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##  (Established under section 3 of the UGC Act 1956, by notification No.F.9-12/2001-U3 Government of India)Accredited by NAAC with ‘A’ Grade­­­­­Founder: Prof. Dr. S. B. Mujumdar, M.Sc.,Ph.D. *(Awarded Padma Bhushan and Padma Shri by President of India)Faculty of Management*

**SSIM Sub Committee - Specialization for Curriculum Development**

**Post Graduate/ Under Graduate**

**Name of Institute:** Symbiosis School for Liberal Arts

**Course Name: Living with Climate Change**

**Course Code: T2879**

**(UG/PG): UG**

**Number of Credits:** 4 (60 Hrs)

**Level: 2**

**Introduction**

**Learning Objective(s):**

To develop an understanding of the science of climate change, and explore causes and impacts

To understand the policy and equity issues in the climate change debate

To understand the action perspectives - international, national and local

To explore a range of actions possible to address the climate crisis

**Pedagogy:**

Inetractive, discussion based classes.

**Pre-requisites:**

Basic knowledge of science and mathematics up to 10th standard level curriculum

**Course Outline**

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| 1 | **Science of Climate Change:*** Climate system: an overview;
* Environment and Climate Change: differences;
* Insights from the IPCC;
* Causes;
* Impacts: global perspective;
* Impacts in the Indian context: eco-system based human perspective to understand the needs of the vulnerable communities in every ecosystem: Forest, Coastal, Mountainous, Arid, Urban;
* Issues of Mitigation(emission reduction and sequestration) and Adaptation;
* Peak Oil and the post industrial stone-age Climate Scepticism
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| 2 | **Climate Justice and Development** * Equity in climate change: emission scenario, current energy use and growth, access to development;
* Need for energy saving for climate change and methods for energy saving
* Survival v/s luxury emissions: sustainable living;
* Approaches to equity and burden sharing: contraction and convergence, GDR framework; polluter’s pay principle;
* Need v/s greed: challenging the consumerism culture;
* Re-ordering the ‘global ecological space’ equitably (carbon budget approach);
* Linkage between Climate Change and poverty;
* Climate Change: an opportunity to revisit the current economic growth oriented model of development;
* Global warming in an unequal world: emphasis on political economy – historical emissions and ecological debt of the developed nations;
* Intergenerational responsibility;
* Gender and Climate Change.
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| 3 | **Action Perspectives:*** United Nations Framework Convention on Climate Change (UNFCCC) and key landmarks in the negotiation process;
* International climate negotiations: stakes, debates and dilemmas;
* Climate politics in India: Government’s policy perspective, National Action Plan on Climate Change (NAPCC) and States’ Action Plan on Climate Change (SAPCC) and driving forces; India in the context of global imperatives;
* Climate mitigation, Carbon Trading;
* Technology, sustainable development and the green economy;
* Global advocacy initiatives by civil society’s key players: environment and development NGOs, international organizations, business communities, academic and research Institutions, networks;
* Influencing national government agenda on Climate Change.
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| 4 | **Living with Climate Change*** Urbanisation: Transportation, Construction, Waste and Recreation;
* Industrialisation: Power sector, mining and fossil fuel exploration, steel, cement and aluminium;
* New Economics;
* Global – Local; Urban – Rural linkages
* Science and wisdom of local communities: indigenous knowledge and practices Identifying new livelihood options;
* Sustainable Development through carbon neutral or low carbon pathway;
* Sustainable agriculture;
* Water sharing;
* Renewable and decentralized energy options;
* Bio-diversity;
* Coping and managing increasing health vulnerabilities;
* Disaster Risk Reduction and Disaster Management: vulnerability assessment and intervention for climate risk reduction;
* Individual actions: carbon footprint – personal, local, regional;
* Climate Education and Communication;1
* Research.
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**4 Methods and Communication aids envisaged:** lectures and interactive presentations with PPTs, video films and group discussions facilitated by different experts; and exposure visits in and around Pune.

**Books Recommended**

**Suggested Evaluation Methods:** As per SIU rules.

Two components of Evaluations per semester

Continuous Assessments (CA): At least 4 components to be conducted through the semester along with Attendance & Class Participation with minimum 60 and maximum 80 marks

* Regularity of attendance
* Extent of class participation
* Writing essays
* Classroom presentations on assigned topic
* Recording and presentation of videos on assigned topic
* Reviews of research articles/book chapters/documentaries

Semester End Evaluation (SEE): At least 2 components with minimum 20 and maximum 40 marks

* multiple choice questions
* Photographic poster presentation on assigned theme

**Benchmarked against similar courses in other national/ international universities /organizations**

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| **S. No.** | **Name of the Course** | **Name of University where it is offered** |
| 1. | Climate Change | Harvard University |
| 2. | On Climate Change | University of Exeter |

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| **Name of Members** |  |  |  |  |  |
| **Designation** |  |  |  |  |  |
| **Org. / Inst.** |  |  |  |  |  |
| **Signature** |  |  |  |  |  |

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| **Name of Experts** |  |  |  |  |  |
| **Designation** |  |  |  |  |  |
| **Org. / Inst.** |  |  |  |  |  |
| **Signature** |  |  |  |  |  |

 **Signature of Dean:**

**Date:**