

ASTROBIOLOGY

BIOL 250, SPRING 2020, MONDAY, WEDNESDAY, FRIDAY 1:00 – 1:50, RITA 102

Prereq: 1 year of College Biology

This syllabus may be updated throughout the semester. Please see the course website for the latest version.

ABOUT THE COURSE

Course Description

This course combines topics in astronomy, physics, chemistry, biology, and philosophy to consider the existence of life (intelligent and otherwise) in the universe. An emphasis will be placed on biologically relevant topics. Some of the topics include: (1) the origin and evolution of life

on Earth, (2) the suitability of environments outside of Earth to support life, (3) the likelihood of intelligent and non-intelligent life forms outside of Earth, and (4) the possibility of contacting extraterrestrial life and implications for an encounter.

MEET THE PROF!

Dr. Moshe Rhodes

Office: RITA 119,

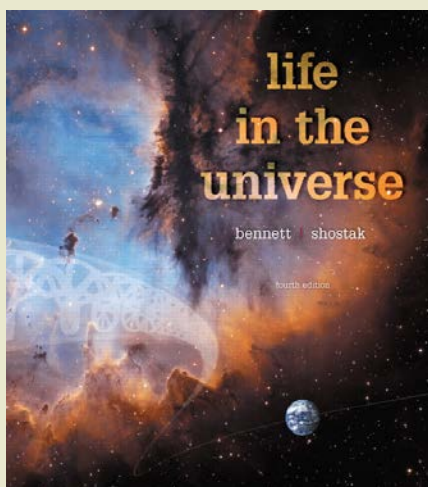
Email: rhodesme@cofc.edu

Phone: 843.953.8087

Office Hours:

MW 2:00-3:30, or by appointment

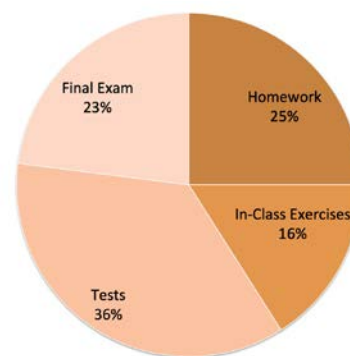
REQUIRED MATERIALS



- The textbook Life in the Universe, 4th ed; authors: Jeffrey Bennett and Seth Shostak.
- A scientific calculator capable of computing exponential functions.

Course Website: see OAKS.

Final Grade Calculations



- Missed in-class assignments will receive a zero. There will be no makeups. I will discard your two lowest scores.
- Three tests will be given during the semester.
- Final Exam will cover all semester material.

January 7, 2020

LETTER GRADE CONVENTION

The following letter grade convention will be followed in this course.

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

SPECIAL NEEDS

The **Center for Disabilities Services/SNAP**, located in the Lightsey Center (disabilityservices.cofc.edu; 843.953.1431), verifies and documents learning and physical disabilities and recommends specific accommodations. If you have a documented disability and have been approved to receive accommodations through the Center for Disability Services/SNAP, please notify me as soon as possible. You should also contact me at least one week before any specific accommodation is needed.

ACADEMIC HONESTY

Violations of the College of Charleston **Honor Code** (including cheating or attempted cheating) will be referred to the Office of Student Affairs for adjudication. The **Honor Code** and other relevant student information can be found here:

<http://studentaffairs.cofc.edu/honor-system/studenthandbook/>.

Chapters Covered: 2 through 9, and 11 through 13. Some chapters will be covered in more depth than others and some sections will be omitted.

Attendance Requirement: You are expected to attend all lectures. Please turn cell phones to off or to silent-mode during lectures. Please do not text during lectures.

Exam Makeup Policy: A makeup exam will only be given for extraordinary circumstances. If you do miss an exam because of such a circumstance, and you would like to request a makeup exam, you must contact me by the next class after the exam, or as soon as you are able. You may be required to present written verification of your excuse.

Extra Credit: Extra credit may be arranged on a case by case basis.

TEACHING PHILOSOPHY

It is a great honor for me to work with you this semester. The fact that you are here means you are a bright person who has the ability to speak, read, and think critically. I hope that my lectures will help clarify some of the more difficult concepts and also inspire you to think about the universe in a manner that you may not have considered before. We will be covering a substantial amount of material and many of the concepts may be foreign to you. You must follow the reading if you expect to keep up with this material. Unfortunately, I cannot cover all the material in the chapters, so I will rely on your work outside the class to help complete the learning process.

I strongly encourage you to work together on homework assignments, studying for exams, and developing ideas. Your peers are one of the strongest resources you have and you should take advantage of that. With regards to homework and written assignments, please note that the work you submit must be your own. I will enforce a strict policy in this regard. If you receive significant help on assignments from a classmate or anyone else, you need to acknowledge them in writing.

Please do not hesitate to approach me if you need help for any reason. My office hours are set aside to help provide you with this additional guidance, but please do not hesitate to contact me if you would like to arrange to meet at another time.

SOME IMPORTANT DATES	
<u>Date</u>	<u>Material Covered</u>
Monday, January 20	MLK Day - no class
Friday, February 14	Exam One
Monday, March 16	Spring Break
Wednesday, March 18	Spring Break
Friday, March 20	Spring Break
Monday, March 30	Exam Two
Monday, April 27 (4:00-7:00pm)	Final Exam (cumulative)

Student Learning Outcomes:

1. Students will identify the conditions and events on Earth that helped nurture the development of life.
2. Students will evaluate the suitability of various environments in the universe for the development of life.
3. Students will predict the hypothetical effects of extraterrestrial contact on human civilization.
4. Students will relate topics in astronomy, physics, chemistry, biology, geology, and philosophy to evaluate the likelihood of intelligent life in the universe.