

## ESC 351 SUSTAINABLE DEVELOPMENT

### Instructor's

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### Course Description (Catalogue): (3+ 0+ 0): 3 ECTS 6

Sustainable Development is a total of actions of providing today's needs without risking tomorrow's needs. The sustainability problem can be overcome with collecting different ideas in a whole. This course aims to increase awareness regarding the opportunities provided by and the importance of sustainable development in an interdisciplinary approach. Moreover, this course gives a unique opportunity for students to explore the connection between environment and society. Throughout the course, students get a chance to place their theoretical info onto practice. At the end of the semester, students will have a different and provable vision of the benefits of sustainable development.

**Course Objectives (Learning Outcomes):** The objectives of this course are to increase students' awareness about the sustainable development and global environmental challenges, and to equip students with critical knowledge on the principles for sustainability at global, regional, and national levels. Learning in this course will be reinforced by practical application opportunities via case studies, current policy reports and invited professionals. Students will examine global and local challenges, evaluate policy responses, and engage in practical solutions for fostering sustainable communities.

### Textbooks

There is not any specific textbook to be followed in the course, the lecture notes will be enough. However, reading assignments from various sources will be given, in order to discuss at the class.

### Reference Books

- Brebbia, C.A., 2016. *Sustainable development*, WIT Press.
- Carter, Neil. 2018. *The Politics of the Environment*. Cambridge University Press.
- Jupiner, Tony, 2016. *What's really Happening to our Planet*, DK Publications.
- Kushwaha, Saket, 2021. *Sustainable development: closing the loop*, Delve Publishing.
- Sachs, Jeffrey D., 2015. *The age of sustainable development*, New York : Columbia University Press.

### Contribution of the course to program outcomes

- (a) An understanding of the definition, fundamentals and milestones of sustainability.
- (b) An understanding of how the climate crisis poses from specific challenges to political action.
- (c) An ability to identify, formulate and solve environmental, economic and social problems.
- (d) Develop an informed and critical lens to analyze global policy on sustainable development
- (e) Better understanding the impact of sustainability solutions in a global and social context.

### Course Assessment

Course will be assessed on the basis of the accomplishments regarding the course objectives and contributions to the program outcomes. Active participation in discussions and activities will be asset for success in this course. Late submissions of assignments will incur a grade penalty unless prior arrangements are made. Few of the lowest scores at quiz & homeworks will be dropped.

**Communication:** Regularly check the course website or email for updates and announcements.

**Grading policies:** Quiz & Homework (30%), Midterm (30%), Final (40%)

### Course Outline

| Week | Topics                                                                     | Objectives                                                                                                                                                                                                           |
|------|----------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1    | Introduction to Sustainability & Drivers of Sustainable Development        | Overview of sustainability concepts; history and evolution of sustainable development; planetary boundaries, Key international conferences and frameworks                                                            |
| 2    | Ecosystem services and biodiversity                                        | Environmental pollution and control, biodiversity, fundamentals of climate change, reasons, impacts, UNFCCC, COPs                                                                                                    |
| 3    | Social & Economic Dimensions of Sustainability                             | Social equity, justice and inclusion; community development and resilience; health and well-being in sustainable communities; green economics and circular economy; role of businesses and markets in sustainability |
| 4    | Midterm & Cases                                                            | Assessment, invited speakers, group discussion                                                                                                                                                                       |
| 5    | Energy transition, Innovation, Technology and Education for Sustainability | Energy Sources, renewable energy, decarbonisation and cleaner production, role of technology in sustainable development; promoting sustainability through education; engaging communities and stakeholders           |
| 6    | Policy and Governance for Sustainability                                   | Environmental policy and regulations; global and local governance structures; successful policies and initiatives; European green deal and its policies                                                              |
| 7    | Sustainable Development Goals (SDGs)                                       | Millennium Goals, UN Agenda 2030, Integration of SDGs into local and global strategies, monitoring and evaluation of progress                                                                                        |