

STATE UNIVERSITY OF NEW YORK
COLLEGE OF TECHNOLOGY
CANTON, NEW YORK



MASTER SYLLABUS

SOET 377 – Engineering Ethics

CIP Code: 15.0303

Created by: Dr. Stephen Frempong

SCHOOL OF ENGINEERING TECHNOLOGY
ELECTRICAL ENGINEERING TECHNOLOGY & ENGINEERING
SCIENCE DEPARTMENT
FALL 2025

A. TITLE: Engineering Ethics

B. COURSE NUMBER: SOET 377

C. CREDIT HOURS: (Hours of Lecture, Laboratory, Recitation, Tutorial, Activity)

Number of Credit Hours per Week	3
Number of Lecture Hours per Week	3
Number of Lab Hours per Week	0
Other per Week	0

D. WRITING INTENSIVE COURSE: Yes

Yes	Yes
No	

E. GER CATEGORY: NONE

Does course satisfy a GER category or categories? If so, please select all that apply.

[1-2] Communication	
[3] Diversity: Equity, Inclusion & Social Justice	
[4] Mathematics & Quantitative Reasoning	
[5] Natural Science & Scientific Reasoning	
[6] Humanities	
[7] Social Sciences	
[8] Arts	
[9] US History & Civic Engagement	
[10] World History & Global Awareness	
[11] World Languages	

F. SEMESTER(S) OFFERED: SPRING/FALL

G. COURSE DESCRIPTION: This course extends the student analytical skills to moral deliberation. Topics covered include engineering code of ethics, responsibility in engineering, the social and value dimensions of technology, trust and reliability, engineers in organizations, engineers and environment, international engineering professionalism, global issues, respect for diversity, and cases.

H. PRE-REQUISITES: Junior level status or permission of instructor.

CO-REQUISITES: NONE

I. STUDENT LEARNING OUTCOMES

Course Student Learning Outcomes (SLO)	ABET-Student Outcomes (1-5) / Program Student Learning Outcome (PSLO)	GER	ISLO's & Subsets
Conduct Research Paper in Engineering Code of Ethics related to student field of study in United States, and compare to similar profession in another country, and do PowerPoint presentation.	(3) An ability to apply written, oral, and graphical communication in both technical and non-technical environments; and an ability to identify and use appropriate technical literature.	None	1. Communication Critical Thinking
Research Engineering Ethics cases in other countries.	(3) An ability to apply written, oral, and graphical communication in both technical and non-technical environments; and an ability to identify and use appropriate technical literature.		5. Industry, Professional, Discipline-Specific Knowledge and Skills
Analyze cases to address professional and ethical responsibilities including a respect for diversity.	(3) An ability to apply written, oral, and graphical communication in both technical and non-technical environments; and an ability to identify and use appropriate technical literature.		2. Critical Thinking 4. Social Responsibility
Understand the knowledge of the impact of engineering technology solutions in a societal and global context.	(3) An ability to apply written, oral, and graphical communication in both technical and non-technical environments; and an ability to identify and use appropriate technical literature.		4. Social Responsibility

KEY	<u>Institutional Student Learning Outcomes</u> <u>[ISLO 1 – 5]</u>
ISLO #	ISLO & Subsets
1	Communication Skills Oral [O], Written [W]
2	Critical Thinking <i>Critical Analysis [CA] , Inquiry & Analysis [IA] , Problem Solving [PS]</i>
3	Foundational Skills <i>Information Management [IM], Quantitative Lit./Reasoning [QTR]</i>
4	Social Responsibility <i>Ethical Reasoning [ER], Global Learning [GL], Intercultural Knowledge [IK], Teamwork [T]</i>
5	Industry, Professional, Discipline Specific Knowledge and Skills

J. APPLIED LEARNING COMPONENT:

Yes	Yes
No	

If yes, select (X) one or more of the following categories:

Classroom / Lab	X	Community Service	
Internship		Civic Engagement	
Clinical Practicum		Creative Works/Senior Project	
Practicum		Research	
Service Learning		Entrepreneurship [program, class, project]	

K. TEXTS:

Charles E. Harris, Jr., Michael S. Pritchard, and Michael J. Rabins,
Engineering Ethics - Concepts and Cases, 6th Edition, 20 Channel Center St.
 Boston, MA 02210: Wadsworth Cengage Learning, 2018.

L. REFERENCES: NONE

M. EQUIPMENT: NONE

N. GRADING METHOD: A-F

O. SUGGESTED MEASUREMENT CRITERIA/METHODS: Research Paper, Case Studies, and PowerPoint Presentation.

P. DETAILED COURSE OUTLINE:

Why Professional Ethics

What is a Profession?

Engineering and Professionalism

Two Models of Professionalism

Three Types of Ethics or Morality

The Negative Face of Engineering Ethics

The Positive Face of Engineering Ethics

Responsibility in Engineering

Engineering Standards

The Standard of Care

Responsible Oversight

Blame-Responsibility and Causation

Liability

Design Standards

The Social and Value Dimensions of Technology

Technology is Socially Embedded

Technology Affects Society

Social Affects Technology

Technology and Social Policy

Technology and Public Policy

Evaluating Technology

Critical Attitude toward Technology

Trust and Reliability

Honesty

Forms of Dishonesty

Why is Dishonesty Wrong?

Dishonesty on Campus

Dishonesty in Research and Testing

Confidentiality

Intellectual Property

Expert Witnessing

Informing the Public

Conflicts of Interest

Risk and Reliability in Engineering

The Engineer's Approach to Risk
The Public's Approach to Risk
Communicating Risk and Public Policy
Difficulties in Determining the Causes and Likelihood of Harm
The Engineer's Liability for Risk
Becoming a Responsible Engineer Regarding Risk

Engineers in Organizations

Avoiding Blind Spots
Autonomy and Authority
Groupthink
Engineers and Managers
Proper Engineering and Management Decisions
Responsible Organizational disobedience
Disobedience by Protest
Employee and Employer

Engineers and Environment

Environmental Imperatives in Engineering Codes and the Law
The Environmental Challenge
Responding to the Environmental Challenge
Environmental Stewardship and Engineering Professionalism

Engineering in the Global Context

The Emergence of International Engineering Standards
An International Concept of Engineering Professionalism
Ethical Resources for Globalized Engineering
Economic Underdevelopment: The Problem of Exploitation
Paying for Special Treatment: The Problem of Bribery
Paying for Deserved Services: The Problem of Extortion

Cases/Analysis

- ❖ **Research Paper (10 pages)**
- ❖ **PowerPoint Presentation**

Q. LABORATORY OUTLINE: NONE