

**BALIKESIR UNIVERSITY**  
**ENGINEERING FACULTY**  
**UNIVERSITY ELECTIVE COURSE PROPOSAL FORM**

|                                                         |                                                                                                                                                                                                                                                                                                                                |                       |                                                 |                                            |                 |                               |
|---------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-------------------------------------------------|--------------------------------------------|-----------------|-------------------------------|
| <b>Department/Program</b>                               | Environmental Engineering/Environmental Sciences                                                                                                                                                                                                                                                                               |                       |                                                 |                                            |                 |                               |
| <b>Course Unit Title</b>                                | Zero Waste Culture and Sustainable Living                                                                                                                                                                                                                                                                                      |                       |                                                 |                                            |                 |                               |
| <b>Semester</b>                                         | Fall <input type="checkbox"/>                                                                                                                                                                                                                                                                                                  |                       |                                                 | Spring <input checked="" type="checkbox"/> |                 |                               |
| <b>Language of Instruction</b>                          | Turkish <input checked="" type="checkbox"/>                                                                                                                                                                                                                                                                                    |                       |                                                 | English <input type="checkbox"/>           |                 |                               |
| <b>Credit</b>                                           | Theoretical 2                                                                                                                                                                                                                                                                                                                  |                       | Application 0                                   |                                            | Total Credits 2 |                               |
| <b>Number of ECTS Credits</b>                           | 3                                                                                                                                                                                                                                                                                                                              |                       |                                                 |                                            |                 |                               |
| <b>Course Learning Type</b>                             | University Elective                                                                                                                                                                                                                                                                                                            |                       |                                                 | Formal Education                           |                 |                               |
| <b>Objectives of the Course</b>                         | The course aims to guide students in their curiosity, thinking, awareness, design, and decision-making processes about zero waste culture and a sustainable life.                                                                                                                                                              |                       |                                                 |                                            |                 |                               |
| <b>Course Content</b>                                   | In this course, Zero waste principle and waste types, 5R Principle, Food waste, General concepts of compost and composting, Energy supply and use, Carbon footprint and water footprint, Sustainable production technologies and green supply, Sustainability and globalization, Sustainable life practices will be discussed. |                       |                                                 |                                            |                 |                               |
| <b>Prerequisites</b>                                    | No prerequisites                                                                                                                                                                                                                                                                                                               |                       |                                                 |                                            |                 |                               |
| <b>Name of Lecturer</b>                                 | Res. Asst. Dr. Simge SERTKAYA KÖYBAŞI                                                                                                                                                                                                                                                                                          |                       |                                                 | mail : sertkayasimge@gmail.com             |                 |                               |
| <b>Assistants</b>                                       | -                                                                                                                                                                                                                                                                                                                              |                       |                                                 | mail :-                                    |                 |                               |
| <b>Internship</b>                                       | -                                                                                                                                                                                                                                                                                                                              |                       |                                                 |                                            |                 |                               |
| <b>Resources</b>                                        | Korst, A. (2012). The zero-waste lifestyle: Live well by throwing away less. Ten Speed Press.<br>Class Notes                                                                                                                                                                                                                   |                       |                                                 |                                            |                 |                               |
| <b>Type of Course Unit</b>                              | Science                                                                                                                                                                                                                                                                                                                        |                       |                                                 |                                            |                 |                               |
| <b>Planned Learning Activities and Teaching Methods</b> | Theoretical lecture, Midterm exam, Final exam                                                                                                                                                                                                                                                                                  |                       |                                                 |                                            |                 |                               |
| <b>Assessment methods and criteria</b>                  |                                                                                                                                                                                                                                                                                                                                |                       | <b>ECTS allocated based on student workload</b> |                                            |                 |                               |
| <b>In-term Studies</b>                                  | <b>Quantity</b>                                                                                                                                                                                                                                                                                                                | <b>Percentage (%)</b> | <b>Activities</b>                               | <b>Quantity</b>                            | <b>Duration</b> | <b>Total workload (Hours)</b> |
| Midterms                                                | 1                                                                                                                                                                                                                                                                                                                              | 40                    | Course Duration                                 | 14                                         | 2               | 28                            |
| Quizzes                                                 |                                                                                                                                                                                                                                                                                                                                |                       | Off the class study hours                       | 0                                          | 2               | 0                             |
| Assignment                                              |                                                                                                                                                                                                                                                                                                                                |                       | Midterms                                        | 1                                          | 2               | 2                             |
| Attendance                                              |                                                                                                                                                                                                                                                                                                                                |                       | Final exams                                     | 1                                          | 2               | 2                             |
| Practice                                                |                                                                                                                                                                                                                                                                                                                                |                       | Total workload (hours): 32                      |                                            |                 |                               |
| Project                                                 |                                                                                                                                                                                                                                                                                                                                |                       | Number of ECTS Credits: 3                       |                                            |                 |                               |
| Final Exam                                              | 1                                                                                                                                                                                                                                                                                                                              | 60                    |                                                 |                                            |                 |                               |
| <b>Learning outcomes</b>                                | General concepts related to zero waste principle and waste types, 5R Principle, Food waste, Compost and composting are learned.                                                                                                                                                                                                |                       |                                                 |                                            |                 |                               |

|                                                |                                                                 |                                                                                                                                                                                                                    |           |
|------------------------------------------------|-----------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|
|                                                |                                                                 | Energy supply and use, Carbon footprint and water footprint, Sustainable production technologies and green supply, Sustainability and globalization, Sustainable living practices are learned and applied to life. |           |
| Weekly Detailed Course Contents                |                                                                 |                                                                                                                                                                                                                    |           |
| Week                                           | Topic                                                           | Prerequisites                                                                                                                                                                                                      | Resources |
| 1                                              | Introduction                                                    |                                                                                                                                                                                                                    |           |
| 2                                              | Zero waste principle and types of waste                         |                                                                                                                                                                                                                    |           |
| 3                                              | 5R Principle (Refuse, Reduce, Reuse, Rot (Compost) and Recycle) |                                                                                                                                                                                                                    |           |
| 4                                              | Food waste                                                      |                                                                                                                                                                                                                    |           |
| 5                                              | General concepts of compost and composting                      |                                                                                                                                                                                                                    |           |
| 6                                              | Energy supply and use                                           |                                                                                                                                                                                                                    |           |
| 7                                              | Midterm week                                                    |                                                                                                                                                                                                                    |           |
| 8                                              | Exam evaluation                                                 |                                                                                                                                                                                                                    |           |
| 9                                              | Global warming and climate change                               |                                                                                                                                                                                                                    |           |
| 10                                             | Sustainable production technologies and green procurement       |                                                                                                                                                                                                                    |           |
| 11                                             | Sustainability and globalization                                |                                                                                                                                                                                                                    |           |
| 12                                             | Sustainable living practices                                    |                                                                                                                                                                                                                    |           |
| 13                                             | General evaluation                                              |                                                                                                                                                                                                                    |           |
| 14                                             | Final exam                                                      |                                                                                                                                                                                                                    |           |
| Contribution of the Course to Program Outcomes |                                                                 |                                                                                                                                                                                                                    |           |