

Course Syllabus - Introductory Genetics 3200 A– Fall 2013

BIOL 3200, CRN 81287 - Genetics - 3 Credit Hours- Section A

Lecture : Monday, Wednesday and Friday 12:00 pm – 12:50 pm Room 1011 Bailey Science Center

Prerequisite: MATH 1113, BIOL 1107, BIOL 1108 or permission of the instructor. A survey of modern genetics including: Mendelian and molecular genetics, as well as selected topics in population and quantitative genetics and genetic engineering. Note that this is a 3 hour lecture course without a lab.

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Office Hours: 9:00 - 11:00am Tuesday and Thursday or appointment. I also have an open door policy, I encourage students to drop by whenever they may need help with the course. Please understand however, that under these circumstances, you may have to wait until I am free of other things.

Text: 1) Benjamin A. Pierce. *Genetics Essentials: Concepts & Connections*. 2010. 2nd Ed. W.H. Freeman & Company. ISBN-13 # 978-1-4292-9516-1
2) Optional : Jung H. Choi & Mark E. McCallum. *Solutions & Problem-Solving Manual for Genetics Essentials: Concepts & Connections*. 2010. 1st Ed. W.H. Freeman & Company. ISBN-13 # 978-1-4292-4728-3

Course Objectives: Students are expected to demonstrate through their performance on tests and homework problems that they have learned a basic body of factual information and gained an understanding of the basic processes of genetics. Gaining an ability to logically understand and solve formal mathematical genetics problems is necessary and integral to this course. Students are responsible for the assigned reading material and all lecture materials on tests. A reasonable amount of study and problem practice time should be allocated to this course. A few hours study, the night before exams will not be sufficient to score well in this course. Achievement of the above objectives will be evaluated based upon the student's satisfactory completion of all class and homework exercises as well as performance on tests and examinations.

Assessment/ Grading policy: Letter grades will be based upon a 10 point scale. Homework assignments will constitute 10% of the overall final grade, and the lecture tests will compose the other 90 % of the overall grade. The number and due dates of graded homework assignments will be determined as need arises. There are 3 tests and a final exam falling on the date of the university scheduled exam. The final exam may be cumulative and may include new material. Overall the grading values will be: Tests and exam = 90%, homework = 10%. **Exams:** Don't miss exams. Absolutely no makeup tests or exams will be given. A grade of zero will be assigned for all missed assignments. No late tests or course assignments will be accepted for a grade.

Some Basic Class Rules:

1. Students are responsible for all course materials covered in the text and in lecture.
2. Turn in assignments on time. No late assignments will be accepted for a grade.
3. Do assignments exactly as instructed. Show all work on assignments. Turning in answers alone will not be sufficient.
4. Do not try to negotiate homework, tests, assignments or grades. They are not optional, nor changeable. They must be complete.
5. Be on time for tests and lectures. Doors will be closed 10 minutes after the beginning of class on test days. Late arrivals will not be able to take the test and a grade of zero will be assigned. Be aware, one is enough to fail the course.
6. NO disruptive behavior will be tolerated (as defined in your student handbook, page 24). Anyone disrupting class will be asked to leave, perhaps permanently, may be dropped from the class or failed and this is solely at the instructors' discretion.
7. **Honor Policy:** Cheating nor plagiarism will not be tolerated in this class and will be prosecuted to the full extent allowed by university policy and the law. Cheating and plagiarism will be considered to be any act so defined in the university handbook

Academic Honesty: This course adheres to the university policy on academic integrity as set fourth in the undergraduate catalogue Student Code of Ethics (pages 93-94): Any student caught cheating will receive an F on the assignment, possibly for the course and be reported to the Dean of Students.

Absentee policy: I assume that students in this class are adults and are responsible for their own attendance and study habits. Students should also be aware of the following university policies that I have no choice in enforcing: **(1) Students who miss 20% of lecture time will receive an automatic failing grade for the course. (2) Students who do not regularly attend lecture, as determined by taking class role, by the proof role date will be automatically dropped from the class. (3) Students who neither drop nor attend class by the midterm date will receive an automatic F for the course. Also note: students are responsible for the text and lecture material on exams regardless of whether or not they come to class routinely. It is unlikely that students can perform well on exams in this class with poor attendance.**

Dropping A Course Without Penalty: In order to officially drop a course without penalty, a student must obtain and fill out a drop/add form from the Registrar's Office, acquire appropriate signatures, and return the completed form to the Registrar's Office before the designated date (published in the academic calendar). If you don't officially withdraw, and instead just stop coming to class, you will receive an F for the course. Please be aware of the university policy that limits the number of dropped courses to 5.

Family Educational Rights and Privacy Act: The Family Educational Rights and Privacy Act (FERPA) prohibit the public posting of grades by Social security number or in any manner personally identifiable to the individual student. No grades can be given by email or over the telephone, as positive identification can not be made by this manner.

ADA Statement: Students requesting classroom accommodations or modifications because of a documented disability must contact the Access Office for Students with Disabilities located in room 1115 Nevin's Hall. The phone numbers are 245-2498 (voice) and 219-1348 (tty).

TENTATIVE SCHEDULE OF IMPORTANT DATES

Please note that test dates are tentative and may change depending on the rate at which material is covered. Tests may be postponed but will never be moved ahead.

August		
Monday, 12 th		1 st class
September		
Monday, 2 nd		Labor Day
Wednesday, 4 th		Test 1
Monday, 30 th		Test 2
October		
Thursday 3 rd		Midterm: last day to drop without penalty
Monday 28 th		Test 3
November		
November 23 rd – December 1 st		Thanksgiving break
December		
Monday 2 nd		Last Class
Tuesday 3 rd		Study day
Thursday 5 th	-	Final Exam 10:15 am – 12:15 am

Course outcomes:

Departmental Outcomes as listed in the undergraduate catalogue (page 108):

The program of study in the Department of Biology has numerous desired outcomes. Examples of these outcomes include the following:

Educational Outcomes

1. Develop and test hypotheses, collect and analyze data, and present the results and conclusions in both written and oral formats used in peer-reviewed journals and at scientific meetings.

2. Describe the evolutionary processes responsible for biological diversity, explain the phylogenetic relationships among the major taxa of life, and provide illustrative examples.
3. Demonstrate an understanding of the cellular basis of life.
4. Relate the structure and the function of DNA/RNA to the development of form and function of the organism and to heredity.
5. Interpret ecological data pertaining to the behavior of the individual organism in its natural environment; to the structure and function of populations, communities, and ecosystems; and to human impacts on these systems and the environment.

Specific course outcomes keyed to departmental and university expected educational outcomes:

By the end of this course, as demonstrated by performance on tests, homework problems and written laboratory reports, students will:

1. know and understand basic principles and relevant examples of Mendelian inheritance. **(departmental outcomes 1 through 5, university outcome 5).**
2. know and understand non-Mendelian principles and relevant examples of inheritance. **(departmental outcomes 1 through 5 university outcome 5,).**
3. use both Mendelian and non-Mendelian principles to solve genetics problems. **(departmental outcomes 1, 2 and 5, university outcome 5).**
4. know and use basic rules of probability to predict the outcomes of various matings. **(departmental outcomes 1, 2 and 5, university outcome 5 and 7 university outcome 3, 5 and 7).**
5. use statistical methods to analyze data and test Mendelian hypotheses. **(departmental outcomes 1 and 2, university outcome 3, 5 and 7).**
6. understand the nature and function of the “gene” from the molecular to the phenotypic level. **(departmental outcomes 1 through 4 university outcome 5,).**
7. know and understand DNA and RNA structure and function. **(departmental outcome3, university outcome 5).**
8. know and understand basic gene regulation. **(departmental outcomes 2,3 and 4, university outcome 5).**
9. know and understand the value of allelic and other levels of genetic variation to individuals and populations. **(departmental outcomes 2, 4 and 5 university outcome 5,).**
10. know and understand population genetic effects on gene pools and microevolution. **(departmental outcomes 2, 4 and 5, university outcome 5).**
11. know and understand the relevance of population genetic effects to macroevolution. **(departmental outcomes 1, 2 and 5 university outcome 5,).**
12. use statistical methods to analyze population data sets to test evolutionary hypotheses relating to selection, migration, mutation and genetic drift. **(departmental outcomes 1, 2 and 5, university outcome 3, 5 and 7).**

Fall 2013 Biology 1107 sections A,B,C,D,E & F Addendum: General Class Policies regarding grades:

- a. I understand that this is a science class and that my enrollment is voluntary. I am **here to learn the science** and I am free to drop the course if I do not wish to learn the material.
- b. I understand that my **grades are based solely upon my level of performance**, not on what I may want or think I need.
- c. I understand that the final grade I receive in this course is the grade I **“EARNED”**. The instructor does not **“GIVE”** me a grade.
- d. I understand that it is the instructor’s responsibility to evaluate my performance and to assign a **grade that certifies the level at which I KNOW and UNDERSTAND the course material**.
- e. I understand that **earn my grade by demonstrating** on assigned tests, quizzes and assignments that I **KNOW and UNDERSTAND** the course material.
- f. I understand that the grade I receive is **NOT based** on the amount of work or effort I do, nor is it based on what I feel is “deserved” or the grade I may “want”. It is based strictly on my scores on tests and assignments. . Effort is my responsibility.
- g. I understand that it is my responsibility to **master ALL course material** to the level necessary to achieve the grade I want in this class.
- h. I understand **that late assignments will not be accepted** and will summarily receive a grade of zero.
- i. I understand that **incomplete work will not be accepted** and will summarily receive a grade of zero.
- j. I understand that **work that does not follow instructions in all respects will not be accepted** and will summarily receive a grade of zero.
- k. I understand that in the event of a **personal emergency** resulting in missed assignments it is my responsibility to contact the instructor as soon as possible. I also understand that any possible make up work is strictly at the instructor’s discretion on a case by case basis.
- l. I understand that it is **my responsibility** to make sure I understand all assignment instructions and due dates. It is not the instructors fault if I fail to meet these expectations.
- m. I understand that my grades are based only upon the assignments given. There are **no** opportunities for **“extra credit”** or **“additional assignments”**.
- n. I understand that it is **my responsibility to seek additional help** from the instructor or campus tutorial services when needed.
- o. I understand that the time to worry about my grades is all **during the term**. Grades are final after the class is over.
- p. I understand that **no late or additional assignments will be accepted** for any reason after the course closes.
- q. I understand that **grades are not negotiable**. Complaining or begging extra points after the fact are not appropriate behaviors.
- r. I understand that my **grade will be based on the criteria** detailed earlier in this syllabus and that it is my responsibility to seek clarification if it is needed.
- s. I understand that this course will assign grades on a **10 point scale and no curve** is to be used in assigning those grades.
- t. I understand that the instructor cannot and **will not predict nor promise any grades** before all scores for all assignments are done and the class is completed.
- u. I understand that the instructor will only discuss my final grade for purposes of explanation or correction of a possible mistake. Discussions about disappointment with grades, complaints about grades, grade changes or general whining about poor performance **will not be entertained**.
- v. I understand that note taking and reading are my responsibility. **No phones, cameras or other electronics may be used to photograph notes or presentations**. Any use of these items during the class will result in **an immediate failing grade for the course**.
- w. I understand that that I am required to be active in class by reading, taking notes, interacting when necessary and routinely studying. **No copies of class presentations or “study guides” will be provided or posted**.
- x. It is also understood that **I must actively participate in all laboratory exercises** and meet the expectations as assigned by the lab instructor in order to pass this course.
- y. The instructor assumes no responsibility for a student’s eligibility to receive the Hope Scholarship. **Students do not “lose Hope because of this class”**. Students who lose their Hope Scholarship eligibility do so because of overall poor academic performance across all classes.

Sign, date and return this page to the instructor. By signing below you are acknowledging that these course rules were explained to you and that you understand and agree to abide by them as they pertain to this course.

Signature

Date

