



DEPARTMENT of SCIENCE

COURSE OUTLINE – SPRING/SUMMER 2021

MI1330 (EC): Medical Microbiology for Health Care Professionals – 3 (3-0-0) 45 Hours, 8 Weeks

INSTRUCTOR: Dr. Sean Irwin, Ph.D. **PHONE:** (780) 539-2860

OFFICE: J224 **E-MAIL:** sirwin@gprc.ab.ca

OFFICE HOURS: By appointment. Emails will be responded to within one business day.

WINTER 2021 DELIVERY:

Remote Delivery. This course is delivered remotely. There are no face-to-face or onsite requirements. Students must have a computer with a webcam and reliable internet connection. Technological support is available through helpdesk@gprc.ab.ca

Note: GPRC reserves the right to change the course delivery.

CALENDAR DESCRIPTION:

Introductory course in medical microbiology designed for students enrolled in health care related programs. This course begins with basic information on microorganisms (bacteria, viruses, fungi, parasites and prions), the immune system, infection control, transmission of infection, epidemiology, antimicrobials, disinfection and sterilization. The later part of the course concentrates on infectious diseases caused by pathogenic microorganisms.

Notes: Students not enrolled in the Nursing Program require consent of the department.

PREREQUISITE(S)/COREQUISITE: None

REQUIRED TEXT/RESOURCE MATERIALS:

Tотора, G.J. et al., Microbiology: An Introduction (13thed.), Pearson Education, Inc., San Francisco, CA, 2019.

MI1330 Study Aid (Available at the bookstore)

DELIVERY MODE(S): Distance

COURSE OBJECTIVES:

1. To gain an understanding of microbe structure and function.
2. To gain a knowledge of human infectious diseases and how they are transmitted.
3. To gain an understanding of human infectious disease that will facilitate future work in the medical field.
4. To develop critical thinking skills with respect to infectious diseases of the human body.

LEARNING OUTCOMES:

Upon successful completion of this course a student will have a working knowledge of the biological basis of the infectious diseases of the human body.

TRANSFERABILITY:

Please consult the Alberta Transfer Guide for more information. You may check to ensure the transferability of this course at the Alberta Transfer Guide main page <http://www.transferalberta.ca>.

Please note that a grade less than C+ is not accepted for transfer to the U of A for MMI 133. A minimum grade of C+ is required to receive credit for MI1330 in the Nursing Program.

**** Grade of D or D+ may not be acceptable for transfer to other post-secondary institutions. Students are cautioned that it is their responsibility to contact the receiving institutions to ensure transferability**

EVALUATIONS:

Midterm I -	22%	- In order to defer an exam due to
Midterm II -	30%	illness you will require a medical note.
Assignments -	8%	
Online Activities –	5%	
Study Aid -	5%	
Winter Final Exam -	30%	

GRADING CRITERIA:

Please note that most universities will not accept your course for transfer credit **IF** your grade is **less than C-**.

Alpha Grade	4-point Equivalent	Percentage Guidelines	Alpha Grade	4-point Equivalent	Percentage Guidelines
A+	4.0	90-100	C+	2.3	67-69

A	4.0	85-89		C	2.0	63-66
A-	3.7	80-84		C-	1.7	60-62
B+	3.3	77-79		D+	1.3	55-59
B	3.0	73-76		D	1.0	50-54
B-	2.7	70-72		F	0.0	00-49

COURSE SCHEDULE/TENTATIVE TIMELINE:

MI 1330 EC Spring 2021

Week 1	Introduction to Microbiology	Ch. 1: 2 - 15.
	Prokaryotes	Ch. 4: pgs. 73 –93; 94 –102 (Review).
Week 2	Microbial Metabolism	Ch. 5: pgs. 110-115 and 120-131.
	Assignment #1 Due – May 11th	
	Growth/Control of Growth	Ch. 6: pgs. 152-158; 165-168 and Ch. 7.
	Microbial Genetics	Ch. 8: pgs. 208 - 217; 221-223; 229 - 236.
Week 3	Zoom Session – May 16 th	7 pm
	Viruses	Ch. 13
	Module I Study Aid Due – May 18th	
	Midterm I Wed. May 19th 7pm	
	Pathogenesis	Ch. 15.
Week 4	Principles of Disease	Ch. 14
	Innate Immunity	Ch. 16.
	Adaptive Immunity	Ch. 17
Week 5	Assignment #2 Due – June 1st	
	Vaccines	Ch. 18: pgs. 500 - 503.
	Antimicrobials I	Ch. 20: pgs. 559 - 573.
	Antimicrobials II	Ch. 20: pgs. 574 – 577; 579 – 582.
Week 6	Zoom Session – June 6 th	7 pm
	Module II Study Aid Due – June 7th	
	Midterm II Tues. June 8th 7pm	
	Diseases of the Skin and Eyes	Ch. 21
Week 7	Zoom Session – June 13 th	7 pm – Assignment #3
	Diseases of the CNS	Ch. 22
	Diseases of the Cardiovascular and Lymphatic System - Ch. 23	
	Diseases of the Respiratory System	Ch. 24
Week 8	Zoom Session – June 20 th	7 pm – Assignment #3
	Diseases of the Gastrointestinal System	Ch. 25
	Diseases of the Genitourinary System	Ch. 26
	Final Exam Fri. June 25th 7pm	

STUDENT RESPONSIBILITIES:

Students are responsible for the course material presented in lectures and assigned readings.

The College Policy on Students Rights and Responsibilities can be found at

<https://www.gprc.ab.ca/about/administration/policies/>

STATEMENT ON PLAGIARISM AND CHEATING:

Cheating and plagiarism will not be tolerated and there will be penalties. For a more precise definition of plagiarism and its consequences, refer to the Student Conduct section of the College Calendar at <http://www.gprc.ab.ca/programs/calendar/> or the College Policy on Student Misconduct: Plagiarism and Cheating at <https://www.gprc.ab.ca/about/administration/policies>

**Note: all Academic and Administrative policies are available on the same page.