



AYDIN ADNAN MENDERES UNIVERSITY
AYDIN VOCATIONAL SCHOOL OF HEALTH SERVICES
MEDICAL SERVICES AND TECHNIQUES
MEDICAL LABORATORY TECHNIQUES
COURSE INFORMATION FORM

| | | | | | | | | | |
|--|--|--------------|------------|--------|----------------------------------|----------|---|------------|---|
| Course Title | Microbiology III | | | | | | | | |
| Course Code | TL202 | Course Level | | | Short Cycle (Associate's Degree) | | | | |
| ECTS Credit | 2 | Workload | 50 (Hours) | Theory | 2 | Practice | 0 | Laboratory | 0 |
| Objectives of the Course | To learn medically important bacteria. | | | | | | | | |
| Course Content | Identify gram positive cocci, Identify gram negative cocci, Make laboratory identification of gram positive sporeforming bacilli, Make laboratory identification of gram positive non-sporeforming bacilli, Make laboratory identification of small gram negative bacilli, Make laboratory identification of enterobacteriaceae group bacteria, Make laboratory identification of nonferments, Make laboratory identification of obligate intracellular bacteria, Make laboratory identification spirochaeta | | | | | | | | |
| Work Placement | N/A | | | | | | | | |
| Planned Learning Activities and Teaching Methods | Explanation (Presentation), Experiment, Demonstration, Individual Study | | | | | | | | |
| Name of Lecturer(s) | | | | | | | | | |

Assessment Methods and Criteria

| Method | Quantity | Percentage (%) |
|---------------------|----------|----------------|
| Midterm Examination | 1 | 40 |
| Final Examination | 1 | 60 |

Recommended or Required Reading

| | |
|---|---|
| 1 | Bilgehan H. Temel Mikrobiyoloji ve Bağışıklık Bilimi 8. Baskı. Fakülteler Kitabevi, Bornova, 1996 |
| 2 | Serter N. Mikrobiyoloji. T.C. Anadolu Üniversitesi Yayınları No:490, Eskişehir, 1991. |

| Week | Weekly Detailed Course Contents | |
|------|---------------------------------|---|
| 1 | Theoretical | Identify gram positive cocci |
| 2 | Theoretical | Identify gram negative cocci |
| 3 | Theoretical | Make laboratory identification of gram positive spore forming bacilli |
| 4 | Theoretical | Make laboratory identification of gram positive non-spore forming bacilli |
| 5 | Theoretical | Make laboratory identification of small gram negative bacilli |
| 6 | Theoretical | Make laboratory identification of small gram negative bacilli |
| 7 | Theoretical | Make laboratory identification of enterobacteriaceae group bacteria |
| 8 | Intermediate Exam | Mid term exam |
| 9 | Theoretical | Make laboratory identification of enterobacteriaceae group bacteria |
| 10 | Theoretical | Make laboratory identification of enterobacteriaceae group bacteria |
| 11 | Theoretical | Make laboratory identification of non fermenters |
| 12 | Theoretical | Make laboratory identification of anaerob bacteria |
| 13 | Theoretical | Make laboratory identification of obligate intracellular bacteria |
| 14 | Theoretical | Make laboratory identification spirochaeta |
| 15 | Theoretical | Make laboratory identification spirochaeta |

Workload Calculation

| Activity | Quantity | Preparation | Duration | Total Workload |
|---------------------|----------|-------------|---------------------------------------|----------------|
| Lecture - Theory | 14 | 1 | 2 | 42 |
| Midterm Examination | 1 | 3 | 1 | 4 |
| Final Examination | 1 | 3 | 1 | 4 |
| | | | Total Workload (Hours) | 50 |
| | | | [Total Workload (Hours) / 25*] = ECTS | 2 |

*25 hour workload is accepted as 1 ECTS

Learning Outcomes

| | |
|---|--|
| 1 | To make laboratory diagnosis of Enterobacteriaceae |
|---|--|



| | |
|---|---|
| 2 | To make laboratory diagnosis of Nonfermenters |
| 3 | To make laboratory diagnosis of Anaerobic bacteria |
| 4 | To make laboratory diagnosis of obligate intracellular bacteria |
| 5 | To make laboratory diagnosis of Spirochetes |
| 6 | To identify the Gram-positive cocci |
| 7 | To identify the Gram-negative cocci |

Programme Outcomes (Medical Laboratory Techniques)

| | |
|----|---|
| 1 | To be able to have sufficient back ground in medical laboratory techniques and medical laboratory branches (biochemistry, microbiology, parasitology, sitogenetik etc.); the ability to use theoretical and practical knowledge in these fields. |
| 2 | To be able to have the basic theoretical and practical knowledge and other resources have been supported applications and tools based on secondary-level qualifications gained in the field of Medical Laboratory Techniques Program to-date text books containing formations |
| 3 | To be able to have basic knowledge about structure and function of systems in human, to analyse these data on tissue, cell and diseases. |
| 4 | To be able to analyse the medical samples necessary for physicians by using tools, equipment and techniques at the diagnostic and the therapeutic laboratories of health agencies and evaluate the data. |
| 5 | To be able to use the medical laboratory tools and equipments according to rules and techniques, and make controls and maintenance of them |
| 6 | To be able to perform basic tests of related different medical laboratories, prepare solutions. |
| 7 | To be able to perform proper sample collection and transport procedures for the medical laboratory tests from the patient. |
| 8 | To be able to perform preanalytical sample preparation procedure, prepare inspection preparations, perform disinfection and sterilization |
| 9 | To be able to interpret and evaluate data, define and analyze problems, develop solutions based on research and proofs by using acquired basic knowledge and skills with in the field. |
| 10 | To be able to have knowledge about work organization and carry out related practice in medical laboratories |
| 11 | To be able to carry out laboratory safety protocols, take individual safety precaution and create safe laboratory environment. |
| 12 | To be able to gain the ability to apply by viewing and evaluating the processes related to his/her fields in public and private sector. |
| 13 | To be able to gain the awareness of the necessity of life long learning, ability to follow developments in science and technology and self-renewal. |
| 14 | To be able to help laboratory experts and medical scientists for their researches |
| 15 | To be able to be aware of individual and public health, environmental protection and job security issues, understanding the basic level of the relationship. |
| 16 | To be able to grasp principles of Atatürk and there evolutions, to ensure national, ethical, spiritual and cultural values, to adopt to universal and contemporary developments |
| 17 | To be able to communicate efficiently for medical service and speak Turkish efficiently. |
| 18 | To be able to communicate in English at basic level, utilize foreign language on occupational practice |

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

| | L1 | L2 | L3 | L4 | L5 | L6 | L7 |
|-----|----|----|----|----|----|----|----|
| P1 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| P2 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| P3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| P4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| P5 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| P6 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| P7 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| P8 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| P9 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| P10 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| P11 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| P12 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| P13 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| P14 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| P15 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| P18 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |

