ETHICS AND THE BRAIN – BIOE 6100/PSYC 4998
Loyola Marymount University | Spring 2016
Course Syllabus as of January 11, 2016

Course Meetings
Instructor: Dr. Sabine Huemer
M: 7:15 – 9:45 pm in UNH 4511
Contact: shuemer@lmu.edu
Hours: M 11:30 – 12:30 am, M 4:30-6:30 pm
3 units and by appointment in UNH 4714

Course Description
As the field of neuroscience rapidly advances, the ethical implications of these advances are becoming an important topic of discussion. This course will introduce students to the field of neuroscience and create a platform for debate about a range of current issues including links between brain and morality, the use of cognitively enhancing drugs, memory dampening techniques, brain stimulation, neural prostheses, and biomarkers that can predict the onset of neurodegenerative diseases.

Student Learning Outcomes
Students will leave this course with:

- perspectives and arguments in the neuroethical debate.
- an understanding of brain regions and mechanisms associated with moral decision making
- familiarity with technology that drives the neuroethical issues.
- an appreciation for multidisciplinary research and discourse.
- an enhanced understanding of neuroethical challenges of the future.

Prerequisites for Enrollment
For Bioethics students: undergraduate degree; for Psychology students: Junior or Senior standing.

Required Texts


Articles – will be posted on Blackboard
Optional Supplementary Reading


Course Materials, Reading Assignments and Electronic Resources

The latest version of the syllabus, assignments, and resources, such as lecture slides, will be posted and updated on the course website on Blackboard. Please, check regularly for updates. You are expected to have access to a computer, receive and send emails via your LMU Lions email account, and communicate via Blackboard.

Workload

This 3-unit course level course follows the requirement of course listings at the Bioethics Institute (see below). As an undergraduate student, you will most likely experience an increased amount of class reading (approx. 100 pages per week) and higher expectations in written and oral communication skills. Please, see the instructor for additional resources and guidance, if needed. It is crucial to read assigned text pages as per syllabus BEFORE you come to class since you are expected to actively participate in class discussions IN EVERY CLASS (see below).

Statement on the University Mission in Relation to Courses in the Bioethics Institute

Courses in the Bioethics graduate program at Loyola Marymount University seek to provide educational opportunities that will enable students to reflect systematically on contemporary issues in bioethics through a challenging liberal arts and sciences curriculum with a commitment to social justice. Courses in the Bioethics Institute require students to think, speak, write, and reflect critically about the deepest ethical questions of the day, especially those emerging in the areas of the life sciences and medicine. To do this, students are required also to “acquire the arts of precise and elegant expression, a sound and critical grasp of ideas, a familiarity with the modern world’s ways of knowing itself, a personal understanding of this nation’s history and multicultural heritage, and an appreciation of other cultures and societies around the globe.” (University Bulletin)

Statement on Academic Excellence in the Bioethics Institute

In keeping with the larger context of LMU’s mission, academic excellence is grounded in critical thinking, moral reflection, and articulate expression (both in written and oral form). Such critical thinking, reflection, and expression are rooted in the discipline of academic work. Critical thought and reflection, as well as the ability to articulate one’s ethical beliefs clearly and thoughtfully, are the result of disciplined work, which constitutes the necessary condition for academic achievement.
The Bioethics Institute maintains high expectations for academic excellence. Students in the Bioethics Institute’s courses are expected to be engaged listeners and careful readers as well as to write and speak cogently about substantive ethical matters. They are expected to understand and analyze pertinent primary texts, scholarly literature, and to assimilate lectures on complex topics. Moreover, students are expected to generate their own questions about the material under consideration, questions appropriate to the area they are studying, reflecting a firm grasp of the basic course content and methodological approach.

**Attendance and Participation**
You are **expected to attend every class on time**. Attendance, however, does not equal participation and participation does not equal contribution to the class. See more on Class Participation under Course Evaluation.

**Communication**
I will communicate with the class and individual students using campus email, so it is essential that you regularly check your lion.lmu.edu email account or the preferred email address to which you forward.

**Electronic Devices**
Generally, electronic devices, including cell phones and laptops, need to be turned off and stowed away during class. If need to use your laptop for note-taking, please, come see the instructor during the first week of class to get permission and receive further instructions.

**Class Etiquette**
see LMU’s Community Standards
(http://studentaffairs.lmu.edu/administration/judicialaffairs/studentcodespolicies/)

LMU Student Affairs brochure, Disruptive and Threatening Student Behavior
(https://www.lmu.edu/Assets/Student+Affairs+Division/Judicial+Affairs/Disruptive+Behavior+Brochure.pdf)

**Academic Honesty**
... will be treated as an extremely serious matter with severe consequences that can range from receiving no credit for assignments/tests, failing the class, to expulsion. It is never permissible to turn in any work that has not been authored by the student, such as work that has been copied from another student or copied from a source (including Internet) **without properly acknowledging the source**. It is your responsibility to make sure that your work meets the standard of academic honesty set forth in the “LMU Honor Code and Process” which appears in the **LMU Bulletin** (see http://bulletin.lmu.edu). **Other examples of dishonesty include** cheating on exams and quizzes, facilitating the cheating of others, discussing items on which students will be, copying exam questions in any form (i.e: taking pictures with your cell phone), overstating your contribution to group assignments, etc.
EVALUATION CRITERIA

TWO PAPERS
This course is divided into two sections (see class schedule below). You will have to write a neuroethics review paper on a topic of your choice that also ties into class content. Do not use papers that you have written for another class. Please, have your topic pre-approved by me via email to shuemer@lmu.edu. Each paper will be 10-12 pages double-spaced and has to be submitted before the designated deadlines (see class schedule) via the corresponding assignment link on Blackboard. Specific paper guidelines for this assignment will be available on Blackboard and discussed in class.

WEEKLY ASSIGNMENTS
Each week during the ten “core classes (1-25 to 4-04)” you are required to submit a synopsis of the reading for class. Focus on the essential points of the reading that will help you in the class discussion. This assignment will likely be around 1 page single-spaced. Never submit more than 2 pages. You need to understand the essence of the reading without adding unnecessary detail. Submit each synopsis no later than 6 pm on the class day via a designated assignment link on Blackboard. Bring a hard copy of your synopsis to class for class discussion. The deadline is FIRM and there are NO make ups for these assignments (NO EXCUSES). You are, of course, welcome to attend class even if you did not submit the assignment.

PRESENTATION
Present a neuroethics topic of your choice in class. Presentations are 10-15 minutes long and take place during weeks 14 and 15. Topics have to be cleared with the instructor by email. Your presentation may be one of your paper topics. More instructions will be made available in class.

ATTENDANCE AND ENGAGED PARTICIPATION
During each of the 10 sessions between 1-25 and 4-04, your participation will be rated by YOU between 0 and 5 points, depending on the quality of your contributions to class. I reserve the right to override your grade if I deem your rating inconsistent with the work shown. You will find a “Self rating form” on Blackboard. It is your responsibility to print out the slips to each class, rate your performance at the END of each class and turn in your sheet at the end of class. You will have to stay until the end of class to turn in your rating. I will not give any points without a completed and signed rating sheet.
**FINAL GRADE**

<table>
<thead>
<tr>
<th>Component</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 Papers</td>
<td>150 pts</td>
</tr>
<tr>
<td>Weekly Reading Assignments</td>
<td>100 pts</td>
</tr>
<tr>
<td>Presentation</td>
<td>50 pts</td>
</tr>
<tr>
<td>Participation</td>
<td>50 pts</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>350 pts</strong></td>
</tr>
</tbody>
</table>

The following scale of total course percentage points will be used in computing final grades:
A = 93-100, A- = 90-92, B+ = 87-89, B = 83-86, B- 80-82, C+ = 77-79, C = 73-76, C- = 70-72, D = 60-69, F = 59 and below.

**GRADING EXPLAINED (adopted from Dr. Dell’Oro)**

A (Excellent): An A is a mark of true excellence. Papers with errors in spelling, grammar, or reasoning are not excellent. Coming to class unprepared is not excellent. Failing to be an engaged participant in class discussions is not excellent. Superficial reading and consequent failure to grasp the fundamental themes in the reading is not excellent. Illogical or poorly argued papers are not excellent. Given that an A indicates excellence, you should not expect to receive an A in my class without significant effort on your part. Excellence is rarely, if ever, merely the product of innate skill or intelligence; true excellence requires effort.

A- (Superior): An A- indicates superior work, which clearly surpasses the work of good graduate students, but which falls short of true excellence in some way.

B’s (B+, B, B-) (Good): A B is a mark that indicates good performance. A B+ indicates work that is very good, while a B- indicates work that, while above average, falls short of a “B” in some way.

C’s (C+, C, C-) (Satisfactory or Average): A C is a mark given for average performance. The student can correctly reproduce factual information, or “use the right words,” but has not really digested the information to make it his or her own. A C+ indicates work that is above average, while a C- indicates work that is close to average/satisfactory, but which falls short of satisfactory work in some way.

D (Unsatisfactory, but passing): A D is a mark that unsatisfactory work. D indicates that the student has completed minimal requirements for the assignment in question, but has produced work that is not satisfactory.

F (Failing): An F indicates failing work that does not meet minimal standards for acceptable graduate university work. In addition, any work that fails to meet the requirements for an assignment—e.g., work turned in late, work turned in via email, plagiarized work, work that ignores the criteria of the prompt—will receive a failing grade.
TENTATIVE NATURE OF THE SYLLABUS
If necessary, this syllabus and its contents are subject to revision; students are responsible for any changes or modifications announced or distributed in class or posted on LMU's course management system Blackboard.

MAKE UP POLICY
All quizzes must be taken at the scheduled time and NO MAKE UP QUIZZES will be given. You will receive a ZERO for any quiz not taken. A verified medical illness or emergency that prevents you from taking a scheduled exam or quiz should be discussed with me BEFORE the exam but NO LATER THAN ONE WEEK PAST the missed exam or quiz. You should alert me by email to shuemer@lmu.edu as soon as you can and be prepared to follow up with the proper documentation (i.e: doctor’s note). This relates to EMERGENCIES ONLY – regular doctor’s appointments will not be excused. There is NO MAKE UP for online quizzes, your research paper or poster presentation.

In the case of an excused absence, you may take a QUIZ PRIOR to the scheduled class quiz. If that is not possible but your absence is excused, I will lower the “point total” for the course for you accordingly.

Student athletes must meet with me during the first two weeks of the semester and provide me with an official list of dates for athletic events that prevent them, or, may prevent them from attending class on specific dates. If athletic events come up that are unexpected, an official note from your coach must be obtained at least 24 HOURS PRIOR to your absence in order for me to consider special arrangements.

SPECIAL ACCOMMODATIONS
Students with special needs who require reasonable modifications, special assistance, or accommodations in this course should promptly direct their request to the Disability Support Services (DSS) Office. Any student who currently has a documented disability (ADHD, Autism Spectrum Disorder, Learning, Physical, or Psychiatric) needing academic accommodations should contact the DSS Office (Daum Hall 2nd floor, 310-338-4216) as early in the semester as possible. All discussions will remain confidential. Please visit http://www.lmu.edu/dss for additional information.

REPORTING REQUIREMENTS OF SEXUAL OR INTERPERSONAL MISCONDUCT
As “responsible employees,” faculty are required to report any case of suspected sexual or interpersonal misconduct and cannot protect student confidentiality. For information about confidential counseling on campus and for general information about consensual relationships, sexual harassment, and sexual assault, please see the LMU Cares website: http://studentaffairs.lmu.edu/lmucares/.

EMERGENCY PREPAREDNESS
To report an emergency or suspicious activity, contact the LMU Department of Public Safety by phone (x222 or 310-338-2893) or at the nearest emergency call box. In the event of an evacuation, follow the evacuation signage throughout the building to the designated safe refuge area where you will receive further instruction from Public Safety or a Building Captain. For more safety information and preparedness tips, visit http://www.lmu.edu/emergency
Week by Week Schedule

<table>
<thead>
<tr>
<th>Week</th>
<th>Day</th>
<th>Date</th>
<th>Topic</th>
<th>READING DUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>M</td>
<td>1/11</td>
<td>Course Overview and Brain 101</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>M</td>
<td>1/18</td>
<td>NO CLASS – MLK Day</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><strong>PART ONE – THE MORAL BRAIN</strong></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>M</td>
<td>1/25</td>
<td>Morality in Humans and Non-Humans</td>
<td>CH 1-4</td>
</tr>
<tr>
<td>4</td>
<td>M</td>
<td>2/01</td>
<td>Neurobiology of Morality</td>
<td>G 1, 7, CH 6</td>
</tr>
<tr>
<td>5</td>
<td>M</td>
<td>2/08</td>
<td>Neuroscience, Neurogenetics and Ethics</td>
<td>G 2, 3, 10, CH 5</td>
</tr>
<tr>
<td>6</td>
<td>M</td>
<td>2/15</td>
<td>Mindreading</td>
<td>G 6, 12</td>
</tr>
<tr>
<td>7</td>
<td>M</td>
<td>2/22</td>
<td>The Self and Neuroimaging</td>
<td>G 3, 4, 5, 11</td>
</tr>
<tr>
<td>R</td>
<td>2/25</td>
<td></td>
<td>PAPER #1 DUE BEFORE MIDNIGHT</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>M</td>
<td>2/29</td>
<td>NO CLASS – Spring Break</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><strong>PART TWO – THE ENHANCED HUMAN</strong></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>M</td>
<td>3/07</td>
<td>Performance Enhancement</td>
<td>G 8, 17</td>
</tr>
<tr>
<td>10</td>
<td>M</td>
<td>3/14</td>
<td>Neural Technology</td>
<td>G 9, 13, 15</td>
</tr>
<tr>
<td>11</td>
<td>M</td>
<td>3/21</td>
<td>Neural Engineering</td>
<td>G 14</td>
</tr>
<tr>
<td>12</td>
<td>M</td>
<td>3/28</td>
<td>Policies and Future Implications</td>
<td>G 16, 18</td>
</tr>
<tr>
<td>13</td>
<td>M</td>
<td>4/04</td>
<td>Neuroscience Frontiers</td>
<td>TBA</td>
</tr>
<tr>
<td>R</td>
<td>5/07</td>
<td></td>
<td>PAPER #2 DUE BEFORE MIDNIGHT</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>M</td>
<td>4/11</td>
<td>Presentations</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>M</td>
<td>4/18</td>
<td>Presentations</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>M</td>
<td>4/25</td>
<td>Topic of Choice</td>
<td></td>
</tr>
</tbody>
</table>

*G = Giordano text; CH = Churchland text
*Check for supplemental articles on Blackboard!