GENE 105 Perspectives in Genetics
Fall 2006

Class Time/Place
Tuesdays & Thursdays, 11:10AM-12noon Biochemistry Bldg (Bio/Bio), Rm 107

Webpage
http://tamuweb.tamu.edu/faculty/bryk/gene105/GENE105homepage.htm

Professor
Dr. Mary Bryk

Office Hours
Bio/Bio, Room 334A, after class on Tuesday or by appointment

Email
bryk@tamu.edu

Telephone
979-862-2294

Assistant
Daisy Wilbert Bio/Bio room 308, phone 979-845-9427

Course Objectives
1. To provide an interactive and informal introduction to genetics and the research interests of several professors in the Biochemistry and Genetics programs.
2. To gain understanding of the principles of genetics and how they apply to issues in our world.
3. To provide opportunities for group interactions.
4. To exercise problem-solving skills individually and as a group.
5. To conduct library and web-based literature searches.

Course Format
There will be a series of introductory lectures by Dr. Bryk covering the principles of genetics and the impact of genetics on society. Then a few faculty members will present lectures on their research interests. Group activities include designing a website and presenting a 12-minute lecture on a relevant genetic topic.

Textbooks


Policy regarding attendance and decorum in GENE 105
1. You are required to attend class. An unexcused absence will lower your final grade by 1% pt.
2. Do not hold conversations during class.
3. Do not disrupt the class nor distract those seated around you.
4. If you arrive late, enter quietly and sit at the back. Do not let the door slam.
5. If you must leave early, see Dr. Bryk before class. Do not let the door slam.
6. Written, University-excused absences must be given to Dr. Bryk in a timely fashion.

Examinations
All examinations will receive equal weight in determining your final grade. The exam format will be multiple choice and short answer.

Exam 1: Tuesday October 3, 2006 in class
Exam 2: Tuesday November 7, 2006 in class
Final Exam: Friday December 8, 2006, 3-5 PM Biochemistry Building Room 107
Out-of-class Assignments
Out-of-class assignments will be made during the semester. For some assignments, there will be group projects, and groups will be awarded points to distribute among the group members.

For detailed instructions and due dates, see the GENE105 homepage:
http://tamuweb.tamu.edu/faculty/bryk/gene105/GENE105homepage.htm

Assignment 1: 10 pts  Genetics and Biochemistry Enrichment Experience (GaBEE).
Assignment 2: 5 pts  Claim your email account at http://neo.tamu.edu/
Assignment 3: 5 pts  Update your electronic directory listing at http://www.tamu.edu/phonebook/.
Assignment 4: 5 pts  Subscribe to the Biochemistry/Biophysics Department undergraduate listserv
Assignment 5: 10 pts  Time management - keep a 24/7 record for 2 weeks
Assignment 6: 10 pts  Take the VARK test http://www.vark-learn.com/
Assignment 7: 5 pts  Make an appointment to visit your bcbp Mentor.
Assignment 8: 20 pts  Genetic disease summary. Submit to turnitin.com
Assignment 9: 15 pts  Summary of Watson and Crick article on the structure of DNA
Assignment 10: 5 pts  Attend preregistration GaBEE meeting
Assignment 11: 10 pts  Complete end of semester survey.

Group Assignment 1: 50 pts  Work with your group to prepare a 12-minute lecture on a relevant genetic topic. You will be assigned a genetic topic. A list of the topics can be found at the GENE105 website. http://tamuweb.tamu.edu/faculty/bryk/gene105/GENE105homepage.htm

Group Assignment 2: 50 pts  Work with your group to design a web page on your group's assigned genetic topic.

Grading

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<td>Exam 1: 100 pts</td>
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<td>Exam 2: 100 pts</td>
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<td>Final Exam: 100 pts</td>
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Grades will be available at http://elearning.tamu.edu/
Use your neo name and id number to access your grade.

American with Disabilities Act
The American with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact the Department of Student Life for Students with Disabilities in Room B116 of the Cain Hall, phone 845-1637, email ssd@tamu.edu.

An Aggie does not lie, cheat, or steal, or tolerate those who do.

Academic integrity is to be upheld by all. Be aware that plagiarism will not be tolerated. If you are unsure what this means, then you should visit the TAMU Rules on Plagiarism (see Rule 5 for explicit details on Plagiarism). Turn in all written assignments at Turnitin.com. This website checks for plagiarism. For more info, go to http://www.tamu.edu/aggiehonor/index.html.
Planned Lecture Schedule

August 29  1. Syllabus/Introduction
August 31  2. Introduction to Genetics
September 5  3. Cells, cell cycle and mitosis
September 7  4. Guest Lecturer: Library resources Norma Funkhouser
September 12  5. Stem cells, meiosis
September 14  6. Transmission Genetics I
September 19  7. Transmission Genetics II
September 21  8. Probabilities/Pedigrees I
September 26  9. Pedigrees II
September 28  10. Review for exam 1

October 3  11. Exam 1 - Lectures 1-9
October 5  12. Discuss exam #1
October 10  13. Exceptions to Mendelian Inheritance/Linkage I
October 12  14. Linkage II
October 17  15. Chromosome structure
October 19  16. Molecular Genetics I
October 24  17. Mutation
October 26  18. Guest Lecturer: Molecular Genetics II Dr. Gary Kunkel
October 31  19. Molecular Genetics III – Gene regulation

November 2  20. Review for exam #2

November 7  21. Exam 2 - Lectures 13-19
November 9  22. Discuss exam #2, Molecular biology techniques
November 14  23. Guest Lecturer: Population genetics Dr. Spencer Johnston
November 16  24. Guest lecturer TBA
November 21  25. Group presentations 1, 2, 3 and 4
November 23  Thanksgiving
November 28  26. Group presentations 5, 6, 7 and 8
November 30  27. Group presentations 9, 10, 11, 12

December 5  28. Group presentations 13 and 14, Review for final exam

December 8  29. Final exam Lectures 22-28 3-5PM

Assignment Due Dates - For a complete listing see the GENE105 homepage
September 4 - GaBEE
September 5 - Email from neo, tamu phonebook directory listing, subscribe to listserv, list of group member's names and email addresses to Dr. Bryk
September 11 - GaBEE
September 12 - VARK test
September 14 - 24/7 calendar due
September 18 - GaBEE
September 25 - GaBEE
September 26 - Advisor/mentor meeting
September 28 - Outline of group presentation
October 12 - Genetic disease 1 page summary
October 31 - First draft of presentation
November 2 - Summary of Watson Crick structure of DNA paper
November 13 - Preregistration GaBEE
November 14 - Website due
November 16 - Final draft of group presentation
December 5 - Survey