

# Immunobiology 3312-001/5309-001

## Fall 2015

TuTh 8-9:20 NH 100

**Instructor(s):** Dr. Michael Roner

**Office Number:** Room 330 Engineering Research Building

**Office Telephone Number:** 817-272-1302

**Email Address:** roner@uta.edu

**Faculty Profile:** <https://www.uta.edu/profiles/dr-michael-roner>

**Office Hours:** TuTh 10:00-11:30 AM

**Section Information:** Biol 3312-001/5309-001, Immunobiology

**Time and Place of Class Meetings:** Nedderman Hall 100, TuTh 8-9:20.

**Description of Course Content:** Understanding the immune response, cellular and humoral immunity, effector mechanisms, immune system in health and disease.

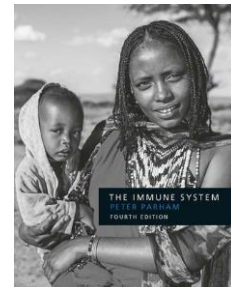
**Student Learning Outcomes:** This course is designed to acquaint students with fundamental cellular processes involved in the generation of an immune response. It will provide students with detailed knowledge of the cells and organs of the immune system, their organization and diversity, and their specialized functions at different anatomical locations. The importance of immune cell receptors and cytokines in cellular interactions and co-ordination of immunological mechanisms is also emphasized.

The intended **learning outcomes** are as follows. By the end of the course students should have knowledge of;

- The concepts of natural and acquired immunity and their roles and interaction in immune responses
- The functions and properties of different cell types and organs that comprise the immune system
- The processes involved in immune cell development
- The assembly and expression of antigen receptor molecules during lymphocyte development
- Cellular interactions and activation of immune cells in response to foreign antigen and/or “danger signals” and cytokines
- Immune memory and tolerance

**Required Textbooks and Other Course Materials:** **The Immune System, 4th Edition, Peter Parham.**

<http://www.garlandscience.com/product/isbn/9780815344667>



**Descriptions of major assignments and examinations:** Final course grades will be based on 3 exams spread across the semester, **or** the final exam. Grades will be calculated as follows: if you have taken Exams 1, 2 and 3 and are satisfied with your grade, you do not need to take the comprehensive final exam. If you elect to take the final exam, your grade on the final exam or your grade on the first three (3) exams, whichever is greater, will be the grade you earn for this course. The optional final exam gives a student an opportunity to "redeem" a poor exam 1, 2, or 3 performance, or "replace" an unexcused missed exam. Please remember the final exam is COMPREHENSIVE and requires significantly more effort than the three (3) regular exams! Students are encouraged to study and complete the three exams during the regular course period and not depend on the final exam.

**Attendance:** At The University of Texas at Arlington, taking attendance is not required. Rather, each faculty member is free to develop his or her own methods of evaluating students' academic performance, which includes establishing course-specific policies on attendance. As the instructor of this section, **I strongly encourage students to attend all lectures. I allow students to attend class at their own discretion.**

### **Grading:**

#### **Undergraduate student grading**

##### **Option 1**

3 exams 50 points each	150 points
Completion of "Extra credit" 5 points/exam	15 points
Final grade based on 150 points (165 points possible)	

##### **Option 2**

Final exam	75 points
Final grade based on 75 points	

#### **Graduate student grading**

##### **Option 1**

3 exams 55 points each	165 points
3 take-home exams 50 points each	150 points
Final grade based on 315 points	

##### **Option 2**

Final exam	75 points
3 take-home exams 50 points each	150 points
Final grade based on 225 points	

### **FINAL GRADES WILL BE ASSIGNED AS FOLLOWS:**

100%	-	89.51%	A
89.50%	-	79.51%	B
79.50%	-	69.51%	C
69.50%	-	59.51%	D
<59.50%			F

**Make-up Exams:** Make-up exams will be allowed only in extreme circumstances at the discretion of the Instructor. You should have a doctor's note in case of illness. **Notify me (by email, phone, note etc. AS SOON AS you are aware of a problem, prior to the exam. Missed exams will receive a score/grade of zero "0").**

**Expectations for Out-of-Class Study:** Beyond the time required to attend each class meeting, students enrolled in this course should expect to spend at least an additional **9** hours per week of their own time in course-related activities, including reading required materials, completing assignments, preparing for each new lecture at least the day before the lecture.

**Grade Grievances:** Any appeal of a grade in this course must follow the procedures and deadlines for grade-related grievances as published in the current undergraduate / graduate catalog. For undergraduate courses, see For undergraduate courses, see <http://catalog.uta.edu/academicregulations/grades/#undergraduatetext>; for graduate courses, see <http://catalog.uta.edu/academicregulations/grades/#graduatetext>.

**Drop Policy:** Students may drop or swap (adding and dropping a class concurrently) classes through self-service in MyMav from the beginning of the registration period through the late registration period. After the late registration period, students must see their academic advisor to drop a class or withdraw. Undeclared students must see an advisor in the University Advising Center. Drops can continue through a point two-thirds of the way through the term or session. It is the student's responsibility to officially withdraw if they do not plan to attend after registering. **Students will not be automatically dropped for non-attendance.** Repayment of certain types of financial aid administered through the University may be required as the result of dropping classes or withdrawing. For more information, contact the Office of Financial Aid and Scholarships (<http://www.uta.edu/aao/faol/>).

**Disability Accommodations:** UT Arlington is on record as being committed to both the spirit and letter of all federal equal opportunity legislation, including *The Americans with Disabilities Act (ADA)*, *The Americans with Disabilities Amendments Act (ADAAA)*, and *Section 504 of the Rehabilitation Act*. All instructors at UT Arlington are required by law to provide "reasonable accommodations" to students with disabilities, so as not to discriminate on the basis of disability. Students are responsible for providing the instructor with official notification in the form of a letter certified by the **Office for Students with Disabilities (OSD)**. Students experiencing a range of conditions (Physical, Learning, Chronic Health, Mental Health, and Sensory) that may cause diminished academic performance or other barriers to learning may seek services and/or accommodations by contacting:  
**The Office for Students with Disabilities, (OSD)** [www.uta.edu/disability](http://www.uta.edu/disability) or calling 817-272-3364.  
**Counseling and Psychological Services, (CAPS)** [www.uta.edu/caps/](http://www.uta.edu/caps/) or calling 817-272-3671.

Only those students who have officially documented a need for an accommodation will have their request honored. Information regarding diagnostic criteria and policies for obtaining disability-based academic accommodations can be found at [www.uta.edu/disability](http://www.uta.edu/disability) or by calling the Office for Students with Disabilities at (817) 272-3364.

**Title IX:** *The University of Texas at Arlington does not discriminate on the basis of race, color, national origin, religion, age, gender, sexual orientation, disabilities, genetic information, and/or veteran status in its educational programs or activities it operates. For more information, visit [uta.edu/eos](http://uta.edu/eos). For information regarding Title IX, visit [www.uta.edu/titleIX](http://www.uta.edu/titleIX).*

**Academic Integrity:** Students enrolled all UT Arlington courses are expected to adhere to the UT Arlington Honor Code:

*I pledge, on my honor, to uphold UT Arlington's tradition of academic integrity, a tradition that values hard work and honest effort in the pursuit of academic excellence.*

*I promise that I will submit only work that I personally create or contribute to group collaborations, and I will appropriately reference any work from other sources. I will follow the highest standards of integrity and uphold the spirit of the Honor Code.*

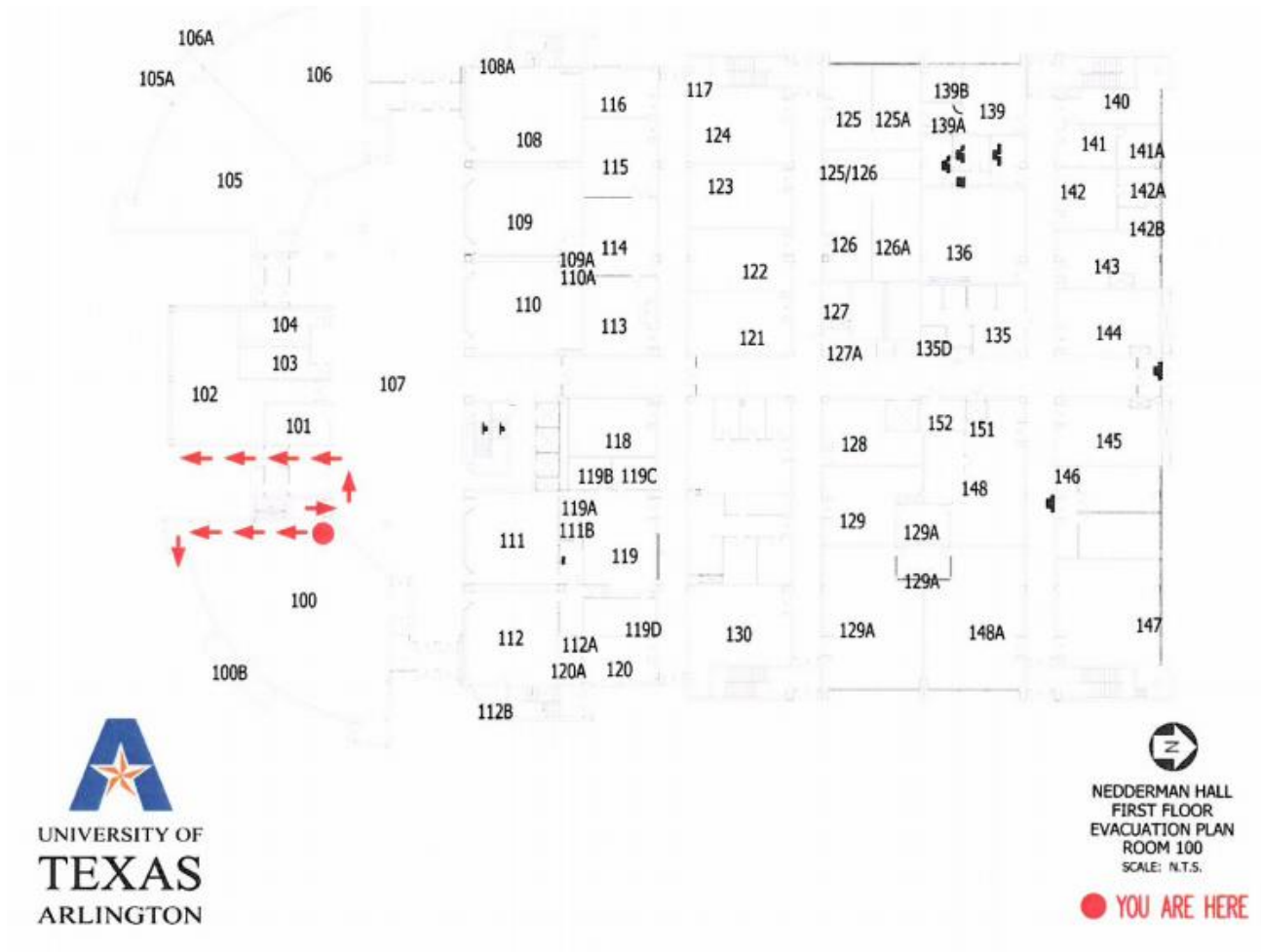
UT Arlington faculty members may employ the Honor Code as they see fit in their courses, including (but not limited to) having students acknowledge the honor code as part of an examination or requiring students to incorporate the honor code into any work submitted. Per UT System *Regents' Rule* 50101, §2.2, suspected violations of university's standards for academic integrity (including the Honor Code) will be referred to the Office of Student Conduct. Violators will be disciplined in accordance with University policy, which may result in the student's suspension or expulsion from the University. **Students caught cheating and/or violating the Honor Code for an individual exam will have the exam confiscated and will receive a score/grade of zero "0" for that exam.**

**Electronic Communication:** UT Arlington has adopted MavMail as its official means to communicate with students about important deadlines and events, as well as to transact university-related business regarding financial aid, tuition, grades, graduation, etc. All students are assigned a MavMail account and are responsible for checking the inbox regularly. There is no additional charge to students for using this account, which remains active even after graduation. Information about activating and using MavMail is available at <http://www.uta.edu/oit/cs/email/mavmail.php>.

**Student Feedback Survey:** At the end of each term, students enrolled in classes categorized as "lecture," "seminar," or "laboratory" shall be directed to complete an online Student Feedback Survey (SFS). Instructions on how to access the SFS for this course will be sent directly to each student through MavMail approximately 10 days before the end of the term. Each student's feedback enters the SFS database anonymously and is aggregated with that of other students enrolled in the course. UT Arlington's effort to solicit, gather, tabulate, and publish student feedback is required by state law; students are strongly urged to participate. For more information, visit <http://www.uta.edu/sfs>.

**Final Review Week:** A period of five class days prior to the first day of final examinations in the long sessions shall be designated as Final Review Week. The purpose of this week is to allow students sufficient time to prepare for final examinations. During this week, there shall be no scheduled activities such as required field trips or performances; and no instructor shall assign any themes, research problems or exercises of similar scope that have a completion date during or following this week *unless specified in the class syllabus*. During Final Review Week, an instructor shall not give any examinations constituting 10% or more of the final grade, except makeup tests and laboratory examinations. In addition, no instructor shall give any portion of the final examination during Final Review Week. During this week, classes are held as scheduled. In addition, instructors are not required to limit content to topics that have been previously covered; they may introduce new concepts as appropriate.

**Emergency Exit Procedures:** Should we experience an emergency event that requires us to vacate the building, students should exit the room and move toward the nearest exit, which is located at the nearest end of the hallway, to the right, as one exits the classroom. When exiting the building during an emergency, one should never take an elevator but should use the stairwells. Faculty members and instructional staff will assist students in selecting the safest route for evacuation and will make arrangements to assist individuals with disabilities. **See map below.**



**Student Support Services:** [Required for all undergraduate courses] UT Arlington provides a variety of resources and programs designed to help students develop academic skills, deal with personal situations, and better understand concepts and information related to their courses. Resources include tutoring, major-based learning centers, developmental education, advising and mentoring, personal counseling, and federally funded programs. For individualized referrals, students may visit the reception desk at University College (Ransom Hall), call the Maverick Resource Hotline at 817-272-6107, send a message to [resources@uta.edu](mailto:resources@uta.edu), or view the information at <http://www.uta.edu/universitycollege/resources/index.php>

**The English Writing Center (411LIBR):**[Hours are 9 am to 8 pm Mondays-Thursdays, 9 am to 3 pm Fridays and Noon to 5 pm Saturdays and Sundays. Walk In **Quick Hits** sessions during all open hours Mon-Thurs. Register and make appointments online at <http://uta.mywconline.com>. Classroom Visits, Workshops, and advanced services for graduate students and faculty are also available. Please see [www.uta.edu/owl](http://www.uta.edu/owl) for detailed information.

### After Hours Safety Escort

**The Sam Mav Escort service** provides a service to assist students, faculty, staff and campus visitors to reach their destinations after regular business hours. The hours of service are 7:00 p.m. to 1:00 a.m., Sunday through Saturday. 817-272-3381

## Course Schedule

### Tentative Lecture Schedule

<b>Week 1</b>	<b>Aug 27</b>	<b>Introduction</b>
<b>Week 2</b>	<b>Sept 1</b>	<b>Chapter 1</b>
	<b>Sept 3</b>	<b>Chapter 2</b>
<b>Week 3</b>	<b>Sept 8</b>	<b>Chapter 2</b>
	<b>Sept 10</b>	<b>Chapter 3</b>
<b>Week 4</b>	<b>Sept 15</b>	<b>Chapter 3</b>
	<b>Sept 17</b>	<b>Chapter 4</b>
<b>Week 5</b>	<b>Sept 22</b>	<b>Review</b>
	<b>Sept 24</b>	<b>Chapter 5</b>
<b>Week 6</b>	<b>Sept 29</b>	<b>Exam 1</b>
	<b>Oct 1</b>	<b>Chapter 5</b>
<b>Week 7</b>	<b>Oct 6</b>	<b>Chapter 6</b>
	<b>Oct 8</b>	<b>Chapter 6</b>
<b>Week 8</b>	<b>Oct 13</b>	<b>Chapter 7</b>
	<b>Oct 15</b>	<b>Chapter 8</b>
<b>Week 9</b>	<b>Oct 20</b>	<b>Chapter 9</b>
	<b>Oct 22</b>	<b>Chapter 10</b>
<b>Week 10</b>	<b>Oct 27</b>	<b>Review</b>
	<b>Oct 29</b>	<b>Chapter 11</b>
<b>Week 11</b>	<b>Nov 3</b>	<b>Exam 2</b>
	<b>Nov 5</b>	<b>Chapter 12</b>
<b>Week 12</b>	<b>Nov 10</b>	<b>Chapter 13</b>
	<b>Nov 12</b>	<b>Chapter 14</b>
<b>Week 13</b>	<b>Nov 17</b>	<b>Chapter 15</b>
	<b>Nov 19</b>	<b>Chapter 16</b>
<b>Week 14</b>	<b>Nov 24</b>	<b>Chapter 17</b>
	<b>Nov 26</b>	<b>Thanksgiving Holiday</b>
<b>Week 15</b>	<b>Dec 1</b>	<b>Open</b>
	<b>Dec 3</b>	<b>Exam 3</b>
<b>Week 16</b>	<b>Dec 8</b>	<b>Dead Week No class - study for final exam</b>
	<b>Dec 10</b>	<b>Dead Week No class - study for final exam</b>
	<b>Final Exam</b>	<b>Tuesday Dec 15, 8-10:00 AM</b>

*As the instructor for this course, I reserve the right to adjust this schedule in any way that serves the educational needs of the students enrolled in this course. –Michael R. Roner.*

**Emergency Phone Numbers:** In case of an on-campus emergency, call the UT Arlington Police Department at **817-272-3003** (non-campus phone), **2-3003** (campus phone). You may also dial 911. Non-emergency number 817-272-3381

Library Home Page .....	<a href="http://www.uta.edu/library">http://www.uta.edu/library</a>
Subject Guides .....	<a href="http://libguides.uta.edu">http://libguides.uta.edu</a>
Subject Librarians.....	<a href="http://www.uta.edu/library/help/subject-librarians.php">http://www.uta.edu/library/help/subject-librarians.php</a>
Course Reserves.....	<a href="http://pulse.uta.edu/vwebv/enterCourseReserve.do">http://pulse.uta.edu/vwebv/enterCourseReserve.do</a>
Library Tutorials .....	<a href="http://www.uta.edu/library/help/tutorials.php">http://www.uta.edu/library/help/tutorials.php</a>
Connecting from Off- Campus .....	<a href="http://libguides.uta.edu/offcampus">http://libguides.uta.edu/offcampus</a>
Ask A Librarian .....	<a href="http://ask.uta.edu">http://ask.uta.edu</a>

The subject librarian for your area can work with you to build a customized course page to support your class if you wish. For examples, visit <http://libguides.uta.edu/os> and <http://libguides.uta.edu/pols2311fm> .