

# NATIONAL INSTITUTE OF TECHNOLOGY TIRUCHIRAPPALLI

## Humanities & Social Sciences Department

<b><u>COURSE PLAN – PART I</u></b>			
<b>Course Title</b>	Professional Ethics & Human Values		
<b>Course Code</b>	HSIR14	<b>No. of Credits</b>	03
<b>Department</b>	Humanities & Social Sciences	<b>Faculty</b>	Adalarasu. S
<b>Session:</b>	Jan 2022	<b>Section:</b>	EEE Engineering (Sec A & Sec B)
<b>Pre-requisite Course</b>	N/A		
<b>Course Coordinator</b>	N/A		
<b>E-mail</b>	adalarasu@nitt.edu	<b>Telephone No.</b>	+91 9995600563
<b>Course Type</b>	<b>GIR</b>		
<b>SYLLABUS (APPROVED BY BOS)</b>			
<p>Morals, Values and Ethics – Integrity – Work Ethic – Service Learning – Civic Virtue – Respect for others – Living Peacefully – Caring – Sharing – Honesty – Courage – Valuing time – Co-operation – Commitment – Empathy – Self-confidence – Character – Spirituality – The role of engineers in modern society – Social expectations</p> <p>Sense of ‘Engineering Ethics’ – Variety of moral issued – types of inquiry – moral dilemmas – moral - autonomy – Kohlberg’s theory – Gilligan’s theory – Consensus and Controversy – Models of Professional Roles &amp; Professionalism – theories about right action – Self-interest – customs and religion – uses of ethical theories.</p> <p>Engineering as experimentation – engineers as responsible experimenters – Research ethics – Codes of ethics – Industrial Standard – Balanced outlook on law – the challenger case study</p> <p>Safety and risk – assessment of safety and risk – Riysis – Risk benefit analysis and reducing risk – Govt. Regulator’s approach to risks – the three mile island and Chernobyl case studies &amp; Bhopal – Threat of Nuclear Power, depletion of ozone, greenery effects – Collegiality and loyalty – respect for authority – collective bargaining – Confidentiality – conflicts of interest – occupation crime – professional rights – employees’ rights – Intellectual Property Rights (IPR) – discrimination</p> <p>Multinational corporations – Business ethics – Environmental ethics – computer ethics – Role in Technological Development – Weapons development – engineers as managers – consulting engineers – engineers as expert, witnesses and advisors – Honesty – Leadership – sample code ofconduct ethics like ASME, ASCE, IEEE, Institution of Engineers (India), Indian Institute of Materials Management, Institution of Electronics and Telecommunication Engineers (IETE),</p>			

India, etc			
<b>ESSENTIAL READINGS : Textbooks, reference books, Website addresses, journals, etc</b>			
<p>1) <i>Mika Martin and Roland Scinger, 'Ethics in Engineering', Pearson Education/Prentice Hall, New York 1996.</i></p> <p>2) <i>2. Govindarajan M., Natarajan S., Senthil Kumar V. S., 'Engineering Ethics' Prentice Hall of India, New Delhi, 2004.</i></p> <p>3) <i>3. Charles D. Fleddermann, 'Ethics in Engineering', Pearson Education/Prentice Hall, New Jersey, 2004 (Indian Reprint).</i></p> <p>4) <i>4. Charles E. Harris, Michael S. Protchard and Michael J. Rabins, 'Engineering Ethics – Concept and Cases', Wadsworth Thompson Learning, United States, 2000 (Indian Reprint now available).</i></p> <p>5) <i>5. 'Concepts and Cases', Thompson Learning (2000). 6. John R. Boatright, 'Ethics and Conduct of Business', Pearson Education, New Delhi, 2003. 7. Edmund G. Seebauer and Robert L. Barry, 'Fundamentals of Ethics for Scientists and Engineers', Oxford University of Press, Oxford, 2001.</i></p>			
<b><u>COURSE OBJECTIVES</u></b>			
<input type="checkbox"/> Identify the core values that shape the ethical behavior of an engineer. <input type="checkbox"/> To create an awareness on professional ethics and Human Values <input type="checkbox"/> To appreciate the rights of others			
<b><u>COURSE OUTCOMES (CO)</u></b>			
<b>Course Outcomes</b>		<b>Aligned Programme Outcomes (PO)</b>	
<b><u>COURSE PLAN – PART II</u></b>			
<b><u>COURSE TEACHING AND LEARNING ACTIVITIES</u></b>			
<b>S. No.</b>	<b>Week</b>	<b>Topic</b>	<b>Mode of Delivery</b>
1.	Jan2022	Morals, Values and Ethics – Integrity – Work Ethic – Service Learning – Civic Virtue – Respect for others – Living Peacefully – Caring – Sharing – Honesty – Courage – Valuing time – Co-operation – Commitment – Empathy – Self-confidence – Character – Spirituality – The role of engineers in modern society – Social expectations	On line classes
2.	Feb 2022	Sense of 'Engineering Ethics' – Variety of moral issues – types of inquiry – moral dilemmas – moral - autonomy – Kohlberg's	On line classes

		theory – Gilligan’s theory – Consensus and Controversy – Models of Professional Roles & Professionalism – theories about right action – Self-interest – customs and religion – uses of ethical theories	
3.	March 2022	Engineering as experimentation – engineers as responsible experimenters – Research ethics – Codes of ethics – Industrial Standard – Balanced outlook on law – the challenger case study - Safety and risk – assessment of safety and risk – Riysis – Risk benefit analysis and reducing risk –Govt. Regulator’s approach to risks – the three mile island and Chernobyl case studies & Bhopal –Threat of Nuclear Power, depletion of ozone, greenery effects – Collegiality and loyalty – respect for authority – collective bargaining – Confidentiality – conflicts of interest – occupation crime –professional rights – employees’ rights – Intellectual Property Rights (IPR) – discrimination	On line classes  On line classes
4.	April 2022	Multinational corporations – Business ethics – Environmental ethics – computer ethics – Role in Technological Development – Weapons development – engineers as managers – consulting engineers – engineers as expert, witnesses and advisors – Honesty – Leadership –	On line classes
5.	April 2022 First week	Assignments	On line submission

**COURSE ASSESSMENT METHODS**

S. No.	Mode of Assessment	Week/Date	Duration	% Weightage
--------	--------------------	-----------	----------	-------------

1	CT1 (on line test)	By Feb last week	1 Hr	25%
2	CT2 (on line test)	By April first week	1 Hr	25%
3	Group Assignment (Presentation, Discussion & quizzing) Topic: Evolving Ethical Codes for an Imaginary Industry/Institution/firms for which Team Students are the Chief/Owner Report shall be prepared in standard format & submitted on line	By April first week	30 mts	15%
4	Discipline & Class Interactions	During lecture hours		5%
5	End Semester Examination ( On line Test)	As per NITT Schedule	1 Hr	30%
6	CT compensation	By end of April, 2022	1Hr	25%

### **COURSE EXIT SURVEY**

1. Students feedback through class committee meetings
2. Feedback from students on the course outcomes shall be obtained at the end of the course

### **COURSE POLICY**

**ATTENDANCE POLICY:** All the students are expected to attend all the contact hours. Students should maintain 75% minimum physical attendance by the end of the course to attend the end semester examination. Students with less than 65% of attendance shall be prevented from writing the final assessment and shall be awarded 'V' Grade and will have to REDO the course. A maximum of 10% attendance shall be allowed under On Duty

(OD) category. OD is allowed only for the students having minimum attendance of 65%.

**ACADEMIC HONESTY & PLAGIARISM:** In case of any student found guilty indulging in any mal practice, the student will be awarded no marks in that assessment. If found using mobile phones or any other gadgets for malpractice during the examination, the answer sheet of the student will not be evaluated and will be awarded ZERO marks.

**MODE OF COMMUNICATION:** The Faculty is available for consultation during the time intimated to the students then and there. The lecture notes will be shared through the class representative.

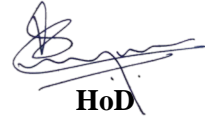
**FOR APPROVAL**



**(S. Adalarasu)**  
**Course Faculty**



**Chairman(Class committee)**



**HoD**