



AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

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|--|---|----------|--------------|--------|--------------------------------|----------|---|------------|---|
| Course Title | Environmental Microbiology | | | | | | | | |
| Course Code | MİK530 | | Course Level | | Second Cycle (Master's Degree) | | | | |
| ECTS Credit | 3 | Workload | 79 (Hours) | Theory | 2 | Practice | 0 | Laboratory | 0 |
| Objectives of the Course | The objective of this course is to give information about special laboratory applications. | | | | | | | | |
| Course Content | Transmission of infectious diseases in soil (meadows, fields, and pastureland). The resilience of sporophyte microorganisms in soil. Transmission of infections in closed environments (stables and pens etc). Transmission of infections with changing climax and geographical features. Transmission of infection with air and water. Hygiene of air, water and environment. Precautions to be taken in order to prevent microbial environmental pollution. Techniques of destroying contaminated material. | | | | | | | | |
| Work Placement | N/A | | | | | | | | |
| Planned Learning Activities and Teaching Methods | Explanation (Presentation), Demonstration, Discussion, Case Study | | | | | | | | |
| Name of Lecturer(s) | Prof. Uğur PARIN | | | | | | | | |

Assessment Methods and Criteria

| Method | Quantity | Percentage (%) |
|---------------------|----------|----------------|
| Assignment | 2 | 20 |
| Quiz | 1 | 20 |
| Midterm Examination | 1 | 20 |
| Final Examination | 1 | 40 |

Recommended or Required Reading

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| 1 | Koneman's Color Atlas and Textbook of Diagnostic Microbiology |
| 2 | Bergey's manual of systematic bacteriology |
| 3 | Encyclopedia of Grain Science - Vol 1, 2 y 3 |
| 4 | Food Security and Soil Quality (Advances in Soil Science) |
| 5 | Temel Mikrobiyoloji |
| 6 | Water Quality - Guidelines, Standards and Health |

Week Weekly Detailed Course Contents & Teaching Methods

| Week | Teaching Method | Weekly Detailed Course Contents & Teaching Methods |
|------|-----------------|--|
| 1 | Theoretical | Transmission of infectious diseases in soil (meadows and pasturelands etc.) |
| 2 | Theoretical | Transmission of infectious diseases in soil (meadows and pasturelands etc.) |
| 3 | Theoretical | Transmission of infections in closed environments (stables and pens etc). |
| 4 | Theoretical | Transmission of infections in closed environments (stables and pens etc). |
| 5 | Theoretical | Transmission of infectious diseases according to climate conditions |
| 6 | Theoretical | Transmission of infectious diseases according to climate conditions |
| 7 | Theoretical | Transmission of infectious diseases according to climate conditions |
| 8 | Theoretical | Discussion |
| 9 | Theoretical | Transmission of infectious diseases according to geographical features |
| 10 | Theoretical | Transmission of infectious diseases according to geographical features |
| 11 | Theoretical | Transmission of infectious diseases with air and water |
| 12 | Theoretical | Transmission of infectious diseases with air and water |
| 13 | Theoretical | Precautions to be taken in order to prevent microbial environmental pollution. |
| 14 | Theoretical | Destruction techniques of contaminated material |

Workload Calculation

| Activity | Quantity | Preparation | Duration | Total Workload |
|---------------------|----------|-------------|----------|----------------|
| Lecture - Theory | 14 | 0 | 2 | 28 |
| Assignment | 2 | 1 | 2 | 6 |
| Laboratory | 14 | 0 | 2 | 28 |
| Quiz | 1 | 4 | 1 | 5 |
| Midterm Examination | 1 | 4 | 1 | 5 |



| | | | | |
|---|---|---|---|----|
| Final Examination | 1 | 6 | 1 | 7 |
| Total Workload (Hours) | | | | 79 |
| [Total Workload (Hours) / 25*] = ECTS | | | | 3 |
| *25 hour workload is accepted as 1 ECTS | | | | |

Learning Outcomes

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|---|--|
| 1 | 1. To be able to define environmental microbiology |
| 2 | 2. To be able to explain the link between climate conditions and transmission of infectious diseases |
| 3 | 3. To be able to describe prevention of pollution |
| 4 | 4. To be able to use the necessary information |
| 5 | interrelation with microbiology and environment |

Programme Outcomes (Microbiology (Veterinary Medicine) Master)

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| 1 | Department has the ability to identify and apply information about bacteriology, virology, mycology and has the ability to recognize diseases about veterinary medicine. |
| 2 | Department has the ability to take the advantage of technology and has the ability to diagnose, treat and prevent the diseases by using appropriate equipments. |
| 3 | Department has the ability to analyze the epidemiological compounds of an animal population and has the ability to get precautions. |
| 4 | Department has the ability to test or analyze the diseases and has the ability to evaluate the results. |
| 5 | Department has the ability to perform, produce and conclude projects for scientific researches. |
| 6 | Department has the ability to donate theoretical and practical knowledge about postgraduate students in the are of microbiology. |
| 7 | Graduate students has the ability to perform scientific researches. |

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

| | L1 | L2 | L3 | L4 | L5 |
|----|----|----|----|----|----|
| P1 | 5 | 4 | 4 | 5 | 4 |
| P2 | 4 | 4 | 5 | 4 | 4 |
| P3 | 5 | 4 | 4 | 4 | 5 |
| P4 | 4 | 4 | 5 | 4 | 4 |
| P5 | 4 | 5 | 4 | 5 | 5 |
| P6 | 4 | 4 | 5 | 4 | 4 |
| P7 | 5 | 5 | 4 | 5 | 5 |

