Neuroscience and the Mind 2014/2015

AIMS

This course will encourage students to think critically about the relationship between neuroscience and the philosophy of mind. Students will be challenged to draw connections between empirical findings and both traditional philosophical questions and theoretical questions within the brain sciences. We will focus on evidence that illuminates and challenges our pre-theoretic notions of the mind and findings that fall short of their claims to shed light on such notions.

Topics will be broken into 4 sections. In the first two sections of the course, students will be introduced to the mind-body problem. We will begin with Descartes’ Meditations and go on to discuss various theories that attempt to characterize the relationship between the mind and the body. Students will become familiar with dualism, identity theory, functionalism, eliminative materialism, embodied cognition, and the problems and objections associated with each. We will also cover the hard problem of consciousness. We will explore if and why consciousness’s subjective, qualitative, first-person character raises special obstacles to constructing an adequate scientific account of the mind.

In the third section, we will address how neuroscientific findings are related to the question of free will and responsibility. We will begin by covering classical, philosophical theories of freedom. We will then go on to discuss empirical findings that have been proposed as challenges to the existence of free will. We will close with various philosophical responses to the empirical evidence.

In the fourth section, we will turn our attention to Theory of Mind (ToM) or our capacity to ascribe, explain and predict the mental states of others. We will cover Theory-theory, Simulation Theory and consider the relationship between these theories and mirror neurons and autism.

Lecturer:
Dr. Ellen Fridland
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Wednesday 11:00-12:00
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SKILLS MATRIX

This course will consist of weekly, 1-hour lectures followed by weekly, 1-hour discussion sections.
Lecture

Reading skills:

Students will be expected to complete all required reading prior to the lecture. Students will become critical readers by developing the ability to present, in a clear and concise fashion, the main argument or position of a text. Students will also learn to raise substantive challenges and objections to those arguments.

Comprehension Skills:

In Lecture, students will be expected to follow the structure and significance of philosophical arguments and objections. Students will learn to grasp the general outlines of various theoretical issues and relate them to particular research questions and paradigms in the empirical, brain sciences. Students will learn to make conceptual connections between various theoretical positions.

Discussion Sections

Writing Skills:

In discussion sections, students will learn to compose written arguments in a concise, informative, effective manner. They will also learn how to raise substantive challenges and objections in writing. They will do this through their weekly reading card assignment. Further, students will have the opportunity to write two summative essays, each of which will be preceded by a formative essay. These essays will serve to develop students’ ability to assess various material and considerations as relevant, to write a concise exegesis of a position, to formulate their own arguments, and to evaluate evidence both for and against their position. Students will learn to revise and re-work essays based on the feedback given on their formative papers.

Communication Skills:

Students will be expected to participate in discussions. Students will be asked to communicate the theoretical complexities and implications of the issues being discussed, weigh evidence for and against a position, and make connections to other relevant course topics. Students will be expected to answer questions about the particular arguments made in the required reading and to raise challenges to the reading. Students will also be encouraged to come up with their own positions, considerations, and objections. Students will be asked to consult and present their weekly reading cards in discussion sections throughout the semesters.

**Taken together, these skills will enable students to think and argue in a critical, analytic, clear, concise, and effective manner.**
LEARNING OUTCOMES

- Students will be able to describe and discuss philosophical approaches to a variety of topics raised in contemporary debates about the mind.
- Students will learn to appreciate the significance of neuroscientific and psychological approaches to understanding philosophical problems.
- Students will gain an understanding of the relationship between particular empirical findings in neuroscience and relevant philosophical questions.
- Students will be able to construct and reconstruct philosophical arguments.
- Students will be able to assess philosophical arguments for validity and soundness.
- Students will learn to raise and answer objections to philosophical arguments.
- Students will become familiar with various theories that attempt to solve the mind-body problem and the challenges associated with each of them.
- Students will come to understand why consciousness is thought to be a problem for a scientific theory of the mind.
- Students will gain an understanding of the philosophical problem of free will and its connection to neuroscience.
- Students will gain an understanding of the problem of other minds and how solving this problem is connected to evidence from neuroscience and psychology.

ASSESSMENT

Final Grades will be determined as follows:

Final Exam: 70%
2 x 1500-word Summative Essays: 20%
Reading Cards and Discussion: 10%

Formative Work:
2 1000-word essays in preparation for Summative Essays
2 500-word essays in preparation for the Final Exam

Final Exam: The final exam will consist in a choice of 12 essay questions, three of which must be answered. The exam is unseen and will last for three hours. Each essay will be worth 33 points and the final exam grade will be calculated as the sum of the points. Example questions will be made available throughout the semester. Students are given the opportunity to write two 500-word
practice essays as formative work in preparation for the exam. Detailed feedback will be given on the formative essays.

**Summative Essays:** Students are required to write two 1500-word essays. For each essay, students can choose between various topics (see below). Essays will be assessed for a clear argumentative structure, concise exegesis of relevant reading, relevance and strength of the evidence/justification supporting the argument, capacity to anticipate and address possible objections, and originality. Grammar and style will also be taken into account. Essays should be formatted as follows: double spaced, 12-point font, 1-inch margins. Please use MS Word and submit as either a .doc or .docx document. Please include a [coversheet](#). Submit through KEATS no later than noon on the due date. Students will have the opportunity to write a 1000-word formative essay in preparation for each of the summative essays. Detailed feedback will be provided.

**Reading Cards and Discussion:** Reading cards are short writing assignments that encourage students to read critically, help the instructor to gauge student progress, and provide a common ground for discussions. Reading cards should consist of: (1) Student’s name, (2) Date, (3) Title of text, (4) 3-5 sentences summarizing the main argument of the text, and (5) 1 question or objection. Reading Cards should be NO LONGER than 1 page. Two times during the year, students can pass on a reading card without excuse. Reading cards are due in discussion sections on the day that the reading is covered and will not be accepted late. Reading Cards will be graded as pass/fail. Students will regularly be asked to present parts of their Reading Cards in discussion sections.

**TIMETABLE**

Lecture: Fridays from 12:00-13:00 in STD/ K4U.12 (KINGS BLDG)

Discussion Section 1: Friday from 14:00-15:00 in STD/ S3.31 (STRAND BLDG)

Discussion Section 2: Fridays from 15:00-16:00 in STD/ S3.31 (STRAND BLDG)

Discussion Section 3: Fridays from 16:00-17:00 in STD/ K-1.14 (KINGS BLDG)

**Important Dates and Deadlines**

Formative Essay 1 Due: October 31, 2014
Summative Essay 1 Due: December 11, 2014
Formative Essay 2 Due: February 20, 2015
**Summative Essay 2 Due: April 8, 2015** [note change from 2nd April as agreed 23.01.2015]
Formative Exam Essays Due: TBA
Final Exam: TBA
Attendance and Punctuality

Attendance at lectures and discussion sections is VERY important. Doing well in a philosophy course takes considerable effort, especially for students who have done little or no philosophy before. The kind of expectations for thinking and writing in a philosophy course are different than in most other classes. To understand the standards and expectations, students need to be present, attentive, and engaged. Learning to think philosophically is not just memorizing course content. Lecture notes and slides will be circulated but these can easily be misunderstood. Lecture notes cannot serve as a substitute for attendance—they are supplemental materials. Attending lectures and discussions will result in higher grades and a more satisfying overall experience. Please note that, as always, students are expected to show up to classes on time, to be respectful to instructors and fellow students, and welcoming to visiting lecturers.

Mitigating Circumstances

It is very important that students communicate any problems or difficulties that they are having with the course as early as possible. Students are encouraged to attend office hours. In the case of emergencies, illness, or other mitigating circumstances, please inform the lecturer as soon as possible. Study can often be stressful, anxiety-provoking, and overwhelming. For help dealing with stress and anxiety, students are encouraged to consult KCL Counseling Service.

Private Study Time/Learning Strategies

Students are expected to do all required reading prior to lecture. Reading philosophy is often difficult. When reading, students should highlight important passages and make notes when a premise or argument is unclear. Students should also make a habit of writing down questions and objections to the arguments that they are reading. “Further readings” are suggested for each lecture topic. Students are not required but are most certainly encouraged to read beyond the required materials. These additional readings will help students to gain a broader and deeper understanding of the issues covered in lecture. Students should make use of the materials listed as “further reading” when writing essays on related topics.

Students should review lecture notes and view slides in order to identify which aspects of a reading are most important to learn and understand for the course.

After lecture and discussion sections, students should take note of the issues that they find most interesting and/or confusing. Students are encouraged to consult additional materials (e.g., the further readings, and other online resources (see below)) and especially, the Stanford
Encyclopedia of Philosophy, to facilitate comprehension and conceptual development. Students are also encouraged to attend office hours and email the instructor or GTA with questions.

Students should always approach writing in stages. Do not sit down to write a final draft without going through a pre-writing process. See here for more on the stages of writing. Students are encouraged to contact the English Language Centre for academic help and support. See below for further details and advice about writing philosophical essays.

Students should develop good study habits. It is important to find a good place to read and write: somewhere that is conducive to concentration. Students may find that the space where they read well and where they write well are different. Students may also find that turning off the internet and putting away their phones, tablets, etc. will help them to pay attention and concentrate better. Students are encouraged to form study groups and to discuss course content and essay topics with their fellow students.

### Guidelines For In-Course Assessment

**FINAL EXAM:** The final exam will consist in a choice of 12 essay questions, three of which must be answered. The exam is unseen and will last for three hours. Each essay will be worth 33 points and the final exam grade will be calculated as the sum of the points. Example questions will be made available throughout the semester. Students are given the opportunity to write two 500-word practice essays as formative work in preparation for the exam. Detailed feedback will be given on the formative essays.

Essays will be evaluated based on the following criteria:

1. Does the essay answer the question?
2. Does the essay have a clear thesis?
3. Does the essay demonstrate a comprehensive grasp of the course material?
4. Is the essay well-structured/ are the ideas well-organized?
5. Do the reasons/considerations offered support the thesis?
6. Does the essay include relevant considerations?
7. Does the essay draw connections to other relevant course issues/topics?
8. Is the essay grammatical?

A good essay answers the question posed, presents a clear thesis, provides relevant reasons or considerations in support of that thesis, has a well-structured, logical progression and is easy to read. Remember that you are presenting an argument! Think about how to make this argument as clear and convincing as possible.
When writing essays for an exam, be sure to organize your time properly. Don’t just start writing! Break your time into stages. (1) Begin by reading the question carefully. (2) Take time for pre-writing: (i) THINK ABOUT THE QUESTION, (ii) formulate a thesis, (iii) craft an outline, which clearly indicates the reasons/justification/evidence that you will present in support of your thesis. (3) Write the essay, and (4) Proofread.

Importantly, to prepare: PRACTICE. Practice with example essay questions. Practice with your formative work. Don’t just memorize course material. THINK about it.

For advice on how to write an essay for an exam, see here and here and here.

ESSAYS:

Formative Essays: Students are given the opportunity to write two 1000-word essays in preparation for their Summative Essays. For each essay, students can choose between various topics (see below). Students should choose a topic that they find interesting, manageable, and about which they can say something substantive. Before deciding on the main argument of their essays, students should (i) look over their lecture notes, (ii) review primary course readings and (iii) consult the “further reading” list for the relevant topic. (iv) (Re-)read the relevant materials, taking notes that can be consulted later in the writing process. Before writing, students should take the time to brainstorm. Brainstorming can often include free-writing, which can help students to explore ideas and begin to form the shape of their argument. Next, students should write a thesis statement. This is a one or two sentence statement clearly articulating what the main argument of the essay will be. After writing a clear, concise thesis statement, students should produce an outline of their essay. The outline should indicate clearly what the structure of the essay will be. Be precise about how each part of the essay supports the main argument. In the outline, indicate which sources you will use where. Only after you have constructed a structured outline, should you begin to write. The last stage of writing is proofreading. Proofread for substance and style. Make sure that every section of your essay has a clear and proprietary task that contributes to the main argument of your essay. Make sure that every paragraph in every section has a clear and proprietary task, which contributes to the goal of that section. Make sure every sentence in every paragraph has a clear and proprietary task, which contributes to the goal of the paragraph. Do not be coy about saying clearly what you are arguing. This is not a mystery novel. Ask a fellow student to read your paper before handing it in to ensure that your argument is clear and cogent.

Avoid merely summarizing papers and/or lecture notes. The goal of the essay is to construct an original and thought-provoking argument. Summarize the main argument or problem briefly, and use the rest of the essay to critically assess this argument and present your own views. You don’t have to think of a brand new theory to be original – e.g., presenting a particular author’s views, then discussing how you think other material you have read is relevant to those issues, counts as original thought and can score very high marks.
It doesn’t matter that I agree with you– all I care about is how convincingly you are able to argue. It’s not what you think that matters, it’s why you think it. Always read questions carefully, and justify your answers as fully as you can. Don’t try to solve all the problems of philosophy in one essay. The less you attempt to do, the more likely you are to succeed. For further information and advice, please consult James Pryor’s excellent (2001) ‘Guidelines on Writing a Philosophy Paper,’ [available here.] You should not treat this guide as optional reading – it will be extremely useful to you as science students, and everyone should read it before beginning to write their essays.

Formative essays should be formatted as follows: double spaced, 12-point font (Times New Roman, Arial, Cambria, or Calibri), 1-inch margins. Please use MS Word and submit as either a .doc or.docx document. Please include a coversheet. Submit by email to your GTA Daniel Harris (daniel.1.harris@kcl.ac.uk) no later than 5 pm on the date on which they are due. FORMATIVE ESSAY 1 IS DUE ON October 31, 2014. FORMATIVE ESSAY 2 IS DUE ON FEBRUARY 20. LATE ESSAYS WILL NOT BE ACCEPTED.

Remember: Essays will be assessed for a clear argumentative structure, concise exegesis of relevant reading, relevance and strength of the evidence/justification supporting the argument, capacity to anticipate and address possible objections, and originality. Grammar and style will also be taken into account.

OVERVIEW:

Writing should be broken down into stages:

1. Pre-reading
2. Brainstorming
3. Thesis Statement
4. Outline
5. Draft
6. Proofread

For more on the writing process, see the Purdue OWL.

For more on writing a philosophy paper, see Guidelines on Writing a Philosophy Paper. See also advice on writing Argument Papers from OWL.

Please be sure to cite all materials using APA style. For guidelines on how to cite properly in APA Style, see here. Also, see note on plagiarism below.

Summative Essays: Students are required to write two 1500-word essays. For each essay, students can choose between various topics (see below). Summative essays build on the formative essays. See discussion above for detailed advice about how to write a philosophical essay. The final essay
is an opportunity to revise and rework the ideas and arguments that you’ve already crafted and on which you have already received feedback. Students should be sure to integrate feedback from their formative work into their summative essays. The final essays are 500-words longer than the formative essays so that students have the space to incorporate substantive changes into their papers. Students should email their GTA or me if they have specific questions or concerns about the feedback and/or suggestions.

Essays will be assessed for a clear argumentative structure, concise exegesis of relevant reading, relevance and strength of the evidence/justification supporting the argument, capacity to anticipate and address possible objections, and originality. Grammar and style will also be taken into account.

Summative essays should be formatted as follows: double spaced, 12-point font (Times New Roman, Arial, Cambria, or Calibri), 1-inch margins. Please use MS Word and submit as either a .doc or .docx document. Please include a coversheet. Submit through KEATS no later than noon on the date they are due. **SUMMATIVE ESSAY 1 IS DUE ON DECEMBER 11, 2014. SUMMATIVE ESSAY 2 IS DUE ON APRIL 8, 2015 [note change]. LATE ESSAYS WILL BE ACCEPTED UP TO 24 HRS LATE BUT GRADES WILL BE CAPPED.**

**Reading Cards:** Reading cards are short writing assignments that encourage students to read critically, help the instructor to gauge student progress, and provide a common ground for discussions. Reading cards should consist of: (1) Student’s name, (2) Date, (3) Title of text, (4) 3-5 sentences summarizing the main argument of the text, and (5) 1 question or objection. Reading Cards should be NO LONGER than 1 page. Students can pass on two reading cards without excuse. Reading cards are due in discussion sections on the day that the reading is covered and will not be accepted late. Reading Cards will be graded as pass/fail. Students will regularly be asked to present parts of their Reading Cards in discussion sections.

Your reading card starts with your reading. As you read, jot down the main argument of the text and the evidence that is presented in support of the main argument. Often, philosophers will clearly state what their main argument is. Do not ignore this statement. Also, regularly, a main argument will be supported by other sub-arguments. Take note of what they are and how they are related to the main point. Further, take note of objections and questions that come up during your reading.

After reading, sit down to write your reading card. Be as clear and concise as possible. Learning to state what someone is arguing in just a few sentences is a skill. It may take you a while to figure out how to frame a philosophical position succinctly. This is good. You should struggle with this. Also, if you can, try to raise an objection to the reading. **Even if you agree with the general position,** try to see where problems might arise and what kinds of considerations might count against the position. Challenge yourself. Remember that you will be asked to discuss your reading card in class.
If more than one reading is assigned for a particular lecture, you are free to choose the text on which to focus your reading card.

**Marking Criteria**

http://www.kcl.ac.uk/artshums/study/handbook/sguides/assessment/ugmarkcrit.pdf

Marking criteria broken down into more detail:

See KEATS course page: Module Assessment/ Philosophy Paper Grading Rubric

**Essay Topics**

Students should choose one of the following essay topics, construct a thesis, develop an argument, and defend their position with evidence/reasons/justifications for each of their essays:

**Essay Topics for Formative and Summative Essay 1**

1. Descartes claims that “I” am a thinking thing and not a physical thing. Develop one objection to Descartes’ argument and evaluate the strengths and weaknesses of your own objection.

2. Develop one response to *either* the functionalist or Kripkean objection to identity theory. Assess the strengths and weaknesses of your response.

3. Inverted qualia and zombies prove that functionalism is false. Develop this position and argue for it or against it.

4. The body and the world play an important role in understanding the mind. Discuss at least two ways in which this statement is true or false and consider how such an approach challenges materialism *or* functionalism.

5. Phenomenal consciousness makes a satisfactory scientific theory of consciousness impossible. Argue for or against this position.

**Essay Topics for Formative and Summative Essay 2** [updated 01.02.2015]

1. “Determinism seems like it is incompatible with free will because the nature of determinism is often misunderstood.” Defend this statement or raise objections to show that it is mistaken.

2. Can we act freely even if we could not have done otherwise? Discuss.
3. “Neuroscience has proven that free will is an illusion.” Defend this position or respond to it.

4. The way that we acquire knowledge of other minds is integrally related to the way that we acquire knowledge of our own mind. Argue for or against this position.

5. Mirror Neurons are strong evidence favoring simulation theory. Defend this position or develop a case against it.

**Example exam essay questions for the two 500-word formative essays will be distributed later in the course.**

**Plagiarism Policy**

Plagiarism is the act of taking someone else's words or ideas and passing them off as one's own, intentionally or unintentionally. Students must develop good note-taking and writing habits to ensure that they do not plagiarize. For tips on how to avoid plagiarism see here.

**School Advice on Plagiarism**

You should already be aware of King's regulations on plagiarism and collusion and the penalties that may be imposed should you fall foul of them. If you need reminding please see http://www.kcl.ac.uk/college/policyzone/assets/files/assessment/Academic_Honesty_Integrity.pdf

In order to help you learn about plagiarism and how to avoid it, King’s provides you with a learning resource on KEATS (the King’s E-learning and Teaching Service) that gives advice on writing in the correct style and citing references. The resource also allows you to check your work using Turnitin (on line plagiarism detection software) before you submit it for assessment. Work submitted to Turnitin via the KEATS resource is not seen by tutors, and it is not stored in the Turnitin database, so using this facility will not trigger a match with the work you finally submit for assessment. You can submit work for checking via this facility as many times as you like, but you will only receive one originality report every 24 hours i.e. if you submit your work, revise it and then resubmit it one hour later, you will have to wait 24 hours to receive the report on your second submission.

When using the KEATS resource, please note the following:

1) Examiners never rely solely on Turnitin to determine whether an assignment is plagiarised. They will always use academic judgement. All that Turnitin does is flag up possible issues with a student’s approach to written work, and you should use it appropriately in order to develop your writing skills and your own academic judgement. Following the advice below should help you.

   a. Make use of the teaching element of the KEATS resource (preferably before you start your assignment) as well as the Turnitin facility.
b. When using *Turnitin*, do not over-focus on a numerical originality score. Look at the full report. A piece of work that gives a low score may contain plagiarised sections if blocks of text (even small ones) are exact matches to external sources, while work that gives a higher score may not be plagiarised if it contains a high proportion of technical terms that cannot be rephrased.

c. An essay or dissertation that too closely follows the structure of one or two review articles is not an original piece of work, even if the wording has been paraphrased so as to give a low *Turnitin* score. Even though it may not be detected via *Turnitin*, this form of plagiarism can be spotted by experienced examiners.

d. If you are in doubt about your *Turnitin* report or have any other questions about plagiarism and collusion SEEK ADVICE. People you can speak to are: module organisers and tutors, your personal tutor or the Senior Tutor or Examination Programme Board Chair for your programme. The names of Senior Tutors and Programme Board Chairs can be found in the School Undergraduate Handbook, which is available on the Virtual Campus.

e. Other useful advice is available at: [http://www.kcl.ac.uk/library/help/plagiarism/index.aspx](http://www.kcl.ac.uk/library/help/plagiarism/index.aspx)


2) Given that obtaining a *Turnitin* report, interpreting it, and obtaining advice and revising your work if necessary all take time, it makes sense to check your work early, NOT just before the submission deadline.

3) Finally, please note that submission of your work to *Turnitin* via the KEATS plagiarism resource does NOT constitute submission for assessment. Please make sure that you follow ALL the instructions you are given for final submission of your assignment and respect all deadlines.

**Timetable (in detail)**

September 26: Week 1. Intro to Philosophy and Logic

I. The Mind-Body Problem

**Primary Objectives:**
- Come to understand the primary challenges posed by the mind-body problem
- Acquire an appreciation of the arguments for and against some of the most influential accounts of the relationship between the mind and the body: dualism, identity theory, functionalism, and eliminative materialism
• **Develop the capacity to assess the relative strengths and weaknesses of these various approaches to the mind**

October 3: Week 2. Dualism

• Descartes, *Meditations I & II*

October 10: Week 3. Dualism cont.

• Descartes, *Meditation I & II*

Further Reading:
Descartes, Selections from the *Principles of Philosophy I* (Sections 9, 11, 32-35, 66-71)
Moore. “Proof of An External World”
Nozick, “The Experience Machine”
Ryle, Selections from *Concept of Mind*
Strawson, “Self, Mind and Body”

October 17: Week 4. Identity Theory

• Smart, “Sensations and Brain Processes“

Further Reading:
Place, “Is Consciousness a Brain Process?”
Kripke, Selection from *Naming and Necessity*
Papineau, “Kripke's Proof That We Are All Intuitive Dualists.”

October 24: Week 5. Functionalism

• Putnam, “The Nature of Mental States”

Further Reading:
Turing, "Computing Machinery and Intelligence"
Lewis, "Psychophysical and Theoretical Identifications"
Lewis, “Mad Pain and Martian Pain”
Dennett, “Broad Functionalism and Minimalism”
Block, “Troubles with Functionalism”
Searle, “Minds, Brains, and Programs”

** Reading Week/ First Formative Essay Due: October 31

November 7: Week 6. Eliminative Materialism
• Churchland & Churchland, “Eliminative Materialism and Propositional Attitudes”

Further Reading:
Rey, “A Question About Consciousness.”
Feyerabend, “Mental Events and the Brain”
Rorty “Mind-Body Identity, Privacy, and Categories”

November 14: Week 7. Embodied Cognition
• Wilson, “Six Views of Embodied Cognition”

Further Reading:
Barsalou, “Perceptual Symbol Systems.”
Clark, “Embodied, situated, and distributed cognition”
O’Regan, J.K. and A. Noë, “A sensorimotor account of vision and visual consciousness,
Noë, Precis of “Action in Perception”
Shapiro, “Embodied Cognition”
Wilson, & Clark “How to Situate Cognition: Letting Nature Take its Course”

II. Consciousness and Scientific Explanation

Primary Objectives:
• Gain an understanding of the philosophical problems raised by phenomenal consciousness and the search for its neural correlates
• Appreciate the force of various responses to the hard problem of consciousness
• Come to appreciate the role that consciousness plays in the assignment of moral value and ethical consideration

November 21: Week 8. The Hard Problem
• Chalmers, “Facing up to the problem of consciousness”

Further Reading:
Jackson, “What Mary Didn’t Know”
Nagel, “What is it like to be a bat?”
Lewis, “What experience teaches.”
Dennett, “What RoboMary knows.”
Levine, “Materialism and Qualia: The Explanatory Gap”
Block, “On a confusion about the function of consciousness”
Chalmers, “Does conceivability entail possibility?”

December 5: Week 9. Responses to the Hard Problem

- Papineau, “Confusions about Consciousness”
- Dennett, “Quining Qualia”

Further Reading:
Papineau, “Mind the Gap”
Dennett, “Facing Backwards on the Problem of Consciousness”
Churchland, P.S. “The Hornswoggle problem”
Pauen, “Feeling Causes”

** First Summative Essay Due: December 11

December 12: Week 10. Is Consciousness Special?

- Levy and Savulescu, “Moral significance of phenomenal consciousness”

Further Reading:
Shea & Bayne, “The Vegetative State and the Science of Consciousness”
Singer, “All animals are equal”
Dennett, “The Zombie Hunch”
Dennett, “Conditions of Personhood”

III. Free Will, Responsibility, and Neuroscience

Primary Objectives:

- Develop an understanding of various philosophical theories of freedom: incompatibilism and compatibilism
- Arrive at understanding of the challenges associated with each theory
- Develop a grasp of the neuroscientific evidence which is supposed to challenge the existence of free will
- Become versed in various philosophical responses to the challenges to free will posed by neuroscience
- Develop a grasp of the implicit bias literature and related considerations concerning our responsibility over our unconscious attitudes, judgments and biases

January 16: Week 11. Philosophical Theories of Freedom: Incompatibilism
• Nagel, “Free Will” from *What Does it All Mean?*
• Van Inwagen “The Incompatibility of Free Will and Determinism”

Further Reading:
Holbach, *The Illusion of Free Will*
Bishop, *Determinism and Indeterminism“*
Kane, “Responsibility, Luck, and Chance”
Pereboom, “Why we have no free will and can live without it”

January 23: Week 12. Philosophical Theories of Freedom: Compatibilism

Further Reading:
Hume, “Of Liberty and Necessity”
Ayer “Freedom and Necessity”
Austen, “Ifs and Cans”
Dennett, *Selections from Elbow Room*

January 30: Week 13. Neuroscience and Free Will
• Libet et al., “Time of Conscious Intention to Act in Relation to Onset of Cerebral Activity (readiness-potential). The Unconscious Initiation of a Freely Voluntary Act”

Further Reading:
Soon et al., “Unconscious Determinants of Free Decisions in the Human Brain”
Fried, Mukamel, Kreiman, Internally generated preactivation of single neurons in human medial frontal cortex predicts volition.
Haggard and Libet, “Conscious Intention and Brain Activity”
Greene and Cohen, “For the Law, Neuroscience changes nothing and everything”
Harris, *Selections from The Illusion of Will*

February 6: Week 14. Philosophical Responses
• Dennett, “Free Will, Responsibility, and the Brain” (video)
• Levy, “Libet’s Impossible Demand”
IV. Theory of Mind

Primary Objectives:

- Become familiar with the problem of other minds
- Come to understand the difference between simulation theory and theory-theory as an explanation of theory of mind (ToM)
- Become familiar with how autism and mirror neurons inform competing accounts of our access to and knowledge of other minds
- Develop the capacity to apply objections to the proposal that mirror neurons are empirical support of simulation theory
- Consider various reasons for and against holding that non-human animals possess a ToM


- Gopnik, & Wellman, “Why the child's theory of mind really is a theory.”

Further Reading:

Ayar, “One’s Knowledge of Other Minds”
Goldman, “Interpretation Psychologized”
Stitch & Nichols, “Folk Psychology: Simulation or Tacit Theory?”
Heal, J., 1986, “Replication and Functionalism”
Wimmer, H. and J. Perner, 1983, “Beliefs About Beliefs: Representation and Constraining Function of Wrong Beliefs in Young Children's Understanding of Deception”

** Reading Week/Second Formative Essay Due: February 20**

February 27: Week 16. Mirror Neurons and Theory of Mind
• Gallese & Goldman, “Mirror neurons and the simulation theory of Mindreading.”

Further Reading:
Gallese, “The ‘shared manifold’ hypothesis: from mirror neurons to empathy”
Gallese, “Intentional attunement. The Mirror Neuron system and its role in interpersonal relations.”
Ramachandran, “MIRROR NEURONS and imitation learning as the driving force behind "the great leap forward" in human evolution.”
Rizzolatti, G. & Craighero, L. “The mirror-neuron system.”
Rizzolatti, G., Fogassi, L., & Gallese, V. “Neurophysiological mechanisms underlying the understanding and imitation”

March 6: Week 17. Challenges: Mirror Neurons and Simulation Theory
• Spaulding, “Mirror neurons are not evidence for the simulation theory.”

Further Reading:
Jacob, “What Do Mirror Neurons Contribute to Human Social Cognition?”
Csibra, “Mirror neurons and action observation. Is simulation involved?”

• Frith & Happe, “Theory of Mind and Self Consciousness: what is it like to be autistic?”

Further Reading:
Baron-Cohen. “Does the Autistic Child have a “Theory of Mind”?”
Frith, Happe, & Siddons. “Autism and Theory of Mind in Every Day Life”

March 20: Week 19. Do non-human animals have a ToM?

Further Reading:
Tomasello & Call, “Do Chimpanzees Know What Others See – Or Only What They Are Looking At?”
Povinelli & Vonk, “We Don’t Need a Microscope to Explore the Chimpanzee’s Mind”
Andrews. “Chimpanzee theory of mind: looking in all the wrong Places?”
Call & Tomasello, “Does the Chimpanzee Have a Theory of Mind? 30 Years Later”
Tomasello, and Rakoczy, “What makes human cognition unique? From individual to shared to collective intentionality”

March 27: Week 20. REVIEW

**Second summative essay due: April 2, 2015

*** Objectives for individual readings will be announced at the beginning of each lecture

**Suggested additional readings**


- Philosophy: the basics - Warburton, Nigel
- What does it all mean?: a very short introduction to philosophy - Nagel, Thomas
- The problems of philosophy - Russell, Bertrand
- Oliver Sacks, *The Man who Mistook His Wife for a Hat*
- An anthropologist on Mars: seven paradoxical tales - Sacks, Oliver W. 1995
- Maureen Eckert, *Theories of Mind: An Introductory Reader*
- David Chalmers, *Philosophy of Mind: Classical and Contemporary Readings*
- This is Philosophy of Mind: An Introduction [Paperback] - Pete Mandik
- The nature of mind - Rosenthal, David M.
- Materialism and the mind-body problem - Rosenthal, David M.
- Carruthers, P. and Smith, P. K. *Theories of Theories of Mind.*
- Davies, M. & Stone, T. *Mental Simulation: Evaluations and Applications.*
- Free will: critical concepts in philosophy - Fischer, John Martin
- Free will - Pereboom, Derk
- Consciousness: an introduction - Blackmore, Susan
- The conscious mind: in search of a fundamental theory
- Nature of consciousness: philosophical debates - Block, Ned
- Consciousness and the mind-body problem - Torin Andrew Alter
- The Oxford handbook of philosophy and neuroscience - Bickle, John
- Philosophy and the neurosciences: a reader - Bechtel, William

**Additional Philosophy Resources:**

*There are many great online resources available. If you are struggling or just plain curious, check out these sites:*
• Stanford Encyclopedia of Philosophy (very good introduction to many philosophical topics)
• Internet Encyclopedia of Philosophy (entries on various philosophical topics)
• Philpapers (comprehensive index and bibliography of works in philosophy)
• Mind Papers (list and links to important texts in Mind organized by topic)
• Philosophy Bites (interviews on various topics with various important philosophers)
• Philosophy TV (interviews with various important philosophers on various important issues)
• A Romp Through the Philosophy of Mind (intro mind podcasts)
• Phenomenal Qualities (podcasts in Mind)