

## **Professional Conduct for Engineers**

### **MEC 300**

State University of New York

Fall 2021

**Instructor:** Donna L. Tumminello  
Associate Director, Office of Technology Licensing and Industry Relations

#### **Contact Information:**

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**Meeting Information:** Tuesday 5:45 PM – 8:40 PM

Melville Library W4525

**Office Hours:** Tuesday and Thursday 12:00 PM – 1:00 PM

**Course Prerequisite:** WRT 102; MEC Major; U3 or U4 standing

**Credits Allocated:** 2

#### **There are three forms of participation required:**

- Lecture once per week
- Class projects/activities as assigned
- Mid-term / Final reports

**Course Readings:** “Engineering Ethics.” Fourth Edition, Charles B. Fleddermann,  
Prentice Hall, 2012, ISBN: 0-13-214521-9 (Fourth Edition or later)

**Course Description:**

The study of ethical decisions confronting individuals and organizations in mechanical engineering. Related questions about moral conduct, character, ideals, and relationships of people and organizations involved in technical development are discussed. Ethics codes for mechanical engineers are covered. The interaction of engineers, their technology, the society and the environment is examined using case studies. Includes topics in law such as ownership and enforcement of intellectual property. Introduction to patents and patent infringement using case studies.

**Course Objectives:**

Students will develop an awareness of ethical challenges they will face during their careers and will be prepared to respond appropriately using moral decision-making processes and applying technical and professional codes of ethics. Exposure to intellectual property law and valuation of intellectual property rights.

**Goals:**

To provide students with an understanding of engineering ethics and the ability to make informed judgements that consider the impact of engineering solutions in global, economic, environmental, and societal contexts through student discussions, writing, and case studies.

**Course Learning Outcomes:** Upon completion of the course, students will have

- Knowledge of ethical decisions confronting individuals and organizations in mechanical engineering.
- Awareness of moral conduct, character, ideals, and relationships of people and organizations involved in technical design and development.
- Awareness of the societal impact of technology including practical knowledge relating to patent/copyright/trademark/confidentiality and infringement
- An understanding of how engineers can play a role in societal issues involving technology that have gray areas
- Proficiency in the types of effective communication skills necessary for success in the engineering profession
- An ability to function effectively on collaborative and inclusive teams to establish goals, plan tasks, and meet objectives

**Class/ Laboratory Schedule:** 2 lecture hours per week

**Topics Covered:**

- Week 1: Professionalism and Engineers Codes of Ethics
- Week 2: Understanding Ethical Problems and Ethical Problem-Solving Techniques
- Week 3: Risk, Safety, and Accidents
- Week 4: The Rights and Responsibilities of Engineers
- Week 5: Ethical and Legal Issues in Engineering Practice
- Week 6: Team project management: Comparison of project alternatives, risk management, schedules, project costs and performance
- Week 7: Team project management: Leadership skills and managing expectations
- Week 8: Midterm group presentations – Ethics Case Study
- Week 9: Midterm group presentations – Ethics Case Study
- Week 10: Intellectual Property Patents
- Week 11: Intellectual Property Trademarks/Copyrights
- Week 12: Intellectual Property Law – Ownership and Enforcement
- Week 13: Intellectual Property Law – Licensing/Antitrust/Export Controls
- Week 14: Final group presentations – IP Infringement Case Study
- Week 15: Final group presentations – IP Infringement Case Study

**COURSE REQUIREMENTS:**

Late Assignment Policy

Assignments are due at the beginning of class. Any assignment turned in more than ten minutes after the start of class will be considered one day late.

Each calendar day counts as one late day. For example, if an assignment is due Thursday at 8:30am, you may turn it in to Prof. Tumminello by 8:30am on Friday with one late day.

Each late day will result in a 10-point grade reduction.

**GRADING:**

Grades will be calculated as follows:

Homework Assignments and Class Participation	20%
Midterm Paper/Presentation	40%
Final Paper/Presentation	40%

**CLASS RESOURCES:**

Library resources  
Blackboard  
Writing Center  
Career Center

**DISABILITY SUPPORT SERVICES (DSS) STATEMENT:**

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.

Students who require assistance during emergency evacuation are encouraged to discuss their needs with their professors and Disability Support Services. For procedures and information go to the following website: <http://www.stonybrook.edu/ehs/fire/disabilities>.

**ACADEMIC INTEGRITY STATEMENT:**

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 is 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/commcms/academic\\_integrity/index.html](http://www.stonybrook.edu/commcms/academic_integrity/index.html)

**CRITICAL INCIDENT:**

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.