



AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

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|--------------------------------------------------|---|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|---------------------------------------------------------------------------------------|---|--------------------------------|---|------------|---|
| Course Title | | Liquid and Solid Waste | | | | | | | |
| Course Code | | CSAG635 | | Course Level | | Third Cycle (Doctorate Degree) | | | |
| ECTS Credit | 3 | Workload | 75 (Hours) | Theory | 2 | Practice | 0 | Laboratory | 0 |
| Objectives of the Course | | To teach the concept of solid and liquid waste and management, to examine the methods of disposal and its technical, economic and legal aspects | | | | | | | |
| Course Content | | Solid and liquid wastes, definition, classification and properties, Solid and liquid waste management, basic tools of management. Collection of solid and liquid wastes, collection of solid wastes, disposal of solid and liquid wastes, solid and liquid wastes. | | | | | | | |
| Work Placement | | N/A | | | | | | | |
| Planned Learning Activities and Teaching Methods | | | | Explanation (Presentation), Discussion, Case Study, Individual Study, Problem Solving | | | | | |
| Name of Lecturer(s) | | | | | | | | | |

Assessment Methods and Criteria

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

Recommended or Required Reading

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| 1 | Peavy, H.S., Rowe, D.R., Tchobanoglous, G., (1985): Environmental Engineering. McGraw-Hill International Editions, ISBN 0-07-100231-696 p. |
| 2 | Prof. Dr. Ayşen Türkman - Yaşanabilir Bir Çevre İçin (İzmir, 2000) |
| 3 | Çevre ve Orman Bakanlığı, Atık Su Yönetimi, Murat Ersin ŞAHİN. |
| 4 | Interactive tour of Advanced Wastewater Treatment Plant in Washington, DC District of Columbia Water and Sewer Authority http://www.dcwasa.com/about/tour_flash.cfm |

| Week | Weekly Detailed Course Contents | |
|------|---------------------------------|-------------------------------------------------------------------------------------------------|
| 1 | Theoretical | Definition of solid and liquid waste, classification, composition, properties, sources |
| 2 | Theoretical | Analyzes used in the determination of solids and liquid wastes (physical and chemical analyzes) |
| 3 | Theoretical | Separation, collection, transport of solid and liquid waste components at source |
| 4 | Theoretical | Solid and liquid waste disposal methods (regular storage) |
| 5 | Theoretical | Solid and liquid waste disposal methods |
| 6 | Theoretical | Solid and liquid waste disposal methods |
| 7 | Theoretical | Pyrolysis (thermal decomposition), gasification, biogas production and systems |
| 8 | Theoretical | Recycling, processing and secondary products of components |
| 9 | Intermediate Exam | Midterm |
| 10 | Theoretical | Examination of solid waste regulation |
| 11 | Theoretical | Examination of solid waste regulation |
| 12 | Theoretical | Control of medical waste |
| 13 | Theoretical | Control of radioactive waste management |
| 14 | Theoretical | Course Evaluation |

Workload Calculation

| Activity | Quantity | Preparation | Duration | Total Workload |
|---------------------------------------|----------|-------------|----------|----------------|
| Lecture - Theory | 14 | 0 | 2 | 28 |
| Midterm Examination | 1 | 10 | 2 | 12 |
| Final Examination | 1 | 33 | 2 | 35 |
| Total Workload (Hours) | | | | 75 |
| [Total Workload (Hours) / 25*] = ECTS | | | | 3 |

*25 hour workload is accepted as 1 ECTS



Learning Outcomes

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|----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | To be able to have theoretical and practical up-to-date knowledge in the field of environmental health |
| 2 | Having knowledge about the techniques, techniques, and devices of the technology to treat, care and educate |
| 3 | Being able to take active role in environmental health organization and management |
| 4 | To be able to solve environmental health problems with scientific methods and to evaluate them with a critical approach |
| 5 | Obtaining theoretical and practical knowledge on environmental ethics, policy and planning, information systems, professional foreign languages, finance and intermediary institutions |
| 6 | Ability to produce, execute and finalize new projects for scientific research |
| 7 | To be able to interpret researches using appropriate statistical methods, to write a report of the research they have participated in, to publish it in a national / international accepted journal, to present it at scientific meetings |
| 8 | Having theoretical and practical knowledge about environmental health, historical development and economic dimension of environmental health |
| 9 | Being able to have theoretical and practical knowledge about the deterioration effects of the environment |
| 10 | Being able to have the knowledge and ability to apply in strategic management, marketing, performance management, quality management and human resources management in organizations providing services in the field of environmental health |

Programme Outcomes (*Environmental Health Interdisciplinary Doctorate*)

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|---|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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 |
|----|----|----|----|----|----|----|----|----|----|-----|
| P1 | 2 | 3 | 3 | 4 | 5 | 3 | 2 | 5 | 5 | 5 |
| P2 | 2 | 3 | 4 | 4 | 5 | 4 | 5 | 4 | 5 | 5 |
| P3 | 2 | 4 | 4 | 4 | 5 | 4 | 4 | 4 | 5 | 5 |
| P4 | 2 | 4 | 4 | 4 | 5 | 5 | 4 | 5 | 5 | 5 |
| P5 | 2 | 4 | 4 | 4 | 5 | 4 | 4 | 5 | 5 | 5 |

