COURSE DESCRIPTION:

A survey of the more common bacterial, mycotic and viral infections of humans with particular emphasis on the distinctive properties, pathogenic mechanisms, epidemiology, immunology, diagnosis and control of disease-causing microorganisms. Three hours lecture. Spring semester.

OBJECTIVES:

Students should develop a global view of infection including: 1) how organisms cause disease, 2) transmission of agents and agent reservoirs, 3) the immune response and host barriers to infection, 4) disease prevention, monitoring, and treatment and the role of the public health system in this process, and 5) how disease has shaped human evolution and history. Students will also be introduced to the primary research that serves as the foundation for our knowledge of infectious diseases.

PREREQUISITE:

MICR 301 or consent of instructor.

RECOMMENDED TEXT:


Lecture slides/notes, reading material, and old exams/practice questions will be made available on D2L.

FISHER RESEARCH BACKGROUND:


http://micro.siu.edu/faculty-staff/faculty/fisher.php

CONTACT INFORMATION:

LSIII 1007 (office), LSIII 1026 (lab)
618-453-5201 (office phone)
dfisher@siu.edu or fisher@micro.siu.edu

OFFICE HOURS:

1 PM - 2 PM on Tuesday and Thursday or by appointment.
GRADING OVERVIEW:

SCALE:  
A ≥90%  ≥540  
B 89-80%  539 – 480  
C 79-70%  479 – 420  
D 69-60%  419 – 360  
F <60%  ≤359

1) Four exams, 85 points each:  
a) Lectures 1-7  85  
b) Lectures 8-14  85  
c) Lectures 15-20  85  
d) Lectures 21-27  85

Exam points:  340

2) Twelve, 10 point pop quizzes/homework:  
Your lowest four scores will be counted as bonus points.

3) Case Studies/Discussion: 10 points each  60

4) Literature Assignments/Discussion: 20 points each  120

Total  600

CASE STUDIES: These will be in class, group activities related to course topics. Activity sheets will be collected in-class and graded. There will be six case studies worth 10 points each.

LITERATURE ASSIGNMENTS/DISCUSSION: Scientific publications or articles will be assigned one week in advance of the scheduled discussion date. Literature will be posted to D2L. You must read the assigned literature and answer the three questions listed at the end of the: “How to read a scientific paper” PDF provided in D2L. Each assignment is due by the start of class on the scheduled discussion date. Assignments must be typed using 12 point Arial font and answers are limited to 250 words for each question. Documents must be submitted as either word documents or PDFs via the D2L assignment submission folder. Each assignment is worth 20 points.

NOTE: INFORMATION COVERED DURING CASE STUDIES AND THE LITERATURE ASSIGNMENTS WILL BE INCLUDED ON THE EXAMS.

GENERAL COURSE TIMELINE:

Spring Semester 2017 Holidays (http://registrar.siu.edu/calendars/academic1617.php)  
Semester Begins  Tuesday, January 17  
Spring Break  March 11-19

Drop Information (http://registrar.siu.edu/calendars/registration17sp.php)  
Last day to file drop paperwork, eligible for a refund  Friday, January 27  
Last day to file drop paperwork, NOT eligible for a refund  Friday, March 31
<table>
<thead>
<tr>
<th>Day / Date</th>
<th>Topic</th>
<th>Case/Literature</th>
<th>Book Chapter(s)</th>
<th>Lecture Number</th>
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<tbody>
<tr>
<td>Jan 17</td>
<td>Introduction to Medical Microbiology</td>
<td></td>
<td>1-3</td>
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<tr>
<td>R 19</td>
<td>General Immunology</td>
<td>Case study 1</td>
<td>7-8</td>
<td>2</td>
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<td>T 24</td>
<td>Immunoglobulins and Histocompatibility</td>
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<td>9-10</td>
<td>3</td>
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<tr>
<td>R 26</td>
<td>Humoral and Cell Mediated Immunity</td>
<td>Literature 1</td>
<td>9-10</td>
<td>4</td>
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<td>T 31</td>
<td>Complement, Hypersensitivity, Immunological Defects</td>
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<td>8-10</td>
<td>5</td>
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<td>Feb 2</td>
<td>Vaccines</td>
<td>Case Study 2</td>
<td>11</td>
<td>6</td>
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<td>T 7</td>
<td>Antimicrobial Chemotherapy</td>
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<td>17</td>
<td>7</td>
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<td>R 9</td>
<td>EXAM 1</td>
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<td>T 14</td>
<td>Microbiome and Normal Flora</td>
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<td>8</td>
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<tr>
<td>R 16</td>
<td>Gram positive cocci</td>
<td>Literature 2</td>
<td>18-19</td>
<td>9</td>
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<td>T 21</td>
<td>Gram positive Spore-formers and Anaerobic Infections</td>
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<td>20, 30, 31</td>
<td>10</td>
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<tr>
<td>R 23</td>
<td>Gram positive bacilli</td>
<td>Case Study 3</td>
<td>21-22</td>
<td>11</td>
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<tr>
<td>T 28</td>
<td>Gram negative bacilli</td>
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<td>25</td>
<td>12</td>
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<td>R Mar 2</td>
<td>Gram negative bacilli</td>
<td>Literature 3</td>
<td>27, 29</td>
<td>13</td>
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<td>T 7</td>
<td>Gram negative bacilli</td>
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<td>26, 28</td>
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<td>R 9</td>
<td>EXAM 2</td>
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<td>T 14</td>
<td>Spring break</td>
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<td>R 16</td>
<td>Spring break</td>
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<td>T 21</td>
<td>Gram negative bacilli</td>
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<td>25, 29</td>
<td>15</td>
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<td>R 23</td>
<td>Fastidious Gram negative bacteria</td>
<td>Case Study 4</td>
<td>23-24, 33</td>
<td>16</td>
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<td>T 28</td>
<td>Spirochetes</td>
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<td>32</td>
<td>17</td>
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<tr>
<td>R 30</td>
<td>Obligate Intracellular bacteria</td>
<td>Literature 4</td>
<td>35</td>
<td>18</td>
</tr>
<tr>
<td>T Apr 4</td>
<td>Obligate Intracellular bacteria</td>
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<td>34</td>
<td>19</td>
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</table>
Mycotic Infections  Case Study 5  Section 6  20
EXAM 3
Parasites  Section 7  21
General Virology  36-38, 40  22
DNA Viruses  Literature 5  41, 43, 44  23
RNA Viruses  46, 55  24
RNA Viruses  Case Study 6  50, 52  25
RNA Viruses  Literature 6  54  27
EXAM 4  Held during the final exam period: 10:15 - 12:15

*Lecture dates and material are tentative, exam dates and case study/literature dates are not. Students will only be responsible for material covered in class prior to the exam date.

ADDITIONAL INFORMATION

HINTS for SUCCESS:
1) Attend class.
2) Study often, not just the night before an exam.
3) Review lecture material the evening after a lecture. This will help you learn the material and will make studying for exams much easier.
4) Read the chapters cited next to each lecture prior to class. It will help you better comprehend the lecture material.
5) Ask questions!
6) Seek out academic help before it is too late – it is very difficult to recover from two failed exams.
7) LEARNING ASSISTANCE and DISABILITY SERVICES: http://tutoring.siu.edu/index.html and http://disabilityservices.siu.edu/

ATTENDANCE:
Attendance is not mandatory, but absences will negatively affect your grade as material covered exclusively in the classroom will appear on exams. In addition, pop quizzes and case studies will be administered in class and no make ups will be offered for either.

ACADEMIC COURTESY (modified from B. Stiles, Wilson College):
Please arrive to class on time and be prepared to discuss the material. Cell phones must be turned to silent or off during class. Ringing and buzzing cell phones bother others in the class (and the instructor) and detract from a fruitful educational environment. Sleeping, reading newspapers, talking to friends, texting, or other activities distracting the students and instructor are strictly forbidden.
EXAMS, ASSIGNMENTS, and QUIZZES:
Exams may only be rescheduled for extreme circumstances (death of an immediate family member, illness requiring hospitalization, etc.) or an absence due to a pre-approved academic/athletic conflict. Proof may be required (for example, a doctor’s note) and permission to reschedule will be granted on a case by case basis at the discretion of the instructor. Failure to take an exam on the scheduled date without an approved absence will result in a 0 (F) for the exam. Make up “pop” quizzes will not be offered. As your lowest four quizzes are counted as bonus points, a missed quiz due to absence will simply be considered as 0 bonus points. Make-ups will not be offered for case studies and literature assignments will not be accepted after the due date.

ACADEMIC DISHONESTY POLICY (adapted from the College of Science policy http://www.science.siu.edu/_common/pdfs/oppaper):
Students may be subject to disciplinary proceedings resulting in an academic penalty or disciplinary penalty for academic dishonesty. Academic dishonesty includes, but is not limited to, cheating on a test, plagiarism, or collusion. Sanctions for academic dishonesty available to an instructor include: assigning a failing grade, or zero, for a paper or exam; assigning a failing grade for a course (the instructor shall assign an “incomplete” in lieu of a letter grade pending adjudication and final resolution of the complaint.); recommending that a student be dropped from a program; and recommending that a student be suspended from the University.

EMERGENCY PROCEDURES:
Southern Illinois University Carbondale is committed to providing a safe and healthy environment for study and work. Because some health and safety circumstances are beyond our control, we ask that you become familiar with the SIUC Emergency Response Plan and Building Emergency Response Team (BERT) program. Emergency response information is available on posters in buildings on campus, available on BERT’s website at http://emergency.siu.edu/, Department of Safety’s website http://www.dps.siu.edu/ (disaster drop down), and in the Emergency Response Guideline pamphlet. Know how to respond to each type of emergency.

Instructors will provide guidance to students in the classroom in the event of an emergency affecting your location. It is important that you follow these instructions and stay with your instructor during an evacuation or sheltering emergency. The Building Emergency Response Team will provide assistance to your instructor in evacuating the building or sheltering within the facility.
IMPORTANT DATES *
Semester Class Begins: ................................. 01/17/2017
Last day to add full-term course (without Dean’s signature): 01/22/2017
Last day to withdraw from the University with a full refund: 01/27/2017
Last day to drop a full-term course for a credit/refund: .................. 01/29/2017
Deadline to apply to graduate at the end of this term: .................. 04/2/2017
Final examinations: ........................................ 05/8-05/12/2017
Commencement: ........................................... 05/13/2017

*For more detailed information on the above deadlines, please visit http://registrar.siu.edu/calendars. For add/drop dates that apply to shorter-than-full-term courses, please look at the Schedule of Classes search results at http://registrar.siu.edu/sched/class/index.php

SPRING SEMESTER HOLIDAYS
Martin Luther King Jr.’s Birthday Holiday 01/16/2017
Spring Break 03/11—03/19/2017

WITHDRAWAL POLICY ~ Undergraduate only
Students who officially register for a session must officially withdraw from that registration in a timely manner to avoid being assessed as well as receiving a failing grade for those classes. An official withdrawal must be initiated by the student, or on behalf of the student through the academic unit, and be processed by the Registrar’s office. For the proper procedures to follow when dropping courses and when withdrawing from SIU visit: http://registrar.siu.edu/students/withdrawal.php

INCOMPLETE POLICY ~ Undergraduate only
An INC grade may be assigned when, for reasons beyond their control, students engaged in passing work are unable to complete all class assignments for the course. An INC must be changed to a completed grade within one full semester (undergraduates), and one full year (graduate students), from the close of the term in which the course was taken or graduation, whichever occurs first. Should the student fail to complete the remaining course requirements within the time period designated, the incomplete will be converted to a grade of F and such grade will be computed in the student’s grade point average. For more information visit: http://registrar.siu.edu/grades/incomplete.php

REPEAT POLICY
An undergraduate student may, for the purpose of raising a grade, enroll in a course for credit more than once. For students receiving a letter grade of A, B, C, D, or F, the course repetition must occur at Southern Illinois University Carbondale. Effective for courses taken Summer 2013 or later, only the most recent (last) grade will be calculated in the overall GPA and count toward hours earned. This policy will be applied to all transferrable credit in that only the last grade will be used to calculate grade point average. Only those courses taken at the same institution are considered repeats under this policy. See full policy at http://registrar.siu.edu/students/repeatclasses.php

GRADUATE POLICIES
Graduate policies often vary from Undergraduate policies. To view the applicable policies for graduate students, please refer to the graduate catalog at http://gradschool.siu.edu/about-us/grad-catalog/

DISABILITY POLICY
Disability Support Services provides the required academic and programmatic support services to students with permanent and temporary disabilities. DSS provides centralized coordination and referral services. To utilize DSS services, students must contact DSS to open cases. The process involves interviews, reviews of student-supplied documentation, and completion of Disability Accommodation Agreements. http://disabilityservices.siu.edu/

PLAGIARISM
Student Conduct Code http://srr.siu.edu/student-conduct-code/

SAFETY AWARENESS FACTS AND EDUCATION
Title IX makes it clear that violence and harassment based on sex and gender is a Civil Rights offense subject to the same kinds of accountability and the same kinds of support applied to offenses against other protected categories such as race, national origin, etc. If you or someone you know has been harassed or assaulted, you can find the appropriate resources here: http://safe.siu.edu

SALUKI CARES
The purpose of Saluki Cares is to develop, facilitate and coordinate a university-wide program of care and support for students in any type of distress—physical, emotional, financial, or personal. By working closely with faculty, staff, students and their families, SIU will continue to display a culture of care and demonstrate to our students and their families that they are an important part of the community. For Information on Saluki Cares: call(618) 453-1492, email siucares@siu.edu, or http://salukicares.siu.edu/

SIU’S EARLY WARNING INTERVENTION PROGRAM (EWIP)
Students enrolled in courses participating in SIU’s Early Warning Intervention Program might be contacted by University staff during a semester. More information can be found at the Core Curriculum’s Overview webpage: http://corecurriculum.siu.edu/program-overview/

EMERGENCY PROCEDURES
We ask that you become familiar with Emergency Preparedness @ SIU. Emergency response information is available on posters in buildings on campus, on the Emergency Preparedness @ SIU website, and through text and email alerts. To register for alerts visit: http://emergency.siu.edu/

STUDENT MULTICULTURAL RESOURCE CENTER
The Student Multicultural Resource Center serves as a catalyst for inclusion, diversity and innovation. As the Center continues its work, we are here to ensure that you think, grow and succeed. We encourage you to stop by the Center, located in Grinnell Commons, to see the resources available and discover ways you can get involved on the campus. Visit us at http://inclusiveexcellence.siu.edu/

LEARNING AND SUPPORT SERVICES
Help is within reach. Learning support services offers free tutoring on campus and math labs. To find more information please visit the Center for Learning and Support Services website:
Tutoring: http://tutoring.siu.edu/
Math Labs http://math.siu.edu/courses/course-help.php

WRITING CENTER
The Writing Center offers free tutoring services to all SIU students and faculty. To find a Center or Schedule an appointment please visit:
http://write.siu.edu/

AFFIRMATIVE ACTION & EQUAL OPPORTUNITY
Our office’s main focus is to ensure that the university complies with federal and state equity policies and handles reporting and investigating of discrimination cases. For more information visit: http://diversity.siu.edu/

MILITARY COMMUNITY
There are complexities of being a member of the military community and also a student. Drill schedules, calls to active duty, complications with GI Bill disbursement, and other unforeseen military and veteran related developments can complicate academic life. If you are a member of the military community and in need of accommodations please visit Veterans Services at http://veterans.siu.edu/

Additional Resources:
ADVISEMENT: http://advisement.siu.edu/
SIU ONLINE: https://online.siu.edu/
SAULKI SOLUTION FINDER: http://solutionfinder.siu.edu/
MORRIS LIBRARY HOURS: http://libguides.lib.siu.edu/hours

Spring 2017 R'O'Rourke