

Medical Sciences 4200F/G - Inflammation in Diseases Outline

This course will examine a variety of current topics within the field of inflammation. Specific areas covered are outlined below. Students will evaluate the inflammatory process through the lens of several of the basic medical science disciplines, and will apply this knowledge to the understanding of chronic diseases. Students will complete interactive online learning modules prior to in-class sessions and will spend in-class time critically evaluating scientific literature, learning about information literacy, and working through case studies.

Students will be evaluated through online quizzes, assignments, midterm and final exams and a capstone project.

The objectives of this course are to apply and integrate information across the basic medical science disciplines to the study of inflammation (see focus below). Each topic (as outlined below) will encompass an online learning module followed by in-class work critically evaluating scientific literature and working on case studies.

COURSE TOPICS & SCHEDULES:

1. Introduction
2. Epidemiology of Inflammatory Diseases
3. Descriptive Epidemiology of Inflammatory Diseases
4. Acute Inflammation
5. Chronic Inflammation
6. Wound-healing
7. Histopathology
8. Obesity and Pregnancy
9. Cancer
10. Central Nervous System Disorders
11. Pain and Therapeutic Targets
12. Pain and Therapeutic Targets

Assessments in Medical Sciences 4200: Interdisciplinary Approaches to Inflammatory Disease

Mark Breakdown:

Quizzes- 5%

-quizzes will test online learning module content and will be completed online prior to class

Midterm- 15%

The midterm will consist of short-answer and multiple choice questions taken from online learning module and class content.

Final- 15%

The final exam will consist of short-answer and multiple choice questions taken from online learning module and class content. The final exam will be cumulative.

Assignments- 35%

Students will complete assignments over the term that will cumulatively represent 35% of their mark.

These assignments are:

- 1- Medical mythbusting 5%- create a presentation OR online video “busting” a common medical myth (medical myths to be provided by Dr. McLean)- groupwork
- 2- Literature critique 15%- critique of a scientific article related to their inflammatory disease (provided by Dr. McLean)-individual (10% for paper, 5% for feedback to their peers)
- 3- In-class reports and presentations 15%- students will be assigned short assignments in class that will also be completed during class time (case studies, written assignments, oral presentations)

In-class assignment 1: “Tragic choices” case study (5%)

In-class assignment 2: case studies of autoimmune disease

In-class assignment 3: CNS disorders case studies

In-class assignment 4: questions about clinical trials process

Capstone Project- 30% (15% individual, 10% group, 5% peer)

Students work in groups of 3 to become experts in an inflammatory disease. These students will present their work as an online learning module (ie wiki page, etc). Students will cover aspects of the disease such as its pathophysiology, epidemiology, and current treatments/therapies available.