

Course Syllabus

Spring 2024

Course Detail

Title	MEC 300: Professional Conduct for Engineers
Credit	2
Location	B 206
Meeting Times	Tuesday, 3:30 - 5:20 PM
Prerequisites	WRT 102

Instructor Detail

Instructor	Hamid Hefazi, Ph.D.
Office	B616 Academic Building B
Office Hours	Mondays & Wednesdays: 2:30-4:00 PM (and any other time by appointment)
Phone	+82-32-626-1800
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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 engineering and science. Related questions about moral conduct, character, ideals, and relationships of people and organizations involved in technical development are discussed. Ethics codes for engineers, computer scientists, and natural scientists are covered. The interaction of engineers, their technology, society, and the environment is examined using case studies. Includes topics in law such as negotiation, reverse engineering, ownership, and enforcement of intellectual property, and export controls. Introduction to patents and patent infringement using case studies.

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

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

- Know the principles of ethics.

- Knowledge of ethical decisions confronting individuals and organizations in engineering and science.
- Awareness of moral conduct, character, ideals, and relationships of people and organizations involved in technical 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.

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

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 Monday at 9:30 am, you may turn it in by 9:30 am on Tuesday with one late day. Each late day will result in a 10 % grade reduction.

GRADING: Grades will be calculated as follows:

Homework Assignments and Class Participation 40%

Midterm Paper/Presentation 30%

Final Paper/Presentation 30%

CLASS RESOURCES:

Library resources

Writing Center

Career Center

Rubrics for Written Communication Assessment

Grade Area	Unsatisfactory (U)	Rework (R)	Satisfactory (S)	Exemplary (E)
Clarity and Organization	Little evidence of attention to organization; Ideas do not flow within paragraphs and in the document as a whole.	Some attention to organization evident with either paragraphs, sections, or in the overall document.	Organization of thoughts does not detract from the clarity of the work; Sequence of ideas can be improved.	Organization of ideas was well conceived and added to the clarity of the work.
Style and Grammar	Generally limited or inappropriate vocabulary, regular and repeated grammatical errors.	Often limited and at times inappropriate vocabulary, regular grammatical errors with examples of the correct forms.	Generally effective use of vocabulary, avoids use of slang, grammar errors limited to likely typographical mistakes.	Uses effective and engaging language and word choices, consistently follows the rules of standard English.
Presentation	Document is poorly formatted, equations poorly typeset, tables and figures have no captions, text is not right justified, and text/headings poorly paginated.	Some attention to aesthetics is evident, but many aspects of acceptable presentation are missing.	Clear attention to aesthetics, there is an apparent understanding that presentation style can enhance the clarity of the work.	A clear effort has been made to use the presentation format to draw the reader's attention to important aspects of the work for enhancement of clarity.

Disability Support Services (DSS) Statement:

If you have a physical, psychological, medical or learning disability that may impact your course work, please contact One-Stop Service Center, Academic Building A201, (82) 32-626-1117. They will determine what accommodations, if any, are necessary and appropriate. All information and documentation is confidential. In addition, this statement on emergency evacuation is often included, but not required: Students who require assistance during emergency evacuation are encouraged to discuss their needs with their professors and One-Stop Service Center.

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

Critical Incident Management Statement:

SUNY Korea 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.