

BIOB 411 IMMUNOLOGY LABORATORY

Autumn Semester, 2013

Dr. Scott Wetzel (CHCB 216; Phone 243-2168)

Lab schedule: 1:10 - 4:00 pm on Thursdays in HS 404

Teaching Assistant: Jim Reed (CHCB 215; Phone 243-2168)

Date	Lab #	Page	Topic
September			
3	1	1	Introduction - grading, animal use, safety, etc.
10	2	6	Cells and organs of the immune system- PART 1
17	3	12	Cells and organs of the immune system- PART 2
24	4	18	Generating polyclonal antibodies- PART 1
October			
1	5	20	Immunoagglutination assays
8	6	24	Immunoprecipitation and Electrophoresis
15	7	31	Immunoblots
22	8	33	Complement fixation assay
29	9	36	Immunofluorescence microscopy ---- MIDTERM EXAM
November			
5	10	39	Passive hemagglutination & Generating polyclonal antibodies – PART 2
12	11	44	Flow Cytometry
19	12	47	ELISA ----- LAB PAPER OUTLINE DUE
26			HOLIDAY
December			
3	13	53	Generating polyclonal antibodies- PART 3
10	14	56	Complete analysis of antisera, compile data and Lab Paper
14	-		FINAL EXAM (3:20 to 5:20)
17	-		LAB PAPER & NOTEBOOKS DUE by 5:00 PM

General Notes:

GRADING- BIOB 411 points are broken down as follows: 200 pts from 2 lab exams (midterm and final), 100 pts from a formal lab report (see below), 70 pts from the lab notebook (5 pts per lab) and 30 points from quizzes. Grades are calculated by 90%, 80%, 70%, and 60% of the total points; which represent the cutoffs for an A, B, C, and D, respectively. Materials turned in late will be reduced by 10% of the total points per day of tardiness. ***Students missing more than two labs will be required to drop the course.***

QUIZZES: These are long, and frequently complex laboratory exercises. You **MUST** read the material and prepare for each lab **AHEAD** of time (remember this is a 2 credit course). To insure that you come prepared, we will have unannounced quizzes at the beginning of 6 of the first 12 labs during the semester. These quizzes will be worth 5 points and will cover the lab that day.

LAB PAPER- Each team will receive a mouse for generating "monospecific" polyclonal antiserum. The protocol and results obtained from this portion of the laboratory (labs 4, 10, 13 & 14) will be summarized by each student in a typewritten report. The report format will follow the publication style as set forth by the *Journal of Immunology* (for details see Laboratories 13 & 14). **Late papers WILL LOSE 1 LETTER GRADE PER DAY and WILL NOT BE ACCEPTED AFTER December 16.**