

# BIOL 100 Syllabus

Fundamentals of Biology Spring 2025

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<b>Course Meeting Days and Time</b>	T/Th 1:00	<b>Student Drop-In Office Hours</b>	Any time by appointment; Zoom or FaceTime
<b>Course Mode</b>	In-person		

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## Course Information

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### Catalog Description:

This class for the non-science major will explore fundamental concepts of Biology and relate them to current social issues. Emphasis will be placed on how science approaches the world. The primary goal of this course is for students to learn basic biological principles so that students may better appreciate how biology is relevant in their everyday lives. 4 credit hours.

### Credit Hour Policy Statement:

**Combination of standard lecture and other academic activities:** "This class meets the federal credit hour policy through a combination of lecture + laboratory (or lecture + practicum) for a total of 45-75 hours of supervised learning activities for each credit." (Def 1 & 2)

### General Education Requirements:

This course meets the General Education requirements for Outcome 8.

### Course Learning Outcomes:

- Students will demonstrate a thorough familiarity with important vocabulary, facts, and theories of biology.
- Students will demonstrate an understanding of fundamental scientific principles, relationships and unifying theories of biology.
- Students will demonstrate an ability to reason and solve problems using scientific concepts.
- Students will demonstrate an understanding of the relevance of the scientific discipline to society.

Students will demonstrate an ability to read and follow experimental procedures, analyze data, account for variability and uncertainty in measurement, and use relevant observations to draw conclusions.

### Program Learning Outcomes:

#### Required Materials:

S. Mader and M. Windelspecht, *Essentials of Biology*. 7<sup>th</sup> Ed., c. 2024, with Connect.

Driscoll et al., *Charles Darwin, the Copley Medal, and the Rise of Naturalism*, c. 2010. ISBN 9780393937268

**Methods of Instructions:**

This class includes traditional lectures, on-line and in-class discussions, laboratory experiments and activities, and will require student collaboration.

We will run a simulation game: a Reacting to the Past module on Darwin's nomination for the Copley Award. In this game, you will each receive a role to play, complete with objectives and assignments (short papers in preparation for your class presentations). We'll be transported back to 19<sup>th</sup> century Britain to examine the response to the new idea of evolution, and opinions as to the role and nature of science.

**Withdrawal and Attendance policies:**

Harlaxton College expects regular class attendance by all students. Students are considered sufficiently mature to appreciate the necessity of regular and punctual attendance, to accept this personal responsibility and to accept the consequences of failure to attend. When absences occur due to emergency or medical reasons, students are expected to notify their instructors of the absence prior to class or to seek the assistance of the College nurse or a member of the Student Experience Team for help in notifying instructors.

Instructors have the authority to grant excused absences for medical, psychological, or personal reasons upon review of appropriate documentation and professional recommendation supporting such a request. In the event of long-term illness, reasonable accommodations will be made to allow a student to complete a course. In these cases, the Dean will need to approve the long term nature of the accommodation.

The Dean of Harlaxton College has the authority to grant excused absences for medical, psychological, or personal reasons.

Each instructor is expected to maintain an attendance policy in keeping with the nature of the Harlaxton program and may consider it in evaluating performance in their courses.

**Policy Governing Excused Absences.**

- Excused absences are not given to facilitate student travel independent of College-sponsored travel.
- Students may be permitted to miss class because of participation in academic field trips.
- Instructors must co-ordinate and confirm academic fieldtrips with the Dean, prior to the commencement of the Semester to ensure their inclusion in the Semester timetable.
- Where authorization for an academic fieldtrip is requested after the commencement of the semester, the request must be submitted to the Dean.

The following information is required:

- Purpose and brief description of the official Harlaxton event or academic fieldtrip.
- Dates, location, and times (as applicable).
- Alphabetical list of students involved [Last Name/First Name] along with their student identification number.

If approval is granted:

- Instructors affected will be notified at least one week prior to the class period during which absence is anticipated, or as soon as possible.
- Missed class time due to student participation is to be considered an excused absence.
- The grade of a student may not be lowered in any class due to excused absences.

- It is the student's responsibility - to take the initiative by consulting with their instructors before the absence occurs, and - to do what is required by the instructor to make up all missed assignments and/or examinations.
- Instructors are required to assist students in these occasional situations of excused absences.

### **Grading Criteria:**

The grade you receive in this class is based on the following:

4 Exams (50 pts. each) = 200 pts.

Comprehensive Final Exam = 100 pts.

Reacting to the Past = 50 pts. (Paper(s) = 30 pts., Class participation 20 pts., Winner's bonus 3 pts. extra)

Connect Homework = 50 points

Lab = 100 pts.

Total = 500 pts.

Your final course grade will be determined by the percentage of the 400 pts. you earn.

Extra Credit: You may earn extra credit points by submitting summaries of news articles dealing with biological topics. The summaries should be one typed page (double spaced, 1" margins), summarizing articles from U.K. or European newspapers, news web sites, etc. Try to contrast the coverage with what you might see in the USA. Include a copy of the article. You will receive 5 pts. per each properly done summary, for a maximum of 20 pts. (4 articles), to be added to the points earned for the course.

### **Honor Code:**

All students at the University of Evansville agree to the University honor code: *I will neither give nor receive unauthorized aid, nor will I tolerate an environment that condones the use of unauthorized aid.*

### **Course AI Policy:**

In this course, submission of any work that is not entirely your own is considered academic dishonesty. The use of generative AI tools such as ChatGPT are prohibited and constitute a violation of academic integrity as examples of unauthorized aid.

### **Course Schedule:**

Week	Topic	Reading
1 and 2	Science, Evolution, Darwin RTTP	Ch. 1, 14, Reacting to the Past
3	Chemistry, cells, Exam 1	Ch. 2, 3, 4
4	Energy	Ch. 6, 7
5	Cell division, Genetics, Exam 2	Ch. 8, 9, 10
6	DNA, Biotechnology	Ch. 11, 12, 13
7	Evolution, Exam 3	Ch. 15, 16
8	Microbes, Coronavirus	Ch. 17, 26
9	Plants, Fungi, Exam 4	Ch. 18, 20, 21
10	Animals, control, reproduction	Ch. 19, 27, 29
11	Population Ecology	Ch. 30
12 and 13	Communities and Ecosystems	Ch. 31
14	Human Impact, Review, Exam 5	Ch. 32

Labs may include:

Identification of botanical specimens ([www.botanicalkeys.co.uk/flora/](http://www.botanicalkeys.co.uk/flora/))(PlantNet app) (iNaturalist Seek app)

Genetics using Star Genetics ([star.mit.edu/genetics/index.html](http://star.mit.edu/genetics/index.html))

Identification of disease genes (tutorial)

Online observation records. Submit observations of wild organisms to the iNaturalist.org site. Records must include date, specific location (by map), and good quality photographs. Take photos as close as possible so organism can be identified.

Mitosis and Meiosis

DNA structure

Some labs will be done on-line using Connect Biology (you must have access to Connect).

\*Subject to change at the discretion of Dr. Jonas.

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### University Policy Statements

#### Disability Policy:

The University of Evansville is committed to providing an accessible and supportive environment for students with disabilities. It is the policy and practice of the University of Evansville to make reasonable accommodations for students with properly documented disabilities. Students should contact Disability Services at 812-488-2663 to seek services or accommodations for disabilities. Written notification to faculty from Disability Services is required for academic accommodations.

#### Institutional Equity and Title IX

UE is committed to fostering an atmosphere free from harassment and creating an inclusive campus for all members of the University community regardless of their sex, sexual orientation, gender identity, race, religion, ethnicity, country of origin, ability, or veteran status. All Faculty members are considered Responsible Employees and required to report instances of discrimination, harassment, or sexual violence to the Office of Institutional Equity

You may also choose to speak to a Confidential Resource about your experience. Confidential Resources at the University include:

Counseling Services: 812-488-2663, [counselingservices@evansville.edu](mailto:counselingservices@evansville.edu)

Crayton E. and Ellen Mann Health Center: 812-488-2033, [healthcenter@evansville.edu](mailto:healthcenter@evansville.edu)

Spiritual Formation Coordinator: 812- 488-5265, [spiritualformation@evansville.edu](mailto:spiritualformation@evansville.edu)

If you or someone you know has been harassed, assaulted, or discriminated against you can find the appropriate resources by contacting the Assistant Director of Institutional Equity and Title IX Coordinator: email [titleix@evansville.edu](mailto:titleix@evansville.edu) ; phone (812) 488-5261. For more information visit <https://www.evansville.edu/offices/titleix/policy.cfm> .

### **Non-discrimination Statement**

The University of Evansville expects all members of its community to treat each other with respect and civility. Harassing behaviors directed towards any member of our community will not be tolerated. As part of its commitment to non-discrimination, the University specifically prohibits harassment based on any other characteristics set forth in its nondiscrimination statement as follows: including race, color, gender, gender identity and expression, sexual orientation, creed or religion, national origin, age, disability, veteran status and all federally protected groups/classes. Any form of harassment undermines the mission of the University and negatively impacts the University community as a whole. For more information contact the [Center for Inclusive Excellence](#).

### **Campus Safety**

All members of the UE community are automatically enrolled in the Ace Alerts Emergency Alert System. When the system is activated, emergency notification information is sent in the following manner: calls to campus IP phones, text messages, emails, campus housing speaker system, active threat sirens (non-weather related), digital signage, and AlertUS desktop on campus-owned computers.

**To contact the Office of Public Safety:**

**Emergencies:** 812-488-6911

**Non-emergencies:** 812-488-2051

### **Complaints, Grievances, and Appeals**

The University of Evansville seeks to resolve all student concerns in a timely and effective manner through policies and processes documented in the University [Course Catalog](#) and [Student Handbook](#).

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## **Student Resources**

Access the links below to connect with departments and resources that are here to support all UE students.

**Academic Services:** Contact the Center for Academic Advising to connect with academic support services including supplemental instruction, tutoring, and time management and study skills help.

**Blackboard Guides:** Blackboard is the University of Evansville's course management system for online courses. Guides on using Blackboard can be found within [MyUE](#).

**Counseling Services:** Counseling Services provides general, short-term counseling that assists students in identifying barriers and setting goals while improving coping strategies to achieve personal and academic goals.

Counselling Services: [counselling@harlaxton.ac.uk](mailto:counselling@harlaxton.ac.uk)

**University Libraries:** Conduct research, access resources, and contact librarians for any research related help.

College Nurse: Lesley Selby, RGN, +44 01476 403027, [lseyby@harlaxton.ac.uk](mailto:lseyby@harlaxton.ac.uk)