



## Course Syllabus: **Discussions in Biology**

College of Science and Mathematics

BIOL 5002 Section 180

Fall 2024

### Contact Information

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### Course Description

The course will consist of review and discussion of current scientific literature and research in the biological sciences. Each student describes and critiques at least two original research publications. Discussions will focus on the analysis of raw data, methodology, appropriateness of experimental approaches and hypotheses being tested. May be repeated once with the consent of the Graduate Coordinator.

### Course Objectives

1. Provide a forum for discussion and evaluation of peer-reviewed research journal publications on current topics in biology.
2. Provide students with an opportunity to express themselves orally by preparing and presenting seminar presentations such as would be expected at professional meetings and conventions. This should help the student prepare to communicate with an audience of peers both formally and informally.
3. Provide open roundtable discussion opportunity after reading and evaluating recently published peer-reviewed journal articles.
4. Examine and evaluate all the components that comprise peer-reviewed journal articles.

### Textbook & Instructional Materials

None required.

### Grading

Table 1: Percentage allocated to each assignment.

Assignments	Percentage
Student Discussion Leader Evaluation (graded by instructor)	40
Student Seminar Presentation (graded by the instructor and by fellow peers)	40
Participation/Questions Asked	10
Attendance	10
Total Percentage	100

Table 2: Total percentage for final grade.

Grade	Percentage
A	90 to 100
B	80 to 89
C	70 to 79
D	60 to 69
F	Less than 60

#### Student Handbook

Refer to: [Student Handbook 2024-25](#)

#### Academic Misconduct Policy & Procedures

Academic Dishonesty: Cheating, collusion, and plagiarism (the act of using source material of other persons, either published or unpublished, without following the accepted techniques of crediting, or the submission for credit of work not the individual's to whom credit is given). Additional guidelines on procedures in these matters may be found in the Office of Student Conduct.

[Student Handbook 2024-25](#)

#### Research Discussion

Students enrolled in this course will be expected to lead group discussions of research papers assigned to you by the instructor. Each student will facilitate round table discussions of scientific papers chosen by the instructor. The instructor will give each student a copy of each paper to read in advance in order to be prepared for round table discussions about the research to occur. In order for fruitful discussion of each paper to occur, it is imperative that each student have the article read and analyzed PRIOR to the meeting in which the discussion takes place. This will be a weekly task throughout most of the semester and is why this course is entitled **Discussions** in Biology.

#### Paper Presentations

Students will choose a specific peer-reviewed, primary research journal article published within the last THREE years involving research on some aspect of biology and get the article approved by your instructor for use in giving a 25-

minute oral presentation about that research. You will also need to present basic background information on the general area of biology with which the specific chosen article concerns. Powerpoint visual aids should accompany the oral presentation. After approval of article/topic by instructor, provide a reprint of the journal article to everyone in the course THE WEEK BEFORE YOUR PRESENTATION DAY. Each student must then read each article prior to the actual presentation and **come with at least two written questions** about the article or topic to ask the presenter during the question and discussion period after the presentation has been made. The presentations will be graded by both the instructor and fellow students in the class using evaluation sheets. Components of grading on the evaluation sheets consist of: Presentation of Content (50 points), Presentation Style/Delivery (20 points), Handling of Questions (10 points), Critique of Paper (10 points), and Time Limit (10 points). Depending on number of students enrolled in the course, each student will give a maximum of two oral presentations. Here is a general outline for your oral presentation to follow (and some things to think about): A. Background on the topic of the research article (assume audience knows little about the topic) 1. Why is it important? 2. Any prior or related work reported on the topic? B. Hypothesis/Problem addressed in the research article 1. Why was the research performed in the first place? 2. What was trying to be answered? C. Methods and Procedures used D. Results of the research E. Conclusions drawn from the research F. Critique of the work 1. Was the hypothesis/problem studied and answered? 2. Were methods appropriate for the study? 3. Were appropriate conclusions drawn? 4. What other work would you suggest be done? Your presentation should be one that YOU have prepared **specifically for this class** and should not be one that was used in any of your previous classes. In other words, DON'T recycle presentations.....prepared by you, or by anyone else! Be forewarned, if it has been determined that you have recycled a presentation for this course, this will be grounds for an automatic "F" to be assigned as your grade for the course. Student oral presentations will be scheduled during the first week of classes. We will likely schedule the first presentation to occur close to the midterm of the semester. My advice is to start working on looking at articles for approval early in the semester so that you have more time to get your presentation constructed and practiced before your presentation date. DON'T PROCRASTINATE! The student presenter is expected to answer questions concerning your topic from those in attendance at the conclusion of your oral presentation. We will also conduct our general class discussion of the research during this time. Each student is expected to evaluate all of your fellow classmates' presentations. Therefore, **attendance at ALL discussions classes is MANDATORY**. Points will be deducted from your final grade for any classes missed. We only meet one night a week, so I expect you all to always be there. Before you give your presentation, make sure that you have given it a "trial run" with the computer/projection set-up in our classroom that you will be using for your actual presentation.

### Exams/Final Exam

Due to the nature of this class, there will be no exams administered for this course.

### Extra Credit

Extra credit assignments are not available.

### Make Up Assignments

Any instances of need for make-up assignments will be handled on a case-by-case basis.

### Important Dates

Last day for term schedule changes: August 29, 2024.

Deadline to file for graduation: September 23, 2024.

Last Day to drop with a grade of "W:" November 25, 2024.

Refer to: [Drops, Withdrawals & Void](#)

### Attendance

You are expected to attend all classes unless you have a University-excused absence. Your attendance will be documented. Points will be deducted from your final grade for any classes missed with an unexcused absence. We only meet one night a week, so I expect you all to always be there.

### Class Policies

## **ALL PHONES SHOULD BE OFF IN THE CLASSROOM**

### Change of Schedule

A student dropping a course (but not withdrawing from the University) within the first 12 class days of a regular semester or the first four class days of a summer semester is eligible for a 100% refund of applicable tuition and fees. Dates are published in the Schedule of Classes each semester.

### Refund and Repayment Policy

A student who withdraws or is administratively withdrawn from Midwestern State University (MSU) may be eligible to receive a refund for all or a portion of the tuition, fees and room/board charges that were paid to MSU for the semester. HOWEVER, if the student received financial aid (federal/state/institutional grants, loans and/or scholarships), all or a portion of the refund may be returned to the financial aid programs. As described below, two formulas (federal and state) exists in determining the amount of the refund. (Examples of each refund calculation will be made available upon request).

### Services for Students With Disabilities

In accordance with Section 504 of the Federal Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990, Midwestern State University endeavors

to make reasonable accommodations to ensure equal opportunity for qualified persons with disabilities to participate in all educational, social, and recreational programs and activities. After notification of acceptance, students requiring accommodations should make application for such assistance through Disability Support Services, located in the Clark Student Center, Room 168, (940) 397-4140. Current documentation of a disability will be required in order to provide appropriate services, and each request will be individually reviewed. For more details, please go to [Disability Support Services](#).

### College Policies

#### Campus Carry Rules/Policies

Refer to: [Campus Carry Rules and Policies](#)

#### Smoking/Tobacco Policy

College policy strictly prohibits the use of tobacco products in any building owned or operated by WATC. Adult students may smoke only in the outside designated-smoking areas at each location.

#### Alcohol and Drug Policy

To comply with the Drug Free Schools and Communities Act of 1989 and subsequent amendments, students and employees of Midwestern State are informed that strictly enforced policies are in place which prohibits the unlawful possession, use or distribution of any illicit drugs, including alcohol, on university property or as part of any university-sponsored activity. Students and employees are also subject to all applicable legal sanctions under local, state and federal law for any offenses involving illicit drugs on University property or at University-sponsored activities.

### Grade Appeal Process

Students who wish to appeal a grade should consult the Midwestern State University [Undergraduate Catalog](#)

#### Notice

Changes in the course syllabus, procedure, assignments, and schedule may be made at the discretion of the instructor.

## Course Schedule

Week or Date	Topics
Week 1 8/28	Introduction; Orientation; Course Expectations
Week 2 9/4	Discussion of layout, examination, and evaluation of sections of a peer-reviewed journal article
Weeks 3-14 9/11 to 10/30	Weekly discussion of papers will be distributed to students to read and evaluate throughout most of the semester. This will be done in a "journal club" fashion. All students will be given a copy of each paper to read in advance. A discussion leader will be chosen for each paper and student discussion leaders will be graded by the instructor as part of their grade for the course.
Weeks 8-15 11/6-12/4	Student oral presentations of chosen peer-reviewed journal articles to present will occur during the last half of the course in order to give students time to get their presentations constructed. These presentations will be graded by both the instructor and fellow students.