BIOL 4023: Immunology
Course Syllabus: Spring 2011

General Information

Course Meetings: TR (8:00 am – 9:20 pm) Bolin Hall 212
Instructor: James Masuoka, Ph.D.
Office: Bolin Hall 324
Telephone: 397-4181
E-mail: james.masuoka@mwsu.edu

Required Text:

Course Description:
This course presents fundamentals of cellular and molecular immunology. The course material examines structure, function and genetics of the immune system; regulation of humoral and cell-mediated responses; and the role of the immune system in human disease.

Course Objectives:
• To identify the components of the human immune system
• To understand how those components communicate with one another
• To understand how the immune system responds to and eliminates microorganisms
• To appreciate how the immune system can fail; in terms of failure to fight infectious disease, of production of autoimmunity, and of over-response leading to hypersensitivity

Classroom expectations and policies:
• You are expected to be prepared for lecture by: 1) reading the text prior to coming to class; 2) having paper and pen at hand
• You are expected to arrive a few minutes early in order to mentally prepare.
• Personal electronic devices (cell phones, pagers, MP3 players, etc.) should be turned off/silenced and stowed out of sight for the duration of class or lab.
• Student Conduct: Please refer to the MSU Student Handbook for university policies related to student responsibilities, rights and activities. For example, see page 41 for valid grounds for an instructor drop (excessive absence, indifferent attitude, disruptive conduct, failure to meet class assignments), page 70 for the university's policy on classroom conduct, and page 71 for definitions of academic dishonesty that may be subject to disciplinary action (cheating, plagiarism, and collusion).
• Points will be deducted from assignments turned in late.
• Students with disabilities: It is the responsibility of the student to first contact Disability Support Services and then the instructor to determine what accommodations might be made for a disability. It will be the responsibility of the student to make arrangements to acquire notes. Any requests for accommodations must be made 2 weeks prior to the first exam.

E-mail Policy:
I will respond to e-mail during regular school hours (8:30 am – 5:00 pm M-F). I will make every effort to respond to e-mail sent during the week within 24 hours. Those sent over the weekend will be attended to on Monday.
Always include a subject line in your e-mail messages. It would be particularly helpful to include in the subject line the course number & section (i.e. BIOL 4023).

Attendance Policy:
Students are expected to attend all meetings of the classes in which they are enrolled. Although in general students are graded on intellectual effort and performance rather than attendance, absences may lower the student’s grade where class attendance and class participation are deemed essential by the faculty member. In those classes where attendance is considered as part of the grade, the instructor should so inform students of the specifics in writing at the beginning of the semester in a syllabus or separate attendance policy statement. An instructor who has an attendance policy must keep records on a daily basis. The instructor must give the student a verbal or written warning prior to being dropped from the class. Instructor’s records will stand as evidence of absences. A student with excessive absences may be dropped from a course by the instructor. Any individual faculty member or college has the authority to establish an attendance policy, providing the policy is in accordance with the General University Policies. [MSU Student Handbook, p. 39]

Absences will be excused for:
  a. **Death of an immediate family member.** An immediate family member is considered to be a grandparent, parent, sibling, spouse, in-law, aunt, uncle, or child.
  b. **Summons to appear in court or jury duty.** A copy of the summons is required.
  c. **Call to military service.** A copy of your orders to report is required.
  d. **University sponsored event.** Members of athletic teams, college bowl participants, etc. will be excused with proper notification.
  e. **Debilitating illness or disability.** Illnesses will be addressed on an individual basis. If a student is affected by an illness that is not debilitating, (i.e. flu, virus
infection) which may result in the student missing one or more consecutive class sessions, that student will be marked as unexcused for the amount of days missed unless a doctor’s note is provided.

It is the responsibility of the student to obtain notes or other information covered in class during an absence.

Exam Policies:
- No make-up exams will be given in this course. If you must miss class during a midterm exam period, and it is an excusable absence (see above), then the cumulative portion of the final exam will be used to determine the missed midterm score. You must notify the instructor of problems prior to the start of the exam, and provide the appropriate documentation as soon as possible. Only one midterm exam will be substituted for in this manner.
- Exams are not moved for congested midterm schedules.

Grading:
All exams and assignments count toward your final grade in the course and so it is important to do the best that you can on everything you turn in. If you find yourself having difficulties, please come to me for help early in the semester so that you give yourself time to improve.

This course is not graded on a traditional curve, but it is scaled to where the students are/end up. This allows for any adjustments that the instructor deems necessary. The course is worth approximately 800 points. Grade categories and equivalent percentages are as indicated: A (90-100%); B (80-89.9%); C (70-79.9%); D (60-69.9%); F (59.9% and below). Passing requires 60% of the points (unadjusted) for the course, or 480. Fractional percentages will be rounded at the end.

Attendance is not a direct component of your course score. However, continual tardiness – and the subsequent class disruption due to coming in late – will be taken into account and may have an effect on your final points awarded.

Midterm exams will focus on what was covered since the previous exam. However, each exam will be cumulative in that each section of the course builds on what came before. The final exam will focus on material from the last third of the semester, but will cover material from the entire course. In addition, any material that requires review following an exam (i.e. the vast majority of the class got it wrong) will more than likely show up on the subsequent exam(s). Additional information regarding the term paper, including a grading rubric, will be provided during the semester.

Note:
1) No regrades will be provided for exams done in pencil.
2) Misspelled words and incorrect nomenclature will result in ¼ point deductions for each instance.
Assignment Summary:

<table>
<thead>
<tr>
<th></th>
<th>Points</th>
<th>Explanation</th>
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</thead>
<tbody>
<tr>
<td>Midterm Exams</td>
<td>300</td>
<td>(150 points each)</td>
</tr>
<tr>
<td>Final Exam</td>
<td>300</td>
<td>(final 3rd plus cumulative)</td>
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<tr>
<td>Term Paper</td>
<td>100</td>
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<td><strong>TOTAL</strong></td>
<td><strong>700</strong></td>
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Important Dates (Spring 2011):

- Classes begin: January 15
- Martin Luther King Jr. Birthday (no classes): January 17
- **Midterm Exam 1**: February 17
- Spring Break (no classes): March 14 – 18
- Last day to drop with a “W”: March 21
- **Midterm Exam 2**: March 31
- Spring Research Colloquium: April 8
- Easter Break (no classes): April 21 – 22
- **Term Papers Due**: April 20
- Classes end: May 6
- **Final Exam**: May 12 (Thursday) (8:00 – 10:00 am)
## Tentative Lecture Schedule

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Date</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/18</td>
<td>Introduction, Ch 1 (Elements)</td>
<td>1/20</td>
<td>Ch 1 (Elements), Ch 2 (Innate)</td>
</tr>
<tr>
<td>1/25</td>
<td>Ch 2 (Innate Immunity)</td>
<td>1/27</td>
<td>Ch 2 (Innate Immunity)</td>
</tr>
<tr>
<td>2/1</td>
<td>Ch 3 (Princ. Adaptive Immunity)</td>
<td>2/3</td>
<td>Ch 3 (Princ. Adaptive Immunity)</td>
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<tr>
<td>2/8</td>
<td>Ch 4 (Ab Structure, B-cell Diversity)</td>
<td>2/10</td>
<td>Ch 4 (Ab Structure, B-cell Diversity)</td>
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<tr>
<td>2/15</td>
<td>Ch 6 (B-cell Development)</td>
<td>2/17</td>
<td><strong>Midterm Exam 1</strong></td>
</tr>
<tr>
<td>2/22</td>
<td>Ch 9 (B-cell Immunity)</td>
<td>2/24</td>
<td>Ch 9 (B-cell Immunity)</td>
</tr>
<tr>
<td>3/1</td>
<td>Ch 5 (T-cell Recognition of Ag)</td>
<td>3/3</td>
<td>Ch 5 (T-cell Recognition of Ag)</td>
</tr>
<tr>
<td>3/8</td>
<td>Ch 7 (T-cell development)</td>
<td>3/10</td>
<td>Ch 7 (T-cell Development)</td>
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<td>3/15</td>
<td>[Spring Break: No classes]</td>
<td>3/17</td>
<td>[Spring Break: No classes]</td>
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<tr>
<td>3/22</td>
<td>Ch 8 (T-cell Immunity)</td>
<td>3/24</td>
<td>Ch 8 (T-cell Immunity)</td>
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<tr>
<td>3/29</td>
<td>Ch 8 (T-cell Immunity)</td>
<td>3/31</td>
<td><strong>Midterm Exam 2</strong></td>
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<tr>
<td>4/5</td>
<td>Ch 10 (Body’s Defenses)</td>
<td>4/7</td>
<td>Ch 10 (Body’s Defenses)</td>
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<tr>
<td>4/12</td>
<td>Ch 11 (Immunodeficiency)</td>
<td>4/14</td>
<td>Ch 11 (Immunodeficiency)</td>
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<td>4/19</td>
<td>Ch 11 / Ch 12 (Hypersensitivity)</td>
<td>4/21</td>
<td>[Easter Break: No classes]</td>
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<td>4/26</td>
<td>Ch 12 (Hypersensitivity)</td>
<td>4/28</td>
<td>Ch 13 (Autoimmunity)</td>
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<tr>
<td>5/3</td>
<td>Ch 13 (Autoimmunity)</td>
<td>5/5</td>
<td>TBD / Review</td>
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<td>5/12</td>
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<td></td>
<td><strong>Final Exam (Thursday) 8:00 – 10:00 am</strong></td>
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