

List & Description of courses which address the Professional Ethics, Gender, Human Values, Environmental and Sustainability into the Curriculum

CIVIL ENGINEERING DEPARTMENT

S.NO	NAME OF THE COURSE	YEAR	SEM
1	Project Planning & Construction Management	IV	VIII
	<u>Description</u>	<p>This course guides the students towards the planning of a project in accordance with the available resources. With the help of different types of visual graphs and figures one can get to know how someone can plan a project to complete in a specified interval of time by optimizing the resources.</p> <p>Methods such as critical path method and PERT are used to analyze the structure of the project flow in a better way and others techniques are induced to complete it on a particular time.</p>	
2	Professional practices & Estimating	IV	VIII
		<p>This lab course helps students in preparing detailed estimates of any construction work. By introducing several methods such as center line method, long wall - short wall method one can easily</p>	

		calculated the dimension of a building. This subjects helps students in understanding the basic concepts of rate analysis, depreciation of building, salvage value and more.
<b>3</b>	<b>Discipline &amp; Extra Curricular activity</b>	<p style="text-align: center;"><b>IV</b></p> <p style="text-align: center;"><b>VIII</b></p> <p>The primary goals of extracurricular activities focus on the individual student level, the institutional level, and the broader community level. These activities exist to complement the university's academic curriculum and to augment the student's educational experience. Extracurricular activities provide a setting to become involved and to interact with other students, thus leading to increased learning and enhanced development.</p>
<b>4</b>	<b>Communication skills</b>	<p style="text-align: center;"><b>I</b></p> <p style="text-align: center;"><b>I</b></p> <p>This course helps students improve their professional communication in English for successful business interactions. Each chapter focuses on a particular area of communication in English: writing emails, speaking at meetings and interviews, giving presentations, and networking online. Whether a person wants to communicate to potential employers, employees, partners or clients, better English communication can help them achieve their language and professional goals. This course will focus especially on making those important connections to take the career or business to the next level.</p>



5	<b>Human Values</b>	<b>I</b>	<b>I</b> The Courses Human Values envisages to instill the ethical values and to provide the knowledge about Ethics as a subject matter. The Course Human Value Education is aimed at providing the students with knowledge on Value System and its importance in Human existence. The objective of the course is listed as: Values are socially accepted norms to evaluate objects, persons, and situations that form part and parcel of sociality. A value system is a set of consistent values and measures. Knowledge of the values are inculcated through education. It contributes in forming true human being, who are able to face life and make it meaningful.
6	<b>Language Lab</b>	<b>I</b>	<b>I</b> Language labs are an effective and complete method designed for students to learn a language through complete language immersion.  The advantages of using a language lab make many educational institutions choose this learning method which provides an interactive tool that encourages student participation and engagement that is essential in mastering a language and engagement that is essential to master a language requirements. The language lab optimizes computing resources of the educational center without making a major investment in IT

		resources.	
<b>7</b>	<b>Human Values Activities</b>	<b>I</b>	<b>II</b>
		<p>Human Values involves various classroom activities through which teachers can take a measure of and improve the student's inherent qualities, including responsibility, confidence, co-operation, respect and empathy.</p> <p>Each activity featured as part of this innovation is focused on specific human values. The positive change in students and learning environment through all these activities can be ensured by carrying these out on a regular basis throughout the course. Activities Includes Scouts &amp; Guides, Planning, Implementation, Surveying and many more.</p>	
<b>8</b>	<b>Technical Communication</b>	<b>II</b>	<b>III/IV</b>
		<p>In this course students will practice designing and giving strong, persuasive presentations. Students will learn how to communicate across cultures, genders, and generations, how to create a personal brand and leadership presence and how to hold effective meetings with global teams. Students will learn how to handle difficult conversations, and how to handle crisis communication; students will also learn writing skills immediately applicable in their daily activities.</p>	
<b>9</b>	<b>Social Outreach,</b>	<b>II</b>	<b>III/IV</b>

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 PUNE  
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	<b>Discipline &amp; Extra Curricular Activities</b>		The primary goals of extracurricular activities focus on the individual student level, the institutional level, and the broader community level. These activities exist to complement the university's academic curriculum and to augment the student's educational experience. Extracurricular activities provide a setting to become involved and to interact with other students, thus leading to increased learning and enhanced development.
<b>10</b>	<b>Technical Communication</b>	<b>III</b>	<b>IV</b> In this course students will practice designing and giving strong, persuasive presentations. Students will learn how to communicate across cultures, genders, and generations, how to create a personal brand and leadership presence and how to hold effective meetings with global teams. Students will learn how to handle difficult conversations, and how to handle crisis communication; students will also learn writing skills immediately applicable in their daily activities.
<b>11</b>	<b>Air &amp; Noise Pollution and control</b>	<b>III</b>	<b>V</b> Objectives of this course provides a comprehensive overview of air and noise quality and the science and technology associated with the monitoring and control

		Learning Outcomes will be that students can be able to: Identify the sources of air and noise pollution, Monitor the ambient air quality and Understand the concepts involved in control technologies.
<b>12</b>	<b>Disaster Management</b>	<b>III</b> Disaster Management provides detailed knowledge to students on disaster preparedness, reducing the effect and rehabilitation. This course provides learners with a regional, national and international perspective on disaster management.
<b>13</b>	<b>Energy Science &amp; Engineering</b>	<b>V</b> The course has contents to develop sustainable energy systems and solutions for future energy needs of the world in general and India in particular. This course also focuses on key knowledge areas of sustainability theory and practice, including population, ecosystems, global change, energy, agriculture, water, environmental economics and policy, ethics, and cultural history.
<b>14</b>	<b>Solid and Hazardous Waste Management</b>	<b>VI</b> This course provides students with an overview of the municipal solid waste management situation in low- and middle-income countries. It covers key elements of the waste management



		<p>system, such as its technical, environmental, social, financial and institutional aspects. Besides understanding the challenges, students will be introduced to appropriate and already applied solutions through selected case studies.</p>
<b>15</b>	<b>Environmental Engineering</b>	<p style="text-align: center;"><b>III</b></p> <p>Environmental engineering is a subfield of engineering that is concerned with the protection and preservation of the environment and environmental resources as well as the protection of populations from environmental threats. Environmental engineers study population growth and monitor air and water quality.</p> <p style="text-align: center;"><b>VI</b></p>
<b>16</b>	<b>Environmental Engineering Lab</b>	<p style="text-align: center;"><b>III</b></p> <p>The Environmental Engineering laboratory practical provides good insight into different experimental methods relevant to Environmental Engineering. In this lab we performs various test on drinker water and sewage samples to check pH value, total dissolved solids, BOD and COD, total suspended particles etc.</p> <p style="text-align: center;"><b>VI</b></p>
<b>17</b>	<b>Environmental monitoring &amp; Design</b>	<p style="text-align: center;"><b>IV</b></p> <p style="text-align: center;"><b>VII</b></p>

	<b>Lab</b>		
<p>Environmental monitoring lab uses instruments to carry out environmental baseline and compliance monitoring in all walk of sectors like petrochemical, mining, cement, highways, housing and infrastructure for EIA studies.</p> <p>Sampling and Testing Includes: Ambient Air, Water, Soil, Noise for Ambient and Stationary Sources, Stack Emissions, Solid and Hazardous Wastes, VOCs and Hydrocarbons, Fugitive Gas emissions, Indoor gas quality, Mercury, CO.</p>			



List & Descriptions of courses which address the Professional Ethics, Gender, Human Values, Environmental and Sustainability into the Curriculum

COMPUTER SCIENCE & ENGINEERING

S.NO	NAME OF THE COURSE	YEAR	SEM
1	Disaster Management	IV	VII
		Disaster Management provides detailed knowledge to students on disaster preparedness, reducing the effect and rehabilitation. This course provides learners with a regional, national and international perspective on disaster management.	
2	Communication skills	I	I
		This course helps students improve their professional communication in English for successful business interactions. Each chapter focuses on a particular area of communication in English: writing emails, speaking at meetings and interviews, giving presentations, and networking online. Whether a person wants to communicate to potential employers, employees, partners or clients, better English communication can help	

	<u>Description</u>	them achieve their language and professional goals. This course will focus especially on making those- important connections to take the career or business to the next level.
<b>3</b>	<b>Technical Communication</b>	<b>II</b> <b>III/IV</b> In this course students will practice designing and giving strong, persuasive presentations. Students will learn how to communicate across cultures, genders, and generations, how to create a personal brand and leadership presence and how to hold effective meetings with global teams. Students will learn how to handle difficult conversations, and how to handle crisis communication; students will also learn writing skills immediately applicable in their daily activities.
<b>4</b>	<b>Social Outreach, Discipline &amp; Extra Curricular Activities</b>	<b>II</b> <b>III/IV</b> The primary goals of extracurricular activities focus on the individual student level, the institutional level, and the broader community level. These activities exist to complement the university's academic curriculum and to augment the student's educational experience. Extracurricular activities provide a setting to become involved and to interact with other students, thus leading to increased learning and enhanced development.
<b>5</b>	<b>Human Engineering and</b>	<b>IV</b> <b>VII</b>



	<b>Safety</b>		A human engineering effort is conducted to develop or improve human interface of the system. Achieve required effectiveness of human performance during system operation, maintenance and support and make economical demands upon personnel resources skills, training and costs.	
<b>6</b>	<b>Environmental Engineering and Disaster Management</b>	<u>Description</u>	Environmental engineering is a subfield of engineering that is concerned with the protection and preservation of the environment and environmental resources as well as the protection of populations from environmental threats. Environmental engineers study population growth and monitor air and water quality.	<b>IV</b> <b>VII</b>
<b>7</b>	<b>Sustainable Engineering</b>	<u>Description</u>	The course has contents to develop sustainable energy systems and solutions for future energy needs of the world in general and India in particular. This course also focuses on key knowledge areas of sustainability theory and practice, including population, ecosystems, global change, energy, agriculture, water, environmental economics and policy, ethics, and cultural history.	<b>IV</b> <b>VII</b>
<b>8</b>	<b>Environmental Impact</b>	<u>Description</u>		<b>IV</b> <b>VII</b>

	<b>Analysis</b>	
	<u>Description</u>	<p>Environmental Impact Assessment (EIA) provide detail knowledge of process of evaluating the likely environmental impacts of a proposed project or development, taking into account inter-related socio-economic, cultural and human-health impacts, both beneficial and adverse.</p>

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List & Descriptions of courses which address the Professional Ethics, Gender, Human Values, Environmental and Sustainability into the Curriculum

ELECTRICAL ENGINEERING DEPARTMENT

S.NO	NAME OF THE COURSE	YEAR	SEM
1	Waste and By-product Utilization	IV	VIII
	<u>Description</u>	This course guides the students towards the planning of a by-products/waste, types of food by-product and waste, magnitude of by-products and waste in food production, magnitude of by-products and wastes in food processing, Waste characteristics, waste management and effluent treatment.	
3	Discipline & Extra Curricular activity	IV	VIII
		The primary goals of extracurricular activities focus on the individual student level, the institutional level, and the broader community level. These activities exist to complement the university's academic curriculum and to augment the student's	

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 DEPARTMENT OF ELECTRICAL ENGINEERING

	<u>Description</u>	educational experience. Extracurricular activities provide a setting to become involved and to interact with other students, thus leading to increased learning and enhanced development.
4	<b>Communication skills</b>	<b>I</b> This course helps students improve their professional communication in English for successful business interactions. Each chapter focuses on a particular area of communication in English: writing emails, speaking at meetings and interviews, giving presentations, and networking online. Whether a person wants to communicate to potential employers, employees, partners or clients, better English communication can help them achieve their language and professional goals. This course will focus especially on making those important connections to take the career or business to the next level.
5	<b>Human Values</b>	<b>I</b> The Courses Human Values envisages to instill the ethical values and to provide the knowledge about Ethics as a subject matter. The Course Human Value Education is aimed at providing the students with knowledge on Value System and its importance in Human existence. The objective of the course is listed as: Values are socially accepted norms to evaluate objects, persons, and situations that form part and parcel of sociality. A value system is a set of consistent values and



	<u>Description</u>	measures. Knowledge of the values are inculcated. through education. It contributes in forming true human being, who are able to face life and make it meaningful.
6	<b>Language Lab</b>	<p style="text-align: center;"><b>I</b></p> <p>Language labs are an effective and complete method designed for students to learn a language through complete language immersion.</p> <p>The advantages of using a language lab make many educational institutions choose this learning method which provides an interactive tool that encourages student participation and engagement that is essential in mastering a language and engagement that is essential to master a language requirement. The language lab optimizes computing resources of the educational center without making a major investment in IT resources.</p>
7	<b>Human Values Activities</b>	<p style="text-align: center;"><b>I</b></p> <p>Human Values involves various classroom activities through which teachers can take a measure of and improve the student's inherent qualities, including responsibility, confidence, co-operation, respect and empathy.</p> <p style="text-align: center;"><b>II</b></p> <p>Each activity featured as part of this innovation is focused on specific human values. The positive change in students and learning environment through all these activities can be</p>





10	<b>Technical Communication</b>	<p data-bbox="263 929 295 974" style="text-align: center;"><b>III</b></p> <p data-bbox="263 974 295 1019" style="text-align: center;"><b>IV</b></p> <p data-bbox="343 369 726 1019">In this course students will practice designing and giving strong, persuasive presentations. Students will learn how to communicate across cultures, genders, and generations, how to create a personal brand and leadership presence and how to hold effective meetings with global teams. Students will learn how to handle difficult conversations, and how to handle crisis communication; students will also learn writing skills immediately applicable in their daily activities.</p>
11	<b>Biology</b>	<p data-bbox="758 929 790 974" style="text-align: center;"><b>II</b></p> <p data-bbox="758 974 790 1019" style="text-align: center;"><b>IV</b></p> <p data-bbox="790 369 1109 1019">Objectives of this course provides a Purpose: To convey that Biology is as important a scientific discipline as Mathematics, Physics and Chemistry. Bring out the fundamental differences between science and engineering by drawing a comparison between eye and camera, Bird flying and aircraft. Mention the most exciting aspect of biology as an independent scientific discipline.</p>
12	<b>Disaster Management</b>	<p data-bbox="1141 929 1173 974" style="text-align: center;"><b>IV</b></p> <p data-bbox="1141 974 1173 1019" style="text-align: center;"><b>VII</b></p> <p data-bbox="1173 369 1332 1019">Disaster Management provides detailed knowledge to students on disaster preparedness, reducing the effect and rehabilitation. This course provides learners with a regional, national and international perspective on disaster management.</p>
13	<b>Neural Network</b>	<p data-bbox="1364 929 1396 974" style="text-align: center;"><b>III</b></p> <p data-bbox="1364 974 1396 1019" style="text-align: center;"><b>V</b></p>



	<u>Description</u>	The course has contents to develop Know the main provisions neuro mathematics, Know the main types of neural networks, Know and apply the methods of training neural networks, Know the application of artificial neural networks, To be able to formalize the problem, to solve it by using a neural network.
<b>14</b>	<b>Sustainable Engineering</b>	<b>IV</b> <b>VII</b>
	<u>Description</u>	This course provides students with an overview of develop an increased awareness among students on issues in areas of sustainability, To make students understand the role of engineering and technology within sustainable development, To give students some familiarity with the methods and tools used for sustainable product-service system development, To establish in students an understanding of the role and impact of engineering activities and engineering decisions on environmental, societal, and economic well-being.
<b>15</b>	<b>Environmental Engineering</b>	<b>III</b> <b>VI</b>
	<u>Description</u>	Environmental engineering is a subfield of engineering that is concerned with the protection and preservation of the environment and environmental resources as well as the protection of populations from environmental threats. Environmental engineers study population growth and monitor air and water quality.
<b>16</b>	<b>Environmental</b>	<b>III</b> <b>VI</b>



	<b>Engineering Lab</b>	
	<u>Description</u>	<p>The Environmental Engineering laboratory practical provides good insight into different experimental methods relevant to Environmental Engineering. In this lab we perform various tests on drinking water and sewage samples to check pH value, total dissolved solids, BOD and COD, total suspended particles etc.</p>

List & Description of courses which address the Professional Ethics, Gender, Human Values, Environmental and Sustainability into the Curriculum

DEPARTMENT OF ELECTRONICS AND COMMUNICATION

S.NO	NAME OF THE COURSE	YEAR	SEM
1	Discipline & Extra Curricular activity	IV	VII/VIII
		The primary goals of extracurricular activities focus on the individual student level, the institutional level, and the broader community level. These activities exist to complement the university's academic curriculum and to augment the student's educational experience. Extracurricular activities provide a setting to become involved and to interact with other students, thus leading to increased learning and enhanced development.	
2	Communication skills	I	I
		This course helps students improve their professional communication in English for successful business interactions. Each chapter focuses on a particular area of communication in English: writing emails, speaking at meetings and interviews, giving presentations, and networking online. Whether a person	

	wants to communicate to potential employers, employees, partners or clients, better English communication can help them achieve their language and professional goals. This course will focus especially on making those important connections to take the career or business to the next level.
<b>3</b>	<p style="text-align: center;"><b>I</b></p> <p>The Courses Human Values envisages to instill the ethical values and to provide the knowledge about Ethics as a subject matter. The Course Human Value Education is aimed at providing the students with knowledge on Value System and its importance in Human existence. The objective of the course is listed as: Values are socially accepted norms to evaluate objects, persons, and situations that form part and parcel of sociality. A value system is a set of consistent values and measures. Knowledge of the values are inculcated through education. It contributes in forming true human being, who are able to face life and make it meaningful.</p>
<b>4</b>	<p style="text-align: center;"><b>I</b></p> <p>Language labs are an effective and complete method designed for students to learn a language through complete language immersion.</p> <p>The advantages of using a language lab make many educational institutions choose this learning method which provides an interactive tool that encourages student participation and</p>



		engagement that is essential in mastering a language and engagement that is essential to master a language requirements. The language lab optimizes computing resources of the educational center without making a major investment in IT resources.
<b>5</b>	<b>Human Values Activities</b>	<p style="text-align: center;"><b>I</b></p> <p>Human Values involves various classroom activities through which teachers can take a measure of and improve the student's inherent qualities, including responsibility, confidence, co-operation, respect and empathy.</p> <p>Each activity featured as part of this innovation is focused on specific human values. The positive change in students and learning environment through all these activities can be ensured by carrying these out on a regular basis throughout the course.</p> <p>Activities Includes Scouts &amp; Guides, Planning, Implementation, Surveying and many more.</p>
<b>6</b>	<b>Technical Communication</b>	<p style="text-align: center;"><b>II</b></p> <p>In this course students will practice designing and giving strong, persuasive presentations. Students will learn how to communicate across cultures, genders, and generations, how to create a personal brand and leadership presence and how to hold effective meetings with global teams. Students will learn how to handle difficult</p> <p style="text-align: center;"><b>III/IV</b></p>

		conversations, and how to handle crisis communication; students will also learn writing skills immediately applicable in their daily activities.	
7	<b>Social Outreach, Discipline &amp; Extra Curricular Activities</b>	<p style="text-align: center;"><b>II</b></p> <p style="text-align: center;"><b>III/IV</b></p> <p>The primary goals of extracurricular activities focus on the individual student level, the institutional level, and the broader community level. These activities exist to complement the university's academic curriculum and to augment the student's educational experience. Extracurricular activities provide a setting to become involved and to interact with other students, thus leading to increased learning and enhanced development.</p>	
8	<b>Technical Communication</b>	<p style="text-align: center;"><b>II</b></p> <p style="text-align: center;"><b>III</b></p> <p>In this course students will practice designing and giving strong, persuasive presentations. Students will learn how to communicate across cultures, genders, and generations, how to create a personal brand and leadership presence and how to hold effective meetings with global teams. Students will learn how to handle difficult conversations, and how to handle crisis communication; students will also learn writing skills immediately applicable in their daily activities.</p>	



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DEPARTMENT OF MECHANICAL ENGINEERING

S.NO	NAME OF THE COURSE	YEAR	SEM
1	Discipline & Extra Curricular activity	IV	VII/VIII
		The primary goals of extracurricular activities focus on the individual student level, the institutional level, and the broader community level. These activities exist to complement the university's academic curriculum and to augment the student's educational experience. Extracurricular activities provide a setting to become involved and to interact with other students, thus leading to increased learning and enhanced development.	
2	Human Engineering and Safety	IV	VII
	<u>Description</u>	A human engineering effort is conducted to develop or improve human interface of the system Achieve required effectiveness of human performance during system operation, maintenance and support and make economical demands upon personnel resources skills, training and costs.	



3	<b>Communication skills</b>	<b>I</b>	<p><b>I</b></p> <p>This course helps students improve their professional communication in English for successful business interactions. Each chapter focuses on a particular area of communication in English: writing emails, speaking at meetings and interviews, giving presentations, and networking online. Whether a person wants to communicate to potential employers, employees, partners or clients, better English communication can help them achieve their language and professional goals. This course will focus especially on making those important connections to take the career or business to the next level.</p>
4	<b>Human Values</b>	<b>I</b>	<p><b>I</b></p> <p>The Courses Human Values envisages to instill the ethical values and to provide the knowledge about Ethics as a subject matter. The Course Human Value Education is aimed at providing the students with knowledge on Value System and its importance in Human existence. The objective of the course is listed as: Values are socially accepted norms to evaluate objects, persons, and situations that form part and parcel of sociality. A value system is a set of consistent values and measures. Knowledge of the values are inculcated through education. It contributes in forming true human being, who are able to face life and make it meaningful.</p>

5	<b>Language Lab</b>	<b>I</b>	<p>Language labs are an effective and complete method designed for students to learn a language through complete language immersion.</p> <p>The advantages of using a language lab make many educational institutions choose this learning method which provides an interactive tool that encourages student participation and engagement that is essential in mastering a language and The language lab optimizes computing resources of the educational center without making a major investment in IT resources.</p>
6	<b>Human Values Activities</b>	<b>I</b>	<p>Human Values involves various classroom activities through which teachers can take a measure of and improve the student's inherent qualities, including responsibility, confidence, co-operation, respect and empathy.</p> <p>Each activity featured as part of this innovation is focused on specific human values. The positive change in students and learning environment through all these activities can be ensured by carrying these out on a regular basis throughout the course.</p> <p>Activities Includes Scouts &amp; Guides, Planning, Implementation, Surveying and many more.</p>
		<b>II</b>	



7	<b>Technical Communication</b>	<b>II</b>	<b>III/IV</b>
<p>In this course students will practice designing and giving strong, persuasive presentations. Students will learn how to communicate across cultures, genders, and generations, how to create a personal brand and leadership presence and how to hold effective meetings with global teams. Students will learn how to handle difficult conversations, and how to handle crisis communication; students will also learn writing skills immediately applicable in their daily activities.</p>			
8	<b>Social Outreach, Discipline &amp; Extra Curricular Activities</b>	<b>II</b>	<b>III/IV</b>
<p>The primary goals of extracurricular activities focus on the individual student level, the institutional level, and the broader community level. These activities exist to complement the university's academic curriculum and to augment the student's educational experience. Extracurricular activities provide a setting to become involved and to interact with other students, thus leading to increased learning and enhanced development.</p>			
9	<b>Technical Communication</b>	<b>II</b>	<b>III</b>
<p>In this course students will practice designing and giving</p>			



		<p>strong, persuasive presentations. Students will learn how to communicate across cultures, genders, and generations, how to create a personal brand and leadership presence and how to hold effective meetings with global teams. Students will learn how to handle difficult conversations, and how to handle crisis communication; students will also learn writing skills immediately applicable in their daily activities.</p>
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