

COURSE CODE: ENS-214
COURSE NAME: Environmental Ethics
CREDIT HOURS: Theory = 02 Practical = 0 Total = 02
CONTACT HOURS: Theory = 32 Practical = 0 Total = 32
PREREQUISITE: None
MODE OF TEACHING: Two hours of lecture per week

Course Description:

In general, Ethics is both an academic “subject” and a thoughtful way of doing things. Theoretical Ethics is that branch of Philosophy concerned with determining what is right (with regard to principles and actions) and what is good (what ends or ideals are worth pursuing and what values are worth holding). Practical Ethics is the art of figuring out how to make things better rather than worse with regard to concrete or actual situations. Professional Ethics is a type of applied ethics as such; it is concerned with principles applied and actions taken in the workplace and the boardroom. At the same time, since engineering practice is inseparable from the rest of human life, Ethics has to take account of the well-being of human society and the natural environment.

TOPICS COVERED:

| Week | Topic |
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| 1 | What is Engineering Ethics, Ethical concepts |
| 2 | Three Types of Inquiry |
| 3 | Moral Dilemmas, Moral Autonomy, Kohlberg’s & Gilligan’s Theory |
| 4 | Profession and Professionalism |
| 5 | Moral Reasoning |
| 6 | Ethical Theories |
| 7 | Critique codes of ethics |
| 8 | Moral frameworks |
| 9 | Mid Semester Exam |

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| 10 | Personal commitments and professional life |
| 11 | Engineering as social experimentation |
| 12 | Involving the public in the design process, Case studies for engineering as social experimentation |
| 13 | Assessment of safety and risk, Design considerations, uncertainty, Risk-benefit analysis |
| 14 | Safe-exit and fail safe systems, Case Studies for the Design Process Case studies in impact of safety/risk on design, Employee/employer rights and responsibilities, Confidentiality and conflict of interest, Whistle-blowing |
| 15 | Safe-exit and fail safe systems, Case Studies for the Design Process Case studies in impact of safety/risk on design, Employee/employer rights and responsibilities, Confidentiality and conflict of interest, Whistle-blowing |
| 16 | Case studies on professional behavior/policies on the job, Case Study, Moral leadership in Environmental Science |
| 17 | Case studies on professional behavior/policies on the job, Case Study, Moral leadership in Environmental Science |
| 18 | End Semester Exam |

Text and Material:

1. Environmental Ethics: A Very Short Introduction by Robin Attfield, 2018
2. The Oxford Handbook of Environmental Ethics by Allen Thompson & Stephen M. Gardiner, 2016
3. Fundamentals of Engineering Economics, 3rd ed., by Chan S. Park
4. "Engineering Ethics: Concepts and Cases", 4th edition, by Charles E. Harris, Michael S. Pritchard, Michael J. Rabins, Wadsworth, 2008.
5. The Seven Habits of Highly effective people by Stephan r. Covey
6. Principle Centered Leadership Stephan r. Covey
7. Change your lens change your life by (Faiez H. Seyal)
8. How to Manage by Ray Wild
9. Happiness by Richard Layard

ASSESSMENT SYSTEM:

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| Theoretical/Instruction | 100% |
| Assignments | 10% |
| Quizzes | 15% |
| Mid Semester Exam | 25% |
| End Semester Exam | 50% |
| Practical Work | 0% |
| Lab Attendance | 0% |
| Lab Report | 0% |
| Lab Quiz | 0% |
| Lab Rubrics | 0% |