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Website: www.stonybrook.edu/commcms/est/people/adjunct_faculty/mtaveras

Office Hours: See below
Phone Number: 631-632-8762
Office Location: Computer Science, room 1426

EST 331, Engineering Ethics

Instructor: Marypat Taveras, Department of Technology and Society, Computer Science, room 1426, Stony Brook University, 631-632-8762 Email - Marypat.Taveras@stonybrook.edu

How we will communicate (office hours):

Questions about the course content can be asked online in Blackboard under the Discussions link and within the QUESTIONS FORUM. I will be in Blackboard quite frequently, so if you have a question regarding the course structure and its content, please post your question in this space. Email me or contact me via Google Hangout if you have a personal issue like a grading concern or an illness. Any question that requires a more complicated response should be asked in person. Please email me to arrange a time to meet. I am located in the Computer Science Building (old building, behind Javits) in room 1426.

Course Description:

Individuals and organizations must make ethical decisions in the course of scientific and engineering endeavors. Various concepts have been developed related to moral conduct, character, ideals, and relationships between people, organizations, and societies, and these concepts relate to how we resolve our ethical issues. Formal frameworks for ethical decision making will be presented, and tested through careful examination of case studies drawn from engineering and industry. We will apply concepts and tools drawn from engineering ethics in order to understand the links between science and technology and the arts humanities and social sciences.

Learning objectives:

1. Students will learn to identify moral and value conflicts that occur in scientific and technological fields
2. Students will study the relationship between safety and risk and the balancing of risk with safety in the engineering design process
3. Students will understand the broader societal context of engineering design choices and decisions.

Required Readings:

Selected topic readings and videos posted in Blackboard

Course Delivery Mode and Structure:

This is an online course, delivered in the Blackboard learning management system. Students must be mindful of all course expectations, assignments and due dates. All assignments and course interactions will utilize internet technologies. See “Technical Requirements” section for more information. In Blackboard, you will access online lessons, course materials, a recorded lecture, and additional resources. LEARNING MODULES; with deadlines on Sunday at end of day.
Technical Requirements:
This course uses Blackboard for the facilitation of communications between faculty and students, submission of assignments, and posting of grades. The Blackboard course site can be accessed at https://blackboard.stonybrook.edu If you are unsure of your NetID, visit https://it.stonybrook.edu/help/kb/finding-your-netid-and-password for more information. You are responsible for having a reliable computer and Internet connection throughout the term. Caution! You will be at a disadvantage if you attempt to complete all coursework on a smart phone or tablet. It may not be possible to submit the files required for your homework assignments.
The following list details a minimum recommended computer set-up and the software packages you will need to have access to, and be able to use:
PC with Windows XP, Vista 7 or 8
Macintosh with OS 10.4 or higher
Latest version of Chrome, Firefox or Explorer; Mac users may use Chrome, Firefox or Safari. (A complete list of supported browsers and operating systems can be found on the My Institution page when you log in to Blackboard.)
2 GB RAM
High speed internet connection
Printer
Word processing software (Microsoft Word, Pages, etc.)
Speakers (either internal or external) or headphones
Ability to download and install free software applications and plug-ins (note: you must have administrator access to install applications and plug-ins).
Adobe Flash player with the latest update is crucial for playing multiple videos throughout the course.
Technical Assistance:
If you need technical assistance at any time during the course or to report a problem with Blackboard you can:
Visit the Stony Brook University Student Help Desk Page
Phone:
(631) 632-9602 (technical support and Blackboard issues)
(631) 632-9800 (client support, wifi, software and hardware)
E-Mail: helpme@stonybrook.edu
Live Chat: Chat Live with the TLT Student Help Desk!
For assistance after 5 PM or over the weekend, please contact the Open SUNY help desk at 1-844-673-6786 or OpenSUNYHelp@suny.edu

Online Classes Require Better Communication: It is important to remember that we will not have the non-verbal cues that occur in a face-to-face classroom. I cannot see the confused, frustrated, or unhappy expressions on your face if you encounter problems. You MUST communicate with me so that I can help. To make the experience go smoothly, remember that you’re responsible for initiating more contact, and being direct, persistent, and vocal when you don’t understand something.

My Role as the Instructor: As the instructor, I will serve as a “guide” in terms of the Discussion Board. While I will not respond to every post, I will read what is posted, and reply when necessary. Expect instructor posts in the following situations:
- To assist each of you when it comes to making connections between discussion, lectures, and textbook material.
- To fill in important things that may have been missed.
- To re-direct discussion when it gets “out of hand”.
- To point out key points or to identify important posts.

Course Assessment:

Group Discussions

140 points (14 weekly assignments at 10 points each, discussion questions are based on case studies)

Weekly Exams

280 points (14 exams at 20 points each, based on the Ethical Theory Lectures)
3 Writing Assignments

300 points (3 assignments at 100 points each)

TOTAL POINTS = 720

Grading Scale

<table>
<thead>
<tr>
<th>Points Range</th>
<th>Grade</th>
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<tbody>
<tr>
<td>670 +</td>
<td>(A)</td>
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<tr>
<td>619 – 669</td>
<td>(A-)</td>
</tr>
<tr>
<td>558 – 618</td>
<td>(B+)</td>
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<tr>
<td>497 – 557</td>
<td>(B)</td>
</tr>
<tr>
<td>426 – 496</td>
<td>(B-)</td>
</tr>
<tr>
<td>310 – 425</td>
<td>(C)</td>
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Less than 309 is an (F)

Group Discussions

The purpose of the Group Discussion is to engage you in the course content and to promote student to teacher and student to student interactions. Group discussion assignments will be posted Monday mornings. You have 7 days to be “actively present” in the discussion. To be “actively present” in each group discussion, you will be expected to:

a) respond to the discussion prompt with relevant and well thought out answers to the prompts
b) Stimulate further thought and conversation by responding to at least 3 of your classmates over the course of the week. A short answer like “I agree or disagree” does not constitute meaningful dialog and will not be counted toward your contribution grade.
c) You must participate throughout the week - you will lose points if you post all your work on a single day.
d) I will not count any posting made after the discussions’ ending date.

Group Discussion Rubric

<table>
<thead>
<tr>
<th>Discussion Prompt Points</th>
<th>6</th>
<th>3</th>
<th>1</th>
<th>0</th>
<th>Total Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discussion Prompt</td>
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<tr>
<td>Response goes beyond simply answering the discussion questions, response includes highly relevant and well thought out answers to the discussion</td>
<td>Response provides obvious information without further analysis of the concept; lacks depth of knowledge or reasoning, does not stimulate further conversation</td>
<td>Response does not accurately address the prompt; rambling and/or without consistency</td>
<td>No response, response was plagiarized</td>
<td></td>
<td></td>
</tr>
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</table>


**Response to Classmates Points**

<table>
<thead>
<tr>
<th>Count</th>
<th>Points</th>
</tr>
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<tbody>
<tr>
<td>3 Responses</td>
<td>4</td>
</tr>
<tr>
<td>3 Responses</td>
<td>2</td>
</tr>
<tr>
<td>3 Responses</td>
<td>1</td>
</tr>
<tr>
<td>0 Responses</td>
<td>0</td>
</tr>
</tbody>
</table>

**Total Points:**

- A short answer like “I agree or disagree” does not constitute meaningful dialog, no response, response was plagiarized.

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**Weekly Multiple Choice Exams**

You will be tested weekly on the content found in the weekly lecture folders. Each exam is worth 20 points.

- a) Exams will be available in Blackboard at 8:00 A.M. on Tuesdays. The exam link will remain open until 2:00 A.M. Wednesday morning.
- b) You will have 30 minutes to answers 10 questions. **Once you begin the exam, you must finish it.**
  
  *Students who do not finish for whatever reason will not be given permission to retake the exam.*

**Writing Assignments**

You will be asked to write 3 ethical arguments in defense of a thesis. This assignment will be 1500 words in length and details about each assignment will be posted two weeks before the due date.

Your paper must address four main issues: a) a clear statement of the ethical issue(s), who, what and how; b) your understanding and application of the ethical principles and theories from the lectures; c) your stated position on the issue; and d) your justification for why you have chosen this position.

**Writing Assignment Grading Rubric**

**Introduction (30 Points)**

- Write clear statement of the ethical issue(s)
- State your position on the issue(s)
  - your writing should be clear and correctly articulated
- Provide your justification for why you have chosen this position
  - your writing should be clear and correctly articulated

**Next paragraph(s) (50 Points)**

- Provide **credible evidence** to support your position on this issue – **Ethos**
  - provide an accurate citation of your sources
- Your writing should provide a distinct and sound reasoning pattern – **Logos**
  - your writing should be clear and correctly articulated
- Use the ethical principles and theories provided in the lectures and your evidence to help support your chosen position – **Ethos**
  - your writing should be clear and correctly articulated

**Conclusion (20 Points)**

- Use persuasion to support your position by appealing to the readers’ emotions – **Pathos**
  - your writing should be clear and correctly articulated

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**Americans with Disabilities Act:** If you have a physical, psychological, medical or learning disability that may
impact your course work, please contact Disability Support Services, ECC (Educational Communications Center) Building, Room 128, (631)632-6748. They will determine with you what accommodations, if any, are necessary and appropriate. All information and documentation is confidential.

**Academic Integrity:** Each student must pursue his or her academic goals honestly and be personally accountable for all submitted work. Representing another person's work as your own is always wrong. Faculty are required to report any suspected instances of academic dishonesty to the Academic Judiciary. Faculty in the Health Sciences Center (School of Health Technology & Management, Nursing, Social Welfare, Dental Medicine) and School of Medicine are required to follow their school-specific procedures. For more comprehensive information on academic integrity, including categories of academic dishonesty, please refer to the academic judiciary website at http://www.stonybrook.edu/uaa/academicjudiciary/.

**Critical Incident Management:** Stony Brook University expects students to respect the rights, privileges, and property of other people. Faculty are required to report to the Office of University Community Standards any disruptive behavior that interrupts their ability to teach, compromises the safety of the learning environment, or inhibits students' ability to learn. Faculty in the HSC Schools and the School of Medicine are required to follow their school-specific procedures. Further information about most academic matters can be found in the Undergraduate Bulletin, the Undergraduate Class Schedule, and the Faculty-Employee Handbook.

**Course Materials and Copyright Statement:** Course material accessed from Blackboard, SB Connect, SB Capture or a Stony Brook Course website is for the exclusive use of students who are currently enrolled in the course. Content from these systems cannot be reused or distributed without written permission of the instructor and/or the copyright holder. Duplication of materials protected by copyright, without permission of the copyright holder is a violation of the Federal copyright law, as well as a violation of Stony Brook's Academic Integrity.

**Student Learning Resources:**
- **Academic and Transfer Advising Services:** Have questions about choosing the right course? Contact an advisor today. Phone: (631) 632-7082 (option 2); email: advising@stonybrook.edu; website: http://www.stonybrook.edu/commcms/advising/
- **Amazon @ Stony Brook:** Order your books before classes begin. Phone: (631) 632-9828; email: Bookstore_Liaison@stonybrook.edu; website: http://www.stonybrook.edu/commcms/bookstore/
- **Bursar:** For help with billing and payment. Phone: (631) 632-9316; email: bursar@stonybrook.edu; website: http://www.stonybrook.edu/bursar/
- **Career Center** The Career Center's mission is to support the academic mission of Stony Brook University by educating students about the career decision-making process, helping them plan and attain their career goals, and assisting with their smooth transition to the workplace or further education. Phone: (631) 632-6810; email: sbcareercenter@stonybrook.edu; Website: http://www.stonybrook.edu/career-center/
- **Counseling and Psychological Services:** CAPS staff are available by phone, day or night.
- **Disability Support Services:** Students in need of special accommodations should contact DSS. Phone: (631) 632-6748; email: dss@stonybrook.edu; http://www.stonybrook.edu/commcms/studentaffairs/dss/
- **Library:** Access to online databases, electronic journals, eBooks, and more!
  - Library Instruction Website - http://library.stonybrook.edu/workshops-this-week-citation-skills-worldcat-and-endnote-the-hsc/
  - SBU Library Research Guides and Tutorials http://library.stonybrook.edu/research/research-basics/
- **Registrar:** Having a registration issue? Let us know. Phone: (631) 632-6175; email: registrar_office@stonybrook.edu; http://www.stonybrook.edu/commcms/registrar/
- **Writing Center:** Students are able to schedule face-to-face and online appointments. http://www.stonybrook.edu/writingcenter/
- **Support for Online Learning** http://www.stonybrook.edu/commcms/onlineed/student.html
- **Ombuds Office** The Stony Brook University Ombuds Office provides an alternative channel for confidential, impartial, independent and informal dispute resolution services for the entire University community. We provide a safe place to voice your concerns and explore options for productive conflict management and resolution. The Ombuds Office is a source of confidential advice and information about University policies and procedures and helps individuals and groups address university-related conflicts and concerns. http://www.stonybrook.edu/ombuds/
<table>
<thead>
<tr>
<th>Weeks</th>
<th>Dates</th>
<th>Lecture(s)</th>
<th>Case Studies</th>
<th>Weekly Exams, Writing Assignments due dates</th>
</tr>
</thead>
</table>
| Week 1 | August 26\(^b\) – September 3\(^rd\) | The Ethics Gap in Engineering | The Trolley Problem  
  Group Discussion, due September 3\(^rd\) | Exam, due date: Tuesday, September 3\(^rd\) |
| Week 2 | September 4\(^th\) – September 11\(^th\) | Normative Ethical Theories | Bhopal, Union Carbide  
  Group Discussion, due September 11\(^th\) | Exam, due date: Tuesday, September 10\(^th\) |
| Week 3 | September 12\(^th\) – September 18\(^th\) | Normative Ethical Theories | Digital Privacy, Surveillance  
  Group Discussion, due September 18\(^th\) | Exam, due date: Tuesday, September 17\(^th\) |
| Week 4 | September 19\(^th\) – September 25\(^th\) | Normative Argument | Vaccines  
  Group Discussion, due September 25\(^th\) | Exam, due date: Tuesday, September 24  
  First writing assignment due, Friday, September 20\(^th\) |
| Week 5 | September 26\(^th\) – October 2\(^nd\) | Values and Moral Responsibilities | Facial Recognition  
  Group Discussion, due October 2\(^nd\) | Exam, due date: Tuesday, October 1\(^st\) |
| Week 6 | October 3\(^rd\) – October 9\(^th\) | Ethical Responsibilities of Engineers - Codes of Conduct | The Ford Pinto  
  Group Discussion, due October 9\(^th\) | Exam, due date: Tuesday, October 8\(^th\) |
| Week 7 | October 10\(^th\) – October 16\(^th\) | Workplace Responsibilities and Rights | Whistle Blowers, Intellectual Property  
  Group Discussion, due October 16 | Exam, due date: Tuesday, October 15\(^th\) |
| Week 8 | October 17\(^th\) – October 23\(^rd\) | Ethical questions in the Design of Technology | Deepwater Horizon Explosion  
  Group Discussion, due October 23\(^rd\) | Exam, due date: Tuesday, October 22  
  Second writing assignment due Friday, October 25\(^th\) |
<table>
<thead>
<tr>
<th>Week</th>
<th>Dates</th>
<th>Topic</th>
<th>Instructor</th>
<th>Activity Due Date</th>
<th>Exam Due Date</th>
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<tbody>
<tr>
<td>9</td>
<td>October 24th – October 30th</td>
<td>Designing Morality</td>
<td>Robert Moses</td>
<td>Group Discussion, due October 30th</td>
<td>Exam, due date: Tuesday, October 29</td>
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<td>10</td>
<td>October 31st – November 6th</td>
<td>Ethical Aspects of Technical Risks</td>
<td>Artificial Intelligence</td>
<td>Group Discussion, due November 6th</td>
<td>Exam, due date: Tuesday, November 5th</td>
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<td>11</td>
<td>November 7th – November 13th</td>
<td>Reducing Risks in Emerging Technologies</td>
<td>Driverless cars</td>
<td>Group Discussion, due November 13th</td>
<td>Exam, due date: Tuesday, November 12</td>
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<td>12</td>
<td>November 14th - November 20th</td>
<td>Sustainability, Ethics and Technology</td>
<td>Climate Change and Technology</td>
<td>Group Discussion, due November 20th</td>
<td>Exam, due date: Tuesday, November 19</td>
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<td>Third writing assignment due Friday, November 23rd</td>
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<td>13</td>
<td>November 21st – November 27th</td>
<td>Global Issues</td>
<td>Global ethical codes</td>
<td>Group Discussion, due November 27th</td>
<td>Exam, due date: Tuesday, November 26</td>
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<td>14</td>
<td>December 1st – December 6th</td>
<td>Engineers and Technological Progress</td>
<td>Weapons of Mass Destruction</td>
<td>Group Discussion, due December 6th</td>
<td>Exam, due date: Tuesday, December 3rd</td>
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