



## Introduction to Biology for Non-Majors

**Course Number:** BIO 101  
**Instructor:** TBA  
**Contact Hours:** 48  
**Credits:** 3.0

**Term:** Summer, 2021  
**Email:**  
**Meeting Times:** TBA

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### Course Description:

An introduction to the fundamental principles of biology, including evolution, cellular and molecular basis of life, mechanisms of inheritance, advances in biotechnology, anatomy and physiology of plants and animals, and ecological principles. Students will be involved in lecture, class discussions, and group presentations, and in-class exercises. As a course intended for non- majors, students will cover a breadth of topics in the Biological Sciences without the intensive focus on technical issues that are required for majors.

### Learning Objectives:

Upon successful completion of this course, students will be prepared to:

1. Explain how evolution drives diversity and unity of life
2. Describe how biological systems use free energy and molecular building blocks to develop and reproduce
3. Explain how living systems handle information essential to life processes
4. Describe cellular structure and function
5. Describe plant and animal form and function
6. Explain structure and dynamics of populations, communities, and ecosystems

**Required Textbook and Course Materials:**

Concepts of Biology

Fowler, Roush, Wise

ISBN-10: 1-938168-11-9

**Language of Instruction:**

This course is taught entirely in English, including lectures, homework, assignments and examinations. Teaching assistants will be fluent in both English and Mandarin.

**Course Prerequisites:**

None

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**University Policies****Class Format**

In Person. Course activities, discussions, assignments and resources will be made available at the start of and during the course.

**Attendance, Participation and Deliverables**

Courses are very intensive and in order to be successful, students need to attend every class. Attendance is required for all lectures and class activities. Class participation is expected from every student and form a significant portion of the final course grade.

All course deliverables (homework assignments and tests) are due on time as assigned. This course includes *no* make-ups, postponements or additional assignments, except for verified medical emergencies. If you miss an exam/assignment due to a non-sanctioned absence, your score on that exam/assignment will be zero.

## Academic Dishonesty

All cases of academic dishonesty will be diligently pursued. Academic dishonesty includes representing the work of another as one's own work or cheating by any means. Academic dishonesty also includes aiding, abetting, concealing or attempting such activity. The penalty is automatic failure of the course and possible suspension from the university.

## Grading Scale

Grading Scale (%)

97 - 100	A+	77 - 79	C+
93 - 96	A	73 - 76	C
90 - 92	A-	70 - 72	C-
87 - 89	B+	67 - 69	D+
83 - 86	B	63 - 66	D
80 - 82	B-	60 - 62	D-
		0 - 59	F

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## Professor- and Course-Specific Policies (*Tentative*)

### Homework

Assignments will be listed at the beginning of the course. The purpose is to prepare you for the exams. The homework is a very important part of the course. No matter how well you think you understand the material presented in class, you won't really learn it until you do the problems.

### Exams

No make-ups will be given after the exam. The use of the textbook or any other written reference is not allowed during the exams. The purpose of the exams is to test your understanding of key concepts from the course lectures and materials.

**Grade Components:**

Test 1	20%
Test 2	20%
Test 3	20%
Test 4	20%
Test 5	20%
<b>Total</b>	<b>100%</b>

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**Tentative Course Schedule**

<b>Module</b>	<b>Topics</b>
1	Introduction to Course (Chapter 1) Chemistry of Life (Chapters 2) Molecules of Life (Macromolecules (Chapter 2) Cells (Chapter 3)
2	Energy and Living Systems (Chapter 4.1) Cellular Respiration (Chapter 4) Photosynthesis (Chapter 5) Cell Division (Mitosis and Meiosis) (Chapters 6, and 7)
3	Foundations of Genetics (Chapters 8) Genetic Material (DNA) (Chapter 9) How Genes Work (Chapters 9 and 10) Evolution, Natural Selection and Speciation (Chapter 11)
4	Plant Biology I (Plants.pdf) Plant Biology II Animal Biology I (Chapter 16) Animal Biology II

5	<p>Populations (Chapter 19)</p> <p>Communities I (Species Interactions) (Chapters 19 and Communities)</p> <p>Communities II (Community Dynamics) (Chapter 19 and Communities)</p> <p>Ecosystems (Chapter 20 and Ecosystems)</p>
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