



Amrutvahini College of Engineering, Sangamner

List of the course that address the crosscutting issues

The list of courses in each programme which address the Professional Ethics, Gender, Human Values, Environment and Sustainability into the Curriculum is as given below.

Civil Engineering

Sr. No.	Core Course	Course No
1	SE Civil Engineering	Building Technology and Architectural Planning: 201001
2	SE Civil Engineering	Mechanics of structure: 201002
3	SE Civil Engineering	Geotechnical Engineering: 201008
4	SE Civil Engineering	Fluid Mechanics 201003
5	SE Civil Engineering	Survey: 201009
6	SE Civil Engineering	Concrete Technology: 201010
7	SE Civil Engineering	Structural Analysis: 201011
8	TE Civil Engineering	Hydrology and Water Recourses; 301001
9	TE Civil Engineering	Design of Steel Structures; 301003
10	B.E. Civil Engineering	Elective IV Air pollution and Control: 401004 a

Description of courses which address the crosscutting issues

Description of courses which address the crosscutting issues in each programme is given below:

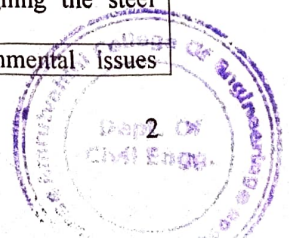
Civil Engineering

Core Course	Course No	Cross Cutting Issue	Description of Course
SE Civil Engineering	Building Technology and Architectural Planning: 201001	Professional Ethics	This course enables the students to understand the concept of types of building and basic requirements of building components.
		Environmental sustainability	This course creates awareness regarding eco friendly materials and safety in construction.
		Human Values	While designing the building principle of planning are follows.
SE Civil Engineering	Mechanics of structure: 201002	Professional Ethics	Material quality control by understanding by experimental investigation in laboratory as safety, Environmental impact and health. For the technological alternative it is essential to determine the physical properties of materials like, strength, toughness and, malleable, ductile, good conductors of heat and electricity. And other parameter to do the comparison.
		Environmental sustainability	Use materials in the most productive way with an emphasis on using less. Reduce Environmental impacts throughout the material



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			life cycle. Assure we have sufficient resources to meet today's needs and those of the future. Norms of practice e.g IS codes
SE Civil Engineering	Geotechnical Engineering : 201008	Environmental Sustainability	The course highlights the causes and remedial measures of landslide. It also enables the students to understand evil effect of subsurface contamination on subsoil and various methods to control subsurface contamination.
SE Civil Engineering	Fluid Mechanics 201003	Professional Ethics	In this subject student get idea about various properties of fluid and how to measure the pressure using various gauges. Also students get idea about energy losses in pipes and remedial measure to avoid friction losses.
SE Civil Engineering	Survey: 201009	Professional Ethics	This course deals with the study of different types of surveying instruments and methods of surveying. This involves the survey for different types of works such as road work, building work, tunnel work, dam work etc. This course gives what are the different professional ethics we should follow while doing work in team.
		Environmental Sustainability	In this course while doing the survey for different work, we should follow the different guidelines which will takes into consideration effect of future work on the Environmental. This course creates the awareness among the students regarding the sustainability by following the guidelines which will reuse the different natural materials for the proposed work.
SE Civil Engineering	Concrete Technology :201010	Professional Ethics	This course highlights the importance of concrete in the field of construction. Understanding the various properties of construction materials, testing of materials, different types of cement and concrete used for the construction work. Concrete mix design helps for selecting the proper proportion of ingredients.
SE Civil Engineering	Structural Analysis: 201011	Environmental Sustainability	In this course students get aware about safety requirements of various structure.
TE Civil Engineering	Hydrology and Water Recourses 301001	Professional Ethics	Students learn the rainfall, runoff and flood hydrograph related study; also study related to Irrigation, water management planning, regulating, designing, and construction, operation, maintenance and cost allocation of canal.
		Environmental Sustainability	After finding duty and delta for particular crop saving of water can be done.
		Environmental Sustainability	Create awareness about Public transport systems such as railway, concept of smart city.
TE Civil Engineering	Design of Steel Structures 301003	Professional Ethics	In this course students get aware about safety requirements of various steel structures.
		Environmental Sustainability	Saving of material after designing the steel member from IS 800:2007
BE Civil	Elective IV	Environmental	This course contains Environmental Issues





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Core Course	Course No	Cross Cutting Issue	Description of Course
Engineering	Air pollution and Control: 401004 a	Sustainability	related to air pollution problem. It involves importance of atmosphere, balance of ecosystem, control of all types of air pollution. The course helps in developing knowledge about control equipment's of air pollution, rule and regulation for emission control.
		Professional Ethics	This course enables the students to under the composition of air, investigation of air quality problems, use of various control equipment's, legislation and regulation in air pollution control, Environmental impact assessment and management.

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