

PSYCH 3102 INTRODUCTION TO BEHAVIORAL GENETICS

Instructor: **Dr Christina Hewitt** **(492-0629 and 492-1007)**

e-mail: christina.hewitt@colorado.edu

Website: ibgwww.colorado.edu/~hewittc/

Office hours: **Muenzinger E 230**

M/W 1-2 pm and by appointment

Course objectives

- to understand the basic principles of genetics
- to understand how these principles can be used in the study of behavior in animals and especially in humans
- to evaluate the extent to which psychological characteristics are influenced by genes
- to consider the implications of genetic knowledge in psychology

The aim of this course is to provide students with a clearer understanding of the contribution that genes make to individual differences in behavior. Students will be in a better position to evaluate evidence for and against genetic and environmental influences. They will also gain an appreciation of the interrelationships of biological and cultural determinants of behavior and will gain a better understanding of influences that might affect themselves and their families.

Prerequisites

Because this course presupposes a familiarity with basic statistical concepts, PSYCH 2101 or its equivalent is a prerequisite. You **will** be expected to apply statistical concepts during this course. A good background in Biology is also important for your understanding of topics in this course. (EPOB 1210 is recommended)

Text: **Plomin et al – Behavioral Genetics (2012) 6th Edition.**

Assessment and Grading

EXAMS

There will be 4 exams (see syllabus for dates and times)

Each exam will carry an equal rating towards your final grade and each exam must be completed to pass the course.

The last exam is NOT comprehensive.

HOMEWORKS

These will be set throughout the semester and must be completed to pass the course. There will be a due date for each homework – usually the homework will be due within one week from when it is given. A key to answers will be posted after the due date.

GRADING

The letter grade you receive for the course will depend upon the total number of points you have accumulated.

Each exam will be graded out of 50 points for a total of 200 points.

Completion of homework = 50 points.

Written assignments = 50 points

Attendance and participation = 20 points

There will also be an optional extra credit assignment = 10 points

1. If you qualify for accommodations because of a disability, please submit to me a letter from Disability Services in a timely manner (for exam accommodations provide your letter at least one week prior to the exam) so that your needs can be addressed. Disability Services determines accommodations based on documented disabilities. Contact Disability Services at 303-492-8671 or by e-mail at dsinfo@colorado.edu.

If you have a temporary medical condition or injury, see Temporary Medical Conditions: Injuries, Surgeries, and Illnesses guidelines under Quick Links at Disability Services website and discuss your needs me.

2. Campus policy regarding religious observances requires that faculty make every effort to deal reasonably and fairly with all students who, because of religious obligations, have conflicts with scheduled exams, assignments or required attendance. Please come and talk to me if you foresee conflicts. See full details at http://www.colorado.edu/policies/fac_relig.html

3. Students and faculty each have responsibility for maintaining an appropriate learning environment. Those who fail to adhere to such behavioral standards may be subject to discipline. Professional courtesy and sensitivity are especially important with respect to individuals and topics dealing with differences of race, color, culture, religion, creed, politics, veteran's status, sexual orientation, gender, gender identity and gender expression, age, disability, and nationalities. Class rosters are provided to the instructor with the student's legal name. I will gladly honor your request to address you by an alternate name or gender pronoun. Please advise me of this preference early in the semester so that I may make appropriate changes to my records. See policies at <http://www.colorado.edu/policies/classbehavior.html> and at http://www.colorado.edu/studentaffairs/judicialaffairs/code.html#student_code

4. The University of Colorado Boulder (CU-Boulder) is committed to maintaining a positive learning, working, and living environment. The University of Colorado does not discriminate on the basis of race, color, national origin, sex, age, disability, creed, religion, sexual orientation, or veteran status in admission and access to, and treatment and employment in, its educational programs and activities. (Regent Law, Article 10, amended 11/8/2001). CU-Boulder will not tolerate acts of discrimination or harassment based upon Protected Classes or related retaliation against or by any employee or student. For purposes of this CU-Boulder policy, "Protected Classes" refers to race, color, national origin, sex, pregnancy, age, disability, creed, religion, sexual orientation, gender identity, gender expression, or veteran status. Individuals who believe they have been discriminated against should contact the Office of Discrimination and Harassment (ODH) at 303-492-2127 or the Office of Student Conduct (OSC) at 303-492-5550. Information about the ODH, the above referenced policies, and the campus resources available to assist individuals regarding discrimination or harassment can be obtained at <http://www.colorado.edu/odh>

5. All students of the University of Colorado at Boulder are responsible for knowing and adhering to the academic integrity policy of this institution. Violations of this policy may include: cheating, plagiarism, aid of academic dishonesty, fabrication, lying, bribery, and threatening behavior. All incidents of academic misconduct shall be reported to the Honor Code Council (honor@colorado.edu; 303-735-2273). Students who are found to be in violation of the academic integrity policy will be subject to both academic sanctions from the faculty member and non-academic sanctions (including but not limited to university probation, suspension, or expulsion). Other information on the Honor Code can be found at <http://www.colorado.edu/policies/honor.html> and at <http://www.colorado.edu/academics/honorcode/>

COURSE OUTLINE

<u>Date</u>	<u>Lecture #</u>	<u>General Topic</u>	<u>Text Reading</u>
M – 14 Jan	1	Introduction	Chapter 1
W – 16 Jan	3	Mendelian Genetics	Chapter 2
F – 18 Jan	3		
M – 21 Jan	NO CLASSES	MLK DAY	
W – 23 Jan	4	Human Mendelian genetics	
F – 25 Jan	5	Extensions of Mendel	Chapter 3
M – 28 Jan	5	Extensions of Mendel	Chapter 3
W – 30 Jan	5		
F – 1 Feb	6	DNA	Chapter 4
M – 4 Feb	6	Non-Mendelian genetics	Chapter 4
W – 6 Feb	7		
F – 8 Feb		EXAM 1	Chapters 1-4
M – 11 Feb	8	Complex traits	
W – 13 Feb	9	Methodology - animal studies	Chapter 5
F – 15 Feb	9	Animal studies	Chapter 5
M – 18 Feb	10	Methodology - models	Chapter 6
W – 20 Feb	11	Methodology - human studies	
F – 22 Feb	11		
M – 25 Feb	12	Covariance	Chapter 7, 8
W – 27 Feb	13	Locating genes	Chapter 9
F – 1 Mar	13		
M – 4 Mar	14	Pathways	Chapter 10
W – 6 Mar	14		
F – 8 Mar		EXAM 2	Chapters 5 – 10
M – 11 Mar	16	Cognitive disabilities	Chapter 11
W – 13 Mar	16		
F – 15 Mar	16		
M – 18 Mar	17	Learning disabilities	Chapter 11
W – 20 Mar	18	Dementia	
F – 22 Mar	19	General cognitive ability	Chapter 12
<u>March 25 - March 29 SPRING BREAK yay!</u>			

M – 1 Apr	19	Cognitive abilities	Chapter 12
W – 3 Apr	20	Development of cognitive abilities	
F – 5 Apr	20		
M – 8Apr	21	Adult psychopathologies	Chapter 14
W – 10 Apr	21	“	Chapter 15
F –12 Apr		EXAM 3	Chapters 11 - 15

M – 15 Apr	22	Developmental psychopathology	Chapter 16
W – 17 Apr	22		
F - 19 Apr	22		

M – 22 Apr	24	Personality disorders	Chapter 17
W – 24 Apr	26	Alcohol use and use disorders	Chapter 18
F – 26 Apr			

M – 29 Apr	26		
W – 1 May	25	Health psychology	Chapter 19
F – 4 May	25		

EXAM 4 (Final) Chapters 16 - 19

2pm Class (Section 003) MON MAY 6 7.30pm

3pm Class (Section 001) SAT MAY 4 4.30pm

