



AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

| | | | | | | | | | |
|--|---|---|----------------------|--|---|--------------------------------|---|------------|---|
| Course Title | | Energy, Environment and Sustainability | | | | | | | |
| Course Code | | CSAG645 | | Course Level | | Third Cycle (Doctorate Degree) | | | |
| ECTS Credit | 4 | Workload | 100 (<i>Hours</i>) | Theory | 2 | Practice | 0 | Laboratory | 0 |
| Objectives of the Course | | The aim of the course is to enable students to understand the relationship between energy and environment and sustainability concepts. In this context, the course aims to enable the students to comprehend the energy production and usage patterns, to understand the reasons of the technical / political / economic choices for energy and to evaluate the environmental effects of these choices. | | | | | | | |
| Course Content | | Basic concepts of Global Warming, Greenhouse Gases, Pollution, Fossil Fuels and sustainability. Energy Production and Consumption Aspects, National and Global Models of Energy Supply and Usage. Energy sources, renewable and renewable energy technologies. Energy efficiency. Regional, national and global effects of energy. | | | | | | | |
| Work Placement | | N/A | | | | | | | |
| Planned Learning Activities and Teaching Methods | | | | Explanation (Presentation), Discussion | | | | | |
| Name of Lecturer(s) | | Assoc. Prof. Mehmet Metin DAM | | | | | | | |

Assessment Methods and Criteria

| Method | Quantity | Percentage (%) |
|---------------------|----------|----------------|
| Midterm Examination | 1 | 40 |
| Final Examination | 1 | 60 |

Recommended or Required Reading

| | |
|---|--|
| 1 | .Mohammad Aslam Uqaili I Khanji Harijan "Energy, Environmentand Sustainable Development" SpringerWienNewYork, ISBN 978-3-7091-0108-7, 2012 Helper Book(s): Power Point presentation handouts and lecture notes Related links in internet |
|---|--|

| Week | Weekly Detailed Course Contents | |
|------|---------------------------------|---|
| 1 | Theoretical | Global warming, greenhouse gases, energy, environment and sustainability concepts |
| 2 | Theoretical | National and global energy supply and use |
| 3 | Theoretical | Fossil fuels and their effects |
| 4 | Theoretical | Renewable energy sources |
| 5 | Theoretical | Non-renewable energy sources |
| 6 | Theoretical | Energy security |
| 7 | Theoretical | Environment and Sustainability |
| 8 | Intermediate Exam | Midterm |
| 9 | Theoretical | Basic tools and techniques for assessing the environmental impact of energy |
| 10 | Theoretical | Local, regional and global environmental impacts of energy |
| 11 | Theoretical | Life Cycle Analysis |
| 12 | Theoretical | The relationship between energy, environment and sustainability |
| 13 | Practice | presentation |
| 14 | Practice | presentation |
| 15 | Final Exam | Final exam |

Workload Calculation

| Activity | Quantity | Preparation | Duration | Total Workload |
|---------------------|----------|-------------|----------|----------------|
| Lecture - Theory | 14 | 0 | 3 | 42 |
| Term Project | 1 | 2 | 1 | 3 |
| Reading | 14 | 1 | 1 | 28 |
| Individual Work | 10 | 1 | 1 | 20 |
| Midterm Examination | 1 | 2 | 1 | 3 |



| | | | | |
|---|---|---|---|-----|
| Final Examination | 1 | 3 | 1 | 4 |
| Total Workload (Hours) | | | | 100 |
| [Total Workload (Hours) / 25*] = ECTS | | | | 4 |
| *25 hour workload is accepted as 1 ECTS | | | | |

Learning Outcomes

| | |
|----|---|
| 1 | To have knowledge about the field and to use this information |
| 2 | To be able to comment on issues related to the field |
| 3 | To be able to evaluate the political, legal, financial and administrative developments related to the field of public administration |
| 4 | To be able to develop solutions for management problems |
| 5 | To be able to monitor information technologies at the level required by the field |
| 6 | To be able to use information and communication technologies at the level required by the field |
| 7 | To be able to behave with public service responsibility |
| 8 | To gain self-learning skills and to maintain lifelong learning |
| 9 | To be able to take responsibility in social projects and activities with a consciousness that is sensitive to social, administrative and environmental problems |
| 10 | To be able to follow information in a foreign language and communicate with colleagues |
| 11 | To be able to think interdisciplinary on issues related to public administration |

Programme Outcomes (Environmental Health Interdisciplinary Doctorate)

| | |
|---|--|
| 1 | Equipped with advanced knowledge and skills related to research methods, data analysis and interpretation of research results in the development and application of environmental health theories; |
| 2 | who can take part in professional arrangements; contributes to the development of health related institutions; |
| 3 | Knows, interprets and comments on national and international environmental health legislation, |
| 4 | Organizasyon Assuming an effective role in environmental health organization and management, |
| 5 | To Equipped with the knowledge and skills necessary for the effectiveness of environmental health practices in the future; |

Contribution of Learning Outcomes to Programme Outcomes 1:Very Low, 2:Low, 3:Medium, 4:High, 5:Very High

| | L1 | L2 | L3 | L4 | L5 | L6 | L7 | L8 | L9 | L10 | L11 |
|----|----|----|----|----|----|----|----|----|----|-----|-----|
| P1 | 4 | 4 | 5 | 5 | 5 | 2 | 3 | 1 | 5 | 3 | 5 |
| P2 | 4 | 4 | 5 | 5 | 5 | 2 | 3 | 5 | 4 | 5 | 4 |
| P3 | 4 | 4 | 5 | 5 | 5 | 2 | 3 | 3 | 3 | 3 | 5 |
| P4 | 4 | 4 | 5 | 5 | 5 | 2 | 3 | 4 | 2 | 5 | 4 |
| P5 | 4 | 4 | 5 | 5 | 5 | 2 | 3 | 5 | 1 | 5 | 4 |

