Mohammad El-Hilo

1. MSc Program in Environment and Sustainable Development (ESD)

The University of Bahrain and the Prince’s Foundation (UK) jointly offer a Master’s program in Environment and Sustainable Development (ESD). The Prince’s Foundation is one of the international establishments specialized in design, planning and urban development that contributes to postgraduate studies in sustainable urbanism in partnership with universities in the UK and abroad. The ESD program is designed to boost students’ professional practice skills, to enhance their career prospects in environmental science, sustainable development and sustainable urbanism. Moreover, the Master’s program attracts a lively and engaged group of students who combine postgraduate study with their professional lives.

The curriculum of the ESD Master’s program is designed to give students diverse educational skills. It involves various learning methods including lectures, field visits, self-study, multidisciplinary projects, and case studies. Students’ research projects for the ESD thesis can focus on almost all areas of environmental protection and sustainable development such as energy, water, waste, transportation, pollution, radiation protection and measurements.

Instructors across the University of Bahrain and the Prince’s Foundation deliver the courses, in collaboration with various governmental and non-governmental organizations. As specialized environmentalists, ESD program graduates will be able to guide their communities in order to promote sustainable development.

Program Objectives

- Providing graduates from diverse disciplinary backgrounds with a high level of knowledge of the most recent and emerging concepts surrounding the environment and sustainability.
- Training of highly qualified policy decision-makers and environmental managers who will be involved in assessments and the design and implementation of environmental policies.
- Developing a theoretical understanding of the economic forces that contribute to the development of settlements, including the cycles of urban growth, maturity, decay and renewal, and economics for community cohesion and robustness.
- Developing students’ appreciation of the range of problems caused by an excessive reliance on fossil fuel-powered energy and solutions.
- Allowing students to develop a comprehensive understanding of sustainable environment issues
- Promoting the use of proper research methodology and tools related to environment and sustainable development.
- Providing graduates with basic skills for implementing scientific research strategies including collection, evaluation, and interpretation of environmental data.

Program Structure (33 Credits)

### Stream 1: Environmental Science and Development

| Core Courses (18 credits) | | |
|--------------------------|------------------|
| ESD 501 Environmental Science | ESD 502 Environmental Law |
| ESD 503 Environmental Economics | ESD 547 Research Methods |
| ESD 504 Resource Management and Technology | ESD 511 Energy and the Environment |
| Research Project (6 Credits) | |
| ESD 548 M.Sc. Thesis | |
| Three Elective Courses (9 credits) | |
| ESD 505 Environment and Society | ESD 507 Environmental Pollution |
| ESD 519 Biological Biodiversity | ESD 522 Land Use & Management |
| ESD 524 Environmental Law in the Gulf States | ESD 526 Environmental Impact Assessment |
| ESD 527 Environmental Data Analysis | ESD 531 Environmental Microbiology |
| ESD 534 Marine Pollution | ESD 542 Environmental Radiology |

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Stream 2: Sustainable Urbanism

Core Courses (18 credits)
- ESD 501 Environmental Science
- ESD 502 Environmental Law
- ESD 503 Environmental Economics
- ESD 547 Research Methods
- ESD 550 Concepts of the City and Environmental Change
- ESD 551 Place-making and Urban Design

Research Project (6 Credits)
- ESD 548 M.Sc. Thesis

Three Elective Courses (9 credits)
- ESD 552 Sustainable Transport
- ESD 553 Urban Design
- ESD 554 Urban Regeneration
- ESD 555: The Representation of Cities
- ESD 556: Cities and the Environment
- ESD 527 Environmental Data Analysis

Courses (18 credits)

2. PhD Program in Environment and Sustainable Development (ESD)

The University of Bahrain’s PhD program in Environment and Sustainable Development focuses on environmental sustainability, with an emphasis on the 2030 Sustainable Development Goals. The program equips students with the knowledge and perspectives needed to answer important questions about diverse environmental problems.

Nearly all colleges at the University of Bahrain, including their adjusted research centers, are engaged in this program since it adopts an interdisciplinary approach to solving intractable sustainability problems. Students in the program also have the opportunity to work with a multidisciplinary faculty and researchers in numerous research fields. Additional partners include the United Nations University, the United Nations Development Program (UNDP), the United Nations Environmental Program (UNEP) as well as the Prince’s Foundation (UK).

Program Objectives

- Providing advanced scientific training to allow students to identify and analyze the problems of sustainability, provide answers, and design and implement innovative solutions based on multidisciplinary research.
- Participating in national and international research teams, thereby facilitating students’ integration into the global network of scientists in overlapping fields of study.
- Enabling students to develop new companies and businesses, particularly by promoting the link between ESD activities and the economic and business work environments.

Program Structure (75 Credits)

University Requirements Courses (12 credits)
- ESD 791 Applied Research Methods
- ESD 792 Applied Statistical Techniques
- ESD 793 Special Topics and Reading
- ESD 794 Graduate Seminar

Program Requirements: SDGs (9 Credits)
- ESD 795 Sustainable Development Goals I
- ESD 796 Sustainable Development Goals II
- ESD 797 Sustainable Development Goals III

Research Project (54 Credits)
- ESD 798 PhD Thesis