Philosophy 109: Intro to Formal Reasoning and Decision Making

Spring 2020

**Class Meetings:** Monday and Wednesday, 4:30pm – 5:50pm; Friday Scott Hall 104

**Instructor**: Caley Howland

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Office hours: Friday 10:30 am – 12:30 pm, and by appointment.

**Course Description:**

In this course, we will study the basics of the formal systems that philosophers, psychologists, computer scientists, and economists use to model inference and rational decision making. No prerequisites or prior knowledge is necessary. We will explore the basics of propositional symbolic logic to understand the nature of valid inference. We will then study the basics of probability theory in order to model inductive inference and build on this framework to understand the basics of rational choice theory. Finally, we will explore some psychological results that show how human reasoning and decision-making often systematically fail to live up to these rational requirements. Students will be assessed with homework problem sets, and with a mid-term and final exam.

**Exams:**

Midterm – October 23, 2019

Final – May 8, 2020, 4-7 pm

**Readings:**

Readings will be available on Sakai and in book form.

Books are available in the bookstore and online.

*An Introduction to Probability and Inductive Logic*, Hacking

*Symbolic Logic*, Hardegree

*For all x Leeds*, Magnus et al.

*For all x Calgary*, Magnus et al.

**Evaluation and Required work:**

Final grades will be computed as follows:

Daily Exercises 10%

Take-home Quizzes 30%

Mid-term Exam 30%

Final Exam 30%

**Policies and Structure:**

**Attendance Policy:** Attendance is ***essential*** to your success in this class. I will take attendance each day. If you expect to miss one or two classes, please use the University absence reporting website <https://sims.rutgers.edu/ssra/> to indicate the date and reason for your absence. An email is automatically sent to me. **You may miss 4 class sessions. For each unexcused absence after this, you will lose half a grade from your final grade for the course.** (e.g., if you otherwise earned a B+, your grade will drop to B. Or if you otherwise earned a C you will earn a D+). If you have exculpatory circumstances, let me know.

**Daily Exercises:** Each reading will have associated practice exercises. You will be required to complete a subset of these before each class, and to hand them in on paper. I will not tell you which ones I will be collecting, so you should do the daily exercises before each class.

**Homework Problem Sets:** Regular practice of the course material is also crucial to your success in this class**.** There will be 5 Homework assignments which are graded.

Since the five homework assignments will be part of your final grade, the work you submit **MUST BE ENTIRELY YOUR OWN WORK**. Copying and collaborating on homework will be considered a violation of academic integrity (see below).

Homework assignments will be announced in class and posted on Sakai.

**Late Policy:** Late homework will not be accepted, except in the case of legitimate excuses (illness, death, etc). Any extensions must be cleared ahead of time.

**Exams:** There will be a midterm and a final exam. The final exam will be cumulative in the sense that everything you learn from the first half of the class will be necessary for completing the problems on the final. The exams will test your understanding of key concepts, and your skills with sentential logic and probability. The final exam will be **4-7 pm, May 8th.**

**Website:** The class will have a site at [*https://sakai.rutgers.edu/portal*](https://sakai.rutgers.edu/portal). The site will be used for assigning homework, distributing handouts, and making other announcements. If you do not have access to the site for our class, please come see me right away.

**Classroom Courtesy:** Please refrain from texting, surfing the web and other non-class related activities during lectures. ***Bring a pencil and an eraser to every class***, logic is not a pen-activity!

**Academic Integrity**:

<http://academicintegrity.rutgers.edu/academic-integrity-policy/>

Violations include: cheating, fabrication, plagiarism, denying others access to information or material, and facilitating violations of academic integrity.

**Plagiarism Tutorials:**

*The Camden Plagiarism Tutorial (INTERACTIVE):*

[*http://library.camden.rutgers.edu/EducationalModules/Plagiarism/*](http://library.camden.rutgers.edu/EducationalModules/Plagiarism/)

*Consult Don't Plagiarize: Document Your Research! For tips about how to take notes so that you don't plagiarize by accident.* [*http://www.libraries.rutgers.edu/avoid\_plagiarism*](http://www.libraries.rutgers.edu/avoid_plagiarism)

**Additional Resources:** [*http://academicintegrity.rutgers.edu/resources-for-students*](http://academicintegrity.rutgers.edu/resources-for-students)

**Student-Wellness Services:**

[**Just In Case Web App**](http://m.appcreatorpro.com/m/rutgers/fda9f59ca5/fda9f59ca5.html)

<http://codu.co/cee05e>

Access helpful mental health information and resources for yourself or a friend in a mental health crisis on your smartphone or tablet and easily contact CAPS or RUPD.

**Counseling, ADAP & Psychiatric Services (CAPS)**

**(848) 932-7884 / 17 Senior Street, New Brunswick, NJ 08901/** [**www.rhscaps.rutgers.edu/**](http://www.rhscaps.rutgers.edu/)

CAPS is a University mental health support service that includes counseling, alcohol and other drug assistance, and psychiatric services staffed by a team of professional within Rutgers Health services to support students’ efforts to succeed at Rutgers University. CAPS offers a variety of services that include: individual therapy, group therapy and workshops, crisis intervention, referral to specialists in the community and consultation and collaboration with campus partners.

**Violence Prevention & Victim Assistance (VPVA)**

**(848) 932-1181 / 3 Bartlett Street, New Brunswick, NJ 08901 /** [**www.vpva.rutgers.edu/**](http://www.vpva.rutgers.edu/)

The Office for Violence Prevention and Victim Assistance provides confidential crisis intervention, counseling and advocacy for victims of sexual and relationship violence and stalking to students, staff and faculty. To reach staff during office hours when the university is open or to reach an advocate after hours, call 848-932-1181.

**Disability Services**

(**848) 445-6800 / Lucy Stone Hall, Suite A145, Livingston Campus, 54 Joyce Kilmer Avenue, Piscataway, NJ 08854 /** [**https://ods.rutgers.edu/**](https://ods.rutgers.edu/)

The Office of Disability Services works with students with a documented disability to determine the eligibility of reasonable accommodations, facilitates and coordinates those accommodations when applicable, and lastly engages with the Rutgers community at large to provide and connect students to appropriate resources.

**Scarlet Listeners**

**(732) 247-5555 /** [**http://www.scarletlisteners.com/**](http://www.scarletlisteners.com/)

Free and confidential peer counseling and referral hotline, providing a comforting and supportive safe space.

**Schedule**

The website includes a schedule, which will be updated periodically in response to the speed of our progress in the course. I suggest checking the website (and schedule) each week.