THE UNIVERSITY OF LETHBRIDGE
FACULTY OF HEALTH SCIENCES
HLSC/BIOL 2806 – IMMUNOLOGY
Course Syllabus – Fall, 2014

INSTRUCTOR:	Emily MacLean, MSc, MPH
OFFICE:	M3116
CLASS:	Mondays (**and Wednesday, December 3**), 18:00 – 20:50, M1040
OFFICE HOURS:	Monday, 16:00 – 18:00 by appointment (via e-mail)
E-MAIL:	emily.maclean@uleth.ca (I will do my best to respond within 48 hours)

COURSE DESCRIPTION:
To understand the biological role of immunity and natural resistance. The human immune system evolved to protect us from pathogens in the environment around us. It is a complex system of cells and molecules that work together to protect our body. Our immune system is so specific that it can adapt after recognizing a pathogen once to allow our body to respond more quickly. Understanding the regulation of immune responses to pathogens and environmental hazards is the main goal of immunological research.

In the first half the of course, we will learn about the immune system and how it works to protect us from pathogenic microorganisms. While the immune system is remarkably adept at specifically recognizing and eliminating pathogens, occasionally, inappropriate immune responses occur. In the second half of the course, we will discuss how some pathogens have learned to evade our immune responses and discuss diseases that arise as a result of malfunctions in the immune response such as autoimmune diseases, hypersensitivity reactions, and immunodeficiencies.

Pre-requisites: BIOL 1010 or admissibility to any program in the Faculty of Health Sciences.

COURSE OBJECTIVES:

1. To describe the biological role of the immune system.
2. To describe the roles of the immune system in acute and chronic diseases.

COURSE TEXTBOOK (MANDATORY):
Sompayrac, L. (2012). How the immune system works. Sussex, UK: Wiley-Blackwell.

For more detailed information on material covered in class or to supplement the required textbook, see: Kindt, T., Goldsby, R, & Osborne, B. (2007) Kuby Immunology (6th edition). W. H. Freeman & Co.

There is one copy in the library. This textbook is NOT necessary and will not be tested from, it is simply another resource.

For more detailed information on case studies presented at the end of each lecture see: Geha, R. & Notarangelo, L. (2008) Case studies in Immunology (5th edition). Garland Science.

There is one copy in the library. This textbook is NOT necessary and will not be tested from, it is simply an additional resource.

COURSE MATERIALS:
Lecture slides will be available on the course Moodle site by the Saturday before the lecture. Lectures will be posted in both PDF and PowerPoint formats

QUESTIONS:

Questions can be asked during office hours, before or after class, by email (see above) or through the Moodle discussion board.

GRADING COMPOSITION:

This course will be evaluated based on three (3) exams and one (1) assignment.

Exam	Date	Weighting
Exam #1	Sept. 29	20%
Exam #2	Nov. 3	20%
Assignment	Nov. 19	20%
Final exam	Dec. 8	40%

Note: In some cases, bonus questions may be available on exams. Answering these questions correctly will result in extra marks. However, the maximum possible grade on each exam will be 100%.

The assignment and grading scheme will be discussed during class time and will be posted on the course Moodle site.

POLICY STATEMENTS:

The course syllabus acts as an agreement between the student and professor of this class regarding the details of the course. The details listed may be changed only with the written unanimous consent of all class members.

The University of Lethbridge is committed to the highest standards of academic integrity and honesty. Our institution is committed to providing an environment of equality and respect for all people within the university community, and to educating faculty, staff and students in developing teaching and learning contests that are welcoming to all.

The Faculty recommends that students and staff use inclusive language to create a classroom atmosphere in which students' experiences and views are treated with equal respect and value in relation to their gender, racial background, sexual orientation, and ethnic backgrounds.

GRADING BREAKDOWN:

The grading system for this course is consistent with that established in the Faculty of Health Sciences, effective May, 2002.

Letter	GPA	Percent	Letter	GPA	Percent
A+	4.0	95 - 100%	C+	2.3	71 - 74.9%
A	4.0	91 - 94.9%	C	2.0	67 - 70.9%
A-	3.7	87 - 90.9%	C-	1.7	63 - 66.9%
B+	3.3	83 - 86.9%	D+	1.3	59 - 62.9%
B	3.0	79 - 82.9%	D	1.0	55 - 58.9%
B-	2.7	75 - 78.9%	F	0	0 - 54.9%

PLAGIARISM STATEMENT:

The University of Lethbridge subscribes to Turnitin.com, a plagiarism detection service. Please be advised that student work submitted for credit in this course may be submitted to this system to verify its originality. Students must be able to submit both electronic and hard copy versions of their work upon request.

ACCOMMODATIONS FOR STUDENTS WITH A DISABILITY:

Reasonable accommodations are available for students who have a documented disability. If you have been diagnosed with a disability, there is no need to face the challenge of University without support. Please contact the Accommodated Learning Centre to set up an appointment at 403-329-2766 http://www.uleth.ca/ross/counselling/index.html. After registering with the Accommodated Learning Centre, your instructor will be notified by a formal letter of any accommodations you require. In addition, students are responsible for requesting accommodations from the instructor at least ***two weeks*** in advance of the evaluation date. The instructor and student are jointly responsible for arranging the resources needed for the evaluation process.

COPYRIGHT STATEMENT:

All University of Lethbridge students, faculty and staff must comply with Canadian law and institutional license agreements pertaining to copyright. At the same time, keeping abreast of our copyright obligations and options is a complex task as copyright matters locally and globally are in flux and are likely to remain so for at least the near future.

The University's Copyright website (www.uleth.ca/copyright) is a source of current copyright information that includes:

- answers to common copyright questions (see the FAQs),
- guidance on whether you need permission or a license to copy a particular work (see the Copyright Permissions Flow Chart),
- guidance on assessing whether fair dealing may apply to specific instances of copying you wish to undertake (see the Guidelines for Copying under Fair Dealing), and
- a permissions look-up tool to help you determine the kinds of copying and other uses permitted by the Library's license agreements covering specific online journals and other online resources.

You are encouraged to contact the University Copyright Advisor (copyright@uleth.ca) for assistance with any copyright questions or issues.

TENTATIVE CLASS SCHEDULE:

PART 1: THE IMMUNE SYSTEM	
Sept. 8	Lecture 1: Introduction & innate immunity
Sept. 15	Lecture 2: Cellular effectors of innate immunity
Sept. 22	Lecture 3: Adaptive immunity: antigen recognition and presentation
Sept. 29	**Exam 1: (Lectures 1-3)**
Oct. 6	Lecture 4: T and B cell maturation
Oct. 13	**Thanksgiving Day holiday – No class**
Oct. 20	Lecture 5: T and B cell trafficking and activation
Oct. 27	Lecture 6: Cell-mediated and humoral immunity
Nov. 3	**Exam 2: (Lectures 4-6)**
Nov. 10	Lecture 7a: Immunologic memory and vaccination
PART 2: THE IMMUNE SYSTEM IN DISEASE	
Nov. 17	Lecture 7b: Immunologic memory and vaccination
Nov. 19	**Assignment due today**
Nov. 24	Lecture 8: How pathogens evade immune responses
Dec. 1	Lecture 9 :Hypersensitivity reactions, immunodeficiency, autoimmunity
Dec. 3 (**Wed**)	Lecture 10 : Catch up and review
Dec. 8	**Final Exam – (Lectures 1-10) (during final exam period)**