

BIO 498 BIOLOGY SEMINAR: THE BIOLOGY OF SLEEP

DR. KEITH W. PECOR

T/F 2:00PM – 3:20PM

FALL 2020 REMOTE INSTRUCTION

INSTRUCTOR ACCESSIBILITY

My email address is pecor@tcnj.edu. Email is my preferred method of communication about course matters, and I normally respond to messages received during the school week within 24 hours of receipt. Messages received during a weekend or break will be answered by the end of the first school day after the weekend or break. I do not check Canvas messages; use the campus email system. Office hours will be held by appointment using Zoom meetings.

CATALOG DESCRIPTION

Students develop and deliver oral presentations and write a comprehensive and current literature review on a research topic oriented around a unifying theme in biology or within a broad area of biological research. Topics vary each semester and with different instructors.

Course units: 1.0

Prerequisites: BIO 185/201, 211, 221, and 231

COURSE SYNOPSIS & LEARNING GOALS

Biological Seminar is considered the “capstone” experience in the Biology major. During the semester you will be challenged to utilize the knowledge, skills, and intellectual maturation that you have developed over the past three years to undertake an in-depth and independent examination of a specific topic in biology.

The major course objectives are:

- to enhance your ability to access and assimilate the scientific literature by locating current and appropriate articles on a specific topic and reading them for understanding;
- to improve your ability to analyze and interpret data critically and to assess whether the interpretations and conclusions drawn by the authors of the papers you read are justified;
- to enhance your ability to communicate scientific information through oral presentations;
- to enhance your ability to communicate scientific information through a written review article;
- to improve your writing skills by editorial assessment of writing produced by your peers, and
- to provide an opportunity to fully explore a particular topic in biology that is the focus of current and active research. In doing so, you will be required to critically assess and synthesize information from multiple related papers and demonstrate your knowledge through the oral presentations and written review.

By examining the biological questions related to your selected topic on both the broad societal level and the in-depth experimental level, you will develop the skills needed to successfully approach any topic in biology research in the future.

COURSE DELIVERY

The course will be delivered synchronously via Zoom, with links for every class meeting posted in Canvas. Class meetings in Zoom will not be recorded. Students will be asked to participate as follows. No student is required to enable a camera, but may do so if they like. Presenters will need to share their screen and enable audio in order to give their presentations. Non-presenters will need to enable audio and/or use the chat feature to engage in Q&A with the presenters.

EXPECTATIONS, ASSIGNMENTS, & GRADING

I expect that you will attend each session ready to respectfully observe, evaluate, and discuss the presentations of your peers on presentation days. A lack of respect for presenters will not be tolerated. Your grade will be based on 600 points.

Presentations (250 pts)

You will give three presentations during the semester- an introduction to your topic (50 pts), an in-depth consideration of a paper that is central to your topic (100 pts), and a final review of your topic (100 pts). More information about the expectations for the presentations will be provided as each is undertaken.

Research Paper (250 pts)

You will also produce four written documents related to your topic- an annotated bibliography of five sources (50 pts) followed by a review draft (0 points, but required and subject to peer review), a revised draft (100 pts), and a final draft (100 pts) of a research paper. More information about the expectations and grading for the elements of the research paper will be provided as each is undertaken.

Peer Reviews (50 pts)

For each presentation, you will be asked to complete a brief evaluation that gives feedback to the presenter. For the review drafts of the research paper, individuals in randomly assigned groups will read and provide feedback on each group member's draft.

Attendance and Participation (50 pts)

A seminar only works if its members are present and engaged. This remote class will be synchronous, and you will need to participate in Q&A with the presenters

Letter grades will be determined using the following scheme:

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

ATTENDANCE POLICY

TCNJ's Attendance Policy (<https://policies.tcnj.edu/?p=77>) states that, "Students are expected to participate in each of their courses through regular attendance at lecture and laboratory sessions. It is further expected that every student will be present, on time, and prepared to participate when scheduled class sessions begin." Despite being remote, this course meets synchronously, and attendance is required. One unexcused absence will result in a letter-grade reduction of the course grade (e.g., a B becomes a C). Two unexcused absences will result in a two-letter-grade reduction of the course grade (e.g., a B becomes a D). Three unexcused absences will result in course failure.

ACADEMIC INTEGRITY

All activities in this course are governed by TCNJ's Academic Integrity Policy (<https://policies.tcnj.edu/?p=130>). Any actions that are determined to be violations of the Policy will result in a penalty in keeping with the severity of the violation. If you have any questions about matters of academic integrity, please discuss them with me. Also, visit <http://academicintegrity.pages.tcnj.edu> for more information about academic integrity at TCNJ. As the saying goes, an ounce of prevention is worth a pound of cure.

AMERICANS WITH DISABILITIES ACT

TCNJ's policy with respect to students and employees with disabilities can be found at the following URL: <https://policies.tcnj.edu/?p=145> Every effort will be made to provide reasonable accommodation for any student with a condition covered by the Americans with Disabilities Act (ADA). If you are entitled to accommodations under the ADA, please let me know by 28 August 2020, and I will work with the Accessibility Resource Center (<https://arc.tcnj.edu>) to make the necessary accommodations.

SCHEDULE*

| DATE | TOPIC | READING / ASSIGNMENT |
|-------------|---------------------------------------|-----------------------------|
| 25 Aug | Introduction / What is Sleep? | None |
| 28 Aug | Library Research / Topic Presentation | Topic Due |
| 1 Sep | Research Day | None |
| 4 Sep | Research Day | None |
| 8 Sep | NO CLASS – MONDAY SCHEDULE | None |
| 11 Sep | Topic 1 / Annotated Bibliography | None |
| 15 Sep | Topic 2 | None |
| 18 Sep | Topic 3 | None |
| 22 Sep | Topic 4 / Rev. Paper / 1° Lit. Pres. | Biology Style Manual |
| 25 Sep | Research Day | Annotated Bibliography Due |
| 29 Sep | Research Day | None |
| 2 Oct | 1° Literature 1 | None |
| 6 Oct | 1° Literature 2 | None |
| 9 Oct | 1° Literature 3 | None |
| 13 Oct | 1° Literature 4 / Final Presentation | None |
| 16 Oct | Research Day | None |
| 20 Oct | Research Day | None |
| 23 Oct | Final 1 | None |
| 27 Oct | Final 2 | None |
| 30 Oct | Final 3 | None |
| 3 Nov | Final 4 | None |
| 6 Nov | None | None |
| 10 Nov | None | Review Draft Due |
| 13 Nov | Review Draft Workshop | Review Drafts |
| 17 Nov | None | Revised Drafts Due |
| 20 Nov | None | None |
| 24 Nov | THANKSGIVING BREAK | None |
| 27 Nov | THANKSGIVING BREAK | None |
| 1 Dec | None | None |
| 4 Dec | None | Final Draft Due |

* Schedule is subject to change as needed.