## Course Syllabus

| | |
|---|---|
| **Code - Course Title** | **BİY243 - General Microbiology** |
| **Course Type** | III. SEMESTER |
| **Laboratory + Practice** | 2+2 |
| **ECTS** | **3.0** |
| **Language of Instruction** | Türkçe |
| **Course Type** | Required Courses |
| **Course Instructor(s)** | DR. ÖĞR. ÜYESİ SEREN OĞUZ |

| | |
|---|---|
| **Mode of Delivery** | This course is conducted exclusively face-to-face. |
| **Place of Delivery** | On Campus |
| **Prerequisites** | Mandatory course for second-year students. |
| **Courses Recomended** | - |
| **Recommended Resources** | Brock Biology of Microorganisms – 14th edition. Michael T. Madigan, John M. Martinko, Kelly S. Bender, Daniel H. Buckley. and David A. Stahl. Pearson Education, Inc.2015 ISBN: 978-0-321-89739-8;Articles published in national and international peer-reviewed journals related to the course topics |
| **Work Placement** | - |
| **Aims of the Course** | To provide students with an understanding of the historical development and key milestones of microbiology, equip them with foundational knowledge of cellular structure, metabolism, and control methods of microorganisms, teach aseptic laboratory skills, and establish a strong foundation for professional applications in fields such as food safety and human health. |

## Course Syllabus

| Weeks | Learning Outcomes | Topics | Teaching Methods |
|---|---|---|---|
| **Week - 1** | | Introduction to microbiology, history, scope and classification | |
| **Week - 2** | | Introduction to microbiology, history, scope and classification | |
| **Week - 3** | | Structure of microorganisms + Laboratory practicals 1 | |
| **Week - 4** | | Structure of microorganisms + Laboratory practicals 1 | |
| **Week - 5** | | Microorganism metabolism, nutritional and reproductive characteristics | |
| **Week - 6** | | Microorganism metabolism, nutritional and reproductive characteristics | |
| **Week - 7** | | Midterm exam | |
| **Week - 8** | | Transmission routes of microorganisms and significant bacterial microorganisms | |
| **Week - 9** | | Occurrence of microorganisms in nature and normal microflora | |
| **Week - 10** | | The importance of bacteria in terms of health and industry - Sterilization and disinfection methods | |

## Course Syllabus

| Weeks | Learning Outcomes | Topics | Teaching Methods |
|---|---|---|---|
| Week - 11 | | The health significance of viruses and important viral infections | |
| Week - 12 | | The health and industrial importance of molds and yeasts—significant fungal infections | |
| Week - 13 | | Parasites and significant parasitic diseases | |
| Week - 14 | | Immunity, immune response, and general review | |

## Learning Outcomes

| # | Learning Outcome |
|---|---|
| 1 | Defines the structure, metabolism and genetic properties of bacteria. |
| 2 | Define host parasite relationships. Defines sterilization and disinfection methods. |
| 3 | List the mechanisms of antibiotic action and resistance. Defines antigen, antibody structure, and immune response mechanisms. |
| 4 | Understands important viruses, fungi and parasites in microbiology. |
| 5 | Gathers the basics of microbiology and immunology |

## Sustainable Development Goals

*No content has been provided.*

## Course Theme

*No content has been provided.*

## AKTS Workload

| Activity | Duration (Hour) | Count | Workload |
|---|---|---|---|
| Teorik Derse Katılım | 0 | 0 | 0 |
| Sınıf Dışı Çalışma (Ön Hazırlık & Pekiştirme Amaçlı) | 0 | 0 | 0 |
| Ödevler | 0 | 0 | 0 |
| Proje - Rapor - Sunum Hazırlama | 0 | 0 | 0 |
| Ara Sınav Hazırlığı (sınav süresi dahil) | 0 | 0 | 0 |
| Final Sınavı Hazırlığı (sınav süresi dahil) | 0 | 0 | 0 |
| Uygulama (Laboratuvar, Müzik/Enstrüman Uygulaması, Atölye/Saha Çalışması vb.) | 0 | 0 | 0 |
| Staj Uygulaması | 0 | 0 | 0 |
| | | **Calculated ECTS** | **0** |

## Assessment Method and Passing Requirements

✓ Open-Ended Test ✓ Multiple Choice Test ✓ Homework

| Assessment Method and Passing Requirements | Quamtity | Percentage (%) |
|---|---|---|
| 1.Midterm Exam | 1 | 30 |
| Final Exam | 1 | 60 |
| Practice | 1 | 10 |
| | **Sum (%)** | **100** |