

PSY260: Psychobiology of Schizophrenia

Course Syllabus

Section S

Spring 2024

M-F 12:30-2:45pm

Science Center 115

COURSE INSTRUCTOR INFORMATION

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Office Hours: TWTh 11:00am-12:15pm or by appointment

COURSE DESCRIPTION

Why does schizophrenia run in families? How does changing brain chemistry with medications improve symptoms? How do physiological processes influence the way people think, feel, and act? This course will take an in-depth look at the role of biology in schizophrenia and other psychotic disorders. We will start with a general overview of genetic, anatomical, and neurochemical variables. We will then go in-depth on a selection of risk factors, highlighting their effects on the brain and body and how they explain various symptoms.

COURSE MATERIALS

Readings will be provided on Moodle and Perusall.

COURSE WEBSITE

This course will rely heavily on material posted in Moodle (<https://moodle.hanover.edu>). There is also a Q&A board where you can ask questions about concepts, assignments, or the course in general. You are also expected to check your **Hanover email account** regularly. Regardless of whether or not you read the emails, you are responsible for their content.

(UN)GRADING

We will be using a relatively new (but actually very old) method that is referred to as “ungrading”. In short, I will not be providing grades for any of your work all semester. I will, however, be giving you individualized feedback on your performance. At the midpoint and at the end of the semester, I will ask you to assign yourself a grade based on your performance, and we will meet briefly to discuss each of these grades. I reserve the right to overrule your grade, but I will only do so in an extreme case.

Final grades:

Exceeds expectations: You were actively engaged with the material. You were prepared for class every day and contributed to the discussions. You provided well-informed questions and comments, and your case report was well-researched. (letter equivalent: A)

Meets expectations: You were actively engaged with the material. You were prepared for class most days and contributed to the discussions. You provided thoughtful questions and comments, and your case report met the requirements of the assignment. (letter equivalent: B)

Bare minimum: You were present in class most days, but you were often unprepared or clearly had not completed the assigned readings/viewings. You occasionally contributed to the discussion, and you completed the assignment, but the final product was not particularly well-done. (letter equivalent: C)

Fails to meet expectations: You were regularly absent from class, either physically or mentally. You did not provide meaningful contributions to the discussions, and your case report was either not submitted or was poorly executed. (letter equivalent: F)

COURSE COMPONENTS

ASSIGNED READINGS & VIEWINGS

Most class days will have 2-3 articles to read. The readings will typically (but not always) be peer-reviewed journal articles. I know that these can be dense, and there will be some parts that are over your head. I work hard to assign articles that are relatively short and understandable while still being informative and thorough. Articles will be posted in Perusall so that you can add comments or questions that you have while reading the articles. These comments/questions will be used by the day's discussion leaders to facilitate discussion, so please post them before 11am so that your classmates have a chance to review them.

ATTENDANCE & PARTICIPATION

Given that this is a discussion-based course, your attendance and participation are vital for the whole class to succeed. I will not be grading your daily attendance or participation, but these will be considered globally when determining your final grade for the course. I recognize that you may not have something to add for every single article, but you should make an effort to contribute at least once per class period (and more than just "I agree"), and when you are not speaking, you should always be paying attention to the discussion. If you are shy or a bit uncomfortable speaking up in class, feel free to read directly from the questions or comments you posted on Perusall.

LEADING DISCUSSION

You and one or two classmates will be responsible for leading discussion once during the semester. You should prepare a brief summary of each of the articles (powerpoint or just verbal), and you will facilitate discussion based on your classmates' responses and your own thoughts/questions from the readings.

CASE REPORT

You will pick a movie that includes a character with a psychotic disorder and write up a case report for them. This should include details about the individual's background, significant events, and current behaviors. Using what you have learned this semester, you will discuss a likely cause or major contributor to your character's development of the disorder (you may need to make up some fake test results for this part). Your case study should include references to at least three peer-reviewed journal articles (in APA format). I will give you several example case studies so that you can see the general format and what kind of information should be included. We will work on these throughout the semester, and I will give you feedback throughout the process.

COURSE SCHEDULE (TENTATIVE)

Week 1

Monday: Introduction to the course & schizophrenia
Tuesday: Neuroanatomy crash course
Wednesday: Neurons & neurotransmitters crash course
Thursday: Neuroendocrinology crash course & methods
Friday: Genetics & epigenetics crash course

Week 2

Monday: (f)MRI/PET differences
Tuesday: EEG signs
Wednesday: Minor physical anomalies
Thursday: Neural developmental theories
Friday: Teratogens

Week 3

Monday: Brain injury & plasticity
Tuesday: Neuroendocrine & Neuroimmunology
Wednesday: Dopamine & Glutamate Hypotheses
Thursday: Drug-induced psychosis
Friday: Treatments – psychotropics, ECT

Week 4

Monday: Schizotypal Personality Disorder & prodromal treatment
Tuesday: Genetics 1 – DISC, 22q11DS, etc.
Wednesday: Genetics 2 – COMT, BDNF, etc.
Thursday: Genetics 3 – NT specific
Friday: Animal models

COURSE POLICIES

STUDENTS IN DISTRESS

Your success in this course and throughout your college career depends heavily on your personal health and wellbeing. Stress is a common part of the college experience, and it often can be compounded by unexpected life changes outside the classroom. Your other professors and I strongly encourage you to take care of yourself throughout the term before the demands of midterms and finals reach their peak. Before circumstances and conditions become overwhelming, come speak with me about any difficulty you may be having that may affect your academic performance. Please know as well that there are several support services on campus available to assist you, as needed. You can make appointments with Health Services by calling x-6102. Appointments for Counseling Services can be made online at any time through [MyHanover](#).

HANOVER COLLEGE POLICIES

HONOR CODE

As stated in the Hanover College Principles, students, faculty, staff, and trustees of Hanover College seek to promote academic, personal, and moral growth within a safe, challenging, and responsive community. This includes a commitment to academic integrity. Violations of academic integrity have a broad impact on the College and will result in College review and action.

Academic dishonesty includes any action with the intent to deceive in order to obtain an unfair advantage, as well as any act of aiding and abetting academic dishonesty. The Hanover College statement on academic dishonesty may be found in the Catalog and in the Student Handbook. Any given instance of academic dishonesty is dealt with by the instructor of the course in which it occurs. All instances of academic dishonesty are reported to the chair of the Student Academic Assistance Committee, and repeated instances of academic dishonesty will subject a student to additional penalties up to and including dismissal from the College as outlined in the College Catalog.

NONDISCRIMINATION

Hanover College is committed to providing equal access to its educational programs, activities, and facilities to all otherwise qualified students without discrimination on the basis of race, national origin, color, creed, religion, sex, age, disability, veteran status, sexual orientation, gender identity, or any other category protected by applicable state or federal law. An Equal Opportunity employer, the College also affirms its commitment to nondiscrimination in its employment policies and practices. In compliance with Title IX (20 U.S.C. Sec. 1681 et seq.) Hanover College prohibits sex discrimination, including sexual harassment. For student related disability discrimination concerns, contact the Gladish Center for Teaching and Learning at 812-866-6840. For other discrimination complaints, including any arising under Title IX, contact the Title IX Coordinator at 812-866-6740 or the Deputy Title IX Coordinator at 812-866-7097.

HEALTH AND SAFETY REQUIREMENTS

All students, faculty and staff must adhere to current safety protocols established by the College. These are subject to change depending on present conditions and guidance from local and national health officials. In classrooms and offices, these requirements may include and are not limited to face coverings and social distancing. Frequent hand washing and general good hygiene should be observed at all times.

If you develop COVID-19 symptoms and/or if you have been exposed to illness by contact with someone who has tested positive or been presumed positive, do not come to class. Contact Health Services (812-866-7082) or PantherHealth via phone or email. As in any situation that keeps you from attending class, contact your instructor as soon as possible about your absence.

For complete and updated information about all health and safety requirements, consult the College's COVID-19 Information website.

DISABILITIES

Hanover College offers accessibility services to students with documented physical, visual, hearing, learning, or psychiatric disabilities. Any Hanover student is eligible for special services or accommodations if: 1) The student self-identifies that he or she has a disability and needs accommodation; 2) The student provides appropriate and verifiable documentation of the disability; and 3) The student provides notification in a timely fashion. For accessibility services, Email Accessibility Services or call 812-866-6844. The Accessibility Services (AS) office is in the Gladish Center for Teaching and Learning on the first floor of Duggan Library.