

The University of Texas at Austin
BIO360K - IMMUNOLOGY
SUMMER 2012

Lectures: RLM 5.104

MTWThF 10.00 – 11.30 AM (90225)

Study Groups:

Rooms & Times TBA

Instructor:

Dr. James Bryant

Office: PAI 1.48C

Phone: 232-6491

Email: jtbyrant@austin.utexas.edu

Web: www.bio.utexas.edu/faculty/bryant

Office Hours: TBA

Please email me **4 day & time ranges** which are convenient for you & meet my schedule.

I can then select the earliest convenient time for an appointment.

Please check my available schedule on Bb, BEFORE emailing me.

Grader:

TBA

Course Summary:

This is a **FAST PACED** introductory/intermediate immunology course for biological science majors.

The course consists of mandatory lectures, during which the principles of experimental design, scientific reasoning, and the application & interpretation immunological material will be covered. Lectures will be presented predominantly using the **SOCRATIC METHOD**, in which students will answer questions based upon the topics to be covered that day.

Immunology is a complex and highly integrated subject. Therefore, the course will focus heavily on critical thinking, the systematic approach to reasoning and problem solving, active learning & group activities; in order to promote the understanding, application and integration of immunological topics and their relevance to **ALL living organisms**.

The course will strongly emphasize UNDERSTANDING, INTEGRATION & APPLICATION of the subject material. To succeed in the course students must know the extensive nomenclature of the topic, fully understand the concepts & **MUST** be able to **FULLY INTEGRATE** the concepts at **multiple levels** with respect to the **whole organism**.

NOTE: CAREFULLY READ THE COMPLETE SYLLABUS

Course Objectives:

CRITICAL THINKING is the mental process of actively and skillfully conceptualizing, analyzing, **SYNTHESIZING** and **EVALUATING** information to reach a conclusion or decision. This course is designed to promote **critical thinking & problem solving** skills, to enable students to understand and integrate vital complex topics, such as IMMUNOLOGY

CRITICAL THINKING skills help students in all academic pursuits, especially with complex integrated subjects, such as most biological topics. **Critical thinking & problem solving skills** are essential within the professional work environment and are skills which are required for the higher paying job titles; lawyers, physicians, scientists etc, where important decisions must be made using a large body of information.

During the course students will learn how to efficiently **learn on their own** & how to review biological & general literature; with a mind to how to control for errors in reasoning and data.

Following the course, students will be able to understand the necessity for the immune system, appreciate the functions carried out by the immune system and interpret information regarding the immune function. Students will be able to interpret historical approaches employed to question and study the immune system and function and design appropriate controlled immunological experiments (in conjunction with BIO160L).

Course Content & Teaching Style:

This course is designed to permit the great majority of students to become self-sufficient thinking about & using immunology.

In order to master immunology, students should expect to think critically, employ problem solving skills, **actively participate** within the course, attend both lectures and study groups, integrate the course material and be willing to devote the self-study time to fully review the course content **prior to lectures**, where students will demonstrate their understanding of the course material by answering questions & presenting the material to their colleagues (using the Socratic Method).

This is a 3 credit hour course & students must be willing and able to commit the time necessary to carry out the course work. **UT recommends that students be able to devote 3 hours of study per week per credit hour taken, for a typical long semester (about 9 hours per week for summer sessions).** BIO360K is a 3 credit hour course & so up to 9 hours (27 hours during the summer sessions) of self-study per week is HIGHLY recommended.

Students' who are willing to invest the time, effort and **seek guidance** as needed, typically excel in the course. Students who are unable or are unwilling to actively participate in the course perform very poorly on exams & within the course. Students who fail to engage within the course, or who fail to study the course material, also typically perform very poorly on exams & within the course.

NOTE: CAREFULLY READ THE COMPLETE SYLABUS

Prerequisites:

- BIO 325 - Genetics (with a grade of C or better).
BIO 226T – Introduction to Microbiology (with a grade of C or better).
BIO 126L – Microbiology Lab (with a grade of C or better).

If you do not meet this requirement, **you will be dropped from the class**; as it is highly unlikely that you have the skill sets or background to pass this course.

Textbooks & Reading Assignments:

- *Kuby Immunology* by T.J. Kindt, R.A. Goldsby, and B.A. Osborne. 2007, W.H. Freeman and Co., sixth edition. The course will focus on the details covered in Kuby closely, it is vital that you study the text thoroughly & **MULTIPLE TIMES!**
- www.whfreeman.com/immunology6e is a great source of supplemental information. Other web sites are listed at the end of each chapter of Kuby Immunology.
- Several papers may be assigned, as required reading throughout the course of the semester. Other readings may be given for extra credit on exams.

Blackboard (Bb):

Announcements, course material, exam keys, grades and discussion boards are available on the BIO360K Blackboard site (<http://courses.utexas.edu>). **Students are expected to CHECK Bb ON A DAILY BASIS.**

Students are encouraged to post any questions or answers to other student's questions, to the discussion boards on Blackboard; to help everyone better understand the material. Students are also encouraged to post suggestions and feedback to improve the course for the benefit of everyone.

Classroom Response System (CRS or CPS):

Attendance, class participation & data collection will be assessed using CRS handsets.

CRS clickers can be obtained through the **University Co-Op**. Students should ask for the **WHITE "iClicker" pads**, either of the two versions of iClicker pads may be used within the course.

Enrollment instructions for the pads will be made available on Blackboard and on the first class day. The instructions which came with the pads should be ignored!

The iClickers will be employed from the second class day and students are expected to have obtained and registered their units, through Bb, prior to the second day of class – or they may not receive be able to receive attendance or participation credit for the semester.

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Please contact the ITS helpdesk for assistance with any problems with your clicker or registering your clicker through Bb.

NOTE:

- *Clickers are used to provide students with anonymous personal feedback during lectures. Correct CRS responses will not be scored & will never count toward your final grade.*

Emails:

Students are expected to **CHECK EMAILS ON A DAILY BASIS**.

Students who do not receive an initial email, through Bb, from their instructor within the first class week should immediately contact their instructor, regarding the problem.

Students are free to email their instructor with questions or to schedule an appointment.

IN ALL EMAILS:

1. Put "BIO360K" as the first word of the subject line, or your email will not be delivered due to spam filtering restrictions.
2. Make sure you include a description of the purpose of the email in the remaining subject line; e.g. "BIO360K meeting request".
3. Include your full name, course & section number at the end of your email.

Your instructor receives a huge volume of emails and if you do not include all pertinent information your email, your email will go unanswered.

Requesting Appointments:

Your instructor meets a large number of students, so when requesting a meeting by email always provide: **4 day and time ranges based upon your instructors teaching schedule** and which are convenient for you. Your instructors schedule is posted on Bb.

It is unlikely your instructor will be able to schedule meetings with less than two days notice and no meetings will be scheduled two days before or after an exam.

Individual student meetings are schedule for 30 minutes. However, if there are more than 3 students within a group meetings can be scheduled for 1 hour, upon request.

Abuse of Bb & Emails:

Do not send group emails, unless the emails have been approved by your instructor & are course related. Students who use Bb or UT facilities in an inappropriate fashion will be referred to Student Judicial Services.

NOTE: CAREFULLY READ THE COMPLETE SYLABUS

Preparation for Lectures:

Lectures will be presented using the *Socratic Method*, in which students are randomly selected to answer questions.

- Questions are released before the lecture period in the form of pre-lecture notes, so that all students have the opportunity to prepare for any question they may be asked in class. Failing to answer or incorrectly answering will adversely affect your participation grade.
- Lectures are not a replacement for independent study and students are expected to have thoroughly read the text book prior to each class.
- During every lecture students are advised to have the text book, notes and scratch paper on their desks' in front of them.
- After lectures, students should thoroughly re-read the book & lecture notes, taking notes & drawing concept maps to help them master the material.

The material in this course is highly integrated and extensive review will help you to assemble the concepts into a productive integrated whole, in preparation for the comprehensive exams.

If after reading the material you do not understand the material or concepts, or you have questions, you are advised to seek **IMMEDIATE** assistance from your instructor.

The *Socratic Method* of learning is designed to help you become efficient, independent learners and will help you to learn within your future courses, during medical school, graduate school or within your professional careers.

Office Hours & Study Groups:

Students are encouraged and are welcome to make an appointment with their instructor, through email.

Scheduled office hours will be arranged during the first week of class.

Your instructor will schedule routine weekly study groups to answer questions and review assignments and exams.

Study Groups:

It is **ESSENTIAL** that students **attend the voluntary study groups** in order to assist everyone with learning the material & with completion of the **pretest questions**. Your instructor will organize the weekly study sessions & “teaching teams” at the beginning of the semester.

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Grading Policies - OVERVIEW:

Final course grades will be awarded based upon the plus/minus letter grade system.

The grading structure for the course has been designed to help the majority of students master the subject and achieve good grades within the course. Student's performance is based on skill set mastery, outlined in the grading rubric, which will be provided at the beginning of the course & is also available on Bb.

Your course grade is determined by your willingness to engage within the course.

Students, who do not do well in the course, typically have not attended the lectures or study groups, have not adequately completed assignments, have poor exam performance, have not sort assistance with problems or have non-academic matters which affect their performance.

Overall Course Grade BREAKDOWN:

The contribution of course work to the final grade is as follows:

Exam 1	15%
Exam 2	15%
Exam 3	15%
Exam 4 (FINAL EXAM)	40%
Additional course work	5%
Attendance	5%
Lecture 2/3	
Study groups - 1/3 as extra credit	
Participation	5%
Additional credit opportunities (Extra Credit)	10% [#]

If additional extra credit opportunities are offered, all assessment contributions to the final aggregate grade will be proportionally decreased to ensure that the total final aggregate score equals 100%.

NOTE: CAREFULLY READ THE COMPLETE SYLABUS**Final Course Grade Assignment:**

The grading policy is designed to emphasize subject mastery and to allow students a true perspective of their performance on an absolute scale of achievement. Students will be provided with grade distributions for course work and the rough A/B/C letter grade boundaries will be highlighted for exams.

Final course grade awards are final, *unless* there has been a documented grading error. Negotiation of letter grades will **not** be entered into. However, students are encouraged to direct any questions about the grading policy or errors in grading individual work, to their instructor **immediately**. Questions regarding grading should be **discussed in person** with your instructor, **at the time** that grades are distributed.

The overall course letter grade, is derived from the proportional contributions of; attendance, credit opportunities (if offered), assignment grades, group projects and exam grades. The final course letter grade will be assessed at the end of the course and the numerical letter boundaries will be determined each semester based upon skill acquisition highlighted in the grading rubric. On-going course grades are **not curved** and the rough A/B/C letter grade boundary will be highlighted – to allow students to determine their own performance within the course. If you have any questions about your course performance or grades – please schedule an appointment with your instructor immediately.

The approximate **mean percentage performance** of students who have previously taken this course and been awarded a final letter grade of A, B or C are shown:

	A	B	C
Assignments	96%	82%	68%
Exam 1	78%	68%	61%
Exam 2	82%	76%	68%
Exam 3	73%	63%	60%
Exam 4 (FINAL EXAM)	75%	68%	61%
Attendance/Participation (Study groups - extra credit)	98%	95%	88%
Number of Absences (including study groups)	0.5	1.3	2.7
Additional credit opportunities (optional)	100%	88%	75%

NOTE:

- These figures are only **ROUGH** indicators of course work grades that contribute to the appropriate final letter grade.
- The instructor reserves the right to curve the course work score cut off boundaries, **UP OR DOWN**, for letter grade determination; depending upon the specific rigor of exercises, **ACCORDING** to the grading rubric.

NOTE: CAREFULLY READ THE COMPLETE SYLABUS**Attendance & Participation:**

Attendance & participation account for 5% of the course grade, each.

Attendance and participation are heavily emphasized within this course, as these are **strongly associated** with exam performance and overall course performance.

The attendance policy is designed to help students balance their course loads and time demands, while appreciating the cost to performance by missing lectures and labs.

Students who obtain either an A or B grade within the course, typically have only missed 2 (or fewer) lectures and/or labs.

Students who have no absences at the end of the semester will be awarded 5% for their attendance. Attendance credit will be awarded in lower increments as the number of absences increase.

Number of Absences	Attendance (Credit – up to 5%)
0	5%
1	4%
2	3%
3	2%
4	1%
5	0%

Attendance will be taken at the BEGINNING of each lecture using the iclickers only and at the beginning of each study group. Please make sure your clicker is working & has fully charged batteries. Students who do not answer the attendance clicker question, and all subsequent clicker questions, will be counted as absent.

Students may record clicker responses on paper twice for attendance & participation credit, during the semester! Please write your clicker answers on a letter sized sheet of paper, along with your full name, course number, course time & DATE to your instructor at the end of class.

If you know that you are going to be late to a lecture or study group please make prior written arrangements with your instructor!

Lectures will be presented using the Socratic Method, in which students will be randomly selected to answer questions – which will be presented in pre-lecture notes ahead of time. Students have 3 opportunities to not answer questions when selected or to answer questions incorrectly. After the 3rd opportunity students will lose participation extra credit for not being able to answer content questions.

Students absent from a class, or examination, for the observance of a religious holy day may complete the work missed within a reasonable time after the absence, provided prior written notice has been given. Notice must be given fourteen days prior to the class for which the student will be absent. Religious holy days which fall

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within the first two weeks of the semester, require notice on the first day of class. Notice must be personally delivered to the instructor, signed & dated by the instructor, or sent via certified mail return receipt requested. A student who fails to complete missed work within the time allowed will be subject to the normal academic penalties.

Credit for absences will only be given for documented religious holidays (see above) and documented events which are out of student's control; for instance illness with a doctor's note. Please contact your instructor immediately if you have a non-academic issue which affects your attendance.

Students who have legitimate non-academic reasons for missing class are *strongly recommended to speak to their instructor and to the Dean's Office immediately*, to ensure that their course grade is not unduly affected. Students should also contact the Dean's Office immediately regarding any non-academic issue that affects their performance within this & all classes.

Written Work:

- All course work; (exams & assignments) should be **legibly handwritten** and should contain the students name, course name & date at the top of the work.
- Any work which does not contain the students name or date will not be graded for credit.
- Any work which is illegible will not be graded for credit.
- Assignments should be **STAPLED** neatly & any rough edges from spiral binders should be removed prior to turning in.
- As the course does not have a TA, No late work can be marked for credit.

Assignments:

Assignments are an important way to help students keep up with the material and receive feedback about their performance. Your instructor will provide out of class assignments; once a week or once every couple of weeks.

Assignments will be distributed within study groups and should be handed in at the beginning of lectures (TBA). Assignments will be graded on a pass/fail basis **ONLY**, based upon **completion** of the question. Assignments turned in late will **NOT** be marked for credit. Model answers to the assignments questions will be reviewed during the study groups.

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Exams:

All exams are cumulative, as all of the course material is required to correctly understand immunology and answer general problems.

There will be four exams during the course, including the final. The first 3 exams **each** account for **only 15%** of the final course grade. The final exam accounts for 40% of the final course grade.

The 3 midterm exams provide feedback to the students, to highlight subject understanding and help students determine what areas of the material require attention. Please speak to your instructor immediately if your exam scores are lower than the b/c boundary. It is easier to handle subject difficulties earlier in the course, than later.

Exams will be administered outside of lecture time, in order to provide students with sufficient time to carry out the tests. Students with conflicting University classes or examinations wishing to sit an alternative exam must 1) have responded to the emailed survey at the beginning of the semester and 2) submit a reminder to the instructor **in writing at least two lectures** prior to each scheduled exam. The request must site the course number, meeting time, instructor's name and reason for inability to attend the scheduled exam and additional times available to sit an alternative exam time. Students with an academic conflict may then take the exam at another scheduled time. Students who do not respond to the emailed survey at the beginning of the semester may not sit alternative exam sessions.

If it is not possible to schedule an alternative exam for an individual student, then the grade for exam 2 will replace the grades for missed exams 1 & 3 and exam grade 3 will replace missed exam 2 grades.

Rough A/B/C letter grade boundaries will be provided after each midterm exam. Students should *use their exam grades as a **learning tool** and a guide for seeking assistance from their instructor.*

Successive exams increase in rigor over the course; as the amount of material tested increases and as the material increases in complexity. The exams are written to have an average of about 60%. The difficulty and mean of the exams has been chosen to allow students the maximum opportunity to determine where they have made mistakes. Students who treat this opportunity positively typically show great improvement in performance during the semester and do exceptionally well in the course.

Return & Reviewing of Exams & Work:

EXAMS WILL NOT BE RETURNED!

Exams 1 – 3 will formally be reviewed during the study sessions or alternatively by appointment with your instructor.

Students who fail to return exams 1 – 3 after review during study sessions will be referred to Judicial Services & will receive a failing grade within the course.

NOTE: CAREFULLY READ THE COMPLETE SYLLABUS

Assignments will be returned to students to provide feedback. Students may set up an appointment with their instructor to collect any outstanding assignments which could not be returned due to scheduling issues.

Advice for Being A Successful & Productive Student:

- Your initial grade in any course is 0%. YOU earn your own grade from that point.
- You can ONLY succeed through putting in the work to the material. “Only in the dictionary does SUCCESS come before WORK”
- Your instructors are there to help you
- Ensure you follow all instructions carefully. Instructions are there to simplify everyone’s lives. Not following instructions is one of the biggest reasons that students do not perform to their full potential in most classes
- Have a positive attitude. The more positive you can remain the quicker you will rebound from the knocks that life comes up with. Unfortunately success only comes after failure. Successful people are those who have kept trying.
- Always ask questions and address complaints immediately and directly following the policies. Mistakes happen and things break. Although no one likes to be the one to have to sort out problems it is always better to resolve problems early on, when they are relatively small, easy to remedy and people’s emotions have not been engaged.
- Read the syllabus (thoroughly) at the beginning of the semester and refer to the syllabus all the way through the semester. Syllabi are written to help you succeed and to know the expectations upon you in the course.
- Never leave things to the last minute. No one produces their best work when they leave things to the last minute. You will also deprive yourself of the opportunity of receiving assistance from your colleagues and instructor.
- Enjoy what you study. You cannot excel in a course or subject that you don’t like. If you don’t like the course or teaching style, select another offering of the course or choose another course to fulfill your degree plan requirements.
- Don’t WHINE – negative comments are very destructive and never help anyone; including yourself. It is hard for colleague, instructors and advisors to help students who are rude, mean spirited, or offensive.
- Make sure you only sign up for classes or a work load that you can complete. If you take too many or too demanding classes you will burn yourself out and will adversely affect your performance and GPA.
- Non-majors courses are no less demanding or time consuming than majors courses

Dropping the Class:

Students are advised to Q drop the course if they

- 1) are unable to devote the necessary time to the course
- 2) are unable to dedicate the necessary effort to the course
- 3) are unwilling seek help from their instructor as they require it.
- 4) decide they don’t like the material or style of instruction.

It is much better for students to Q drop courses they do not have the resources to excel in, than to earn a failing grade at the end of the semester.

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Students may drop the course prior to the 4th class day without penalty. Students may self-elect to drop the course as indicated by University policy. The instructor adheres to university policy on awarding Q/F drops!

Auditing the Class:

Students may not audit this course. Historically, students who have audited the class have either not completed the course or not done well in the course.

Classroom Distractions:

- Students are required to sit together at the front of the room in the middle of rows.
- Any late comers are asked to sit on the sides of the room closest to the door to minimize distraction.
- Cell phones should be turned off prior to class
- *Laptop computers are NOT permitted in class.*

Accommodations For Students With Disabilities:

Any student with a disability who requires academic accommodations should contact the Services for Students with Disabilities area of the Office of the Dean of Students at 471-6259 or 471-4641 (TTY) as soon as possible, so that the appropriate accommodations can be made.

Students with accommodations from the Services for Students with Disabilities Office must provide **written documentation** of the required accommodations within the first week of the course.

Students who require additional time on exams, which has been authorized in writing by the SSD, are responsible for coordinating the exam schedule with both the SSD & their instructor. Arrangements for exam schedules, for students requiring extra time, must be made by the student at least **7 days in advance** of the regularly scheduled exam & the **arrangements must be emailed to the instructor ahead of each & every exam**. Students who fail to successfully co-ordinate or arrange their exams through the SSD appropriately may be unable to sit the exam.

Non-Academic Issues:

Any students with personal non-academic issues which may affect your performance in the class are requested to speak to the Office of the Dean of Students for Natural Sciences at 471-4536 as soon as possible, so that the appropriate accommodations can be made.

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Academic Honesty:

- Students are expected to behave with integrity.
- Students are advised to completely understand and respect the definitions of cheating, plagiarism and collusion. If you have any questions regarding these practices please contact your instructor; as it is better to be safe than sorry.
 - Cheating involves the distribution of keys or copying other students works, for example within an exam.
 - Plagiarism involves the use and reporting of other individuals ideas and not accrediting those individuals accordingly.
 - Collusion involves the working together of students on projects, which are designed to be attempted by individual students.
- UT policy requires that all students who are identified as committing any of these acts should be reported to Student Judicial Services. Please ensure that you fully understand and respect the definitions of these unacceptable behaviors.
- Any student found distributing keys to exams or distributing past exam papers/questions will be referred to Judicial Services; with a recommendation of receiving an F in the course.
- Any student found distributing keys to current or past assignments or distributing past assignments/questions will be referred to Judicial Services; with a recommendation of receiving an F in the course.
- Any student found distributing keys to current or past extra credit exercises or distributing past extra credit questions will be referred to Judicial Services; with a recommendation of receiving an F in the course.
- Any student found to have copied from an exam (previous or current) will be referred to Judicial Services; with a recommendation of receiving a zero for their exam grade and a final course grade reduction.
- Any student found to have copied another student's assignment (previous or current) will be referred to Judicial Services; with a recommendation of receiving a zero for their assignment grade and a final course grade reduction.
- Any student found to have copied another student's extra-credit assignment (previous or current) will be referred to Judicial Services; with a recommendation of receiving a zero for their extra credit grade and a final course grade reduction.
- For information on the University of Texas Scholastic dishonesty policy, see the 2003-2004 General Information Catalog, Appendix C.

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References for Students:

I am happy to write references. However, I write letters of recommendation as a courtesy and I can only write letters as my work schedule permits (typically in batches every 3 – 6 months)! Make sure you follow **ALL** of the instructions & submit the **COMPLETED** package early. I will not write recommendation letters for anyone who doesn't follow **ALL** of the instructions!

It is important that you realize that you earned your course grade & create your own reference; through your performance while within the course. To write a strong reference, your engagement, performance and critical thinking ability **must stand out**. The more I am able to mention tangibles such as attendance, participation, course work grades, exam results, critical thinking and problem solving ability; the stronger the reference. Employers, graduate school entrance committees and medical schools; are only concerned if you have the dedication, team aptitude & capability to carry out the work.

If you would like a reference (**5 total per student absolute limit**) contact me as early as possible & provide either **SINGLE completed** hand delivered (drop under my door PAI 1.48C) or mailed package - containing ALL of the following:

- Your full name (as shown on the formal UT roster)
- Your email address
- The course/s you took
- The semester you took the course
- The title of the position you are applying for!
- A contact name for the position (if available)!
- The address of the establishment
- The deadline date for the reference
- All necessary forms or waivers
- Supporting information, which accounts for any weak academic performance within the course you took!
- Short group project summary (if you completed one in the course)
- **TYPED/STAMPED** addressed envelope
 - (4 1/8" x 9 1/2" **ONLY**, NO FedEx or other envelopes!)
- **DO NOT** provide unrequested materials – these only distract me from completing the reference/recommendation letters.

NOTE:

- 1) I will need **ALL** of the above information for **EACH & EVERY** reference request!
- 2) Provide me with the information with at least 1 – 3 months notice.
- 3) I only type references, as the online systems are problematic & complicated to work with.

NOTE: CAREFULLY READ THE COMPLETE SYLABUS**Lecture Guide:**

The times of delivery & emphasis of course content are tentative.

Exam time & dates will be confirmed within the first week of class.

<u>Approx. Dates</u>	<u>Day</u>	<u>Lec</u>	<u>Lecture Topic</u>	<u>Chapter</u>
07/09/12	M	1	Philosophy & Self Problem solving & Conceptualizing	1 & 6
07/10/12	T	2	Practically Answering questions Experimental Design CONTROLLING for errors	6 & 22
07/10/12	T	-	LAST ADD/DROP	
07/11/12	W	3	Overview of immunology	1 & 3
07/12/12	TH	4	Cells of the immune system	2
07/13/12	F	5	Organs of the immune system	2
07/16/12	M	6	Antigens	4
07/17/12	T	7	Immunoglobulin structure & function – I	4
07/18/12	W	8	Immunoglobulin structure & function – II	4
07/19/12	TH	9	Organization & expression of Ig genes – I	5
07/19/12	TH	-	EXAM 1	TBA
07/20/12	F	10	Organization & expression of Ig genes – II	5
07/23/12	M	11	Major Histocompatibility Complex – I	8
07/24/12	T	12	Major Histocompatibility Complex – II	8
07/25/12	W	13	Antigen processing and presentation	8
07/26/12	TH	14	T cell receptor – I	9
07/26/12	TH	-	EXAM 2	TBA
07/27/12	F	15	T cell receptor – II T cell maturation, activation, & differentiation – I	9 10
07/30/12	M	16	T cell maturation, activation, & differentiation – II	10
07/31/12	T	17	T cell maturation, activation & differentiation - III B cell generation, activation, & differentiation – I	10 11
08/01/12	W	18	B cell generation, activation, & differentiation - II	11
08/02/12	TH	19	Cytokines – I	12
08/02/12	TH	-	EXAM 3	TBA
08/03/12	F	20	Cytokines - II The complement system – I	12 7
08/06/12	M	21	The complement system - II Cell-mediated effector responses – I	7 14
08/07/12	T	22	Cell-mediated effector mechanisms – II	14
08/08/12	W	23	Hypersensitivity reactions – I	15
08/09/12	TH	24	Hypersensitivity reactions – II	15
08/10/12	F	25	Transplantation immunology OR Autoimmunity	17 16
08/10/12	F	-	LAST CLASS DAY	
08/13/12	M	-	FINAL EXAM MON 9:00-12:00 P.M.	

BIO360K Grading Rubric

- Your course grade is based upon **YOUR SUBJECT MASTERY** and **SKILL SET** achievement.
- To help you understand the grading structure I have put together the following grading rubric.
- Midterm exams & assignments are designed to help you to assemble the material into a usable **WHOLE**.
- Grade emphasis on the midterm exams is lower than that of the final to allow **you to learn from the exams**.
- Exams & assignments are designed to challenge you with **MATERIAL & SCENARIOS WHICH YOU HAVEN'T SEEN BEFORE**.
- **B/C boundaries for the exams will be provided at the time that exams are reviewed.**
- **The EXAMS are YOUR most valuable tool to assist YOU in mastering the material & to identify areas that need YOUR attention!**

Letter Grade	Mastery Level	Subject Mastery	Predicted Effort
A	Outstanding	<ul style="list-style-type: none"> • Fully able to formulate & solve novel open ended problems • Fully able to integrate information from multiple topics • Complete comprehension of limits & functions of each immunological system • Fully able to explain & draw concepts & topics covered • Has a complete grasp of the skills from levels C 	<ul style="list-style-type: none"> • Student seeks assistance with questions/problems as needed • All course material read & completely reviewed • All assignments & exams completed to very high standard • All course work completed & handed in on time • Exceptional attendance & participation
B	Good	<ul style="list-style-type: none"> • Able to formulate & solve majority of open ended problems • Able to integrate information from multiple topics • Complete comprehension of limits & functions of each immunological system • Able to explain & draw concepts & topics covered • Has a complete grasp of the skills from level C. 	<ul style="list-style-type: none"> • Student seeks assistance with questions/problems as needed • All course material read & completely reviewed • All assignments & exams completed to a high standard • All course work completed & handed in on time • Exceptional attendance & participation
C	Competent	<ul style="list-style-type: none"> • Moderate ability to formulate & solve open ended problems • Able to explain & draw most concepts & topics covered • Present written work in an orderly & logical fashion • Demonstrate full & correct recall of factual material when directed. 	<ul style="list-style-type: none"> • Student seeks assistance with questions/problems as required • All course material read & completely reviewed • Majority of assignments & exams completed to a high standard. • Majority of course work completed & handed in on time • Strong attendance & participation
D or less	Incomplete	<ul style="list-style-type: none"> • Poor ability to formulate & solve novel open ended problems • Poor ability to integrate information from multiple topics. • Unable to recall salient material when directed. • Failure to clearly or logically write concepts • Failure to show consistent acquisition of subject mastery 	<ul style="list-style-type: none"> • Failure to seek assistance with problems & questions • Subject material not adequately reviewed • Exams not completed to a high standard • Assignments incomplete or not turned in. • Poor attendance & participation

SUMMER 2012

BIO360K Grading Rubric