

**Bi122: Human Genetics**

Spring 2007

Lecture: 100 Willamette

Tue/Thursday 8:30 to 9:50 a. m.

Discussion Sections: 111 Huestis: Mon (8am, 9am, 10am, 11am), Tue (4pm, 5pm) &amp; Wed (8am, 9am).

**Bruce Bowerman**

375E Streisinger 346-0853

Office Hour: Wed 10:30-11:30a.m.

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**Course topic.** This course is designed to familiarize you with basic principles of genetics, with a focus on human genetics, genetically caused diseases, and the relevance of genetics research and knowledge to human society.

**Grades.** Your grade in this course will be calculated as follows:

Problem Sets: 1/6

Two Midterm Exams: 1/2 (1/4 each)

Final Exam: 1/3

There will be no make-up exams, without making arrangements in advance. For exams and for the course total, I grade on a curve: the mean score will be near the low B/high C boundary, and usually about 15% of the class receives an A. Your grades will be available online. Please notify Marc or Nick if we make any mistakes entering your scores.

**Office hours.** If you have questions about the course material, you can stop by my office (375E Streisinger) and visit me during my office hour (Wednesdays 10:30-11:30 a.m.). You also are welcome to ask questions by email, at bowerman@uoregon.edu, and to talk with me before or after class.

**Teaching assistants: Mark Compton and Nick Caleb** are the TAs in this course. They will run the discussion sessions, and will have office hours. Their email addresses are (mcompton@uoregon.edu and ncaleb@uoregon.edu). Mark's office hour will be Wednesdays, 4:30-5:30pm; Nick's office hour will be Thursdays, 4:00-5:00pm. Both Mark and Nick will have their office hours in the Gazebo on the second floor of the Streisinger Building (which connects Klamath/Willamette Halls to Huestis Hall (you can enter through Huestis)). The Gazebo is a glass-enclosed room with an outdoor balcony, and a small round indoor table that works well for office hours.

**Required reading and lecture materials.** "Human Genetics" by Ricki Lewis, is the textbook for this course. Required readings are indicated on the syllabus lecture schedule. To supplement the textbook, my lecture files will be available online at the course website. They are available as either PowerPoint files or as PDFs: <http://biology.uoregon.edu/classes/bi122s07/>

**Discussion sections and problem sets.** There will be six short problem sets that you will be required to turn in at the Discussion sections, and which will then be discussed during the Discussion sections. Attendance is mandatory for all the discussion section. Problem sets will be posted on the course website.

**Mid-term Exam and the Final Exam.** The exams will consist of multiple choice and short answer questions. Exams will be closed-book and closed-notes. The Final Exam will be cumulative and cover the entire course. Exam questions will be based entirely on lecture topics. Information from the required reading that is not covered in my lectures will not be used for exam questions.

## 2007 BI122 SYLLABUS

DATE	LECTURE TOPIC	READING	Lecture Files & Problem Sets
		<b>chapter</b>	
3-Apr	Intro: Cellular basis of life	Chapters 1, 2, 3	Lecture File #1
5-Apr	DNA and genes	Chapters 9, 16	Lecture File #2
	DISCUSSION SECTION		NO DISCUSSION Sections (Week 1)
10-Apr	Gene Expression	Chapters 10, 11	Lecture File #3
12-Apr	Gene Expression/ Mendelian Inheritance	Chapters 10, 11/ Chapters 4.5.6	Lecture File #3
	DISCUSSION SECTION		PROBLEM SET #1 (Week 2)
17-Apr	Mendelian Inheritance & Meiosis	Chapter 4, 5, 6	Lecture File #4
19-Apr	Mutations: origins and effects	Chapter 12	Lecture File #4
	DISCUSSION SECTION		PROBLEM SET #2 (Week 3)
24-Apr	Review session		
26-Apr	Midterm #1		
	DISCUSSION SECTION		Midterm Exam Review Session (Week 4)
1-May	Mutations: origins and effects.	Chapters 7,13	Lecture File #4
3-May	Genetic Engineering and Gene Cloning	Chapters 19, 22	Lecture File #5
	DISCUSSION SECTION		PROBLEM SET#3 (Week 5)
8-May	Genetic Engineering and Gene Therapy	Chapters 20, 21	Lecture File #5
10-May	Genomes and Model Organisms	Chapter 19- 22	Lecture File #5
	DISCUSSION SECTION		PROBLEM SET #4 (Week 6)
15-May	Genetics of Immunity	Chapter 17	Lecture File #6
17-May	Genetics of Immunity Stem cell biology	Chapters 17	Lecture File #6
	DISCUSSION SECTION		PROBLEM SET #5 (Week 7)
22-May	Review session		
24-May	Midterm #2		
	DISCUSSION SECTION		Midterm Exam Review Seesion (Week 8)
29-May	Genetics of Cancer	Chapters 18	Lecture File #7
31-May	Genetics of Cancer	Chapter 18	Lecture File #7
	DISCUSSION SECTION		PROBLEM SET #6 (Week 9)
5-Jun	Open Lecture (catch-up, or new topic)		
7-Jun	Overview; final exam review		
	DISCUSSION SECTION		Final Exam Review Session (Week 10)
14-Jun	Final Exam Thursday 8:00am Willamette 100		Comprehensive Final Exam