

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, DeFries, McClearn and McGuffin – Behavioral Genetics (2008) 5th 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.

Essay 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 a letter to me from Disability Services in a timely manner so that your needs may be addressed. Disability Services determines accommodations based on documented disabilities.

Contact: 303-492-8671, Willard 322, or www.Colorado.EDU/disabilityservices

2. Campus policy regarding religious observances requires that faculty make every effort to reasonably and fairly deal with all students who, because of religious obligations, have conflicts with scheduled exams, assignments or required attendance. If you become aware of any conflicts please make sure I am notified as soon as possible so that accommodations can be arranged.

See policy details at http://www.colorado.edu/policies/fac_relig.html

3. Students and faculty each have responsibility for maintaining an appropriate learning environment. Students who fail to adhere to behavioral standards may be subject to discipline. Faculty have the professional responsibility to treat students with understanding, dignity and respect, to guide classroom discussion and to set reasonable limits on the manner in which students express opinions. Professional courtesy and sensitivity are especially important with respect to individuals and topics dealing with differences of race, culture, religion, politics, sexual orientation, gender variance, 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. 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; 303-725-2273). 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). Additional information on the Honor Code can be found at

<http://www.colorado.edu/policies/honor.html> and at

<http://www.colorado.edu/academics/honorcode/>

5. The University of Colorado at Boulder policy on Discrimination and Harassment

(<http://www.colorado.edu/policies/discrimination.html>), the University of Colorado policy on Sexual Harassment and the University of Colorado policy on Amorous Relationships applies to all students, staff and faculty. Any student, staff or faculty member who believes s/he has been the subject of discrimination or harassment based upon race, color, national origin, sex, age, disability, religion, sexual orientation, or veteran status should contact the Office of Discrimination and Harassment (ODH) at 303-492-2127 or the Office of Judicial Affairs at 303-492-5550.

Information about the ODH and the campus resources available to assist individuals regarding discrimination or harassment can be obtained at <http://www.colorado.edu/odh>

COURSE OUTLINE

Date	Lecture #	General Topic	Text Reading
W – 17 Jan	1	Introduction	Chapters 1,2
F – 20 Jan	3	Mendelian Genetics “	Chapter 2
M – 23 Jan	4	Human Mendelian genetics	
W – 25 Jan			
F – 27 Jan	5	Extensions of Mendel	Chapter 3
M – 30 Jan	5	Extensions of Mendel	Chapter 3
W – 1 Feb	6	DNA	Chapter 4
F – 3 Feb	6	DNA “	
M – 6 Feb	7	Non-Mendelian genetics	Chapter 4
W – 8 Feb	8	Complex traits “	
F – 10 Feb		EXAM 1	Chapters 1-4, 15
M – 13 Feb	9	Methodology - animal studies	Chapter 5
W – 15 Feb	9	Animal studies	Chapter 5, 16
F – 17 Feb	10	Methodology - models	“ “
M – 20 Feb	11	Methodology - human studies	“
W – 22 Feb	11	“	“
F – 24 Feb	12	Covariance	“
M – 27 Feb	12	Behavioral genetic methodology	Chapter 5, 16
W – 29 Feb	13	Locating genes	Chapter 6
F – 2 Mar	13	“	“
M – 5 Mar	14	“	“
W – 7 Mar	14		
F – 9 Mar		EXAM 2	Chapters 5 – 6, 16
M – 12 Mar	16	Cognitive disabilities	Chapter 7
W – 14 Mar	16	“	“
F – 16 Mar	16	Chapter 7	
M – 19 Mar	17	Learning disabilities	“
W – 21 Mar	18	Dementia	“
F – 23 Mar	18		

March 26 - March 30 SPRING BREAK yay!

M – 2 Apr	19	Cognitive abilities	Chapter 8, 9 , 15
W – 4 Apr	20	Development of cognitive abilities	
F – 6 Apr	20		
M – 9 Apr	21	Adult psychopathologies	Chapter 10-11
W – 11 Apr	21		
F –13 Apr		EXAM 3	Chapters 8-11, 15

M – 16 Apr	22	Developmental psychopathology	Chapter 12
W – 18 Apr	22		
F - 20 Apr	22		

M – 23 Apr	24	Personality disorders	Chapter 13
W – 25 Apr	26	Alcohol use and disuse	Chapter 14
F – 27 Apr			

M – 30 Apr	26		Chapter 14
W – 2 May	26	“	“
F – 4 May	25	Health psychology	“

EXAM 4 (Final) Chapters 12, 13, 14

2pm Class (Section 003) WED MAY 9 7.30pm

3pm Class (Section 001) TUES MAY 8 7.30pm

