

Autism: Psychological and Neuroscience Perspectives
85:406 and 85:806
Fall 2017
Instructor: Dr. Marcel Just
Wednesday evenings 7:00 PM - 9:50 PM
Baker Hall 336B
Intermittent: 9 units

Course Description:

Autism is a disorder that affects many cognitive and social processes, sparing some facets of thought while strongly impacting others. This seminar will examine the scientific research that has illuminated the nature of autism, focusing on its cognitive and biological aspects. For example, language, perception, and theory of mind are affected in autism. The readings will include a few short books and many primary journal articles. The readings will deal primarily with autism in people whose IQ's are in the normal range (high functioning autism). Seminar members will be expected to regularly enter into class discussions and make presentations based on the readings.

The seminar will examine various domains of thinking and various biological underpinnings of brain function, to converge on the most recent scientific consensus on the biological and psychological characterization of autism. There will be a special focus on brain imaging studies of autism, including both structural (MRI) imaging of brain morphology and functional (fMRI) imaging of brain activation during the performance of various tasks.

This is a science class, so systematic empirical evidence and scientific theories will be central to discussions and tests.

Prerequisites: 85-211 or 85-213 or 85-219 or 85-355 or 85-429

Course Goals:

By the end of the course, students should be able to connect research and theory related to autism in order to:

- read and understand behavioral and brain imaging articles on autism
- discuss scientific articles on autism, extracting the information that is most salient for the discussion or issue at hand
- describe how the component social, cognitive, and language processes are affected in autism
- be able to design a study to measure the affected behaviors
- understand how systems-level brain function underpins thought
- understand the psychological and neural mechanisms that underlie the deficits in autism
- use different types of autism theories (e.g., social, neuroscience, cognitive) to offer complementary explanations of autism phenomena at different levels of analysis
- use behavioral and neuroscientific theories to postulate and assess various therapeutic approaches to autism

Course Mechanics:

1. Reading Assignments. Readings from the text and from original articles will be assigned. Whenever possible, articles will be made available electronically at the Canvas website (<http://www.cmu.edu/canvas/>).
2. Leading discussions: Each week, two students will be assigned the responsibility for leading the discussion on the weekly readings. See the Canvas website (<http://www.cmu.edu/canvas/>) for instructions on leading discussions.
3. Everyone (including the discussion leaders) is required to submit discussion topics or questions on all the readings for that week, by posting to the class discussion board by 4 p.m. on the day of the class. There should be about 3-4 questions per student per week, and they should primarily concern implications or open questions or relation to other phenomena, rather than focusing only on facts. Post the questions related to all the assigned readings for a given week to the web discussion board on the Canvas website (<http://www.cmu.edu/canvas/>).

In the subject field of your posting, put “weekly questions” and the date that the questions are due, such as “weekly questions 9/6/17” for the first discussion forum created on Canvas.

4. Because the class meets only once a week, attendance every week is essential. If medical or other emergency circumstances make attendance impossible, then it is a course requirement that you write a 4-page double-spaced summary of the assigned readings for the week in which you missed the class. This summary is to be submitted by email to just@cmu.edu by 4 p.m. on the day of the class meeting that follows the missed one.
5. Lateness of papers for medical reasons will be taken into consideration only for doctor-certified illnesses.

What will be required of you?

- Doing weekly readings and thinking deeply about them before coming to class. (Consider examples of what it means to think deeply about issues in psychology).
- Attending to the content of the lectures and relating it to the readings.
- Completing the course requirements below that are the basis of the course grade.

How grades will be determined:

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|---|------------|
| • In-class exam towards the end of the semester | 35% |
| • In-class exam at mid-term | 20% |
| • Writing a paper (3000-4000 words, double-spaced)
that requires obtaining information through library research and reading, and then
synthesizing the information into some new ideas and proposals. | 20% |
| • <u>REQUIRED:</u> Participating <u>regularly</u> and actively in class discussions | 15% |
| • <u>REQUIRED:</u> Weekly postings of questions on discussion board. | 10% |

Some ground rules:

Respect the deadlines:

Do the readings on time.

Post the questions on time.

Hand in all assignments on time (there will be penalties otherwise).

Plagiarism and cheating:

It is the ethical responsibility of each student to identify the conceptual sources of the work submitted. Failure to do so is dishonest and is the basis for a charge of cheating or plagiarism, which is subject to disciplinary action.

Taping During Class:

No student may record or tape any classroom activity without the express written consent of Dr. Marcel Just. If a student believes that he/she is disabled and needs to record or tape classroom activities, he/she should contact the Office of Disability Resources to request an appropriate accommodation.

Statement of Support for Students' Health & Well-being:

Take care of yourself. Do your best to maintain a healthy lifestyle this semester by eating well, exercising, avoiding drugs and alcohol, getting enough sleep and taking some time to relax. This will help you achieve your goals and cope with stress.

All of us benefit from support during times of struggle. You are not alone. There are many helpful resources available on campus and an important part of the college experience is learning how to ask for help. Asking for support sooner rather than later is often helpful.

If you or anyone you know experiences any academic stress, difficult life events, or feelings like anxiety or depression, we strongly encourage you to seek support. Counseling and Psychological Services (**CaPS**) is here to help:

call [412-268-2922](tel:412-268-2922) and visit their website at <http://www.cmu.edu/counseling/>. Consider reaching out to a friend, faculty or family member you trust for help getting connected to the support that can help.

If you or someone you know is feeling suicidal or in danger of self-harm, call someone immediately, day or night:

CaPS: [412-268-2922](tel:412-268-2922)

Re:solve Crisis Network: [888-796-8226](tel:888-796-8226)

If the situation is life threatening, call the police:

On campus: CMU Police: [412-268-2323](tel:412-268-2323)

Off campus: 911

If you have questions about this or your coursework, please let me know.

Accommodations for Students with Disabilities:

If you have a disability and have an accommodations letter from the Disability Resources office, I encourage you to discuss your accommodations and needs with me as early in the semester as possible. I will work with you to ensure that accommodations are provided as appropriate. If you suspect that you may have a disability and would benefit from accommodations but are not yet registered with the Office of Disability Resources, I encourage you to contact them at access@andrew.cmu.edu.