

## Ethics and the Technical Professions (PST 3109-JB) - Fall Semester 2009

**Instructor:** Dr. Jason Borenstein

**Course Description:** In this course, we will examine the ethical and social implications of being a professional in a technical field. A primary approach used will be to analyze ethics case studies. Viewpoints on a variety of subjects, including obligations to the environment, conflicts of interest, and risk assessment, will be presented and evaluated.

### Required Text and Readings:

- Mike Martin and Roland Schinzinger, *Ethics in Engineering* (4<sup>th</sup> edition), McGraw-Hill, 2005.
- Articles **on reserve** (<http://www.library.gatech.edu/services/reserves/index.php>)

**Grades:** There will be two in-class exams. Each exam will constitute 20% of your final grade. The exams will be drawn primarily from lecture notes, discussions of current ethical issues, and assigned readings. Your answers on each exam must be complete, clear, accurate, and specific to earn full credit. The exam dates are **September 29<sup>th</sup>** and **December 9<sup>th</sup>**. You are expected to be on time for each exam; your grade will be reduced for being tardy to an exam. An absence on the day of the exam is unacceptable and may result in a zero unless permission has been granted by the instructor **prior to the date of the exam** to take a makeup exam. Performing an unacceptable act such as using notes, books, or talking with another student during an exam is a violation of the Academic Honor Code and will result in a zero. Depending on the severity of the wrongdoing, additional penalties may be enacted by the Office of Student Integrity such as a failing grade for the course, suspension, or expulsion from school.

Each student will be required to write two papers; the primary aim of each paper is to provide an original argument on a currently debated issue at the intersection of engineering and ethics. You may not write on the same topic for both papers. Further, you are required to incorporate in each paper one main ethical theory or framework discussed in the course. You must also reference at least one relevant scholarly journal article that is not assigned for class. The article must be from a **credible professional journal** and should not be dated before 2002. Each paper should be about 4-5 pages long and will constitute 20% of your final grade. The first paper will be due at the beginning of class on **September 22<sup>nd</sup>**. The second paper will be due at the beginning of class on **November 3<sup>rd</sup>**. Late papers will not be accepted. It is strongly recommended that you discuss each paper with the instructor before starting the assignment. A full citation for each source used must be included in an endnote or a works cited. This typically involves providing the author's name, the article's title, the name of the book or journal, publication date, and page numbers. Any quotations or technical information used **must be cited properly**. Your own original work is required, which includes **explaining ideas and concepts in your own words** and **limiting the number of quotations used in your paper** (roughly meaning no more than a one-two sentence quote per page). Standard paragraph form, grammar, margins, spacing (1.5-2), type font (11-12 point, Arial/Times New Roman), and punctuation are expected. Plagiarism and/or collaboration on papers are violations of the Academic Honor Code and will result in a zero for the assignment. Depending on the severity of the wrongdoing, additional penalties may be enacted by the Office of Student Integrity such as a failing grade for the course, suspension, or expulsion from school. If you have any questions about appropriate writing practices, consult with the instructor as soon as possible. Additional guidelines for the papers will be placed on T-square.

Participation and attendance will constitute 20% of your final grade. Earning an A or B for this portion of your grade requires at a minimum participating on a consistent basis, meaning approximately once per week. In-class activities, such as debates, will provide you with an opportunity to earn credit for participation. It is required that you complete assigned readings before class begins and are able to discuss the material competently. Not being prepared to discuss an assigned reading will result in a reduced grade. More than three unexcused absences or four tardies will cause this portion of your grade to be lowered by at least one letter. Disruptive behavior (such as using an electronic device for non-class purposes) will also result in a reduced grade. Additional guidelines will be placed on T-square.

**Academic Integrity:** Each student in the course is expected to uphold Georgia Tech's Academic Honor Code. This requires of students that they familiarize themselves with the rights and responsibilities contained within the policy. If you have any questions or concerns about the Academic Honor Code, consult with the instructor or refer to <http://www.honor.gatech.edu/>

**Withdrawals:** The last day to withdraw from a course with the possibility of receiving a “W” is **October 16<sup>th</sup>**.

\* The syllabus provides a general framework for the course; on rare occasions, changes may become necessary.

\*\* If you have any learning disabilities, contact the ADAPTS office at (404) 894-2564, refer to <http://www.adapts.gatech.edu>, and/or consult with the instructor as needed.

\*\*\* If you have any personal or academic difficulties, contact the Counseling Center at (404) 894-2575, refer to <http://www.counseling.gatech.edu>, and/or consult with the instructor as needed.

### **Course Plan and Topics:**

- *Ethics in Engineering* Chapter 1 (Ethics and Professionalism)
  
- *Ethics in Engineering* Chapter 2 (Moral Reasoning)
  
- *Ethics in Engineering* Chapter 3 (Moral Frameworks)
  
- **Ray Kurzweil**, “Promise and Peril” (**on reserve**)
  
- **Robert Sparrow**, “Building a Better WarBot” (**on reserve**)
  
- *Ethics in Engineering* Chapter 4 (Engineering as Social Experimentation)
  
- *Ethics in Engineering* Chapter 5 (Safety)
  
- **Robert Pool**, “How Society Shapes Technology” (**on reserve**)
  
- **Langdon Winner**, “Do Artifacts Have Politics?” (**on reserve**)
  
- *Ethics in Engineering* Chapter 10 (Technological Progress)
  
- *Ethics in Engineering* Chapter 6 (Workplace)
  
- *Ethics in Engineering* Chapter 7 (Honesty)
  
- *Ethics in Engineering* Chapter 8 (Environmental Ethics)
  
- *Ethics in Engineering* Chapter 9 (Global Issues)

