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| Medicine | | | |
| Bachelor | TR-NQF-HE: Level 7 | QF-EHEA: Second Cycle | EQF-LLL: Level 7 |

Course Introduction and Application Information

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| Course Code: | TIP504 | | |
| Course Name: | Cardiology and Cardiovascular Surgery | | |
| Semester: | Fall | | |
| Course Credits: | <div>ECTS</div> <div>5</div> | | |
| Language of instruction: | Turkish | | |
| Course Condition: | | | |
| Does the Course Require Work Experience?: | Yes | | |
| Type of course: | Compulsory Courses | | |
| Course Level: | <div>Bachelor</div> <div>TR-NQF-HE:7. Master`s Degree</div> <div>QF-EHEA:Second Cycle</div> <div>EQF-LLL:7. Master`s Degree</div> | | |
| Mode of Delivery: | Face to face | | |
| Course Coordinator: | Prof. Dr. HİKMET KOÇAK | | |
| Course Lecturer(s): | Prof. Dr. Hasan Turhan, Prof.Dr. CEM ARITÜRK, Prof.Dr. MUSTAFA BİLGE ERDOĞAN, Prof.Dr. TOLGA SİNAN GÜVENÇ, Prof.Dr. MEHMET VEFİK YAZICIOĞLU, Prof.Dr. TEYYAR | | |

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| | GÖKDENİZ, Doç.Dr. DENİZ ÇEVİRME, Doç.Dr. BATUR GÖNENÇ KANAR, Dr.Öğr.Üyesi KIVANC EREN |
| Course Assistants: | |

Course Objective and Content

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| Course Objectives: | It is to enable students to know the characteristics of cardiovascular and related diseases in adult patients, to apply preventive medicine measures, to pre-diagnose or diagnose the diseases that may require urgent intervention, and to gain knowledge and skills to provide diagnosis and treatment services at the first level. |
| Course Content: | It covers the symptoms and signs of cardiological diseases in adult patients, diagnosis and treatment as well as the principles of surgical treatment, in a way to cover the learning objectives specified in the Core Education Program in the fields of cardiology and cardiovascular surgery. |

Learning Outcomes

The students who have succeeded in this course;

- 1) Can integrate the necessary knowledge, skills, attitudes, and behaviors from basic and clinical sciences, behavioral sciences, and social sciences to develop competencies in clinical decision-making, patient and disease management processes for common or rare but life-threatening or emergency clinical conditions (including heart failure, acute myocardial infarction, arrhythmia, hypertension, cyanosis, and shortness of breath).
- 2) Can explain the mechanisms underlying clinical conditions, symptoms, and findings.
- 3) Can perform basic medical practices.
- 4) Can take a general and problem-oriented medical history.
- 5) Can perform a general and problem-focused physical examination.
- 6) Can explain the process of maintaining patient records, disease reporting, and notification.
- 7) Can discuss the approach to selecting laboratory and imaging studies, apply those that can be performed in a primary healthcare setting, describe the method of requesting those applicable in external institutions or secondary care, interpret the results, and discuss differential or definitive diagnoses and initial treatment approaches.
- 8) Can discuss the management of health states.
- 9) Can list screenings according to the requirements.
- 10) Can discuss the differential diagnosis of clinical conditions requiring secondary healthcare and describe the referral criteria.
- 11) Can discuss preventive medicine practices.
- 12) Can demonstrate awareness of the principles required for a professional and ethical approach in healthcare processes.
- 13) Can explain evidence-based medical practices in the healthcare management of individual patients.
- 14) Demonstrates the ability for independent study and learning.

Course Flow Plan

| Week | Subject | Related Preparation |
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| 1) | Theoretical Lectures Internship Presentation Cardiac anatomy Cardiac physiology Anamnesis and physical examination Basic ECG principles, normal ECG Rhythm disturbances ECG: Myocardial ischemia and acute myocardial infarction Cardiovascular diagnosis and treatment methods Cardiovascular risk factors and prevention Angina pectoris and its differential diagnosis Acute coronary syndromes (unstable angina, non-ST elevation MI, ST elevation MI) Pharmacological treatment of coronary artery disease Introduction to Open Heart Surgery CASE REPORT: Aortic valve disease Coronary artery disease Surgery I-II Bradyarrhythmias Tachyarrhythmias Atrial fibrillation and treatment approaches Heart failure Practical training: Bedside Training Clinical Training | There is no preparation-course material. |
| 2) | Theoretical Lectures Heart valve diseases Valvular Heart Disease Surgery I-II Adult congenital heart diseases Congenital Heart Diseases I-II Aortic Vascular Diseases Cardiomyopathies Cardiomyopathies and Heart Transplant Pericardial diseases and myocarditis Infective endocarditis Hypertension and hypertensive emergencies Syncope - sudden cardiac death Pulmonary Edema and Cardiogenic Shock Lymphedema Functional Vascular Diseases Venous System Diseases Peripheral Artery Diseases I-II Heart and Major Vascular Injuries Practical training: Clinical Training | There is no preparation-course material. |
| 3) | Theoretical Lectures CASE DISCUSSION: Chest pain CASE DISCUSSION: Dyspnea, peripheral edema CASE DISCUSSION: Palpitations, syncope CASE REPORT: Acute arterial occlusion CASE REPORT: Congenital heart diseases CASE REPORT: Venous insufficiency Practical training: Clinical Training | There is no preparation-course material. |

Sources

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| Course Notes / Textbooks: | Dersin kaynak kitabı bulunmamaktadır. The course does not have a mandatory resource. |
| References: | Dersin konuları ile ilgili güncel makaleler ve ders slaytları./Articles mentioned in the course related with topics and lecture slides. |

Course - Program Learning Outcome Relationship

| Course Learning Outcomes | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
|---|---|---|---|---|---|---|---|---|---|----|----|----|----|----|
| Program Outcomes | | | | | | | | | | | | | | |
| 1) The graduate integrates the knowledge, skills, attitudes, and behaviours acquired from basic and clinical sciences, behavioural sciences, and social sciences in the form of | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 2 | 3 | 2 | 1 | |

| competencies and uses them for the provision of rational, effective, safe health care services in accordance with quality standards in the prevention, diagnosis, treatment, follow-up, and rehabilitation processes, and during the process considers protection of both patient's health and healthcare workers health including her/his own. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
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| Course Learning Outcomes | | | | | | | | | | | | | | |
| 2) The graduate shows a biopsychosocial approach in patient management that considers the sociodemographic and sociocultural background of the individual without discrimination of language, religion, race, and gender. | 1 | 1 | 1 | | | | | | | 1 | 2 | 3 | | |
| 3) The graduate prioritizes the protection and development of the health of individuals and society in the provision of health care services. | 3 | 3 | 3 | 3 | 3 | 1 | 3 | 3 | 1 | 2 | 2 | 1 | 1 | |
| 4) The graduate, considering the individual, social, public, and environmental factors affecting health; works towards maintaining and improving the state of health. | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | | | 2 | 1 | | |
| 5) In the provision of health care services, the graduate considers both the changes in the physical and socioeconomic environment on a regional and global scale that affect health, as well as the changes in the individual characteristics and behaviours of the people who | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 2 | 3 | 3 | | |

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| apply to her/him. | | | | | | | | | | | | | | | |
| Course Learning Outcomes | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | |
| 6) The graduate recognizes the characteristics, needs and expectations of the target population and provides health education to healthy/sick individuals and their relatives and other health care workers. | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | | | |
| 7) While carrying out her/his profession, the graduate fulfils her/his duties and obligations with determined behaviours to provide high-quality health care within the framework of ethical principles, rights and legal responsibilities and good medical practices, considering the integrity, privacy, and dignity of the patient. | 1 | 1 | 1 | 1 | 1 | | | | | 3 | 3 | 3 | 3 | | |
| 8) The graduate evaluates and improves her/his own performance in professional practices in terms of emotions, cognitive characteristics, and behaviours. | | | | | | | | | | | | 3 | | 3 | |
| 9) The graduate physician advocates improving the provision of health services by considering the concepts of social reliability and social commitment to protect and improve public health. | | | | | | | 3 | 3 | | 3 | 3 | 3 | | | |
| 10) To protect and improve health, the graduate physician can plan and carry out service delivery, training and consultancy processes related to individual and community health in cooperation with all components. | | | | | | | 1 | 3 | | 3 | 1 | 3 | 3 | | |
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| 11) The graduate physician evaluates the impact of health policies and practices on individual and community health indicators and advocates increasing the quality of health services. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 3 8 | 3 9 | 3 10 | 3 11 | 3 12 | 3 13 | 14 |
| 12) The graduate physician attaches importance to protecting and improving her/his own physical, mental, and social health, and does what is necessary for this. | | | | | | | | | | | 1 | | | 3 |
| 13) During the provision of health care, the graduate shows exemplary behaviours and leads within the health team. | | | | | | 1 | 3 | 2 | 1 | 3 | 3 | 2 | | |
| 14) The graduate uses the resources cost-effectively, in the planning, implementation, execution, and evaluation processes of the health care services in the health institution she/he manages, for the benefit of the society and in accordance with the legislation. | | | | | | | 1 | 3 | | 1 | 1 | 3 | | |
| 15) The graduate communicates positively within the health team with whom she/he provides health care services, being aware of the duties and obligations of other health workers and shows appropriate behaviours to assume different team roles when necessary. | | | | | | | | 1 | | 1 | 1 | 3 | 1 | |
| 16) The graduate works harmoniously and effectively with her/his colleagues and other professional groups in | | | | | | | | | | 1 | 1 | 3 | 1 | |

[illegible]

| learning processes and career development. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
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| Course Learning Outcomes | | | | | | | | | | | | | | |
| 23) The graduate demonstrates the ability to acquire, evaluate, integrate new knowledge with existing knowledge, apply it to professional situations, and adapt to changing conditions throughout professional life. | 1 | | | | 2 | | | | | | | 3 | 3 | 3 |
| 24) The graduate chooses the right learning resources to improve the quality of the health care service she/he provides, organizes her/his own learning process. | 1 | | | | | 3 | | | | | | 3 | 3 | 3 |

Course - Learning Outcome Relationship

| No Effect | 1 Lowest | 2 Average | 3 Highest |
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| | Program Outcomes | Level of Contribution |
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| 1) | The graduate integrates the knowledge, skills, attitudes, and behaviours acquired from basic and clinical sciences, behavioural sciences, and social sciences in the form of competencies and uses them for the provision of rational, effective, safe health care services in accordance with quality standards in the prevention, diagnosis, treatment, follow-up, and rehabilitation processes, and during the process considers protection of both patient's health and healthcare workers health including her/his own. | 3 |
| 2) | The graduate shows a biopsychosocial approach in patient management that considers the sociodemographic and sociocultural background of the individual without discrimination of language, religion, race, and gender. | 2 |
| 3) | The graduate prioritizes the protection and development of the health of individuals and society in the provision of health care services. | 3 |
| 4) | The graduate, considering the individual, social, public, and environmental factors affecting health; works towards maintaining and improving the state of health. | 2 |
| 5) | In the provision of health care services, the graduate considers both the changes in the physical and socioeconomic environment on a regional and global scale that affect health, | 1 |

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| | as well as the changes in the individual characteristics and behaviours of the people who apply to her/him. | |
| 6) | The graduate recognizes the characteristics, needs and expectations of the target population and provides health education to healthy/sick individuals and their relatives and other health care workers. | 3 |
| 7) | While carrying out her/his profession, the graduate fulfils her/his duties and obligations with determined behaviours to provide high-quality health care within the framework of ethical principles, rights and legal responsibilities and good medical practices, considering the integrity, privacy, and dignity of the patient. | 3 |
| 8) | The graduate evaluates and improves her/his own performance in professional practices in terms of emotions, cognitive characteristics, and behaviours. | 1 |
| 9) | The graduate physician advocates improving the provision of health services by considering the concepts of social reliability and social commitment to protect and improve public health. | 2 |
| 10) | To protect and improve health, the graduate physician can plan and carry out service delivery, training and consultancy processes related to individual and community health in cooperation with all components. | 3 |
| 11) | The graduate physician evaluates the impact of health policies and practices on individual and community health indicators and advocates increasing the quality of health services. | 2 |
| 12) | The graduate physician attaches importance to protecting and improving her/his own physical, mental, and social health, and does what is necessary for this. | 3 |
| 13) | During the provision of health care, the graduate shows exemplary behaviours and leads within the health team. | 2 |
| 14) | The graduate uses the resources cost-effectively, in the planning, implementation, execution, and evaluation processes of the health care services in the health institution she/he manages, for the benefit of the society and in accordance with the legislation. | 1 |
| 15) | The graduate communicates positively within the health team with whom she/he provides health care services, being aware of the duties and obligations of other health workers and shows appropriate behaviours to assume different team roles when necessary. | 2 |
| 16) | The graduate works harmoniously and effectively with her/his colleagues and other professional groups in her/his professional practice. | 3 |
| 17) | The graduate communicates effectively with patients, patient relatives, health care workers and other professional groups, institutions, and organizations, including individuals and groups that require a special approach and have different sociocultural characteristics. | 2 |
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| 18) | The graduate shows a patient-centred approach in the protection, diagnosis, treatment, follow-up, and rehabilitation processes that involve the patient and patient's caregivers as partners in the decision-making mechanisms. | 3 |
| 19) | When necessary, the graduate plans and implements scientific research for the population she/he serves, and uses the results obtained and/or the results of other research for the benefit of the society. | |
| 20) | The graduate reaches the current literature information related to her/his profession, evaluates critically, and applies the principles of evidence-based medicine in the clinical decision-making process. | 2 |
| 21) | The graduate uses information technologies to improve the effectiveness of her/his work in health care, research, and education. | 2 |
| 22) | The graduate effectively manages individual study and learning processes and career development. | 3 |
| 23) | The graduate demonstrates the ability to acquire, evaluate, integrate new knowledge with existing knowledge, apply it to professional situations, and adapt to changing conditions throughout professional life. | 3 |
| 24) | The graduate chooses the right learning resources to improve the quality of the health care service she/he provides, organizes her/his own learning process. | 3 |

Assessment & Grading

| Semester Requirements | Number of Activities | Level of Contribution |
|-----------------------------|----------------------|-----------------------|
| Final | 1 | % 65 |
| Final Sözlü | 1 | % 35 |
| total | | % 100 |
| PERCENTAGE OF SEMESTER WORK | | % 35 |
| PERCENTAGE OF FINAL WORK | | % 65 |
| total | | % 100 |

Workload and ECTS Credit Calculation

| Activities | Number of Activities | Workload |
|--------------|----------------------|----------|
| Course Hours | 3 | 36 |
| Application | 3 | 24 |

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| Special Course Internship (Work Placement) | 3 | 24 |
| Presentations / Seminar | 3 | 24 |
| Final | 1 | 8 |
| Total Workload | | 116 |