATION**

#### CAREERS OF INTEREST

Biomedical Researcher Conservation Biologist Data Analyst Dentist **Environmental Consultant** Genetic Counselor Grant writer/reviewer Journal editor Laboratory Technician Land Manager Medical Laboratory Scientist Medical Technologist Medical Writer Museum Curator Occupational Therapist Pharmacist Physical Therapist Physician Physician's Assistant Prófessor Public Health Official Science Journal Editor Science Outreach Coordinator Science Policymaker Scientist (Biomedical, Ecological Organismal, Cell and Molecular Biology) Teacher Veterinarian

## **RELEVANT EXPERIENCE**

(clubs, jobs, volunteering, research, internships...)

Join student organizations such as the Beta Beta Biological Honors Society, the various health profession organizations, the Student Environmental Action Coalition (SEAC), or Health Professions Connection (HPC). Consider a freshman research experience with SEA - PHAGES.

Explore experiential learning opportunities such as internships and research with faculty mentors. Apply for summer research programs at Winthrop or another university, such as a Research Experience for Undergraduates (REU) Program. Explore summer experiences such as shadowing and volunteer work related to future career goals

Take the Professional Development for Biology Internships course. Participate in internships and/or conduct research with faculty mentors. Apply for summer research programs at Winthrop or another university, such as a Research Experience for Undergraduates (REU) Program. Investigate opportunities for additional experiences related to careers of interest with volunteering or student organization leadership.

Present your undergraduate research at

local, regional, or national conferences.

Earn your lab coat by presenting at the

Biology Seminar Series. Tutor or peer

Ambassador.

mentor others. Apply to be a Winthrop

or national conferences. Earn your

Present your research at local, regional, lab coat by presenting at the Éiology Seminar Series. Join groups that will help with networking, such as LinkedIn and ResearchGate. Participate in

## COMMUNITY CONNECTION

(conferences, student gov't, associations...) Participate in volunteer events with student organizations like Beta Beta Beta or SEAC. Attend cultural events. Attend seminars and symposia to gain insight into potential careers through the Department Seminars, Bench to Bedside program or the HPC. Consider becoming a tutor at the Student Success Center or a peer mentor for other biology majors.

Volunteer at a community organization or an agency where you can practice your second language skills and learn more about people from other cultures.

Take a travel course with Winthrop faculty such as Travel Field Conservation Biology. Study abroad. Take summer field courses at U.S. field stations or in other countries. Volunteer at a community organization or agency where you can practice your second language skills and learn more about people from other cultures.

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## **GLOBAL THINKING**

(study abroad, traveĺ, 3rd year exchange...)

Attend Winthrop cultural events focusing on another culture or on international issues.

Consider adding a minor in another

geology, sustainability, or computer

science. Meet with your advisor to

check progress to degree.

field such as chemistry, mathematics.

Consider study abroad options.

Apply for the Finding Your Future program in medicine. Prepare for any required tests for graduate school (e.g., GRE, MCAT). Visit professional and graduate schools of interest. Investigate potential jobs/employers. Consider an Accelerated Master's Degree.

Work with your advisor to ensure you have no outstanding course requirements. Apply to graduate. Apply to the Accelerated Master's Degree program and complete 9 hrs of 500-level courses for graduate credit. Interview for graduate/professional programs or jobs.

## LIFE AFTER **GRADUATION**

(career or grad school prep)

Review the biology curriculum and general education requirements and learn about specific program tracks. Discover the diverse career options possible with a degree in biology in Freshman Symposium in Biology. Consult with your academic advisor to review program requirements and longterm goals, and develop a 4-year plan.

## Zookeeper **SKILLS & QUALIFICATIONS** professional networking events through SCBIO. I MIGHT NEED INCLUDE:

(scientific method) Ability to communicate and collaborate with other disciplines Ability to interpret primary literature Ability to learn independently Ability to understand relationships between science and society Ability to use modeling and simulation Ability to use quantitative reasoning Ability to tap into the interdisciplinary

Wildlife Manager

nature of science Basic laboratory techniques and ability to follow protocols

Ability to apply the process of science

Clear communication (written, oral, and visual)

Critical thinking and problem-solving Data entry and management Effectively collaborate with others Ethical reasoning Proficiency in Microsoft programs (Excel. Word. PowerPoint)