a. Course Code: ECO 775

b. Title: Topics in Sustainable Development

Prerequisite: Nil (Optional course)

c. Credit Hours: 3 credit hours

d. Objectives:

Students will learn to

- account for major restrictions and options for the use of resources and technologies from the standpoint of sustainable development.
- account for, on a basic level, socially and economically related conflicts of interests that may block implementation of sustainable development.
- account for strategies, international agreements, and major policy instruments for a sustainable use of resources and ecosystem services.
- account for relevant analytical concepts and have the capability to use these for analyzing issues related to sustainable development.
- account for basic ethical theory and apply it to analyze arguments and decisions on issues of sustainability.
- account different aspects of sustainable development and will learn to track them.
- use tools for measurement of sustainable development for policy decision making.

e. Outcomes:

- Analyze arguments, similarities, and disagreements in the sustainability debate and economic growth.
- Develop skills that will enable students to understand attitudes on individuals, society and their role regarding causes and solutions in the field of sustainable development.
- Apply critical thinking skills to evaluate the quality, credibility and limitations of an argument or a solution using appropriate evidence or resources.
- Understand the methods of measuring progress on the SDGs.
- Use the SDG Index and Dashboards as a tool for understanding SDG progress in your country, region, or city.
- Differentiate between data sources and select the most appropriate source for different types of data.
- Identify the steps necessary to construct an SDG Index.

f. Contents with suggested contact hours:

Week 1: What is sustainable development? Debates; definitions and dilemmas

Week 2: Economic development and economic performance: Production and consumption

Week 3: A short history of economic development and market failures. The triple P of economic growth. Are there limits to economic growth?

Week 4: Economic growth and quality of life: Why did some countries advance while others remained in poverty? International perspective

Week 5: The MDGs and the end of extreme poverty

Week 6: Geographic perspective of sustainable development: The UN development Goals

Week 7: Tools, Systems, and Innovation for Sustainability [Measuring Sustainability]. How do we measure sustainability? Sustainability Indicators

Week 8: Green finance as source of sustainable development

Week 9: Sustainable business practices: Corporate social responsibility, corporate governance and social products.

Week 10: Sustainable Agriculture: Sustainable Food Supply and the End of food insecurity.

Week 11: Sustainable urban development: Challenges and solutions

Week 12: Case Study: Curitiba Sustainable city, Case Study: Ankara Landfill Gas to Energy, case studies of Mega cities in Pakistan in view of sustainable urban development.

Week 13: Curbing Climate Change to affect growth. Environmental sustainability to achieve ecoefficiency

Week 14: Sustainable problems and solution: Policy context.

Week 15: Pakistan's Current situation and role of government intervention

Week 16: Project presentation. Project will be based on finding successful case studies of Pakistan in context of sustainable development.

g. Details of lab work, workshops practice:

No lab is required

h. Recommended Reading:

Text Books

- Sachs, Jeffrey D. (2015) *The age of sustainable development*. Columbia University Press, 2015.
- Maddison, A. (2006). *The world economy*. OECD publishing.
- Choucri, Nazli, ed. *Global Accord: Environmental Challenges and International Responses*. Cambridge, MA: MIT Press, 1995. ISBN: 9780262531344.
- Stavins, Robert N. *Economics of the Environment: Selected Readings*. 5th ed. New York, NY: W.W. Norton and Company, 2005. ISBN: 9780393927016.
- Tainter, Joseph A. *The Collapse of Complex Societies*. New York, NY: Cambridge University Press, 1988. ISBN: 9780521340922.

Suggested articles

The recent articles and research relevant to the course will be discussed in the class.

The list will be continuously updated.

Mensah, J. (2019). Sustainable development: Meaning, history, principles, pillars, and implications for human action: Literature review. Cogent Social Sciences, 5(1), 1653531.

Naidoo, R., & Fisher, B. (2020). Reset sustainable development goals for a pandemic world. In: Nature Publishing Group.

Ndubisi, N. O., Zhai, X. A., & Lai, K.-h. (2021). Small and medium manufacturing enterprises and Asia's sustainable economic development. International Journal of Production Economics, 233, 107971.

Ostergaard, P. A., Duic, N., Noorollahi, Y., Mikulcic, H., & Kalogirou, S. (2020). Sustainable development using renewable energy technology. In: Elsevier.

Sachs, J. D., Schmidt-Traub, G., Mazzucato, M., Messner, D., Nakicenovic, N., & Rockström, J. (2019). Six transformations to achieve the sustainable development goals. Nature Sustainability, 2(9), 805-814.

Zeng, Y., Maxwell, S., Runting, R. K., Venter, O., Watson, J. E., & Carrasco, L. R. (2020). Environmental destruction not avoided with the Sustainable Development Goals. Nature Sustainability, 3(10), 795-798.