

# BioSci 0355 Honors Genetics

## Fall Term 2002

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**Instructor**

Lewis Jacobson  
304 Langley Hall

Office Hours: Tue, Thu 2:45-4:00  
412-624-4647 LJAC@pitt.edu

**Lectures:** Tuesday, Thursday, 11:00 to 12:20, 214 Langley Hall  
**Recitations:** Friday, 1:00 to 2:50, 220 Langley Hall  
**Text:** Snustad & Simmons, *Principles of Genetics* (3rd ed.)

<u>Lect</u>		<u>Date</u>	<u>Topic</u>	<u>Text</u>
1	T	Aug. 27	Introduction: Main ideas, model organisms	1
2	H	Aug. 29	Mendelian genetics 1: Genes, segregation	3
3	T	Sep. 3	Mendelian genetics 2: Independent assortment	6
4	H	Sep. 5	Alleles and phenotypes	4
5	T	Sep. 10	Gene interaction	4,5
6	H	Sep. 12	Linkage & chromosomes	6
7	T	Sep. 17	Recombination & recombination mapping	8
8	H	Sep. 19	Sex determination & sex-linked inheritance	6
9	T	Sep. 24	Tetrad analysis	9
10	H	Sep. 26	DNA as the genetic material	10
	T	Oct. 1	<b>FIRST EXAM (Lectures 1-9)</b>	
11	H	Oct. 3	DNA replication	11
12	T	Oct. 8	DNA in chromosomes	10
13	H	Oct. 10	Transcription: RNA synthesis and processing	12
14	T	Oct. 15	The genetic code and translation: Protein synthesis	13
15	H	Oct. 17	Genes & phenotypes	
16	T	Oct. 22	Gene structure	15,16
17	H	Oct. 24	Mutations & mutagenesis	14
18	T	Oct. 29	Recombinant DNA methods	20
19	H	Oct. 31	Recombinant DNA applications	22
	T	Nov. 5	<b>SECOND EXAM (Lectures 10-17)</b>	
20	H	Nov. 7	Gene regulation in prokaryotes	23
21	T	Nov. 12	Transcriptional regulation in eukaryotes	24
22	H	Nov. 14	Post-transcriptional regulation	24,28
23	T	Nov. 19	Genomics & functional genomics	21
24	H	Nov. 21	Developmental genetics I	25
25	T	Nov. 26	Developmental genetics II	25
26	T	Dec. 3	Extrachromosomal inheritance	19
27	H	Dec. 5	The future of genetics: Science & society	

**WEDNESDAY Dec. 11 FINAL EXAM** (2:00 - 3:50, 214 Langley Hall)

(The Final Exam will cover the entire course, but will emphasize Lectures 18-26)

## BioSci 0355 Genetics (UHC)

### Course Policies and Procedures

#### World Wide Web

All course documents can be found on the WWW. Use a Web browser (Netscape or Explorer) to go to

**[www.pitt.edu/~ljac/main.html](http://www.pitt.edu/~ljac/main.html)**.

You will find there everything (more or less) that you receive in class as paper copies. In addition, there are links to other Web sites of interest. I suggest you look at these.

#### Lecture Materials

All lectures will be taped. Tapes and copies of overhead transparencies used in the lecture will be in the Communications Center, **G-20 Hillman Library**. These should be available in the morning of the day following each lecture. Every effort will be made to get good taping, but accidents may happen. You are welcome to make your own tapes of lectures and recitations.

#### Reading assignments

You are expected to read assigned chapter(s) *before* the lecture in which the subject matter is covered. You are responsible for all material in assigned readings, even if not covered in lecture.

#### Recitations

You should be enrolled in the recitation section, and **you are expected to attend every week**. Recitations will be used to go over assigned problems (including Virtual Flylab exercises) and exam questions and to answer questions about the lectures or text. Past experience suggests that students who attend recitation regularly are more likely to do well.

#### Instructor's Office Hours

Dr. Jacobson will have regular office hours Tuesdays and Thursdays, 2:45–4:00. A signup sheet for appointments will be posted outside 304 Langley Hall. If you wish to see the instructor, please sign up for an appointment on the sheet for your chosen day, on a first-come-first-served basis. Two or three students who have the same questions may sign up for a joint appointment. **Please remember that appointments may be heavily booked immediately preceding an exam, so plan ahead.** If you absolutely cannot make it during office hours, please call the instructor to make an appointment at another time.

#### Electronic Mail Discussion

You can submit questions, inquiries or messages by electronic mail to LJAC@pitt.edu. Dr. Jacobson will check this mailbox at least once a day on weekdays, sporadically on weekends. If you want acknowledgment that a message has been received, **please say this in your message**. The instructor is not responsible for any failure in e-mail communications. You will get an address list to communicate with other students by e-mail.

#### Exams

Exams will consist of a mixture of short essay questions and problems to be solved. The in-class exams on Oct. 1 and Nov. 5 will be 80 minutes long. The Final Exam on Dec. 11 will be 110 min. long. Note that the Final Exam is scheduled at 2:00, **not regular class time**.

#### Grading

Each in-class exam will count 100 points and the Final Exam will count 150 points. Final letter grades will be based upon your total score on in-class exams and the Final Exam.

## Disabilities

If you have a disability for which you are or may be requesting accommodation, you are encouraged to contact both the instructor and the Office of Disability Resources & Services, 216 William Pitt Union, 412-648-7890 [TTY 412-383-7355] as early as possible in the term. DRS will verify your disability and determine reasonable accommodations for this course.

## Excused Absences from Exams

If an emergency (defined as illness, serious injury, death in the immediate family, etc.) prevents you from taking an exam, you must notify the Instructor *in writing* (not e-mail) no later than 2 weeks after the date of exam. [A telephone call in advance is greatly appreciated.] You must give your name, the date of the missed exam and, if a medical excuse is involved, a documenting letter from your physician. If competition in intercollegiate athletics prevents you from taking an exam, you must provide a *written* request from your coach *before* the exam.

If you have an excused absence from an exam, your final grade will be based upon the average of the exams that you do take. In the absence of a properly documented written excuse, you will be assigned a grade of zero for that exam.

**No student will be excused from more than one exam.** If you miss more than one exam, see the CAS Office (Thackeray Hall) to withdraw officially from the course.

## Late Withdrawal from the Course

The instructor will not approve any requests for withdrawal after the second exam on Nov. 5, except in extraordinary circumstances. Poor student performance is not considered to be an extraordinary circumstance justifying permission to withdraw.

## Cheating

Absolutely no form of cheating will be tolerated during exams. If you are caught cheating during an exam, your paper will be confiscated and, *at a minimum*, you will be assigned a grade of zero for that exam. Further action may be taken through the Academic Integrity Review process.

