

## Principles of Biology

### BIOL-101

CG Section 8WK 11/08/2019 to 04/16/2020 Modified 02/16/2022

### Course Description

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An examination of the fundamental characteristics common among living things. Emphasis is placed upon studies of the cell, energy, metabolism, reproduction, heredity, ecology, phylogeny and the diversity of life.

#### Requisites

For information regarding prerequisites for this course, please refer to the [Academic Course Catalog \(https://catalog.liberty.edu/\)](https://catalog.liberty.edu/).

### Rationale

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An understanding of the basic characteristics of life is a significant asset to an individual. Individuals live among and relate to myriads of life forms around, on, and within them. As individuals begin to appreciate the diversity and ecological significance of life forms, they begin to function more effectively within the sphere of dominion God has allotted them.

### Course Learning Outcomes

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Upon successful completion of this course, the student will be able to:

- A. Logically organize, critically analyze, and apply scientific ideas, theories, and information.
- B. Apply basic biological and scientific principles to real and hypothetical circumstances in order to predict likely outcomes or behaviors.
- C. Apply biological and environmental principles from the biblical worldview, to make informed decisions on moral and ethical issues and to weigh the consequences of those decisions.

#### General Education Foundational Skill Learning Outcomes

- A. Social and Scientific Inquiry 1: Demonstrate an understanding of the impact of social and/or natural sciences on the world in which we live.
- B. Social and Scientific Inquiry 3: Apply solutions for a social and/or scientific dilemma experienced in society.
- C. Social and Scientific Inquiry 4: Describe how social and/or scientific inquiry equips human beings to be participants in God's redemptive work.
- D. Communication and Information Literacy 1: Discover and evaluate information to accomplish a specific purpose.
- E. Communication and Information Literacy 4: Demonstrate a basic understanding of the role of research and scholarship in order to apply it in various contexts.
- F. Critical Thinking 2: Structure an argument or position using credible evidence and valid reasoning.

### Course Resources

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Click on the following link to view the required resource(s) for the term in which you are registered: [Liberty University Online Bookstore \(https://bncvirtual.com/liberty/\)](https://bncvirtual.com/liberty/).

#### Additional Materials for Learning

- A. Computer with basic audio/video output equipment
- B. Internet access (broadband recommended)
- C. Canvas [recommended browsers \(https://community.canvaslms.com/t5/Canvas-Basics-Guide/What-are-the-browser-and-computer-requirements-for-Canvas/ta-p/66\)](https://community.canvaslms.com/t5/Canvas-Basics-Guide/What-are-the-browser-and-computer-requirements-for-Canvas/ta-p/66)
- D. Microsoft Word
- E. Software (“plug-ins”) to read Quicktime and Shockwave files (obtainable free online from Adobe and Quicktime sites)
- F. APA Style Central Link: <http://ezproxy.liberty.edu/login?url=http://APAStyleCENTRAL.apa.org> (<http://ezproxy.liberty.edu/login?url=http://APAStyleCENTRAL.apa.org>)

## ☰ Course Assignments

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### Textbook readings and lecture presentations

### Course Requirements Checklist

After reading the Course Syllabus and [Student Expectations \(https://www.liberty.edu/institutional-effectiveness/student-expectations/\)](https://www.liberty.edu/institutional-effectiveness/student-expectations/), the student will complete the related checklist found in the Course Overview.

### The Scientific Method Assignment

In this course, you will complete the Scientific Method Assignment. This assignment will be accessed through the Cengage platform. The homework is based on the material in the text. In addition, Cengage may be accessed outside of Canvas. At the end of the assigned module, Cengage will automatically grade the assignment.

### Discussions (2)

Discussions are collaborative learning experiences. Therefore, the student will respond to the provided prompt and post a thread of at least 100 words. In addition to the thread, the student must submit 2 replies of at least 100 words to 2 classmates' threads. This assignment aligns with the following FSLOs: Social and Scientific Inquiry 1, 3, and 4; Critical Thinking 2.

### Individual Assignments (5)

#### Significance of Life Assignment

The student will construct a single sentence to include within it four phrases that present that life forms other than man are significant.

#### Biomolecules of Cells Assignment

The student will select a variety of biomolecules from a provided list and answer a series of directed questions.

#### Energy and Information Study Guide Assignment

Gain skills of text research by completing the weekly study guide.

#### War on Cancer Assignment

Classify 10 brief cancer excerpts into one of 3 ways to fight cancer.

#### Life is in the Blood Assignment

Identify components of blood and relate how life is in the blood Scripturally.

These assignments align with the following FSLOs: Communication and Information Literacy 1 and 4.

### Quizzes (9)

1. Eight weekly quizzes will contain multiple-choice questions that come solely from the textbook and will be open-book/open-notes. The quizzes will have a time limit of 50 minutes.
2. One quiz will contain one multiple-answer question based on the classification of living things, will be open-book/open-notes, and will have a time limit of 50 minutes.

## ✓ Course Grading

Course Requirements Checklist	10
Discussions (2 at 60 pts ea)	120
The Scientific Method Assignment	30
Individual Assignments (3 at 30 pts; 1 at 40 pts; 1 at 60 pts)	190
Quizzes (8 at 80 pts; 1 at 20 pts)	660
<b>Total</b>	<b>1010</b>

## Policies

### Late Assignment Policy

Course Assignments, including discussions, exams, and other graded assignments, should be submitted on time.

If the student is unable to complete an assignment on time, then he or she must contact the instructor immediately by email.

Assignments that are submitted after the due date without prior approval from the instructor will receive the following deductions:

1. Late assignments submitted within one week after the due date will receive up to a 10% deduction.
2. Assignments submitted more than one week and less than 2 weeks late will receive up to a 20% deduction.
3. Assignments submitted two weeks late or after the final date of the course will not be accepted outside of special circumstances (e.g. death in the family, significant personal health issues), which will be reviewed on a case-by-case basis by the instructor.
4. Group projects, including group discussion threads and/or replies, and assignments will not be accepted after the due date outside of special circumstances (e.g. death in the family, significant personal health issues), which will be reviewed on a case-by-case basis by the instructor.

### Disability Assistance

Students with a disability and those with medical conditions associated with pregnancy may contact Liberty University's Online Office of Disability Accommodation Support (ODAS) at [LUOODAS@liberty.edu](mailto:LUOODAS@liberty.edu) for accommodations. Such accommodations require appropriate documentation of your condition. For more information about ODAS and the accommodations process, including how to request an accommodation, please visit <https://www.liberty.edu/online/online-disability-accommodation-support/> (<https://www.liberty.edu/online/online-disability-accommodation-support/>). Requests for accommodations not related to disabilities or pregnancy must be directed to the Registrar's Office, which generally handles medical needs support.

If you have a complaint related to disability discrimination or an accommodation that was not provided, you may contact ODAS or the Office of Equity and Compliance by phone at (434) 592-4999 or by email at [equityandcompliance@liberty.edu](mailto:equityandcompliance@liberty.edu). Click to see a full copy of Liberty's [Discrimination, Harassment, and Sexual Misconduct Policy](https://www.liberty.edu/media/1226/Liberty_University_Discrimination_Harassment_and_Sexual_Misconduct_Policy.pdf) ([https://www.liberty.edu/media/1226/Liberty\\_University\\_Discrimination\\_Harassment\\_and\\_Sexual\\_Misconduct\\_Policy.pdf](https://www.liberty.edu/media/1226/Liberty_University_Discrimination_Harassment_and_Sexual_Misconduct_Policy.pdf)) or the [Student Disability Grievance Policy and Procedures](http://www.liberty.edu/media/8021/Disability_Grievance_Procedures.pdf) ([http://www.liberty.edu/media/8021/Disability\\_Grievance\\_Procedures.pdf](http://www.liberty.edu/media/8021/Disability_Grievance_Procedures.pdf)).

### Course Attendance

In an effort to comply with U.S. Department of Education policies, attendance is measured by physical class attendance or any submission of a required assignment within the enrollment dates of the course (such as examinations, written papers or projects, any discussion posts, etc.) or initiating any communication with one's professor regarding an academic subject. More information regarding the [attendance policy](https://nam04.safelinks.protection.outlook.com/?) (<https://nam04.safelinks.protection.outlook.com/?>

[url=https%3A%2F%2Fwiki.os.liberty.edu%2Fdisplay%2FIE%2FOnline%2BAttendance%2Band%2BNon-Attendance&data=02%7C01%7Caccollins2%40liberty.edu%7Cd91431fa6ac547056b5408d833029e1a%7Cbf8218eb3024465a9934a39c97251b2%7C0%7C0%7C637315433613719138&sdata=%2BNBTsPOoXuHAPLfISQRugK7cRSuV6UyC7qD3agf3l2k%3D&reserved=0](https://wiki.os.liberty.edu/display/FIE/OnlineAttendance&data=02%7C01%7Caccollins2%40liberty.edu%7Cd91431fa6ac547056b5408d833029e1a%7Cbf8218eb3024465a9934a39c97251b2%7C0%7C0%7C637315433613719138&sdata=%2BNBTsPOoXuHAPLfISQRugK7cRSuV6UyC7qD3agf3l2k%3D&reserved=0)) can be found in the [Academic Course Catalogs \(https://nam04.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.liberty.edu%2Findex.cfm%3FPID%3D791&data=02%7C01%7Caccollins2%40liberty.edu%7Cd91431fa6ac547056b5408d833029e1a%7Cbf8218eb3024465a9934a39c97251b2%7C0%7C0%7C637315433613729132&sdata=DjjhMiRBFnF%2B2ZJUC8eBd1OdNb26S9ADukODYsilXIA%3D&reserved=0\)](https://nam04.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.liberty.edu%2Findex.cfm%3FPID%3D791&data=02%7C01%7Caccollins2%40liberty.edu%7Cd91431fa6ac547056b5408d833029e1a%7Cbf8218eb3024465a9934a39c97251b2%7C0%7C0%7C637315433613729132&sdata=DjjhMiRBFnF%2B2ZJUC8eBd1OdNb26S9ADukODYsilXIA%3D&reserved=0). Regular attendance in online courses is expected throughout the length of the term. Students who do not attend within the first week of a sub-term by submitting a required academic assignment (such as the Course Requirements Checklist, an examination, written paper or project, discussion post, or other academic activity) will be dropped from the course. Students who wish to re-engage in the course are encouraged to contact Academic Advising to discuss their enrollment options. Students who begin an online course, but at some point in the semester cease attending, and do not provide official notification to withdraw, will be assigned a grade of "FN" ([Failure for Non-Attendance \(https://nam04.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwiki.os.liberty.edu%2Fdisplay%2FIE%2FUnofficial%2BWithdrawals&data=02%7C01%7Caccollins2%40liberty.edu%7Cd91431fa6ac547056b5408d833029e1a%7Cbf8218eb3024465a9934a39c97251b2%7C0%7C0%7C637315433613729132&sdata=MoMvZdPfza69InuhVHMHAVgu59ZP0Fw45xJTU9PIBrU%3D&reserved=0\)](https://nam04.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwiki.os.liberty.edu%2Fdisplay%2FIE%2FUnofficial%2BWithdrawals&data=02%7C01%7Caccollins2%40liberty.edu%7Cd91431fa6ac547056b5408d833029e1a%7Cbf8218eb3024465a9934a39c97251b2%7C0%7C0%7C637315433613729132&sdata=MoMvZdPfza69InuhVHMHAVgu59ZP0Fw45xJTU9PIBrU%3D&reserved=0)). Students wishing to withdraw from courses after the official start date should familiarize themselves with the [withdrawal policy](#).

## Grading Scale

A	B	C	D	F
900-1010	800-899	700-799	600-699	0-599

For courses with a Pass/NP final grade, please refer to the Course Grading section of this syllabus for the assignment requirements and/or point value required to earn a Passing final grade.

## Add/Drop Policy

The full policy statement and procedures are published in the [Policy Directory \(https://wiki.os.liberty.edu/display/IE/Dropping+and+Adding+Online+Classes\)](https://wiki.os.liberty.edu/display/IE/Dropping+and+Adding+Online+Classes).

## Honor Code

Liberty University comprises a network of students, Alumni, faculty, staff and supporters that together form a Christian community based upon the truth of the Bible. This truth defines our foundational principles, from our Doctrinal Statement to the Code of Honor. These principles irrevocably align Liberty University's operational procedures with the long tradition of university culture, which remains distinctively Christian, designed to preserve and advance truth. Our desire is to create a safe, comfortable environment within our community of learning, and we extend our academic and spiritual resources to all of our students with the goal of fostering academic maturity, spiritual growth and character development.

Communities are predicated on shared values and goals. The Code of Honor, an expression of the values from which our Doctrinal Statement was born, defines the fundamental principles by which our community exists. At the core of this code lie two essential concepts: a belief in the significance of all individuals, and a reliance on the existence of objective truth.

While we acknowledge that some may disagree with various elements of the Code of Honor, we maintain the expectation that our students will commit to respect and uphold the Code while enrolled at Liberty University.

Adherence to the principles and concepts established within facilitates the success of our students and strengthens the Liberty community.

The Code of Honor can be viewed in its entirety at <http://www.liberty.edu/index.cfm?PID=19155> (<http://www.liberty.edu/index.cfm?PID=19155>).

## Schedule

When	Topic	Notes

When	Topic	Notes
<b>Course Overview</b>	<b>Student Acknowledgements</b>	Course Requirements Checklist
<b>Module 1: Week 1</b>	Learn	Read: 5 items Watch: 6 items
	Apply	Significance of Life Assignment The Scientific Method Assignment Quiz: The Why and How of Biology
<b>Module 2: Week 2</b>	Learn	Read: 3 items Watch: 5 items
	Apply	Biomolecules of Cells Assignment Quiz: Molecules and Cells
<b>Module 3: Week 3</b>	Learn	Read: 3 items Watch: 12 items
	Apply	Energy and Information Study Guide Assignment Quiz: Energy and Information
<b>Module 4: Week 4</b>	Learn	Read: 4 items Watch: 5 items
	Apply	War on Cancer Assignment Quiz: Cells to Organisms
<b>Module 5: Week 5</b>	Learn	Read: 2 items Watch: 7 items
	Apply	Life is in the Blood Assignment Quiz: Your Body at Work
<b>Module 6: Week 6</b>	Learn	Read: 3 items Watch: 6 items
	Apply	Discussion: Melatonin Quiz: Passing on Life to Another Generation
<b>Module 7: Week 7</b>	Learn	Read: 2 items Watch: 2 items
	Apply	Discussion: Galapagos Finches Quiz: The Biology of Change Through Time

When	Topic	Notes
<b>Module 8: Week 8</b>	Learn	Read: 4 items Watch: 5 items
	Apply	Quiz: The Diversity and Relationships of Life Quiz: Classification of Living Things