

COMMON POOL OF GENERIC ELECTIVES

Credit distribution, Eligibility and Pre-requisites of the Course GE-5

Course title & Code	Credits	Credit distribution of the course			Eligibility criteria	Pre-requisite of the course (if any)
		Lecture	Tutorial	Practical/ Practice		
GE-5 Concepts of Sustainability (L3, T1)	4	3	1	0	12 th Pass	Nil

Learning Objectives

The course on concepts of sustainability is aimed at providing students with knowledge-based concepts to understand the challenges of global sustainability and motivate them to think about solutions to these challenges. This course is also intended to encourage students to discuss and propagate issues of sustainability with others and create awareness.

Learning outcomes

After completing this course, students should be able to understand the major challenges and opportunities in the area of global sustainability. Develop an understanding of the system concept and the interconnectivity of humans and nature. They will be able to communicate issues related to sustainability. Critically analyze problems and solutions related to global sustainability.

SYLLABUS OF GE-5

Credits 4

Theory (45 hours)

UNIT – I (12 Hours)

Detailed contents

Basic concept of sustainability: Introduction to Sustainability; basic concepts Human Population – Past and Future trends

UNIT – II (12 hours)

Detailed contents

Ecosystems: Extinctions and Tragedy of Commons; Climate and Energy; Water Resources and Agriculture

UNIT – III (9 Hours)

Detailed contents

National and international issues about sustainability: National Resources Accounting, Environmental Economics and Policy, Measuring Sustainability

UNIT – IV (12 Hours)

Detailed contents

Major challenges about sustainability: Systems interconnectivity among Primary Sustainability challenges Sustainability Solutions: Some examples

Tutorials (30 Hours)

Students learning the concepts of sustainability will be divided in small batches or groups and assigned critical exercises and problems to resolve major issues of sustainability of national and international importance.

Essential/recommended readings

Rogers, P.P., K. F. Jalal, and J.A. Boyd. 2007. *An Introduction to Sustainable Development*. Earthscan Publishers, 416 pp.

Suggestive readings

Rogers, P.P., K. F. Jalal, and J.A. Boyd. 2007. *An Introduction to Sustainable Development*. Earthscan Publishers, 416 pp.

Brown, L. 2009. *Plan B 4.0*. Norton Publishers, New York. (The entire book is available in pdf format: http://www.earthpolicy.org/images/uploads/book_files/pb4book.pdf)