HS401 PROFESSIONAL ETHICS (2-0-0:2)

Engineering and Society
What is Engineering? The Engineering View; The Engineering Image; The Engineer's Challenge: Cost, Deadlines, and Safety.

Moral Dilemmas in Engineering
Engineering & Business.

Frameworks for Engineering Ethics
Moral Thinking and Moral Theories; Codes of Engineering Ethics; Support for Ethical Engineers.

Engineering Ethics and Public Policy
Risk Assessment and Communication; Product Liability; Engineering and Sustainable Development.

Intellectual property
Foundations of intellectual property; Copyrights, Patents, and Trade secrets; Software piracy; Software patents; Transnational issues concerning intellectual property.

Entrepreneurship
Prospects and pitfalls; Monopolies and their economic implications; Effect of skilled labor supply and demand on the quality of computing products; Pricing strategies.

Case Studies in Engineering Ethics
Challenger Disaster; Hyatt Regency Walkway Collapse; The Pfizer Heart Valve Case; The Therac-25 Case; The Enron Corporation; The Satyam Scam etc.

Text Books:

1. Mike, Martin and Roland Schinzinger, *"Ethics in Engineering"*, McGraw Hill, New York.
2. Charles E Harris, Michael S Pritchard and Michael J Rabins, *"Engineering Ethics - Concepts and Cases"*, Thompson Learning.

References:

1. Charles D Fleddermann, "Engineering Ethics", Prentice Hall, New Mexico.
2. John R Boatright, "Ethics and the Conduct of Business", Pearson Education.
3. Edmund G Seebauer and Robert L Barry, "Fundamentals of Ethics for Scientists andEngineers", Oxford University Press.