Elementary Logic Instructor: Samuel Munroe

Required Text: A Concise Introduction to Logic 13th Edition – Patrick J. Hurley and Lori Watson

Course Description and Objectives:

This course will introduce you to the basics of formal and informal logic. Ultimately, the aim of the course is to sharpen and hone your ability to think carefully through arguments. Put differently, at the end of this course you will (1) be better identifying and understanding the reasons that you have for believing whatever you believe and (2) evaluating whether or not those reasons are *good* ones. The course is broken up into three units. In the first unit, we will cover the basic concepts that we will use for the rest of the course and learn how to identify and statements, arguments, and premises. We will also begin to learn how to *evaluate* arguments—how to distinguish good arguments from bad arguments. In the second unit, we will cover the basics of "formal" logic and learn how to do some basic proofs in formal logic. In the third unit, we will learn about "informal" fallacies, which will give you some tools for recognizing the kinds of bad argumentative tricks that people commonly use in day-to-day life.

Practices for Success in this Course:

This class is much more about learning a *skill* than it is about memorizing some facts. Like any skill, it takes practice to learn. Much of the course will therefore be geared towards making sure that you get the practice that you need to hone your logical skills. Unlike courses that are aimed at getting you to memorize facts, it is extremely difficult—perhaps impossible—to cram for the tests. You will therefore have homework assigned (nearly) every day in class. This homework be graded on good faith effort. It is there for you to get the practice that you need to do well in the class. In general, each class we will review the homework problems, discuss and resolve any difficulties you had while working through them, and cover new material. So, to prepare for class each day, you should be (1) reading (or re-reading) the portion of the textbook we will be covering that day, and (2) working through the practice problems that we will go over in class.

Finally, this class will not make use of online platforms. While you are welcome to use an online version of the textbook to read and access the practice problems during class, that means that you need to make sure to show up to class with pens and plenty of paper.

SPECIFIC REQUIREMENTS & GRADE COMPOSITION:

Attendance and Participation 10%

Learning logic takes practice. In addition to practicing at home, we will spend a good deal of class time going over problems as a class. Earnest engagement in class with these practice problems is therefore essential to doing well in the course. While I understand that things come up in life and not everyone will be able to make it to class every day, it is vital to only miss class when it is absolutely necessary.

Homework 20%

There will be homework everyday in this course. Problem sets from the book will be assigned during class and not posted on the online page. I will collect it at random, and it will be graded on good-faith effort.

Test 1 17.5%

Hurley 1.1, 1.3, 1.4 (Basic terms, rewrite arguments, deductive and inductive forms, evaluating arguments)

Test 2 17.5%

Hurley 6.1, 7.1, 7.2 (Identifying main operators, Translations, Truth-Tables, Proofs with first 8 rules)

Test 3 17.5%

Hurley 6.1, 7.1, 7.2, 7.3 (Identifying main operators, Translations, Proofs with all 13 rules)

Test 4 17.5%

Hurley 3.2 (Informal Fallacies)

Final Exam

There is no cumulative final exam for this course. You will be permitted (but not required) to retake one of your previous exams during our final exam period. If you score higher on the second attempt, it will fully replace the previous exam grade. If you do not, it will not change your grade.

CALCULATION OF COURSE GRADE:

A+	=	98-100			
А	=	93-97	C+	=	77-79
А-	=	90-92	С	=	73-76
B+	=	87-89	С -	=	70-72
В	=	83-86	D	=	60-69
В -	=	80-82	F	=	59 and below

General Policies and Information:

Classroom Etiquette: Students are expected to demonstrate respect for fellow students and for the instructor during these discussions. Failure to practice collegiality could result in being removed from the classroom and administratively withdrawn from the course. Basically, remain kind and respectful and this course should be stimulating and enjoyable.

Electronics: You may use laptops and tablets to follow along with the readings and practice problems in class. Please avoid using them for other purposes, as doing so not only distracts you from our lectures and discussions, but also distracts your fellow students.

Attendance & Tardiness: It would be very difficult to do well in this course without regular attendance, for reasons that will become evident during the semester. Show up to the classroom at the time on the schedule. It is crucial that you come to every class meeting if possible. More than two absences over the course of the semester, and/or excessive tardiness, will negatively affect your participation grade, except in extenuating circumstances.

Late Policy: If at all possible, please get in touch with me if you expect that you will not be able to take a test on the day it is administered. Except under extenuating circumstances, students will have one week from the day of a test to make it up. After one week, students will receive a grade of zero on the test. I will not except late quizzes.

Communication: Should you need to contact me outside of office hours, email me. I'll respond within one business day. Should I not respond, please assume I didn't receive your email and resend it, or come talk to me in person after class.

Accessibility: Any student who anticipates physical or academic barriers based on the impact of a disability is encouraged to come and speak with me privately regarding accommodations. Students with disabilities should also contact Disability Resources for Students in 110 Wilder Tower. Additional information is available at <u>www.memphis.edu/drs</u>

Statement on Academic Integrity: Academic misconduct including plagiarism and cheating is a serious offense. Students will be expected to comply with the University of Memphis' Academic Integrity and Student Conduct Guidelines, found on the website of the Office of Student Judicial and Ethical Affairs: www.saweb.memphis.edu/judicialaffairs.

Course Schedule:

Unit 1: The FORM & CONTENT of arguments

4-Step Argument Evaluation—Distinguishing good & bad arguments—Validity, truth, falsity, and soundness

Week 1

<u>8/27:</u> Course Introduction and Syllabus Review <u>8/29:</u>

Hurley 1.1 (Arguments, Premises, and Conclusions)

Week 2

<u>9/3:</u>

Hurley 1.3 (Deduction and Induction)

<u>9/5:</u>

Hurley 1.3 Continued (Deduction and Induction)

Week 3

<u>9/10:</u>

Hurley 1.4 (Validity, Truth, and Soundness-Evaluating arguments)

<u>9/12:</u>

Hurley 1.4 Continued (Validity, Truth, and Soundness-Evaluating Arguments)

Week 4

<u>9/17:</u>

TEST REVIEW

<u>9/19:</u>

TEST 1—Basic terms, rewrite arguments, deductive and inductive forms, evaluating arguments (TAKEN IN CLASS)

Unit 2: The FORM of Arguments and the rules of inference

Constructing formally good arguments—natural deduction by making connections between propositions

Week 5

<u>9/24:</u>

Hurley 6.1 (Logical Operators and Translation)

<u>9/26:</u>

Hurley 6.1 Continued (Logical Operators and Translation)

Hurley 6.3-4 (Truth Tables)

Week 6

<u>10/1:</u>

Hurley 6.2 Continued (Truth Tables)

Hurley 7.1 (Rules of Implication I-MP, MT, HS, DS)

<u>10/3:</u>

Hurley 7.1 Continued (Exercises and Proofs)

Week 7

<u>10/8:</u>

Hurley 7.1 Continued (Exercises and Proofs)

<u>10/10:</u>

Hurley 7.2 (Rules of Implication II-CD, Simp, Conj, Add)

Week 8

<u>10/15:</u>

FALL BREAK: NO CLASS

<u>10/17:</u>

Hurley 7.2 Continued (Exercises and Proofs)

Week 9

<u>10/22:</u>

Review for Test 2 on Hurley 6.1, 7.1, 7.2

<u>10/24:</u>

TEST 2—Identifying main operators, Translations, Truth Tables, Proofs with first 8 rules (TAKEN IN CLASS)

Week 10

<u>10/29:</u>

(Rules of Replacement I-DM, Com, Assoc, Dist, DN)

<u>10/31:</u>

Hurley 7.3 Continued (Exercises and Proofs)

Week 11

<u>11/5:</u>

Hurley 7.3 Continued (Exercises and Proofs)

<u>11/7:</u>

Hurley 7.3 Continued (Exercises and Proofs)

Week 12

<u>11/12:</u>

Review for Test 3 on Hurley 6.1, 7.1, 7.2, 7.3

<u>11/14:</u>

TEST 3—Identifying main operators, Translations, Proofs with all 13 rules (TAKEN IN CLASS)

Unit 3: The CONTENT of Arguments and informal fallacies

Recognizing good and bad arguments in everyday life—informal logic/natural deception

Week 13 <u>11/19:</u> Hurley 3.2 (8 Fallacies of Relevance) <u>11/21:</u> Hurley 3.2 (8 Fallacies of Relevance) Week 14 <u>11/26:</u> Review for Test 4 on Hurley 3.2

<u>11/28:</u>

THANKSGIVING: NO CLASS

Week 15

<u>12/3:</u>

TEST 4—Informal Fallacies (TAKEN IN CLASS)

FINAL NOTE: This syllabus AND the schedule of assignments for the course are tentative and subject to alternations. Everything in this syllabus and in the schedule of assignments can change (and something almost always does). You are responsible for all changes given adequate notice, which will be announced in class, whether or not you are absent on the day it is announced. Check your student email account daily.