

LOGIC

PHILOSOPHY 2341, SPRING 2018

SECTION 01

MWF, 11:00–11:50, Burgett 115

CONTACT INFORMATION

Dr. Jonathan Spelman
Burgett 129, (419) 772-3091
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COURSE OBJECTIVES

The successful student will be able to:

1. identify and reconstruct arguments in ordinary language
 - distinguish an argument's premises from its conclusion
 - translate arguments into symbolic notation
2. use natural deduction to evaluate formal arguments
 - use truth tables and proofs to test for validity and soundness
 - construct counterexamples to prove invalidity
3. evaluate informal arguments
 - use his or her knowledge of informal fallacies, analogical reasoning, Mill's methods, and statistical reasoning to test for strength and cogency
4. use these skills outside of the classroom

OFFICE HOURS

- I will hold office hours Tues/Thurs from 12:00-3:00 pm.
- I am also available by appointment.

REQUIRED TEXT

Please bring the required text to class each day.

- Hurley, Patrick J. *A Concise Introduction to Logic*, **12th ed.** Cengage, 2015.
 - ISBN-13: 978-1-285-19654-1

TECHNOLOGY POLICY

Studies show that students who write their notes retain more information than those who type their notes (see, for example, <http://www.npr.org/2016/04/17/474525392/attention-students-put-your-laptops-away>). In light of that, I ask that you not use laptops or tablets during class. As is the case with all of my policies, however, if you have reasons for thinking that this is a bad policy or that I should make an exception in your case, please let me know. You may convince me.

GRADES

Students earn "A" grades by demonstrating their ability to reliably meet all (or almost all) of the course objectives. Students earn "B" and "C" grades by demonstrating their ability to meet all of the course objectives. Students earn "D" grades by demonstrating their ability to meet most of the course objectives.

GRADED ELEMENTS

CLASS PREPARATION AND ATTENDANCE

You are expected to prepare for each class period by reading the assigned section of the text and completing some practice problems at the end of that section to see whether you understood the material. You are also expected to attend class regularly.

PARTICIPATION

Twice this term, you will submit a one-page (single-spaced) paper that highlights what you have done to engaged with the course material both inside and outside of class, how that engagement with the course material has contributed to your progress towards the course objectives, and how you see your progress towards the course objectives impacting your life going forward. The first of these papers will account for 20 pts., and the second will account for 30 pts. Combined, your participation grades will account for 11.1% of your final grade.

HOMEWORK

You will have eleven homework assignments over the course of the semester. You must complete each homework assignment on your own, before class, and then you will rework it in class with a small groups of your peers. If you fail to complete the homework assignment on your own, before class, you may complete it during class, but you will not have the opportunity to rework it with your peers. If you complete most of the homework assignment on your own, before class, but fail to complete a few problems, you will not receive credit for those problems. Your lowest homework grade will be dropped, and each of the remaining homework grades will account for 10 pts. Combined, your homework grades will account for 22.2% of your final grade.

EXAMS

You will take three exams over the course of the semester. Each exam will account for 100 pts. Combined, your exam grades will account for 66.7% of your final grade.

<u>GRADED ELEMENT</u>	<u>%</u>	
Participation	11.1	20 points x 1 + 30 points x 1 = 50 points
Homework	22.2	10 points x 10 assignments = 100 points
Exams	66.7	100 points x 3 assignments = 300 points
Total	100.0	= 450 points

ASSIGNED READINGS

Week 1 – Evaluating Arguments

- 1/15 **No Class (Martin Luther King, Jr. Day)**
1/17 Syllabus
1/19 *Online: Evaluating Arguments*

Week 2 – Reconstructing Arguments

- 1/22 **Homework #1**
1/24 *Online: Reconstructing Arguments*
1/26 *Chapter 5.6: Enthymemes (301-303)*

Week 3 – Diagramming Arguments

- 1/29 **Homework #2**
1/31 *Chapter 1.6: Extended Arguments (66-71)*
2/2 *Chapter 1.2: Recognizing Arguments (14-25)*

Week 4 – Exam #1

- 2/5 **Homework #3**
2/7 Practice Exam
2/9 **Exam #1**

Week 5 – Truth Tables

- 2/12 *Chapter 6.1: Symbols and Translation (316-325)*
2/14 *Chapter 6.2: Truth Function (330-339)*
Chapter 6.3: Truth Tables for Propositions (342-348)
2/16 *Chapter 6.4: Truth Tables for Arguments (351-354)*

Week 6 – Natural Deduction

- 2/19 **Homework #4**
2/21 *Chapter 7.1: Rules of Implication I (388-395)*
2/23 *Chapter 7.1: Rules of Implication I (388-395)*

Week 7 – Natural Deduction

- 2/26 **Homework #5**
2/28 *Chapter 7.2: Rules of Implication II (401-406)*
3/2 **No Class (Conference)**

Spring Break

- 3/5
3/7
3/9



Week 8 – Natural Deduction

- 3/12 **Homework #6**
3/14 *Chapter 7.3: Rules of Replacement I (411-417)*
3/16 *Chapter 7.3: Rules of Replacement I (411-417)*

Week 9 – Natural Deduction

- 3/19 **Homework #7**
3/21 *Chapter 7.4: Rules of Replacement II (424-429)*
3/23 *Chapter 7.4: Rules of Replacement II (424-429)*

Week 10 – Exam #2

- 3/26 Practice Exam
3/28 **Exam #2**
3/30 **No Class (Easter Recess)**

Week 11 – Informal Fallacies

- 4/2 **No Class (Easter Recess)**
4/4 *Chapter 3.1: Fallacies in General (122-124)*
Chapter 3.2: Fallacies of Relevance (125-133)
4/6 *Chapter 3.3: Fallacies of Weak Induction (143-151)*

Week 12 – Informal Fallacies

- 4/9 **Homework #8**
4/11 *Chapter 3.4: Fallacies of Presumption, Ambiguity, and Illicit Transference (160-171)*
4/13 Practice

Week 13 – Analogical Reasoning and Mill's Methods

- 4/16 **Homework #9**
4/18 *Chapter 9.1: Analogical Reasoning (524-527)*
4/20 *Chapter 10: Causality and Mill's Methods (544-561)*

Week 14 – Statistical Reasoning

- 4/23 **Homework #10**
4/25 *Chapter 12.1-12.3: Evaluating Statistics, Samples, and the Meaning of "Average" (587-594)*
4/27 *Chapter 12.4-12.6: Dispersion, Graphs and Pictograms, and Percentages (594-603)*

Week 15 – Review

- 4/30 **Homework #11**
5/2 Practice Exam
5/4 Practice Exam

Final Exam

Friday, May 11 from 11:45-1:45 pm in Burgett 115

POLICY STATEMENTS

ACADEMIC HONESTY

http://www.onu.edu/student_life/student_conduct/student_handbook

The University expects its students to conduct themselves in a dignified and honorable manner as mature members of the academic community and assumes that individually and collectively they will discourage acts of academic dishonesty. The University also expects cooperation among administrators, faculty, staff, and students in preventing acts of academic dishonesty, in detecting such acts, reporting them, and identifying those who commit them, and in providing appropriate punishment for offenders. The University Code of Academic Student Conduct is found in Appendix C of the Student Handbook, which you can find at the website listed above.

CLASSROOM BEHAVIOR POLICY

Students and faculty each have responsibility for maintaining an appropriate learning environment. Professional courtesy and sensitivity are especially important with respect to individuals and topics dealing with differences of race, color, culture, religion, creed, politics, veteran's status, age, sex, sexual orientation, gender, gender identity, gender expression, age, disability, and nationalities. Class rosters are provided to the instructor with the student's legal name. I will gladly honor your request to address you by an alternate name or gender pronoun. Please advise me of this preference early in the semester so that I may make appropriate changes to my records.

SPECIAL ACCOMMODATIONS POLICY

http://www.onu.edu/student_life/disability_services

Students requiring particular accommodations because of physical and/or learning disabilities should contact their Dean's office prior to or during the first week of classes. For additional information, see the website listed above.

I should also note that I will make every effort to deal reasonably and fairly with all students who, because of religious obligations, have conflicts with scheduled exams, assignments, or required attendance. Please let me know sometime during the first two weeks of class if one of your religious obligations prohibits you from attending class on a particular day or completing a particular assignment.

TITLE IX POLICY

Ohio Northern University does not discriminate or tolerate discrimination on the basis of sex, gender, transgender status, gender identity, or gender expression in its educational, extracurricular, or athletic programs, or in any admission or employment decisions. ONU is committed to promptly and equitably responding to all reports of sexual discrimination with the goal of eliminating the misconduct and/or harassment, preventing its recurrence, and addressing its effects on any individual or the community.

To report sexual misconduct (violence) or sexual harassment, students may contact:

- Title IX Coordinator, Nancy Sabol, (419) 772-2219, n-sabol@onu.edu
- Deputy Title IX Coordinator, LaShonda Gurley, (419) 772-3145, l-gurley@onu.edu
- Deputy Title IX Coordinator, Brian Hofman, (419) 772-1878, b-hofman@onu.edu

To confidentially discuss sexual misconduct (violence) or sexual harassment, students may contact University Confidential Resources:

- Counseling Center, (419) 772-2190
- Health Center, (419) 772-2086
- Chaplain, (419) 772-2200

For more information, the University's Sexual Discrimination Policy is available at www.onu.edu/title_IX.