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| Dentistry | | | |
| Bachelor | TR-NQF-HE: Level 6 | QF-EHEA: First Cycle | EQF-LLL: Level 6 |

Course Introduction and Application Information

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| Course Code: | DIS321 | | |
| Course Name: | Pharmacology | | |
| Semester: | Spring | | |
| Course Credits: | <div>ECTS</div> <div>2</div> | | |
| Language of instruction: | Turkish | | |
| Course Condition: | | | |
| Does the Course Require Work Experience?: | No | | |
| Type of course: | Compulsory Courses | | |
| Course Level: | <div>Bachelor</div> <div>TR-NQF-HE:6. Master`s Degree</div> <div>QF- EHEA:First Cycle</div> <div>EQF-LLL:6. Master`s Degree</div> | | |
| Mode of Delivery: | Face to face | | |
| Course Coordinator: | Prof. Dr. TAMER ATAÖĞLU | | |
| Course Lecturer(s): | Prof.Dr. Ferda Kaleağasıoğlu | | |
| Course Assistants: | | | |

Course Objective and Content

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| Course Objectives: | The aim of this course is to provide students with a thorough knowledge of general principles of pharmacology, antimicrobial drugs, autonomic system drugs, cardiovascular system drugs, central nervous system drugs, modulators of calcium metabolism and non-steroidal anti-inflammatory drugs with a special emphasis of their use in dentistry clinic. |
| Course | The course covers topics such as Introduction to the antimicrobial chemotherapeutics, Beta |

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| Content: | Lactam antibiotics, Vancomycin and other antimicrobial drugs, Macrolids, Quinolones, Sulfonamides, chloramphenicol and tetracyclines, Aminoglycosides, Antimycobacterial drugs, Antiviral drugs, Antiprotozoal drugs, Antifungal drugs, Antimalarial drugs, Anthelmintic drugs, Antiseptics and disinfectants, Pharmacology Of Renin Angiotensin System, Calcium Channel Blockers, Pharmacological Approach to Ischemic Heart Disease, Drugs Effecting Body Fluids & Volume, Anti-hypertensive Drugs, Hypolipidemic Drugs, Pharmacological Approach to Congestive Heart Disease, Antiarrhythmic Drugs, Bronchodilator Drugs, Antitussives, expectorants and surfactants, Antiplatelet Drugs, Antithrombotic and Thrombolytic drugs, Pharmacology and toxicology of tobacco, Prescription writing, Pharmacological basis of cancer therapy, Antineoplastic drugs. |
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Learning Outcomes

The students who have succeeded in this course;

- 1) Describe the concept of selective toxicity and the effects and mechanisms of action of a range of antibacterial and antiviral drugs.
- 2) List the problems associated with using chemotherapeutic agents, especially the risk of toxicity and resistance.
- 3) List the subgroups and members of antibiotic groups and antimicrobial agents
- 4) Describe the mechanisms of action of antibiotics and antimicrobial agents
- 5) List the antimicrobial spectrum of antibiotics and antimicrobial agents
- 6) List the clinical uses of antibiotics and antimicrobials
- 7) Describe the problems associated with antibiotics and antimicrobial agents related to toxicity and resistance

Course Flow Plan

| Week | Subject | Related Preparation |
|------|---|---------------------|
| 1) | Introduction to antimicrobial chemotherapeutic agents | - |
| 2) | Beta-lactam antibiotics | - |
| 3) | Vancomycin and other antimicrobials | - |
| 4) | Macrolides, quinolones, sulphonamides | - |
| 5) | Chloramphenicol tetracyclines aminoglycosides | - |
| 6) | Antimycobacterial drugs, antiviral drugs | - |
| 7) | Antiprotozoal, antifungal agents | - |
| 8) | Antimalarial drugs, anthelmintic drugs | - |
| 9) | Antiseptics and disinfectants | - |
| 10) | Pharmacology of renin-angiotensin system | - |

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| 11) | Calcium channel blockers | - |
| 12) | Pharmacological approach to ischemic heart disease | - |
| 13) | Agents affecting the volume and ion content of body fluids | - |
| 14) | General review | - |

Sources

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| Course Notes / Textbooks: | <p>1. John A. Yagiela, John A. Yagiela, Enid A. Neidle, Frank J. Dowd eds., Pharmacology and Therapeutics for Dentistry. Elsevier, Mosby. 6th ed. 2011.</p> <p>B. G. Katzung: Basic and Clinical Pharmacology, 11th ed. McGraw-Hill Companies, New York, 2009.</p> <p>2. Goodman & Gilman's The Pharmacologic Basis of Therapeutics, 12th ed. McGraw Hill Medical, 2011</p> |
| References: | - Ders Notları |

Course - Program Learning Outcome Relationship

| Course Learning Outcomes | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|
| Program Outcomes | | | | | | | |
| 1) Has basic and up-to-date knowledge in the field of dentistry, follows scientific publications, and applies evidence-based data to his/her professional practice. | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| 2) Knows well and effectively uses devices, tools, and materials specific to diagnosis and treatment in the field of dentistry. | | | | | | | |
| 3) Evaluates the knowledge in the field of dentistry critically, integrates it with the knowledge of disciplines in the field of health, uses it by analyzing and synthesizing it. | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| 4) Produces projects related to the field of dentistry, can work with other health disciplines, takes part as a member of the research team and evaluates and reports the results obtained at a scientific level. | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| 5) Uses information that will contribute to the dentistry profession during practice, takes responsibility, and produces solutions in unforeseen situations. | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| 6) Shares, compares, and exchanges dental knowledge with professional colleagues in social and scientific environments in written, | | | | | | | |

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| verbal, and visual forms. | | | | | | | |
| Course Learning Outcomes | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 7) Within the framework of social, scientific, and ethical values including patient privacy, communicates with patients and their relatives, knows all the characteristics of the patient, and recommends the most appropriate treatment with a patient-centered approach. | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| 8) Follows technological developments, participates in national and international studies, and shares and presents own observations, experiences, and research to further advance dental practices. | | | | | | | |
| 9) By adopting the principle of lifelong learning throughout the dentistry profession, follows current evidence-based dental knowledge and uses it during his professional practice. | | | | | | | |
| 10) During dental practice, in cases such as abuse and addiction, performs the treatment by exhibiting the behaviors required by social ethics and legal rules, and collects and records the relevant data. | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| 11) Uses basic and current knowledge in the field of dentistry during professional practice for the benefit of society within the framework of national values and country realities. | | | | | | | |
| 12) In natural disasters and emergency cases, takes the protective measures required by the dentistry profession; performs professional practices that benefit patients and society | | | | | | | |
| 13) Generates ideas regarding health policy in dentistry, prioritizes individual and public health, and carries out preventive and therapeutic medical practices within the framework of scientific, ethical, and quality processes. | | | | | | | |
| 14) Differentiates the signs and symptoms commonly encountered in the dentistry profession, makes a treatment plan and refers when necessary, and manages diseases and clinical situations regarding their urgency and patient priority. | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| 15) Can assume the leadership responsibility of the team he/she works for, manage it following scientific criteria, and support the professional development of the team. | | | | | | | |

Course - Learning Outcome Relationship

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| No Effect | 1 Lowest | 2 Average | 3 Highest |
| | | | |

| | Program Outcomes | Level of Contribution |
|-----|---|-----------------------|
| 1) | Has basic and up-to-date knowledge in the field of dentistry, follows scientific publications, and applies evidence-based data to his/her professional practice. | 2 |
| 2) | Knows well and effectively uses devices, tools, and materials specific to diagnosis and treatment in the field of dentistry. | |
| 3) | Evaluates the knowledge in the field of dentistry critically, integrates it with the knowledge of disciplines in the field of health, uses it by analyzing and synthesizing it. | 2 |
| 4) | Produces projects related to the field of dentistry, can work with other health disciplines, takes part as a member of the research team and evaluates and reports the results obtained at a scientific level. | 2 |
| 5) | Uses information that will contribute to the dentistry profession during practice, takes responsibility, and produces solutions in unforeseen situations. | 3 |
| 6) | Shares, compares, and exchanges dental knowledge with professional colleagues in social and scientific environments in written, verbal, and visual forms. | |
| 7) | Within the framework of social, scientific, and ethical values including patient privacy, communicates with patients and their relatives, knows all the characteristics of the patient, and recommends the most appropriate treatment with a patient-centered approach. | 2 |
| 8) | Follows technological developments, participates in national and international studies, and shares and presents own observations, experiences, and research to further advance dental practices. | |
| 9) | By adopting the principle of lifelong learning throughout the dentistry profession, follows current evidence-based dental knowledge and uses it during his professional practice. | |
| 10) | During dental practice, in cases such as abuse and addiction, performs the treatment by exhibiting the behaviors required by social ethics and legal rules, and collects and records the relevant data. | 2 |
| 11) | Uses basic and current knowledge in the field of dentistry during professional practice for the benefit of society within the framework of national values and country realities. | |
| 12) | In natural disasters and emergency cases, takes the protective measures required by the dentistry profession; performs professional practices that benefit patients and society | |
| 13) | Generates ideas regarding health policy in dentistry, prioritizes individual and public health, and carries out preventive and therapeutic medical practices within the framework of scientific, ethical, and quality processes. | |
| 14) | Differentiates the signs and symptoms commonly encountered in the dentistry profession, | 3 |

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| | makes a treatment plan and refers when necessary, and manages diseases and clinical situations regarding their urgency and patient priority. | |
| 15) | Can assume the leadership responsibility of the team he/she works for, manage it following scientific criteria, and support the professional development of the team. | |

Assessment & Grading

| Semester Requirements | Number of Activities | Level of Contribution |
|-----------------------------|----------------------|-----------------------|
| Midterms | 1 | % 40 |
| Final | 1 | % 60 |
| total | | % 100 |
| PERCENTAGE OF SEMESTER WORK | | % 40 |
| PERCENTAGE OF FINAL WORK | | % 60 |
| total | | % 100 |

Workload and ECTS Credit Calculation

| Activities | Number of Activities | Preparation for the Activity | Spent for the Activity Itself | Completing the Activity Requirements | Workload |
|-----------------------|----------------------|------------------------------|-------------------------------|--------------------------------------|-----------|
| Course Hours | 26 | 1 | 1 | | 52 |
| Midterms | 1 | 4 | 1 | | 5 |
| Final | 1 | 4 | 1 | | 5 |
| Total Workload | | | | | 62 |