

## **Philosophy 201: Introduction to Logic**

Instructor: Evan Kalkus  
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### **I. Class Times**

- The class will meet two times a week:
  - Tuesday, 6:40 p.m. - 8:00 p.m.
  - Thursday, 6:40 p.m. - 8:00 p.m.
- Office hours will be held by arrangement. Please email a day in advance.

### **II. Course Description**

-This course is an introduction to symbolic logic. Logic is the study of correct reasoning and symbolic logic studies reasoning using formal languages. We will begin with propositional logic. Propositional logic will enable us to represent various connective terms that will allow us to evaluate various inferences. We will focus on determining the validity of arguments and the processes involved in derivations. Then, we will turn to predicate logic. Predicate logic subsumes propositional logic, but affords us additional tools to both represent terms such as “something” and “everything” and evaluate inferences.

### **III. Course Materials**

- Paul Teller, *A Modern Formal Logic Primer*, Prentice Hall, 1989
  - Accessible at <http://tellerprimer.ucdavis.edu/pdf/>
  - I will be uploading or sharing with you the relevant documents, including the textbook.
  - If you would like to have a hard copy of the book for use, you can purchase one through Amazon (though there may be limited copies, given its free accessibility).

#### IV. Tentative Schedule

-The plan is to cover the material in an effective and timely manner, so this schedule may be adjusted to account for difficult subjects or unpredicted circumstances (weather, alien invasions, etc.), thus flexibility is key.

<b><u>SCHEDULE</u></b>	<b><u>Tuesday</u></b>	<b><u>Thursday</u></b>	<b><u>Exercises</u></b>
<b>Week 1</b>	Introduction to Arguments	Connectives and Transcription (Vol. I) Chpt. 1-1, 1-2	None
<b>Week 2</b>	Connective Puzzles	Connectives and Transcription (Vol. I) Chpt. 1-3, 1-4, 1-5, 1-6, 4-4, 4-5	Ex. 1-4, 1-5, 1-6, 4-6
<b>Week 3</b>	<u>Quiz 1</u> : Connectives and Transcription	Truth Tables and Validity (Vol. I) Chpt. 2-1, 2-2, 2-3, 4-1, 4-2	Ex. 2-2, 4-8
<b>Week 4</b>	<i>Ass. 1</i> : Truth Tables and Validity	Truth Trees for Propositional Logic (Vol. I) Chpt. 8-1, 8-2, 8-3, 8-4, 8-5,	Ex. 4-2, 4-5
<b>Week 5</b>	<u>Quiz 2</u> : Truth Trees for Propositional Logic	Truth Trees for Propositional Logic (Vol. I) Chpt. 9-1, 9-2	Ex. 8-1, 8-3, 8-4
<b>Week 6</b>	<i>Ass. 2</i> : Truth Trees for Propositional Logic	Natural Deduction for Propositional Logic (Vol. I) Chpt. 5-1, 5-2, 5-3	Ex. 9-2
<b>Week 7</b>	<u>Quiz 3</u> : Natural Deduction for Propositional Logic	Natural Deduction for Propositional Logic (Vol. I) Chpt. 6-1, 7-1, 7-2, 7-3, 7-4	Ex. 5-1
<b>Week 8</b>	<i>Ass. 3</i> : Natural Deduction for Propositional Logic	Review	Ex. 6-1, 6-3, 7-1
<b>Week 9</b>	Exam I	Predicate Syntax and Transcription (Vol. 2) Chpt. 1-1, 1-2, 1-3, 4-2, 4-3	Review
<b>Week 10</b>	<u>Quiz 4</u> : Predicate Syntax and Transcription	Truth Trees for Predicate Logic (Vol. 2) Chpt. 7-1, 7-2, 7-3, 7-4, 8-1, 8-2	Ex. 1-4, 1-5, 4-4, 4-7
<b>Week 11</b>	<i>Ass. 4</i> : Truth Trees for Predicate Logic	Natural Deduction for Predicate Logic (Vol. 2) Chpt. 5-2, 5-3, 5-4, 5-5, 5-6	Ex. 7-1, 7-3, 7-4, 8-8
<b>Week 12</b>	<u>Quiz 5</u> : Natural Deduction for Predicate Logic	Natural Deduction for Predicate Logic (Vol. 2) Chpt. 6-1, 6-2	Ex. 5-1, 5-2, 5-5, 5-7
<b>Week 13</b>	<i>Ass. 5</i> : Natural Deduction for Predicate Logic	TBD	TBD
<b>Week 14</b>	<u>Quiz 6</u> : Trees/ Deduction for Predicate Logic	Review	Ex. 6-2, 6-7

## V. Assessments

### -Attendance

- As a prerequisite of any participation credit, attendance is a must. I will note when you do not show up to class.
- If you need to miss a class (illness, family emergency, etc.) use the correct procedures through Rutgers so that your bases are covered, and *send me an email as well*. Be prepared for class. This needs to be done *before* the unattended class, not after.
- Your grade will be reduced by 5 points for every unexcused absence.
- Bring all relevant materials, including the textbook (either printed or electronic), a notebook, and a pencil.
- Exercises should be attempted outside of class. There are many, many problems assigned, and I do not expect all to be completed. I do not expect your answers to all be correct. I do expect a thorough attempt at working through the material, as it will be detrimental to your success in this course if you do not put forth a solid effort on the exercises. If you are putting in considerable effort both in class and out of class on the assignments, but feel as though you are falling behind, please come see me during office hours, or at the very least, let me know via email or after class. These exercises are not graded and are there for your practice.

### -Assignments (20%)

- You will be asked to submit assignments with a group every other week, and in this case, you will be graded on correctness. You will have an opportunity to submit an alternate assignment at the beginning of the next class only if you have an excused absence from that class.

### -Quizzes (20%)

- Quizzes will occur every other week, starting in Week 3, and they will cover the material from the readings, previous lecture, the exercises from the week and, to a lesser degree, previous readings, assignments, and lectures. Your lowest quiz grade will be dropped at the end of the course. You may make up a quiz during office hours before the next quiz only if you have an excused absence from that class.

### -Exams (60%)

- Exams will occur during the 9<sup>th</sup> and 15<sup>th</sup> week of the semester. The first will cover all material from the first eight weeks, and the second will be cumulative, covering all of the relevant course material. Exceptional circumstances that lead to missing an exam must be documented and emailed prior to missing the exam. You will then have one week to schedule a time during office hours to take the exam. If an exam is missed for nonexceptional circumstances, you will forfeit said exam grade.

### -Grade Calculation

- Attendance
  - Every unexcused absence is -5 points
- Assignments (20%)

- Total of 5 assignments graded
  - 10 points each
- Quizzes (20%)
  - Total of 6 quizzes taken, top are 5 graded
  - 10 Points each
- Exams (60%)
  - Total of 2 exams taken
  - First exam is worth 50 points
  - Second exam is worth 100 points
- Total (100%)
  - 250 Points

Your grade will be determined by the following grading scale:

<b><u>Grade</u></b>	<b><u>A</u></b>	<b><u>B+</u></b>	<b><u>B</u></b>	<b><u>C+</u></b>	<b><u>C</u></b>	<b><u>D</u></b>	<b><u>F</u></b>
<b><u>Percentage</u></b>	100% - 90%	89% - 87%	86% - 80%	79% - 77%	76% - 70%	69% - 60%	59% - 0%
<b><u>Points</u></b>	225-250	217-224	200-216	192-199	175-191	150-174	0-150

## **VI. Sakai Site**

-The course will have a Sakai site. I will send all relevant material through the announcement section on the site, as well as relevant announcements about scheduling and feedback. You can check the Sakai site for this information, but an email will also be sent to you when any information is added to the site. I will not be posting lecture notes. You will be required to take notes of the material, or in case of missed classes, review the notes of a classmate.

## **VII. Class Structure**

- The course will have two distinct styles of class.
  - First class of the week
    - The weekly assignments will be completed in this class
    - Quizzes will be taken
  - Second class of the week
    - Quizzes will be returned and discussed
    - The reading material will be covered by a lecture
- Class will be divided into groups for assignments during class. You are permitted, and encouraged, to work with each other outside of class time as well.

## **VIII. Final Note**

-I understand what it is like to be a busy student. However, that does not entitle you to any unwarranted excuses or poor effort. Your education is costing someone a significant amount of

time, an invaluable resource, so this is your opportunity to make it count. Show up to class, put in the work, and learn.

-Do not hesitate to contact me about anything related to the course. I will do what I can to help.

## **IX. Additional Resources**

### *Just In Case Web App*

<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/ [rhscaps.rutgers.edu/](http://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 / [vpva.rutgers.edu/](http://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/>

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.