

## UMBC UGC Instructions for New Course Request Form (revised 4/2016)

**Course number & title:** Enter the number and title of the course at the top of the page. Contact the Registrar's Office to confirm that the desired course number is available.

**Date submitted:** The date that the form will be submitted to the UGC.

**Effective date:** The semester the new course is in effect, if approved.

**Contact information:** Provide the contact information of the Chair or UPD of the department or program housing the course. If the course is not housed in a department or program, then provide the same information for the head of the appropriate academic unit. (See UGC Procedures) If another faculty member should also be contacted for questions about the request and be notified about UGC actions on the request, include that person's contact information on the second line.

**Course number:** For cross-listed courses, provide all the numbers for the new course.

**Transcript title:** Limited to 30 characters, including spaces.

**Recommended Course Preparation:** *Please note that all 300 and 400 level courses should have either recommended course preparation(s) or prerequisite(s) and that 100 or 200 level courses may have them.*

Here fill in what previous course(s) a student should have taken to succeed in the course. These recommendations will NOT be enforced by the registration system. Please explain your choices in the "rationale" (discussed below).

**Prerequisite:** *Please note that all 300 and 400 level courses should have either recommended course preparation(s) or prerequisite(s)* Here fill in course(s) students need to have taken before they enroll in this course. These prerequisites will be enforced through the registration system. Please explain your choices in the "rationale" (discussed below).

**NOTE:** Please use the words "AND" and "OR", along with parentheses as appropriate, in the lists of prerequisites and recommended preparation so that the requirements specified will be interpreted unambiguously.

**NOTE:** Unless otherwise indicated, a prerequisite is assumed to be passed with a "D" or better.

**# of credits:** To determine the appropriate number of credits to assign to a course please refer to the [UMBC Credit Hour Policy](#) which articulates the standards for assignment and application of credit hours to all courses and programs of study at UMBC regardless of degree level, teaching and learning formats, and mode of instruction.

**Maximum total credits:** This should be equal to the number of credits for courses that cannot be repeated for credit. For courses that may be repeated for credit, enter the maximum total number of credits a student can receive from this course. E.g., enter 6 credits for a 3 credit course that may be taken a second time for credit, but not for a third time. Please note that this does NOT refer to how many times a class may be retaken for a higher grade.

**Grading method(s):** Check all that apply.

**Proposed catalog description:** Provide the exact wording of the course description as it will appear in the next undergraduate catalog. Course proposals should be a) no longer than 75 words, b) stated in declarative sentences in language accessible to students, and c) avoid reference to specific details that may not always pertain (e.g., dates, events, etc.). Course descriptions should not repeat information about prerequisites (which are always listed alongside the course description)."

**Rationale:** Please explain the following:

- a) Why is there a need for this course at this time?
- b) How often is the course likely to be taught?
- c) How does this course fit into your department's curriculum?
- d) What primary student population will the course serve?
- e) Why is the course offered at the level (ie. 100, 200, 300, or 400 level) chosen?
- f) Explain the appropriateness of the recommended course preparation(s) and prerequisite(s).
- g) Explain the reasoning behind the P/F or regular grading method.
- h) Provide a justification for the repeatability of the course.

**Cross-listed courses:** Requests to create cross-listed courses must be accompanied by letters of support via email from all involved department chairs. Proposals for new courses or the addition of a cross-listing to an existing course must include as a part of the rationale the specific reason why cross-listing is appropriate. Email from all involved department chairs is also required when cross-listing is removed and when a cross-listed course is discontinued. Please note that Special Topics courses cannot be cross-listed.

**Course Outline:** Provide a syllabus with main topics and a weekly assignment schedule which includes complete citations for readings with page numbers as appropriate. Explain how students' knowledge and skills will be assessed.

*Note: the UGC form is a Microsoft Word form. You should be able to enter most of the information by tabbing through the fields. The document is protected. In the rare case that you need to unprotect the document, use the password 'ugcform'. Beware that you will lose all the data entered in the form's fields if you unlock and lock the document.*

**UMBC UGC New Course Request: PHIL 477: Minds, Machines, and Logic**

Date Submitted: 11/27/17

Proposed Effective Date: immediately

	Name	Email	Phone	Dept
Dept Chair or UPD	Steve Yalowitz	yalowitz@umbc.edu	52108	Philosophy
Other Contact	Nafi Shahegh	shahegh@umbc.edu	52103	Philosophy

**COURSE INFORMATION:**

Course Number(s)	PHIL 477
Formal Title	Minds, Machines, and Logic
Transcript Title (≤30c)	Minds, Machines, and Logic
Recommended Course Preparation	One 300 level course in philosophy, especially PHIL 371, PHIL 373, PHIL 380
Prerequisite <small>NOTE: Unless otherwise indicated, a prerequisite is assumed to be passed with a "D" or better.</small>	One course in philosophy with a grade of C or better
# of Credits <small>Must adhere to the UMBC Credit Hour Policy</small>	3
Repeatable?	<input type="checkbox"/> Yes <input type="checkbox"/> NoX
Max. Total Credits	3 <small>This should be equal to the number of credits for courses that cannot be repeated for credit. For courses that may be repeated for credit, enter the maximum total number of credits a student can receive from this course. E.g., enter 6 credits for a 3 credit course that may be taken a second time for credit, but not for a third time. Please note that this does NOT refer to how many times a class may be retaken for a higher grade.</small>
Grading Method(s)	<input type="checkbox"/> XReg (A-F) <input type="checkbox"/> XAudit <input type="checkbox"/> XPass-Fail

**PROPOSED CATALOG DESCRIPTION (no longer than 75 words):**

This course looks closely at the computational theory of mind, which holds that the human mind is a mechanical device that translates experience into representations and then operates on these representations according to their mechanical properties in order to produce thought and behavior. Topics to be considered in evaluating this theory include: the nature of intentionality and representation, the nature and limits of models, the coherence of self-reference, the ambiguity of rules, and the social dimension of concepts.

**RATIONALE FOR NEW COURSE:**

Mr. Greg Ealick has taught this course as a special topics course under PHIL 498: Advanced Topics in Philosophy, numerous times. The course enrolls to capacity and Mr. Ealick plans to continue teaching it as part of his regular rotation of courses, every two years. It therefore makes sense to have it as a regular course in the catalog. The course is intended for philosophy majors or those with background in philosophy, and is to be offered at our most advanced level. It will go towards fulfilling the philosophy major requirement of two 400 level courses. Because of the advanced level of the topic, we want it to be taught at the 400 level, with the enrollment capped at 20 students, to allow for high level discussion and attract students with adequate background in philosophy. The recommended course preparations listed are our 300 level survey courses in Metaphysics (PHIL 371), Epistemology (PHIL 373), and Philosophy of Mind (380), all of which will provide good background for PHIL 477. As with all our courses, we want students to have the option of auditing, taking P/F or for a grade.

**ATTACH COURSE OUTLINE (mandatory):**

See attached syllabus

## **Minds, Machines, and Logic**

**PHIL 477**

Greg Ealick

**Office:** PAHB 464

**Telephone:** 410-455-2010

**Email:** ealick@umbc.edu

**Course Room #:** PAHB 456

**Office hours:** Monday, 11:00 – 12:00, 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:**

This course looks closely at the computational theory of mind, which holds that the human mind is a mechanical device that translates experience into representations and then operates on these representations according to their mechanical properties in order to produce thought and behavior. Topics to be considered in evaluating this theory include: the nature of intentionality and representation, the nature and limits of models, the coherence of self-reference, the ambiguity of rules, and the social dimension of concepts.

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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.

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 Unit 1 are due on March 9th. Those for Unit 2 are due on April 6th. Those for section three are due on May 4th. The final paper is due on May 18th. Instructions for each assignment will be distributed roughly 10 days before the due date.

Full instructions for and samples of each of the writing projects are available on Blackboard. The expectation is that the short writing projects will run approximately 700 – 1200 words in length. Each is divided into three sections. The first two sections are something like a take-home exam, with specific questions calling for journalistically accurate responses. The third question is critical, calling for your personal (though well-defended) judgment. The final paper will run longer, about 1500 words. It will be in form much like the shorter projects, with a journalistic bit and a critical bit. The difference is that you (in consultation with me) will decide what question to address in section one.

**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 writing project 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.

I reserve the right to make changes to the course as the needs of the class dictate (for instance, unusually high rates of poor preparation might be addressed with the addition of pop quizzes). Any such changes will be documented in writing 48 hours before going into effect.

**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. Students Disability Services (SDS) 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 SDS in the Math/Psych Building, Room 212 (or call 410-455-2459). SDS will require you to provide appropriate documentation of disability and complete a Request for Services form available at <https://sds.umbc.edu/>. If you require accommodations for this class, make an appointment to meet with me to discuss your SDS-approved accommodations.

**Reading Schedule: (Subject to Revision)****Week 1 Introduction**

January 29: No required reading

**UNIT 1: MINDS****Week 2**

February 5: Sterelney. A Functionalist Theory of Mind. In Sterelney *The Representational Theory of Mind: An Introduction* pp 1 - 18

**Week 3**

February 12: Sterelney. Representation and Computation. In Sterelney *The Representational Theory of Mind: An Introduction* pp 19 - 41

**Week 4**

February 19: Sterelney. Representation, Computation, and Implementation. In Sterelney *The Representational Theory of Mind: An Introduction* pp 42 - 61

**Week 5**

February 26: Lewis. Mad Pain and Martian Pain. In Block *Readings in the Philosophy of Psychology* pp 216 – 222

**First Assignment Distributed****UNIT 2: MACHINES****Week 6**

March 5: Rucker. Robots and Souls. In Rucker, *Infinity and the Mind* pp 157 - 189

**First Assignment Due March 9****Week 7**

March 12: Searle. Can Computers Think? In Chalmers *Philosophy of Mind: Classical and Contemporary Readings* pp 669 - 675

March 19: Spring Break

**Week 8**

March 26: Sterelney. Explaining Intelligence. In Sterelney *The Representational Theory of Mind: An Introduction* pp 217 - 235

**Second Assignment Distributed****UNIT 3: LOGIC****Week 9**

April 2: Bolander. Self Reference. In Bolander, Hendricks and Pedersen *Self Reference* pp 1 - 25

**Second Assignment Due April 6th**

Week 10

April 9: French. Structural Reflexivity and the Paradoxes of Self Reference. In Huber and Weisberg *Ergo* 3:5 pp 2 - 14

Week 11

April 16: Rucker. Goedel's Incompleteness Theorems. In Rucker, *Infinity and the Mind* pp 267 - 292

Week 12

April 23: Kerber. Why is the Lucas-Penrose Argument Invalid? In Furbach *Advances in Artificial Intelligence* pp 380 - 393

**Third Assignment Distributed**

Week 13

April 30: Bedau. Artificial Life. In Gabbay, Thagard, and Woods (series eds), and Matthen and Stephens (volume eds) *Handbook of the Philosophy of Science, vol. 3: The Philosophy of Biology* pp 595 – 613.

**Third Assignment Due May 4**

Week 14

May 7: Anderson. Embodied Cognition: A Field Guide. In Dechter and Doherty, *Artificial Intelligence* pp 91 - 130

**Final Paper Assignment Distributed**

**CONCLUSIONS:**

Week 15

May 14: No required reading

**Final Paper Due May 18**