

PHIL 432: Philosophy of Logic
University of Maryland, Baltimore County
Fall 2020

instructor. Lisa Cassell (“Lisa” or “Dr. Cassell” or “Prof. Cassell”, pronouns: she/her)

email. lcassell@umbc.edu

office hours. 2:45-3:45pm, Tuesdays and Thursdays, or by appointment, on Blackboard Collaborate

Functional Competency Satisfied by this Course: Critical Analysis and Reasoning

Course Description. This course looks at philosophical questions that arise when we think about logic as an object of study rather than as a system of symbols that we use. We will consider questions like: What is logical truth? How do we know the truths of logic? Is there more than one correct logic? What is the relation between logic and reasoning? We will explore extensions and alternatives to classical logic and use formal techniques to prove certain things about these logical systems.

Course Goals and Expectations. This course is an introduction to topics in the philosophy of logic. The first objective of this course is to provide an overview of some of the most pressing contemporary and historical problems in the philosophy of logic. The second objective of this course is to develop proficiency, both in evaluating deductive arguments in non-classical logics and in evaluating whether certain logical systems have certain formal properties. Thus it is expected that this course will provide both a strong theoretical background in the topic, as well as the practical skills required to evaluate deductive arguments and the systems that produce them.

COVID Notice. Due to the COVID pandemic, this course will be held online to allow us to maintain social distancing. For this class to work well, it will require a lot of flexibility, patience and empathy from all of us. Your engagement in this class is crucial for you to get the most out of it. However, these are challenging circumstances for everyone, so I will work with you on a case-by-case basis if you are unable to attend class for whatever reason. But please do keep me informed of any challenges you will have in attending class (slow internet connection, time zone issues, etc.) as soon as possible, so that we can settle on a plan together early in the term.

Please see **this Google doc** for UMBC Policies and Resources during COVID-19.

Prerequisite. PHIL 346 with a grade of ‘C’ or better, or permission of the instructor.

Course Readings. All of the readings for this course will be posted on Blackboard.

Meetings. This class will be conducted synchronously via Blackboard Collaborate on Tuesdays and Thursdays from 4:00-5:15.

Email and Website. This course has a Blackboard website. All of our course materials, including this syllabus, will be posted on Blackboard. It is therefore important that you check the course website regularly. As a UMBC student, you also have an email that ends in @umbc.edu, and some means to access it. You must check your email frequently. All official class communications concerning closures or other time sensitive matters will come to you via your official UMBC email address.

Course Requirements. Your grade will be determined from two papers, a set of bi-weekly homework assignments and your participation in class discussions. The midterm paper (due on March 23) will be

4-6 pages and the final paper (due on May 11) will be 8-10 pages. Here's what the grading breakdown ends up looking like:

1. Participation: 10%
2. Homework: 20%
3. Midterm Paper: 30%
4. Final Paper: 40%

Schedule. The following schedule is tentative and subject to change.

Tuesday, January 26-Thursday, January 28

Syllabus and Introduction

Tuesday, February 2-Thursday, February 4

The Conditional

Reading: An Introduction to Non-Classical Logic, Chapter 1

Tuesday, February 9-Thursday, February 11

Extensions of Classical Logic 1: Basic Modal Logic

Reading: An Introduction to Non-Classical Logic, Chapter 2

Tuesday, February 16-Thursday, February 18

Extensions of Classical Logic 2: Normal Modal Logic

Reading: An Introduction to Non-Classical Logic, Chapter 3

Tuesday, February 23-Thursday, February 25

Intro to Metalogic

Reading: Papineau, Chapter 10

Tuesday, March 2-Thursday, March 4

Soundness and Completeness

Reading: Papineau, Chapter 11

Tuesday, March 9-Thursday, March 11

Godel's Incompleteness Proofs

Reading: Papineau, Chapter 12

Tuesday, March 16-Thursday, March 18

SPRING BREAK

Tuesday, March 23-Thursday, March 25

Theories of Truth

Reading: Susan Haack, Philosophy of Logics, Chapter 7

Mid-term paper due

Tuesday, March 30-Thursday, April 1

The Semantic Paradoxes

Reading: Bradley Dowden, “The Liar Paradox”, Sections 1 and 2

Tuesday, April 6-Thursday, April 8

Alternatives to Classical Logic 1: Many-Valued Logics

Reading: An Introduction to Non-Classical Logic, Chapter 7

Tuesday, April 13-Thursday, April 15

Alternatives to Classical Logic 2: Logics with Gaps, Gluts and Worlds

Reading: An Introduction to Non-Classical Logic, Chapter 8

Tuesday, April 20-Thursday, April 22

Logic and Reasoning

Reading: John MacFarlane, “In What Sense (If Any) Is Logic Normative for Thought?”

Tuesday, April 27-Thursday, April 29

The Epistemology of Logic

Reading: Joshua Schechter, “The Reliability Challenge and the Epistemology of Logic”

Tuesday, May 4-Thursday, May 6

Conditionals and Modals in Practice

Reading: John MacFarlane and Niko Kolodny, “Ifs and Oughts”

Tuesday, May 11

Wrap-Up

Final paper due

Grade Complaints. I am happy to talk to you about your grade throughout the semester. If you are confused about why you received the grade that you did, or if you disagree with the grade that you received, then you should come see me during office hours, or schedule an appointment. There is, however, a procedure that you will be expected to follow. First, you are expected to read the comments, if any, that I have made on your work. Second, you are expected to write down either your questions or your complaints about your grade. Third, you are expected to email me those questions in advance.

Office Hours and Appointments. You are encouraged to make good use of my office hours. I am here to help you succeed in this course, and I am more than happy to review your lecture notes, to explain difficult material a second time (a third time, a fourth time, etc.), and to discuss any questions or insights that you may have. Though I won't spend my office hours going over things that you missed due to unexcused absences, a lot of the material that we cover in class is very difficult. Therefore, I fully expect that you will come to talk to me regularly during my office hours about stuff that you don't understand. If you are not available to meet during my office hours, I'm happy to arrange another time to meet with you. My office hours will take place on Blackboard Collaborate.

UMBC Statement of Values for Academic Integrity

By enrolling in this course, each student assumes the responsibilities of an active participant in UMBC's scholarly community in which everyone's academic work and behavior are held to the highest standards of honesty. Cheating, fabrication, plagiarism, and helping others to commit these acts are all forms of academic dishonesty, and they are wrong. Academic misconduct could result in disciplinary action that may include, but is not limited to, suspension or dismissal. To read the full Student Academic Conduct Policy, consult the [UMBC Student Handbook](#), or the [Office of Undergraduate Education](#).

Disclosures of Sexual Misconduct and Child Abuse or Neglect

As an instructor, I am considered a [Responsible Employee](#), per [UMBC's Policy on Prohibited Sexual Misconduct, Interpersonal Violence, and Other Related Misconduct](#) (located at <http://humanrelations.umbc.edu/sexual-misconduct/umbc-resource-page-for-sexual-misconduct-and-other-related-misconduct/>). While my goal is for you to be able to share information related to your life experiences through discussion and written work, I want to be transparent that as a Responsible Employee I am required to report disclosures of sexual assault, domestic violence, relationship violence, stalking, and/or gender-based harassment to the University's Title IX Coordinator.

As an instructor, I also have a mandatory obligation to report disclosures of or suspected instances of child abuse or neglect (www.usmh.usmd.edu/regents/bylaws/SectionVI/VI150.pdf).

The purpose of these reporting requirements is for the University to inform you of options, supports and resources; you will not be forced to file a report with the police. Further, you are able to receive supports and resources, even if you choose to not want any action taken. Please note that in certain situations, based on the nature of the disclosure, the University may need to take action.

If you need to speak with someone in confidence about an incident, UMBC has the following Confidential Resources available to support you:

The Counseling Center: 410-455-2472

University Health Services: 410-455-2542

(After-hours counseling and care available by calling campus police at 410-455-5555)

Other on-campus supports and resources:

The Women's Center, 410-455-2714

Title IX Coordinator, 410-455-1606

Additional on and off campus supports and resources can be found at: <http://humanrelations.umbc.edu/sexual-misconduct/gender-equitytitle-ix/>.

Student Disability Services (SDS)

UMBC is committed to eliminating discriminatory obstacles that may disadvantage students based on disability. Services for students with disabilities are provided for all students qualified under the Americans with Disabilities Act (ADA) of 1990, the ADAAA of 2009, and Section 504 of the Rehabilitation Act who request and are eligible for accommodations. The Office of Student Disability Services (SDS) is the UMBC department designated to coordinate accommodations that would allow students to have equal access and inclusion in all courses, programs, and activities at the University.

If you have a documented disability and need to request academic accommodations, please refer to the SDS website at sds.umbc.edu for registration information and to begin the process, or alternatively you may visit the SDS office in the Math/Psychology Building, Room 212. For questions or concerns, you may contact us through email at disAbility@umbc.edu or phone (410) 455-2459.

If you require accommodations for this class, make an appointment to meet with me to discuss your SDS-approved accommodations.