

**Biology 170: Principles of Biological Diversity**  
**2<sup>nd</sup> 6 -week Summer session 2019 Course Syllabus**

**Course runs:** July 8 - August 15

**Course meets:** MTWR 11:30 - 1:20 HS 411

**Instructor:** Greg Peters

Contact: 207-6154; greg.peters@mso.umt.edu

Office hours: see me after class or by appointment

**Text:** Hillis et al., Principles of Life, 2e ebook available through LaunchPad

→ See Moodle for instructions and a direct link to access your daily reading

**Learning Outcomes:**

This course explores the amazing diversity of life on Earth by examining major groups of organisms, ranging from bacteria to animals. Successful completion will enable students to:

1. Recognize basic features of cell biology, including cell components and cell division
2. Understand core principles of reproductive biology
3. Appreciate the importance of phylogenetic classification
4. Distinguish major groups of life by key morphological and physiological features
5. Explore species diversity in the context of an introduction to ecology

**Suggestions for Success:**

Regular attendance is critical. Be sure to read assigned sections regularly. Please raise questions whenever something is either unclear or particularly interesting; discussion of challenging concepts can benefit the entire class. I will be available after class to help if needed. Stick around, set up an appointment, or send me an email with any questions you have. This course has an online Moodle supplement with which to track grades and revisit course materials.

**Course policies:**

Students are expected to work alone during exams and quizzes. Make-up exams will be permitted only with compelling and documented reasons. Students registered with DSS will be accommodated appropriately during exams, dependent upon documentation. Please contact me one week before each exam if you require any service through DSS.

University policies on drops, adds, changes of grade option, or change to audit status will be observed in this course. Students should specifically note that after Monday of **week 2** a petition to change registration status must be completed and approved. A grade of C or higher will be considered passing for the P/NP option.

**Evaluation** will break down as follows:

3 Exams @ 100 pts ea.	300 pts	90-100% = A- to A
Quizzes (highest 15 of 16 @ 5 pts ea.)	75 pts	80-89% = B- to B+
<u>Vertebrate presentation</u>	<u>50 pts</u>	70-79% = C- to C+
Total	425 pts	60-69% = D- to D+

**Exams** will include a variety of question formats asking you to demonstrate learned concepts on your own without outside resources.

**Quizzes** will be offered at the beginning of most class meetings covering the reading and content scheduled for that day. The quizzes are designed to present a straightforward review of the core principles from the reading and to model possible exam questions. You are encouraged to correct any missed responses on each quiz during class time before handing it in at the end of class.

**Presentations** will be discussed in detail with accompanying written instructions during week 2.

**Lab** class will earn a separate grade if you are enrolled in Biology 171.

### BIOL 170 Schedule

Date	Topic	Text Reading Sections:
July 8	Course Introduction; Cellular basis of life	4.1 - 4.3
July 9	Cell division; Reproduction	7.1, 7.2 & 7.4
July 10	Phylogeny & Systematics	16.1, 16.4, 17.1 & 17.4
July 11	Prokaryotic life	19.1 & 19.2
July 15	Protists 1	20.1 & 20.2 (first half)
July 16	Protists 2	20.2 (second half)
July 17	Outline presentations and discuss Exam 1	--
July 18	<b>Exam 1</b>	--
July 22	<i>Begin research for presentations</i>	--
July 23	Fungi	22.1 & 22.3
July 24	Lichens & Introduction to plants	22.2, 21.1 & 21.2 (first 3/5)
July 25	Plants: Bryophytes	21.2 (last 2/5)
July 29	Plants: Seedless Vascular Plants	21.3
July 30	Plants: Gymnosperms	21.4
July 31	Plants: Angiosperms & Exam 2 preparation	21.5
Aug 1	<b>Exam 2</b>	--
Aug 5	<i>Work on presentations</i>	--
Aug 6	Animals	23.1 & 23.2
Aug 7	Animals	23.3
Aug 8	Animals	23.4 & 23.5
Aug 12	<b>Student vertebrate presentations</b>	review 23.6
Aug 13	Larger scales of life's diversity	41.3
Aug 14	Species interactions & Exam 3 preparation	43.1
Aug 15	<b>Exam 3</b>	--