Logic   **Instructor**: Elizabeth Rard
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Fall 2018   **Phone:** (559) 638-0300 EXT. 3274
MWF 11:00-11:50   **Office:** Hum 54
Room LFS A   **Office Hours:** MWF 10:00-10:50
                                             TR 11:00-11:50
                                             Or by appointment

Description:

This course introduces the concepts and methods of modern symbolic logic. Topics include symbolization, syntax, semantics, and natural deduction for sentential and predicate logic.

Required Text:

Hausman Logic and Philosophy 12th edition

Grading:

Chapter 1 Quiz   2%   (1 @ 2%)
Midterm Exams: 45%   (3 @ 15%)
Final Exam: 23%   (1 @ 23%)
Problem Sets: 30%   (8 @ 3.75%)

Final Grade Breakdown:

Percent of total points	Grade
90-100	A
80-89.99	B
70-79.99	C
60-69.99	D
50-59.99	F

Attendance: Students who have more than **6 absences during the first half of the semester may be dropped from the class.** Students who have more than **12 absences for the entire semester may receive an unsatisfactory grade in the class regardless of the work that has been submitted.** Attendance will be taken at the very beginning of class. If you are not in your seat at the start of class you will be marked absent. If you are late you **must raise your hand at the end of class until the instructor indicates that your absence has been changed.** There are **NO** excused absences so save your absences for when you need them. In case of extreme circumstances contact your instructor.

NOTE: The instructor does not guarantee that students will be dropped after having more than 6 unexcused absences. Hence, if you decide to drop this class it is your responsibility to actually drop the class. Failure to do so may result in a grade of 'F' for this course.

Coursework:

Reading Assignments: Students are expected to complete readings before class and come prepared to discuss the readings. The date the reading is listed on the syllabus is the date we will be discussing the material so you need to read the sections prior to the class period the readings are listed for. It is recommended that students read all material at least twice, taking notes or creating outlines of the reading from which they can study.

Problem sets: Problem sets are due at the beginning of class on the day they are due. Problem sets will be given in class or posted on Canvas at least 4 days prior to their due date. Problem sets are graded.

Exercises: Your textbook provides many practice exercises. We will work many of the odd number exercises in class. It is expected that students will work through enough of the even exercises at home, checking their results with the answers provided in the back, to ensure mastery of the material **before completing the corresponding problem sets.**

Participation: Students are expected to come to class regularly having reviewed the assigned material. **Students must bring a copy of their textbook (either a hardcopy or a digital copy) to every class meeting.** Students may share a copy if they choose to. Students are expected to participate in all in-class assignments. Students may not work on anything from another class during class time, nor may they use electronic devises for any purpose other than those related to this course (except in case of emergency). Students may use laptops, etc. for class related activities such as viewing the textbook or taking notes.

Seating Chart: A seating chart will be created during the first week of class. Students must sit in their assigned seats. Students who wish to change their assigned seats must ask the instructor. This is so that your instructor can keep track of your participation and be aware of your attendance levels, but more importantly it is so she can start to learn your names!

Examinations: There will be **four** exams in this course (three midterms and a final). They will be cumulative but will emphasize the material covered since the last exam.   Anything in the readings or discussed in class is fair game for the exams. They will be similar in format to your homework. **Points may be taken off of your exam if you come to the exam late or if your cell phone makes noise during the exam.**

Behavioral Standards: Students are expected to do their best to be on time. Students should silence all cell phones before entering the classroom. **CELL PHONE USE IN CLASS IS ONLY PERMITTED FOR EMERGENCIES**, with the one exception of using a cell phone to access the textbook for classwork. All students will treat each other with professional courtesy at all times. Students should participate regularly in class discussions and are encouraged to ask questions. Unless otherwise prompted, students should raise hands when they have questions or comments. Discussion with other students during class work is encouraged, provided the focus of the discussion is the work being completed. Please do not whisper amongst yourselves while the instructor is lecturing, or while a fellow classmate is addressing the class with a question or comment. This is because such behavior is disrespectful to your fellow classmates, and because whispering, no matter how softly, is distracting to others. If you have a question during lecture then please raise your hand!

Late work/Absences: Make-up **exams** will be granted on a case-by-case basis with proof of a valid excuse required. The instructor has final say as to what constitutes a valid excuse. If possible, students must discuss make-up exams with the instructor prior to the date of the exam. Failure to contact instructor as soon as possible regarding missed exams may result in a score of 0 for the exam. Problem sets are due at the beginning of class on the day they are due. Late problem sets will receive a deduction of one letter grade (10 points out of 100).

Where to find your grade: Grades will be available on Canvas. Assignment/exam scores will be posted to Canvas prior to them being returned to students. **IT IS THE RESPONSIBILITY OF THE STUDENT TO BRING ANY MISSING/WRONG SCORES TO THE ATTENTION OF THE INSTRUCTOR ASAP.** All problems must be reported to the instructor within 24 hours of the final exam. After that scores will not

be changed. Any student with a question about their current grade in the course should feel encouraged to contact the instructor.

Special Needs Requests:

If you have a verified need for an academic accommodation or materials in alternate media (i.e., Braille, large print, electronic text, etc.) per the Americans with Disabilities Act (ADA) or Section 504 of the Rehabilitation Act, please contact your instructor as soon as possible.

Academic Dishonesty:

Students at Reedley College are entitled to the best education that the college can make available to them, and they, their instructors, and their fellow students share the responsibility to ensure that this education is honestly attained. Because cheating, plagiarism, and collusion in dishonest activities erode the integrity of the college, each student is expected to exert an entirely honest effort in all academic endeavors. Academic dishonesty in any form is a very serious offense and will incur serious consequences.

Cheating is the act or attempted act of taking an examination or performing an assigned, evaluated task in a fraudulent or deceptive manner, such as having improper access to answers, in an attempt to gain an unearned academic advantage. Cheating may include, but is not limited to, copying from another's work, supplying one's work to another, giving or receiving copies of examinations without an instructor's permission, using or playing notes or devices inappropriate to the conditions of the examination, allowing someone other than the officially enrolled student to represent the student, or failing to disclose research results completely.

Plagiarism is a specific form of cheating: the use of another's words or ideas without identifying them as such or giving credit to the source. Plagiarism may include, but is not limited to, failing to provide complete citations and references for all work that draws on the ideas, words, or work of others, failing to identify the contributors to work done in collaboration, submitting duplicate work to be evaluated in different courses without the knowledge and consent of the instructors involved, or failing to observe computer security systems and software copyrights.

Incidents of cheating and plagiarism may result in any of a variety of sanctions and penalties, which may range from a failing grade on a particular examination, paper, project, or assignment in question to a failing grade in the course, at the discretion of the instructor and depending on the severity and frequency of the incidents.

Student Learning Outcomes:

Upon completion of this course, students will be able to:
1. Identify arguments and distinguish the premises of an argument from its conclusion.
2. Translate statements into the language of sentential logic and use truth tables to determine whether they are contingent, self-contradictory, or tautologous.
3. Use truth tables to determine whether sets of statements are consistent or inconsistent.
4. Translate ordinary language arguments into the language of sentential logic; determine whether such arguments are valid or invalid; and prove, by means of natural deduction, the validity of such arguments.

5. Translate ordinary language arguments into the language of predicate logic; determine whether such arguments are valid or invalid; and prove, by means of natural deduction, the validity of such arguments.

Objectives:

In the process of completing this course, students will:
1. Identify arguments and distinguish the premises of an argument from its conclusion.
2. Translate statements into the language of sentential logic and use truth tables to determine whether they are contingent, self-contradictory, or tautologous.
3. Use truth tables to determine whether sets of statements are consistent or inconsistent.
4. Translate ordinary language arguments into the language of sentential logic; determine whether such arguments are valid or invalid; and prove, by means of natural deduction, the validity of such arguments.
5. Translate ordinary language arguments into the language of predicate logic; determine whether such arguments are valid or invalid; and prove, by means of natural deduction, the validity of such arguments.

Basic Skills Advisory:

ENGL 125 Writing Skills for College
ENGL 126 Reading Skills for College

Important Dates:

8/24 LAST DAY TO DROP FOR FULL REFUND
8/31 LAST DAY TO REGISTER FOR A FALL 2018 FULL-TERM CLASS IN PERSON
8/31 LAST DAY TO DROP A FALL 2018 FULL-TERM CLASS TO AVOID A "W" IN PERSON
9/2 LAST DAY TO DROP A FALL 2018 FULL-TERM CLASS TO AVOID A "W" ON WEBADVISOR
10/12 LAST DAY TO DROP A FULL-TERM CLASS

OBSERVED HOLIDAYS (NO CLASS):

9/3 Labor Day (No Class)
11/12 VETERANS DAY (No Class)
11/22-11/23 Thanksgiving Holiday (No Class)

The following course schedule is **tentative**. Any changes to the schedule will be announced in class ahead of time.

Date	Plan
8/13	Introduction
8/15	**Chapter 1: Introduction: Elements of an argument, deduction and induction, truth and validity, soundness.** Ch. 1: 1-6
8/17	**Chapter 2: Symbolizing in Sentential Logic**

	Ch. 2: 1-7
8/20	Ch. 2: 9-11
	Quiz on Chapter 1
8/22	Ch. 2: 12-14
8/24	Ch. 2: 12-14 cont.
8/27	**Chapter 3: Truth Tables**
	Ch. 3: 1-3
	PROBLEM SET 1 Due
8/29	Ch. 3: 4-5
8/31	Ch. 3 6-7
9/3	**NO CLASS** Labor Day
9/5	Ch, 3: 8
9/7	**Chaper 4: Proofs**
	Ch. 4: 1-4
	PROBLEM SET 2 Due
9/10	Review
9/12	**MIDTERM EXAM 1**
9/14	Ch. 4: 1-4 cont.
9/17	Ch. 4: 5-7
9/19	Ch. 4: 5-7 cont.
9/21	Ch. 4: 8-10
9/24	Ch. 4: 8-10 cont.
	PROBLEM SET 3 Due
9/26	Ch. 4: 11-14
9/28	**Chapter 5: Conditional and Indirect Proofs**
	Ch. 5: 1
10/1	Ch. 5: 2-3
10/3	Ch. 5: 2-3 cont.
10/5	Ch. 5: 4
	PROBLEM SET 4 Due
10/8	Review
10/10	**MIDTERM EXAM 2**
10/12	Ch. 5: 5-6
10/15	Ch. 5: 5-6 cont.
10/17	**Chapter 6: Sentential Logic Truth Trees**

	Ch. 6: 1-3
10/19	Ch. 6: 1-3 cont.
10/22	Ch. 6: 1-3 cont.
	PROBLEM SET 5 Due
10/24	**Chapter 7: Predicate Logic Symbolization**
	Ch. 7: 1-2
10/26	Ch. 7: 3
10/29	Ch. 7: 4
10/31	Ch. 7: 5
11/2	**Chapter 8: Predicate Logic Semantics**
	Ch. 8: 3
	PROBLEM SET 6 Due
11/5	Review
11/7	**MIDTERM EXAM 3**
11/9	Ch. 8: 3
11/12	**NO CLASS** Veterans Day
11/14	**Chapter 9: Predicate Logic Proofs**
	Ch. 9: 1
11/16	Ch. 9: 2
11/19	Ch. 9: 3
11/21	Ch. 9: 4-5
	PROBLEM SET 7 Due
11/22-11/23	**NO CLASS** Thanksgiving
11/26	Ch. 9: 6
11/28	Ch. 9 cont.
11/30	Ch. 9 cont.
12/3	**Chapter 12: Predicate Logic Truth Trees**
	Ch. 12: 1-3
12/5	Ch. 12: 4-5
	PROBLEM SET 8
12/7	Review
12/12	**FINAL EXAM 11:00-12:50**