

Attention!

This is a *representative* syllabus.

The syllabus for the course when you enroll may be **different**.

Use the syllabus provided **by your instructor** for the most up-to-date information. Please refer to your instructor for more information for the specific requirements for a given semester.

Behavioral Genetics
SPRING 2015

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Pre-requisite: PSYCH 1100/PSYCH3313

Lecture Time/Room: TBD

Office hours: TBD

Course description and objectives: Behavioral genetics is the field of study that examines the role of genetics in animal (including human) behavior. Often associated with the "nature versus nurture" debate, behavioral genetics is highly interdisciplinary, involving contributions from biology, genetics, epigenetics, ethology, psychology, and statistics. The goal is to provide knowledge concerning the interrelationship of genetics and behavior, and its implications for health and human development and education. The objectives of this class are:

- To introduce students with basic Mendelian genetics and how genes regulate behaviors
- To introduce students with the concepts of epigenetics and gene-environment interactions
- To examine the methods used to understand both nonhuman and human behavior.
- To understand the genetic contribution to many psychopathologies and neurodevelopmental disorders

In addition, students will learn to research and read the primary scientific literature on Behavior Genetics and will develop the ability to critically read and review scientific articles.

The course will be intellectually demanding, and will require a substantial amount of reading, active in-class discussion, and attentive development of a serious term paper. The course readings will require about 3 hours per week outside class. Apart from the textbook, they will include some recent journal papers and book chapters.

Textbook: The course textbook is "Behavioral Genetics" by Plomin, DeFries, McClearn and McGuffin 5th edition, Worth, 2008 (ISBN-10: 1429205776).

Websites: The course website can be found at www.carmen.osu.edu. This site is where all course materials and information are made available. The class will also use PubMed to find relevant scientific published articles (<http://www.ncbi.nlm.nih.gov/pubmed>).

Attendance/Participation: Each class will be taught in lecture format **and** class discussions. Active participation from each student will inevitably contribute to a more engaging and entertaining classroom experience for all. Consistent attendance and preparation prior to lecture is required and will not go unnoticed.

Assistance: I am available to talk about the course, the course material, and strategies to improve your learning. I have set office hours but can also answer questions by e-mail or phone, and I will gladly set up an appointment at a time that is mutually acceptable for more lengthy discussions.

Exams: There will be 3 exams in this course: 2 mid-term multiple choice questions (10% of the total grade each) and 1 final exam composed of multiple choice and short-answer questions (50% of the total grade). No make-up exams will be given, except in the case of documented illness or emergency. Prior approval must be received from instructor. In the event of a last-minute emergency, you must email or call the instructor on the same day as the exam, preferably before the exam begins. Acceptable excuses for missing an exam are a death in the family, personal illness or the illness of your child or spouse, and unforeseen accidents. Please obtain documented proof of these events should they occur. If you are late for an exam, you will be allowed to take it but you will have to submit your answers by the closing time like everybody else.

In addition to the 3 exams, students will be asked to provide a one term paper (30% of the total grade).

Details on the term paper: The term paper determines 30% of the course grade. Students can choose any topic related to the course content and course readings, as long as I approve it. The final paper should be about 4,000 to 6,000 words, plus references. It should be a summary of a current hypothesis/hot topic in behavioral genetics. A provisional Abstract/outline/bibliography will be due 3 weeks after the beginning of the semester. This should entail a provisional topic statement/abstract (one paragraph), provisional outline of paper (about a page), and provisional bibliography. The bibliography should list about 10 to 20 that you have actually read, with brief notes about their relevance to your paper. In the abstract, indicate what you think you'll probably write about. If the student changes his/her mind, no problem, just tell me in an email later. But it is important to have some topic in mind by this date. This topic statement/outline will determine 5% of the course grade. Late submissions will be penalized. After students will submit their outline and bibliography, they should come to my office hours at least once for my feedback. The final paper should be a highly polished document in correct format with no spelling or grammatical errors. It should represent the culmination of three months of research, thinking, and writing about a specific topic. The final draft will determine 25% of the course grade and his due 1 week prior the final exam. Late submissions will be penalized.

Grade Evaluation: The final grade is based on the percentage of total points. The 2 first exams will be worth 10%, the final exam 50% and the term paper 30%, for a total of 100%. The best grade in the class (i.e. the person with the highest total score) will be the top of the "A" range (100%). The other scores will be curved from this highest score, e.g. top 10% = A, next 10% = B, etc. It is possible therefore that the entire class could receive an "A."

Academic Ethics: All students enrolled in OSU courses are bound by the Code of Student Conduct (http://studentaffairs.osu.edu/resource_csc.asp). The instructor and course assistants are committed to maintaining a fair assessment of student performance in this course. Suspected violations of the Code will be dealt with according to the procedures detailed in the Code. Specifically, any alleged cases of misconduct will be referred to the Committee on Academic Misconduct. It is the responsibility of the Committee on Academic Misconduct to investigate or establish procedures for the investigation of all

reported cases of student academic misconduct. The term “academic misconduct” includes all forms of student academic misconduct wherever committed; illustrated by, but not limited to, cases of plagiarism and dishonest practices in connection with examinations. Instructors shall report all instances of alleged academic misconduct to the committee (Faculty Rule 3335-5-487). For additional information, see the Code of Student Conduct.

For a good, concise description of academic misconduct and a list of frequently asked questions, see: <http://oaa.osu.edu/coamfaqs.html>.

Accommodations for Students with Special Needs: The policy of The Ohio State University is to provide every reasonable, appropriate, and necessary accommodation to qualified disabled students. The University's colleges and academic centers evaluate and judge applications on an individual basis and no categories of disabled individuals are automatically barred from admission. The privacy rights of each disabled person are honored to the fullest extent possible. The University's interest in a student's disabilities are only for the purpose of accommodating his/her specific disability, thereby providing an academically qualified disabled student access to programs and activities accorded all other qualified students. Whenever generally accessible facilities do not adequately accommodate a specific disability, the University makes every reasonable accommodation and program or facility adjustment to assure individual access. These policies are fully supported and practiced in this class. If you have a disability documented with the Office of Disability Services (<http://www.ods.ohio-state.edu>, 150 Pomerene Hall, 614-292-3307), please contact the instructor privately by the end of the second week of classes so that any accommodations can be made.

WEEK	CONTENT	ASSIGNMENT
1	Presentation/Overview	
2	Mendel's Laws of Heredity/DNA: The Basis of Heredity	
3	Animal Models in Behavioral Genetics	
4	Nature, Nurture and Human Behavior	Read/prepare to discuss a scientific paper
5	Genetic and Environmental Interplay	Read/prepare to discuss a scientific paper
6	Pathways between Genes and Behavior	
7	MID-TERM #1	
8	Cognitive Abilities and Disabilities	
9	Schizophrenia and Other Adult Psychopathology	Read/prepare to discuss a scientific paper
10	Developmental Psychopathology	Read/prepare to discuss a scientific paper
11	Personality and Personality Disorders	
12	MID-TERM #2	
13	Substance Use Disorders	
14	Health Psychology and Aging	
	FINAL	