Critical Thinking - Fall 2025

Primary Instructor: Spencer Ivy Email: spencer.ivy@umsl.edu

Class Time/Location: Tuesday & Thursday 11am-12:15pm | Clark Hall 209

Office Hours: Via Zoom OR in person (always by appointment)

Office Location: Lucas Hall, 557

COURSE OUTCOMES

By the end of this course and successful completion of all course requirements, the student will be able to do all of the following:

- Be conversant in the basic deductive and inductive principles of logic
- Be equipped to identify, construct, and levy arguments in writing
- Be equipped to respectfully and critically engage with peers

COURSE MATERIALS

Reading: All readings will be available online in Canvas. <u>THERE IS NO TEXTBOOK FOR THIS CLASS.</u>

Canvas: Several homework assignments and assignments will be available through the canvas page ONLY. You are responsible for keeping up with the assignments that you choose to complete. Some assignments and discussions are liable to change, but there will always be ample prior notice given in the event of any changes.

Help: I am *always* available to you for help with class content and learning. Please feel welcome to email me any questions you have as they arise. I want to see you succeed and believe that it is my job to help you get there. Help me help you by letting me know when you need help.

Grading: Every point you earn is 1% of your grade. You may earn points in any number of ways – attendance, exams, discussion boards, reading-write-ups, and a term paper. No assignment is 'necessary' to complete or 'required.' You may choose to earn the grade you deserve however you like in the way that is best for you to learn and meet the course objectives. If you don't want to take a test, earn your grades elsewhere. If you don't want to or cannot attend any classes, complete other assignments. You are the author of your own grade – earn it well!

COURSE GRADING AND ASSIGNMENTS

To earn a 100% in the course, you must earn 100 total points. There are MANY ways to do this and you may 'choose your own grading adventure.' You may earn points by completing any of the tasks outlined below in any combination that you choose. Choose to complete assignments in whatever combination works best for you. All assignments will be graded, so you may not earn full points for just completion. You may only earn up to 50 points before the second exam. There are NO due dates for any assignment (except exams).

Attendance: Up to ~22 points (Contingent on class cancellations)

In Person Attendance: 1 point per class

- You may show up to class in person. If you do, you will earn the point (test days do not count)

Exams: Up to 105 points

How My Exams Work

Type 1 Test (Qual): One week before the exam is due, you will receive a handout with 4 prompts. Each of the prompts is about a paragraph worth of questions on a particular topic. You will be required to answer 3 of the 4 prompts. All three prompts must be answered for the test to be graded. You may email me any questions you have about the exam – both logistics and content. This may be done in person (bluebook) or remotely (word doc) depending on our first "Great Al Debate."

Type 2 Test (Quant): Show up to class and complete your exam. The exam is handed out at the beginning of the class period.

Exam: 35 points each

Discussion Board: Up to 40 points (5 points possible per board during relevant weeks – marked "D")

- Ask a Question About the Reading: up to 3 points
 - Up to 2 points for a well formulated question that expresses a genuine problem with the reading. Good questions earning all five points will be able to stimulate a discussion (think in the vicinity of 100+ words)
 - 1 EXTRA points for a well formulated response to an answer from another student.
 Robust and well-formulated responses will earn the point.
- Answer a Question: Up to 2 points
 - For a full 2 points, answer your classmate's question like a professor would with clarity and a full grasp of the reading & concepts in play. A good response will stimulate further conversation.
 - 1-point answers satisfy the original question but do not stimulate further conversation.

Homework Assignments: Up to 35 points (5 points possible per HW during relevant weeks – marked "H")

- These are logic-based assignments that you must complete and turn in, graded for accuracy.

Extra Credit: Up to 25 points - You may also write a 5-8 page paper on a topic of your choice. Topics must be approved by me before you begin writing. If you would like to pitch your own creative project for extra credit, I am willing to work with you on associated point values, outcomes, and expectations.

GRADING POLICY

Points translate to grades as follows:

95 and above = A

90-95 = A-

88-89 = B+

83-87 = B

80-82 = B-

78-79 = C+

73-77 = C

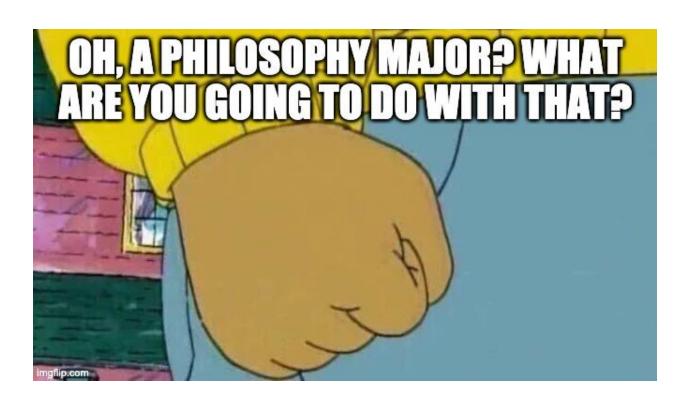
70-72 = C-

etc.

Below 60 = E

In this class, you'll learn the value of philosophy (and a major in it!) beyond just taking up space... like the meme on this page of the syllabus.

Philosophy majors score higher than any other category of study on *all* post-graduate exams (except the MCAT), and have a higher-than-average mean salary post-graduation.



Course Schedule

Unit 1: Certain Reasoning

Week 1:

Aug 26th – Syllabus day & introduction

- No reading

Aug 28th – The great AI debate!

No reading

Week 2:

Sept 2nd – What is an argument?; H

- Teller Ch1, pp. 1-4

Sept 4th – The Functions for Truth; H

- Teller Ch1, pp. 4-10 & Ch. 2

Week 3:

Sept 9th – Conditionals & Validity; H

- Teller Ch. 4

Sept 11th – More truth tables; H

- Teller Ch. 4

Week 4:

Sept 16th – Natural Deduction

- Teller Ch5, pp. 59-62

Sept 18th - More Natural Deduction; H

- Teller Ch5, pp. 59-62

Week 5:

Sept 23rd – TEST REVIEW DAY

Sept 25th – Test 1 (Quant)

Unit 2: Uncertain Reasoning

Week 6:

Sept 30th – What is a probability?; D

Probability reading 1

Oct 2nd – How to calculate basic probability; H

- Probability reading 2

Week 7:

Oct 7th – NO CLASS

NO READING

Oct 9th – More probability calculation; H

- Probability reading 2

Week 8:

Oct 14th – Game Theory; H

Hacking Ch. 9

Oct 16th - Dilemmas from Disagreement; D

- "October 14th podcast/video"

Week 9:

Oct 21st - Proofs for God's Existence; D

- Pascal's Wager + Anselm

Oct 23rd - FALL BREAK

Unit 3: Forms of Argument

Week 10:

Oct 28th - TEST REVIEW

- NO READING

Oct 30th - Test 2 (Qual)

Week 11:

Nov 4th – The Elenchus; D

Plato's Apology

Nov 6th – Foundations & Skepticism

Descartes Meditation 1

Week 12:

Nov 11th - Foundations & Skepticism

- Descartes' Meditation 2

Nov 13th – Reductio Ad Infinitum; D

- Hume's Problem of Induction

Week 13:

Nov 18th – Intuition Pumps & Thought Experiments;D

Jackson

Nov 20th – Test 3 (Qual)

Week 14:

Nov 25th - THANKSGIVING

Nov 27th - THANKSGIVING

Unit 4: How to argue (respectfully) with real people

Week 15:

Dec 2nd – How to have a constructive debate

No reading

Dec 4th – tbd

- tbd

Week 16:

Dec 9th – Final Review Session

Dec 11th Final (Cumulative Quant & Qual test)

COURSE POLICIES

<u>Attendance & Punctuality</u>: While attendance is not strictly mandatory, showing up can earn you points.

<u>Food & Drink</u>: If you bring drinks to class, please tidy up and be respectful of your classmates. Eating is not allowed in class.

<u>Electronic Devices in Class</u>: You may use a laptop or tablet to take notes on the lecture in class. Otherwise, no electronic devices may be used in class. If you use your laptop or tablet to check Facebook etc., play games or engage in other non-class activities you will be asked to turn those applications off. Repeat offenders will be asked to leave class.

Headphones: No headphones may be worn during the class period.

<u>Canvas</u>: All information about this class will be posted on Canvas. Please consult the class Canvas page regularly.

Note: This syllabus is meant to serve as an outline and guide for our course. Please note that I may modify it with reasonable notice to you. I may also modify the Course Schedule to accommodate the needs of our class. Any changes will be announced in class and posted on Canvas.