

SEMESTER-III

PAPER CODE: ENVSC3031 [ENVSC Multidisciplinary: COURSE NO.3]

CLIMATE CHANGE & CLIMATE ACTION

TOTAL CREDITS: 3

TIME: 2 Hours

MARKS: 40

Lecture: 50

Learning objectives

- Explain the fundamentalsof climate change science
- Present the international climate change legal and policy framework and explain key issues under negotiation
- Describe the expected consequences of climate change and the role of adaptation
- Provide a rationale for climate change mitigation and propose actions in key sectors
- Outline basic elements of planning processes to deliver climate change action

The Science of climate change: Atmosphere of the Earth; Global temperature – Past and present trend, Green house effects; Global energy balance: Greenhouse gases and aerosols; its effects on global warming **15**

Climate change and its effects: Impact of climate change on the perspective of biodiversity, ocean, natural hazards, health risk, food supply, poverty, environmental refugee **10**

Climate action: Climate change-adoption, Vulnerability assessment-IPCC Framework (AR5 and AR6); Identifying and selecting adaptation option, linking adaptation and development Planning **10**

Policy and mitigation: Policy approaches for mitigation and Low Carbon Development; Role of National and Sectoral Institutions in climate change planning, National Action Plan on Climate **15**

Learning outcome

After completion of this course students should learn about-

Fundamentals of climate change science as well as know-how of the equipment with techniques for adaptation and vulnerability assessment

Knowledge and understanding on future implementation of low carbon development policy

Proposed faculty involvement

Unit 1 & 2: Social Science/

Botany/Zoology

Unit 3: Geography/Botany/Zoology/History

Unit 4: Geography/ Social Science/ Physics

Unit 5: Political Science/Social Science