

CCO204 Sustainability and Technology

Level: 2

Credit Units: 5 Credit Units

Language: ENGLISH

Presentation Pattern:

Synopsis:

CCO203 Sustainability, Technology and Society focuses on the topic of sustainability. We examine the symbiotic relationship between technology and society – how certain social needs have led to technological developments, and how some technological developments have changed society. In each area of technology covered, we discuss their positive and negative influences and explore their potential future impacts. At a deeper level throughout the course, we analyse the scientific phenomena which underlie these technologies, demonstrating how the method of scientific inquiry drives technological innovation and ultimately contributes to fundamental shifts in society.

Topics:

- Brief History of Science and Technology
- Energy
- Air and Water
- Food
- Sustainability
- Information Technology & the Digital Age
- Medicine
- Genetics
- Micro-/Nano-technology
- Techno-nationalism, Politics and War
- Future Advances in Science and Technology
- Science, Technology and Society

Learning Outcome:

- Describe the history of technology and its importance in the context of the development of human civilisation.
- Discuss the aspects of society that have changed as a result of changes in technology and vice versa.
- Apply the concept and principle of sustainability to understand the limitations of technological advancements.
- Analyse the local and global effects of selected key technologies on the environment and community.
- Illustrate how technology can be used to benefit individuals and the community.
- Outline the scientific principles and phenomena underlying the selected key technologies and relate them to fundamental shifts in the society.
- Examine the future development and potential of technology in society, and the expected respective future impacts.

Continuous Assessment Component	Weightage (%)
PRE-COURSE QUIZ	1.60

PRE-COURSE QUIZ	1.70
PRE-COURSE QUIZ	1.70
PRE-COURSE QUIZ	1.70
PRE-COURSE QUIZ	1.70
PRE-COURSE QUIZ	1.60
GROUP BASED ASSIGNMENT	20
TUTOR-MARKED ASSIGNMENT	30
Sub-Total	60

Examinable Component	Weightage (%)
Written Exam	40
Sub-Total	40

Weightage Total **100**