

Philosophy 21002/16849/002
Introduction to Formal Logic
Fall - 2012

11:00 - 12:15 pm, M W, Room BSA 205

Instructor: Clarence G. Uher
Office: Philosophy Department – 320 Bowman Hall, Room W

Office Hours: M 1:00-3:30pm, T 5:05-5:35 pm, W 5:10 - 6:40 pm,
R 3:10 - 3:40 pm, and by appointment

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A. Course Description

The focus of this course is on deductive arguments and the formal systems of analysis applied to arguments. The formal systems will include the use of Venn Diagrams, truth tables, and the rules of natural deduction that are used to develop proofs in both sentential and predicate logic. The concepts of *validity* and *soundness* will be explored during the process of analysis. The study of formal logic will give us an opportunity to discuss the relationship between human reasoning, language usage, and mathematical reasoning as each system of analysis develops. The formal analysis of deductive arguments will be approached as a process of *puzzle solving* in an attempt to temper the formal aspect of the course.

Success in this course will most often depend on the student's willingness to work on course material outside of the classroom. Proficiency in formal logic is best achieved through daily practice. It is more productive to study the course material everyday for forty-five minutes than to spend five hours studying at the end of the week. The e-text we are using for this course contains a "Learning Logic" link on the CourseMate webpage with helpful study aids. The link contains a tutorial for each reading section. I strongly recommend the use of the CourseMate webpage resources in conjunction with each reading sections we cover in the course. It is important that students heed this friendly advice, since success in this course often depends on one's study habits.

B. Liberal Education Component

This course may be used to satisfy a Kent Core requirement. The Kent Core as a whole is intended to broaden intellectual perspectives, foster ethical and humanitarian values, and prepare students for responsible citizenship and productive careers. Logical reasoning is an important element of effective communication and thinking. The study of formal logic gives students the opportunity to examine and practice reasoning skills that include *pattern recognition* and the use of formal systems to solve problems.

C. Text

Patrick J. Hurley, *Concise Introduction to Logic, 11th edition* e-text. ISBN: 978-084-003-4199 You can obtain the access code for the CourseMate e-text from the bookstore.

D. Mechanics

- (a) There will be twelve (12) quizzes during the term. The two lowest quiz scores will be dropped. A missed quiz is counted as a dropped quiz. There are no make-ups offered for missed quizzes (regardless of reason) until the dropped quizzes are exhausted. (20 points each.)
- (b) The two midterm exams will cover the course material completed up to the date of the exam. (50 points each.)
- (c) The final exam will be comprehensive and will follow a similar format as the mid-term exams. (100 points.)

E. Grades

Your final grade will be determined on the total points you acquire during the semester. The chart below indicates the minimum point total needed for the corresponding letter grade. Your final grade will be comprised of the following:

10 Quizzes @ 20 points each	200 points
2 Midterm Exams @ 50 points each	100 points
Final Exam	100 points
	400 points total

Minimum Points	0	240	252	270	280	292	310	320	332	350	360
Grade	F	D	D+	C-	C	C+	B-	B	B+	A-	A

F. Make-ups

Please contact me as soon as possible if your absence has caused you to miss any graded course-work. Students will be permitted to make up missed quizzes (after the two dropped quizzes are exhausted) or exams do to an excused absence (e.g., a doctor's excuse). If a student does not have the proper documentation they will not be permitted to take a make-up exam. A *request of make-up form* must be completed prior to taking the make-up assignment. Make-up work must be completed in a timely manor. In most cases, work must be completed on the day the student returns to class.

G. Course Material On-line

There will be some course material found on *Flashline*. Students can find the course syllabus, course notes, and assignments in the *files* folder under the *My Courses* tab on *Flashline*. Students must establish and maintain their Kent State University e-mail account to access the course material on-line. All e-mails are sent to students using the Kent State University e-mail account.

H. Conduct in the classroom

Proper conduct in the classroom will be expected of every member of the class. Talking, reading newspapers / books / magazines, frequently coming to class late, or leaving class early are rude and disruptive behaviors that will not be tolerated. Cell Phones should only be used for emergency calls. Please have your phone set to "vibrate" and answer your call or txt message outside of the classroom.

Students must request permission to record course lectures and discussions. Use of laptops and notebooks will be permitted as long as they are used for note taking or to access course material. Laptops and notebooks should not be used for web browsing, checking e-mail, or any activity not related to the course. Students who engage in activities that are not permitted will not be allowed to use their laptop or notebook in class for the remainder of the semester. *Any three conduct violations will result in a whole letter grade reduction of the student's final grade.*

I. Cheating and Plagiarism Policy

University policy 3342-3-01.8 deals with the problem of academic dishonesty, cheating, and plagiarism. None of these will be tolerated in this class. The sanctions provided in this policy will be used to deal with any violations. If you have any questions, please read the policy at <http://www.kent.edu/policyreg/chap3/3-01-8.cfm> and/or ask.

J. Grievance procedure

The Philosophy Department Grievance Procedure for handling student grievances is in conformity with the Student Academic Complaint Policy and Procedures set down as University Policy 3342-4-16 in the University Policy Register. For information concerning the details of the grievance procedure please see the Departmental Chairperson.

K. Students with Disabilities

In accordance with University policy, if you have a documented disability and require accommodations to obtain equal access in this course, please contact the instructor at the beginning of the semester or when given an assignment for which an accommodation is required. Students with disabilities must verify their eligibility through the office of Student Accessibility Services (SAS) in the Ground Floor DeWeese Center (PHONE: 330-672-3391; FAX; 330-672-3763).

L. Registration Requirements

The official registration deadline for this course is 9/9/2012. University policy requires all students to be officially registered in each class they are attending. Students who are not officially registered for a course by published deadlines should not be attending classes and will not receive credit or a grade for the course. Each student must confirm enrollment by checking his/her class schedule (using Student Tools in FlashLine) prior to the deadline indicated. Registration errors must be corrected prior to the deadline.

The course withdrawal deadline is 11/4/2012.

There are no prerequisites for this course.

M. Supplemental Instruction

A Supplemental Instruction (SI) component is provided for all students who want to improve their understanding of the material taught in this course. SI sessions are led by a student who has already mastered the course material and has been trained to facilitate group sessions where students can meet to compare class notes, review and discuss important concepts, develop strategies for studying, and prepare for exams. Attendance at SI sessions is free and voluntary. Students may attend as many times as they choose. SI sessions normally begin the second week of class and continue throughout the semester. A session schedule will be announced in class. For information about the program, session schedule/updates, and possible study guides, visit: www.kent.edu/si.

Requirements for success in this course:

1. Complete the reading and homework assignments BEFORE the lecture.
 - If you find the reading too difficult, try using the "Learning Logic" link on the text book "CourseMate" webpage.
 - Analyzing your homework is the most effective way for me to identify the problems you are experiencing with the material.
2. Daily practice!
 - I know that this is mentioned above...but it bears repeating.
3. See me for help, if you are finding errors on your homework assignments or are earning low quiz scores (14 points or less on a 20 point quiz).
 - Often problems can be corrected in a few minutes if detected early. Do not allow a simple misunderstanding spiral out of control.

Week	Dates	Assignment
1	8/27	Introduction to the course.
	8/29	This LER and you. And Chapter 1, pp. 1-40.
2	9/3	Labor Day — No Classes, offices closed.
	9/5	Finish Chapter 1, pp. 44-63, exercise 1.5
3	9/10	Chapter 4, Categorical Propositions, pp. 197-210.
	9/12	Chapter 4, Translating O. L. into Categorical Form, pp. 246-253.
4	9/17	Chapter 5, Categorical Syllogisms, pp. 259-264.
	9/19	Chapter 5, Venn Diagrams of Syllogisms, pp. 266-277.
5	9/24	Chapter 5, Rules pp. 280-286 v. Venn Diagrams, Exercise 5.3 & Review.
	9/26	<i>Exam #1 (50 points)</i>
6	10/1	Chapter 6, Propositional Logic, Truth Functions pp. 310-332.
	10/3	Chap. 6.4 & 6.5, Truth Tables for Arguments, pp. 335-347 & pp. 350-357
7	10/8	Chap. 6.4 & 6.5, Truth Tables for Arguments, pp. 335-347 & pp. 350-357.
	10/10	Chapter 6.6, Argument Forms and Fallacies, pp. 360-371.
8	10/15	Chapter 7.1, Natural Deduction, Rules of Implication, pp. 380-386.
	10/17	Chapter 7.2, Natural Deduction, Rules of Implication, pp. 391-396.

9	10/22	Rules of Implication & Review for exam #2
	10/24	Exam #2 (50 points)
10	10/29	Chap. 7.3, Natural Deduction, Rules of Replacement, pp. 403-407.
	10/31	In Class Assignment – Rules of Replacement
11	11/5	Chap. 7.4, Natural Deduction, Rules of Replacement, pp. 414-419.
	11/7	In Class Assignment – Rules of Replacement
12	11/12	Veterans Day – No Classes, offices closed.
	11/14	Chap. 7.5 & 7.6, Conditional and Indirect Proofs, pp. 427-436.
13	11/19	Chap. 8.1 & 8.2, Predicate Logic, pp. 442-460.
	11/21	Thanksgiving Break
14	11/26	Chap. 8.1 & 8.2, Predicate Logic, pp. 442-460.
	11/28	Chap.8.3, Predicate Logic, CQ Rules, pp. 464-466.
15	12/3	Chap. 8.4, Predicate Logic, Conditional and Indirect pp. 468-472.
	12/5	In Class Assignment – Predicate Logic & Review for Final Exam

Final Exam: Tuesday, December 11, 2012, at 10:15-12:30 pm.

The instructor reserves the right to change, correct, or amend the syllabus and / or the reading schedule during the semester.