

- **1.3.1- List and description of the courses which address issues related to Gender, Environment and Sustainability, Human Values and Professional Ethics in the curriculum**

### **Courses Related to Environment and Sustainability**

<b>S. No</b>	<b>Course Code</b>	<b>Course Name</b>	<b>Sem</b>	<b>Dept</b>	<b>SDG Goal No</b>	<b>Description of the course</b>
01	20BSCY201	Environmental Science And Engineering	2	All the Departments	4,17	The objective of the course is to study the nature and facts about the environment; To find and implement scientific, technological, economic and political solutions to environmental problems. To study the interrelationship between living organisms and the environment. To provide the importance of the environment by assessing its impact on the human world; envision the surrounding environment, its functions and its value. To study the integrated themes and biodiversity, natural resources, pollution control and waste management.

02	20CEPC70 1	Water Resource & Irrigation Engineering	7	Civil	1,2,6	<p>The student is exposed to different phases in irrigation practices and Planning and management of irrigation. Further they will be imparted required knowledge on Irrigation storage and distribution canal system and Irrigation management.</p> <p>Students will be able to have knowledge and skills on crop water requirements. They will Understand the methods and management of irrigation. The students gain knowledge on types of Impounding structures and understand methods of irrigation including canal irrigation. The students get knowledge on water management and optimization of water use.</p>
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03	20CEEL701	Industrial Wastewater Treatment	7	Civil	6	<p>The objective of this course is to help students develop the ability to apply basic understanding of physical, chemical, and biological phenomena for successful design, operation and maintenance of sewage treatment plants. The students completing the course will have an ability to estimate sewage generation and design sewer systems including sewage pumping stations. They will have the required understanding on the characteristics and composition of sewage, and self-purification of streams. The students will develop an ability to perform basic design of the unit operations and processes that are used in sewage treatment and understand the standard methods for disposal of sewage. The students also gain knowledge on sludge treatment and disposal.</p>
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04	20CYOE905	Air Pollution and Control Engineering	6	ICE, Civil, ECE	3,13	<p>To impart knowledge on the principle and design of control of Indoor/ particulate/ gaseous air pollutant and its emerging trends. The students completing the course will have an understanding of the nature and characteristics of air pollutants, noise pollution and basic concepts of air quality management and ability to identify, formulate and solve air and noise pollution problems. The students acquire an ability to design stacks and particulate air pollution control devices to meet applicable standards and an ability to select control equipment. The students develop an ability to ensure quality, control and preventive measures.</p>
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05	20CEEL601	Municipal Solid Waste Management	7	Civil	6, 11, 15	<p>The objective of this course is to make the students conversant with the types, sources, generation, storage, collection, transport, processing and disposal of municipal solid waste. The students completing the course will demonstrate understanding of the nature and characteristics of municipal solid wastes and the regulatory requirements regarding municipal solid waste management. They will know the methodologies for Reduction, reuse and recycling of waste and acquire an ability to plan and design systems for storage, collection, transport, processing and disposal of municipal solid waste. The students get the knowledge on the issues on solid waste management from an integrated and holistic perspective, as well as in the local and international context. They will be able to Design and operate a sanitary landfill.</p>
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### Courses related to Human Values and Professional Ethics

S. No	Course Code	Course Name	Se m	Dept	SDG No.	Description of the course
1	20HSMG101	Personal Values	1	All the Departm ents	4,5	<p>The objective of the course is imbibe values through Practical activities.</p> <p>Upon completion of the course, the student should be able to</p> <ol style="list-style-type: none"> <li>1. Become an individual in knowing the self. (K4)</li> <li>2. Acquire and express Personal Values, Spiritual values and fitness. (K4)</li> <li>3. Practice simple physical exercise and breathing techniques. (K2)</li> <li>4. Practice Yoga asana which will enhance the quality of life. (K1)</li> <li>5. Practice Meditation and get benefitted. (K1)</li> <li>6. Understanding moral values and need of physical fitness. (K2)</li> </ol>

02	20HSMG201	Inter Personal Values	2	All the Departments	4,5	<p>The objective of the course is imbibe values through Practical activities.</p> <p>Upon completion of the course, the student should be able to</p> <ol style="list-style-type: none"> <li>1. Develop a healthy relationship &amp; harmony with others. (K1)</li> <li>2. Practice respecting every human being.(K3)</li> <li>3. Practice to eradicate negative temperaments.(K3)</li> <li>4. Acquire Respect, Honesty, Empathy, Forgiveness and Equality. (K4)</li> <li>5. Manage the cognitive abilities of an Individual.(K5)</li> <li>6. Understanding the importance of public speaking and teamwork. (K2)</li> </ol>
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03	20MGEL801	Professional Ethics and Values	8	All the Dept	3,4,5,8,10,13,14,15,16	<p>The objectives of this course are to provide students of engineering with:</p> <p>An understanding of their duties and responsibilities as professionals through gaining knowledge of the philosophies of ethics, professional practice, and world culture</p> <p>Basic knowledge to make informed ethical decisions when confronted with problems in the working environment</p> <p>Improved awareness of potential ethical issues within an engineering context</p> <p>Team skills through working in teams on assignments and in-class assignments</p> <p>Subjective analytical skills through investigation and evaluation of ethical problems in engineering settings using accepted tests for moral problem Solving</p> <p>An understanding of how societal morals vary with culture and its influence on ethical thought and action</p> <p>Improved communications skills with regard to ethical and professional issues in engineering</p> <p>Know some of the classic cases as well as contemporary issues in engineering ethics</p>
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04	20MBP109	Life and Managerial Skills	1	MBA	4	<p>The objective of this course is to</p> <ul style="list-style-type: none"> <li>● Identify self and introspect holistic development.</li> <li>● Imbibe individual and group attitude behaviour</li> <li>● Develop a positive attitude for an effective outcome.</li> <li>● Inculcating the managerial skills from the real leaders</li> <li>● On completing the course students will be able to</li> <li>● Demonstrate individual behavioural and interpersonal skills.</li> <li>● Establish the life &amp; managerial skills learning into practical applications</li> <li>● Improve personal skills (attitudinal and behavioural)</li> <li>● Create a better personal and professional environment by applications of these skills.</li> <li>● Demonstrate out-of-box problem solving skills</li> <li>● Application of the skills for professional and personal advancement.</li> </ul>
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