

Minds, Machines, and Logic
PHIL 477
Greg Ealick

Office: PAHB 464

Email: Ealick@umbc.edu

Telephone: 410-455-2010

Course Room #: PAHB 456

Office Hours: Monday 11-12, Tuesday 2:30-3:30

Functional Competency: Critical Analysis and Reasoning

Required reading: Links to all required readings can be found under “Course Links” on Blackboard.

Course Description:

Before we wondered about whether humans were really versions of computers, we worried about whether we were clockwork. Or maybe we were steam-powered statues. These questions have been around at least since the Roman Empire. There is an attraction to this view. If human minds really are just normal matter following complex instructions, then they seem to be fully understandable.

In this course we will discuss the case for the computational theory of mind, that is, the idea that a human mind is a device that translates experience into representations and then operates on those representations according to their mechanical properties.

Objections to this view include that the human mind is free in a way that purely physical systems can't be, that the human mind is intuitive in a way that can't be modeled mechanically, and that minds properly so-called require relationships to the world that no (merely) computational device could replicate.

In untangling these questions, we are going to need to ask specific questions about the nature of intentionality, the nature of representation, the limits of models, the possibility of meaningful self-reference, the nature of properties, the social dimension of meaning, and the ambiguity of rules. The larger purpose behind these questions, though, are at the very core of philosophy: what is a person? What kind of things deserve to be valued?

Course Goals and Expectations:

The goal of the course is to expose students to debates surrounding a central philosophical issue: the nature of minds. The course is also aimed at helping students hone their philosophical skills through reading professional articles, writing critical discussions of the articles, participating in class discussions, and writing essays. By the end of the course, students will be familiar with some of the central debates surrounding the nature of minds and be better able to critically analyze philosophical arguments.

The course will consist of a combination of lecture and discussion. One cannot learn philosophy well without participating in discussion. Therefore, students are expected to do the assigned reading before class, attend class, and participate in class discussion. I also strongly encourage you to make use of my office hours. If for some reason you cannot attend my scheduled office hours, appointments at other times can be arranged.

Methods of Evaluation:

There will be three writing projects as well as a final paper. Each writing project covers one of the three units of the course. Each of these projects is worth 20% of your final grade. The final paper is worth 40%. Writing projects for section one are due on 9 March. Those for section two are due on 6 April. Those for section three are due on 18 May. The final paper is due on 25 May.

Late Work: Unless you have a very good excuse (serious illness, death in the family, etc.) and you notify me before the assignment is due, late assignments will be graded down 1/3 of a letter grade for each day late. For example, if your work earns an A-, but you turn in the paper 1 day late, you will receive a B+.

Class Attendance and Participation: Class attendance and participation are required. One cannot learn philosophy well without participating in class discussion. Moreover, I will be presenting material in class that is not in the reading. If you miss a class, try to get another student's notes, and you are always welcome (and encouraged) to discuss the material with me. Students are allowed up to 2 unexcused absences. More than that will result in a reduction in your final grade by 1.5% per class missed.

Student Integrity:

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](#).

Disability Statement:

UMBC is committed to eliminating discriminatory obstacles that may disadvantage students based on disability. Student Support Services (SSS) is the UMBC department designated to:

- receive and maintain confidential files of disability-related documentation,
- certify eligibility for services,
- determine reasonable accommodations,
- develop with each student plans for the provision of such accommodations, and
- serve as a liaison between faculty members and students regarding disability-related issues.

If you have a disability and want to request accommodations, contact SSS in the Math/Psych Building, Room 213 or Academic IV-B wing Room 345 (or call 410-455-2459 or 410-455-3250). SSS will require you to provide appropriate documentation of disability and complete a Request for Services form available at <http://my.umbc.edu/groups/sss>. If you require accommodations for this class, make an appointment to meet with me to discuss your SSS-approved accommodations.

Schedule: (Subject to Revision)

Week 1 29 January	Introduction No required reading
Week 2 5 February	Unit 1 Sterelney. A Functionalist Theory of Mind.
Week 3 12 February	Unit 1 (continued) Sterelney. Representation and Computation.
Week 4 19 February	Unit 1 (continued) Sterelney. Representation, Computation, and Implementation
Week 5 26 February	Unit 1 (continued) Lewis. Mad Pain and Martian Pain.
Week 6 5 March	Unit 2 Rucker. Robots and Souls.
Week 7 12 March	Unit 2 (continued) Searle. The Chinese Room.
19 March	Spring break No required reading
Week 8 26 March	Unit 2 (continued) Sterelney. Explaining Intelligence.
Week 9 2 April	Unit 2 (continued) McGinn. Consciousness and Content.

Week 10 9 April	Unit 3 Bolander. Self-Reference and Logic.
Week 11 16 April	Unit 3 (continued) Rucker. Goedel's Incompleteness Theorems.
Week 12 23 April	Unit 3 (continued) Megill. The Lucas-Penrose Argument About Goedel's Theorem.
Week 13 30 April	Unit 3 (continued) Bedau. Artificial Life.
Week 14 7 May	Unit 3 (continued) Anderson. Embodied Cognition: A Field Guide.
Week 15 14 May	Conclusions No required reading