

SOLID WASTE MANAGEMENT

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| 1 | Course Title: | SOLID WASTE MANAGEMENT | |
| 2 | Course Code: | CEV3034 | |
| 3 | Type of Course: | Compulsory | |
| 4 | Level of Course: | First Cycle | |
| 5 | Year of Study: | 3 | |
| 6 | Semester: | 6 | |
| 7 | ECTS Credits Allocated: | 4.00 | |
| 8 | Theoretical (hour/week): | 3.00 | |
| 9 | Practice (hour/week): | 1.00 | |
| 10 | Laboratory (hour/week): | 0 | |
| 11 | Prerequisites: | - | |
| 12 | Language: | Turkish | |
| 13 | Mode of Delivery: | Face to face | |
| 14 | Course Coordinator: | Prof. Dr. Nezh Kamil Salihođlu | |
| 15 | Course Lecturers: | Öđr. Gör.Dr. N. KAMİL SALİHOĐLU | |
| 16 | Contact information of the Course Coordinator: | E-posta: selnur@uludag.edu.tr Tel: 0 224 294 2110 Adres: Uludađ Üniversitesi, Mühendislik-Mimarlık Fakültesi, Çevre Mühendisliđi Bölümü, 16059,Görükle /BURSA | |
| 17 | Website: | | |
| 18 | Objective of the Course: | The objects to establish a sustainable waste management are: 1. Basic information supply to students on quality, quantity, collection and transportation of wastes, 2. Explanation of waste disposal methods. | |
| 19 | Contribution of the Course to Professional Development: | | |
| 20 | Learning Outcomes: | | |
| | | 1 | Explain the basic principles of sustainable waste management, |
| | | 2 | Carry out the characterization and analysis methods solid wastes, |
| | | 3 | Estimate the physical characteristics of solid wastes |
| | | 4 | Express the collection methods of solid wastes |
| | | 5 | Solve the problems related to waste collection methods |
| | | 6 | Clarify the transportation methods of solid wastes |
| | | 7 | Express the disposal methods of solid wastes. |
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| 21 | Course Content: | | |
| | | Course Content: | |
| Week | Theoretical | Practice | |

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| 1 | Course Schedule, introduction, general knowledge and identification of solid wastes Determination of Project topics and groups. | |
| 2 | Solid waste management- Classification of solid wastes | Determination of characteristics of solid wastes |
| 3 | Quantity, composition, size and characteristics of solid wastes. | |
| 4 | Characteristics of solid wastes. | |
| 5 | Collection of solid wastes. | |
| 6 | Collection of solid wastes. | Calculations on waste collections |
| 7 | Transfer stations, transportation and disposal methods of solid wastes. | |
| 8 | Repeating courses and midterm exam | |
| 9 | Sanitary Landfilling | |
| 10 | Sanitary Landfilling | Sanitary landfilling space and volume calculations |
| 11 | Technical Visit | |
| 12 | Recovery of solid wastes- Composting. | |
| 13 | Composting- Incineration – Presentation of group projects. | Moisture and C/N calculations for composting |
| 14 | Presentation of group projects. | |
| 22 | Textbooks, References and/or Other Materials: | <ol style="list-style-type: none"> 1. Tchobanoglous, G., Theisen, H., Vigil, S.A., (1993) "Integrated Solid Waste Management", ISBN: 0-07-063237-5 McGraw Hill, New York, USA. 2. Erdin, E., (2000) "Çöp ve Katı Atıklar Ders Notları", DEÜ, İzmir. 3. Suess, S.M., (1985) "Katı Atık Yönetimi" WHO, Avrupa Bölgesel Bürosu, Danimarka. 4. Peavy S.H., Rowe R.D., Tchobanoglous, G., (1985), "Environmental Engineering" ISBN: 0-13-398132-0, Second Edition, Prentice Hall, New Jersey, USA. |
| 23 | Assesment | |
| TERM LEARNING ACTIVITIES | | |
| | NUMBER | WEIGHT |
| Midterm Exam | 1 | 30.00 |
| Quiz | 0 | 0.00 |
| Home work-project | 1 | 20.00 |
| Final Exam | 1 | 50.00 |
| Total | 3 | 100.00 |
| Contribution of Term (Year) Learning Activities to Success Grade | | 50.00 |
| Contribution of Final Exam to Success Grade | | 50.00 |
| Total | | 100.00 |
| Measurement and Evaluation Techniques Used in the Course | | |
| 24 | ECTS / WORK LOAD TABLE | |

| Activites | Number | Duration (hour) | Total Work Load (hour) |
|----------------------------|--------|-----------------|------------------------|
| Theoretical | 14 | 2.00 | 28.00 |
| Practicals/Labs | 14 | 1.00 | 14.00 |
| Self study and preperation | 17 | 2.00 | 34.00 |
| Homeworks | 1 | 59.00 | 59.00 |
| Projects | 0 | 0.00 | 0.00 |
| Field Studies | 1 | 5.00 | 5.00 |
| Midterm exams | 1 | 2.00 | 2.00 |
| Others | 1 | 6.00 | 6.00 |
| Final Exams | 1 | 2.00 | 2.00 |
| Total Work Load | | | 150.00 |
| Total work load/ 30 hr | | | 5.00 |
| ECTS Credit of the Course | | | 4.00 |

| 25 | CONTRIBUTION OF LEARNING OUTCOMES TO PROGRAMME QUALIFICATIONS | | | | | | | | | | | | | | | |
|--|---|-----|--------------|-----|-----|-----------------|-----|-----|---------------|------|------|--------------------|------|------|------|------|
| | PQ1 | PQ2 | PQ3 | PQ4 | PQ5 | PQ6 | PQ7 | PQ8 | PQ9 | PQ10 | PQ11 | PQ12 | PQ13 | PQ14 | PQ15 | PQ16 |
| ÖK1 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 |
| ÖK2 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 |
| ÖK3 | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ÖK4 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 |
| ÖK5 | 4 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ÖK6 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 |
| ÖK7 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 |
| LO: Learning Objectives PQ: Program Qualifications | | | | | | | | | | | | | | | | |
| Contribution Level: | 1 very low | | 2 low | | | 3 Medium | | | 4 High | | | 5 Very High | | | | |