

Interdisciplinary Open Elective Course 01: Sustainable Development								
SN	Course Code	Course Title	L-T-P (Hours/Week)	Credit	TA	IST	ESE	ESE hours
2	CECM5061S-B	Sustainable Development	3-0-0=3	3	20	20	60	3

Course Outcomes:

After completion of course students will be able to

CO1: Describe sustainable development, development processes and relate impact of various levels of development

CO2: Formulate the methodology for assessment of sustainability of project using various indicators.

CO3: Apply environmental legislations to various development processes and projects

1 Development
Goals and means of development, MDG's and SDG's sustainable development, Comparing levels of development, GDP, GNP, global development level

2 Industrialization and Post-industrialization era
Major structural shifts, knowledge revolution, implications for development sustainability

3 Environmental episodes
Ozone depletion, global warming, greenhouse effect, Bhopal gas tragedy etc

4 Pollutions
Major sources, permissible standards and controls of urban air pollution, water pollution, Solid and hazardous waste disposals

5 Climate Change and the various industrial sectors
The Risk of Global Climate Change, impact of CC & CN due to various industrial sectors

6 Environmental legislations
Legislative provisions and measures towards sustainability

7 Indicators of Development Sustainability
Composition of National wealth, Accumulation of National Wealth as an Indicator of Sustainable Development, Development Goals and Strategies, Gross happiness index, Millennium Development Goals, Role of National Development Policies, Life cycle assessment, Carbon foot print

References Books:

1 Tatyana P. Soubbotina, Beyond Economic Growth: An Introduction to Sustainable Development, World Bank Institute Learning Resources Series, 2Nd edition, 2004. (ISBN: 08213-5933-99)

2 P. P. Roger, F. J. Jalal and J. A. Boyd, An Introduction to Sustainable Development, Earthscan Publications, 2nd edition, 2008. (ISBN: 9781844075201/1844075206)

Reference Books:

1 T. Strange and A. Bayley, Sustainable Development: Linking Economy, Society, Environment, 2008. (ISBN: 9789264047785)

2 H. G. Brauch, Sustainable Development and Sustainability Transition Studies, Series: Springer Briefs in Environment, Security, Development and Peace, Series Ed.

3 G. Marletto, S. Franceschini, C. Ortolani and C. Sillig, Mapping Sustainability Transitions: Networks of Innovators, Techno-economic Competences and Political Discourses, Springer Briefs in Business, 2016. (ISBN: 9783319422725/9783319422749)