

| COURSE DESCRIPTION FORM | | | |
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| Course Code and Title | TOS209 Special Topics in Agriculture | | |
| Semester | | | |
| Catalog description | Ecology, Ecosystem, Matter Circulation, Greenhouse Gases, Causes of climate change, Effects of climate change. Forests and Climate Change and Effects of Climate Change on Agriculture | | |
| Required reading | Instructor Lecture Notes | | |
| Recommended reading | İklim Değişikliği Alanında Ortak Çabaların Desteklenmesi Projesi (iklimİN) İklim Değişikliği Eğitim Modülleri, 2019, http://www.iklimin.org/tr/dokumanlar/) | | |
| ECTS | 3 | | |
| Prerequisites and co-requisites | No prerequisite. Required attendance to lectures is at least 70% of total term hours. | | |
| Compulsory/Elective | Non-technical elective course | | |
| Language of instruction | Turkish | | |
| Aim of course | To Teach ecology, ecosystem, hydrological cycle, and greenhouse gases. To teach the effects of forests on climate change and the effects of climate change on agriculture. | | |
| Learning outcomes of the course unit | <ol style="list-style-type: none"> 1. Learns Ecology and Ecosystem. 2. Learns Material Circulation in the Earth 3. Learn greenhouse gases and their effects 4. Learn the impact of forests on climate change 5. Learn the effects of climate change on agriculture | | |
| Mode of delivery | The mode of delivery of this course is face to face. | | |
| Course content | <ol style="list-style-type: none"> 1. General information about the course 2. Ecology, Ecosystem and Basic Concepts 3. Ecosystem and Material Circulation 4. Ecological Systems in the World 5. Ecosystem Services 6. Climate Change 7. 1st Midterm Exam 8. Greenhouse Gases 9. Climate Change and Global Warming 10. Climate Change and Indicators 11. Effect of Climate Change on Water Resources 12. Climate Change and Forests 13. Climate Change and Agriculture 14. General Evaluation | | |
| Planned learning activities and teaching methods | 3 lecture hours per week (3+0) Web search and library use: 10 Readings:10 Midterm exam and presentation, and required works: 6 Final exam and required works: 7 | | |
| Assessment methods and criteria | | Quantity | Percentage (%) |
| | Mid-terms | 1 | 60 |
| | Assignment | - | - |
| | Exercises | - | - |
| | Projects | - | - |
| | Practice | - | - |
| | Quiz | - | - |
| | Contribution of In-term Studies to Overall Grade % | 1 | 60 |
| | Contribution of Final Examination | | 40 |

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| | to Overall Grade (%) | | | | | | |
| | Attendance | - | - | | | | |
| Workload | Efficiency | Total Week Count | Weekly Duration (in hour) | Total Workload in Semester | | | |
| | Theoretical Study Hours of Course Per Week | 14 | 3 | 42 | | | |
| | Practicing Hours of Course Per Week | - | - | - | | | |
| | Reading | 10 | - | 10 | | | |
| | Searching in Internet and Library | 10 | 1 | 10 | | | |
| | Designing and Applying Materials | - | - | - | | | |
| | Preparing Reports | - | - | - | | | |
| | Preparing Presentation | - | - | - | | | |
| | Presentation | - | - | - | | | |
| | Mid-Term and Studying for Mid-Term | 1 | 6 | 6 | | | |
| | Final and Studying for Final | 1 | 7 | 7 | | | |
| | Other | - | - | - | | | |
| | Total Workload: | - | - | 75 | | | |
| | Total Workload / 25: | - | - | 3 | | | |
| ECTS: | - | - | 3 | | | | |
| Course's contribution to program | No | Program Learning Outcomes | 1 | 2 | 3 | 4 | 5 |
| | 1 | Adequate knowledge in mathematics, science and engineering subjects pertaining to the relevant discipline; ability to use theoretical and applied knowledge in these areas in complex engineering problems. | | | | | |
| | 2 | Ability to identify, formulate, and solve complex civil engineering problems; ability to select and apply proper analysis and modeling methods for this purpose. | | | | | |
| | 3 | Ability to design a complex system, process, device or product under realistic constraints and conditions, in such a way as to meet the desired result; ability to apply modern design methods for this purpose. | | | | | |
| | 4 | Ability to devise, select, and use modern techniques and tools needed for analyzing and solving complex problems encountered in civil engineering practice; ability to employ information technologies and to use at least one computer programming language effectively. | | | | | |
| | 5 | Ability to design and conduct experiments, gather data, analyze and interpret results for investigating complex civil engineering problems or discipline specific research questions. | | | | | |
| | 6 | Ability to work efficiently in intra-disciplinary and multi-disciplinary teams. | | | | | X |
| | 7 | Ability to work individually. | | | | | X |
| | 8 | Ability to communicate effectively in Turkish, both orally and in writing; ability to write effective reports and comprehend written reports. | | | | | |
| | 9 | Knowledge of English of B1 level according to <u>Common European Framework of Reference</u> . | | | | | |
| | 10 | Prepare design and production reports, make effective presentations, and give and receive clear and intelligible instructions. | | | | | |
| | 11 | Recognition of the need for lifelong learning; ability to access information, to follow | | | | | X |

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| | | developments in science and technology, and to continue to educate him/herself. | | | | | | |
| | 12 | Consciousness to behave according to ethical principles and professional and ethical responsibility. | | | | | | |
| | 13 | Knowledge on standards used in civil engineering practice. | | | | | | |
| | 14 | Knowledge about business life practices such as project management, risk management, and change management. | | | | | | |
| | 15 | Awareness in entrepreneurship, innovation; knowledge about sustainable development. | | | | X | | |
| | 16 | Knowledge about the global and social effects of engineering practices on health, environment, and safety, and contemporary issues of the century reflected into the field of engineering. | | | | | | |
| | 17 | Awareness of the legal consequences of engineering solutions. | | | | | | |
| Name of lecturer and contact information | Lecturer. Dr. Pelin Yıldırım fpelin@gazi.edu.tr | | | | | | | |