

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

Course Introduction and Application Information

Course Code:	TIP060		
Course Name:	Rational Use of Medicines		
Semester:	Fall 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:	Departmental Elective		
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:	E-Learning		
Course Coordinator:	Dr. Öğr. Üy. DEMET SİNEM GÜDEN		
Course Lecturer(s):	Assist. Prof. Demet Sinem Güden		
Course Assistants:			

Course Objective and Content

Course Objectives:	The aim of this course for each student is to define the errors in the drug selection process and to apply rational drug use correctly
Course Content:	Basic information about rational drug use; rational drug use in the world and in Turkey The duties of health workers in rational drug use; the role of society in rational drug use

Definition and applications of pharmacovigilance

Rational use of drugs in special cases

Rational Use of Drugs in Patients with Chronic Diseases

Rational use of analgesics, vitamins, minerals and nutritional supplements

Rational use of antibiotics

Examples of drug errors and application errors

Student presentations

Learning Outcomes

The students who have succeeded in this course;

- 1) Explain to choose the right drugs for rational drug use and plan drug treatment.
- 2) Define the importance of pharmacovigilance notifications.
- 3) Describe the information about multidrug use, drug interactions and what needs to be considered during prescription.
- 4) Explain the rational use of drugs in chronic diseases
- 5) Explain the information about rational antibiotic use.
- 6) Exercise to determine the inaccuracies that may occur during the use of the drug.
- 7) Comprehend the rational use of analgesics, vitamins, minerals and nutritional supplements.

Course Flow Plan

Week	Subject	Related Preparation
1)	Basic information about rational drug use; rational drug use in the world and in Turkey	https://www.titck.gov.tr/ Reference book: Kayaalp, O. (2012). Rasyonel Tedavi Yönünden Tıbbi Farmakoloji (13'üncü baskı). Ankara: Pelikan Tıp Teknik Yayıncılık
2)	Definition and applications of pharmacovigilance	Reference book: Brunton, L., Knollman, B., Hilal-Dandan, R. (2021). Goodman and Gilman's The Pharmacological Basis of Therapeutics (14th edition). USA: McGraw and Hill Company. Reference book: Katzung, B.G. (2020). Basic and Clinical Pharmacology (15th edition). USA: McGraw-Hill Companies.
3)	Rational use of drugs in special cases (populations)	Kayaalp, O. (2012). Rasyonel Tedavi Yönünden Tıbbi Farmakoloji (13'üncü baskı). Ankara: Pelikan Tıp Teknik Yayıncılık. Brunton, L., Knollman, B., Hilal-Dandan, R. (2021). Goodman and Gilman's The Pharmacological Basis of Therapeutics (14th edition). USA: McGraw and Hill Company. Whalen, K., Radhakrishnan, R., Felid, K.(2018). Lippincott's Illustrated Reviews: Pharmacology (7th edition). USA: Lippincott Williams & Wilkins. Katzung, B.G. (2020). Basic and Clinical Pharmacology (15th edition). USA: McGraw-Hill Companies.
4)	Rational Use of Drugs in Patients	Kayaalp, O. (2012). Rasyonel Tedavi Yönünden Tıbbi Farmakoloji (13'üncü baskı). Ankara: Pelikan Tıp Teknik Yayıncılık. Brunton, L., Knollman, B., Hilal-

	with Chronic Diseases	Dandan, R. (2021). Goodman and Gilman s The Pharmacological Basis of Therapeutics (14th edition). USA: McGraw and Hill Company. Whalen, K., Radhakrishnan, R., Felid, K.(2018). Lippincott s Illustrated Reviews: Pharmacology (7th edition). USA: Lippincott Williams & Wilkins. Katzung, B.G. (2020). Basic and Clinical Pharmacology (15th edition). USA: McGraw-Hill Companies. Trevor, A.J., Masters S.B. , Katzung B.G. (2019). Çeviri Editörü: Erden, B.F. Katzung ve Trevor Farmakoloji - Sınav ve Gözden Geçirme (14'inci baskı). USA: McGraw-Hill Companies.
5)	Rational use of analgesics, vitamins, minerals and nutritional supplements	https://www.nottsapc.nhs.uk/media/1111/sip-feeds-full-guideline.pdf . Uptodate database: Vitamin supplementation in disease prevention. Katzung, B.G. (2020). Basic and Clinical Pharmacology (15th edition). USA: McGraw-Hill Companies.
6)	Rational use of antibiotics	World Health Organization Model List of Essential Medicines 21st List 2019
7)	Examples of drug errors and application errors	Katzung, B.G. (2020). Basic and Clinical Pharmacology (15th edition). USA: McGraw-Hill Companies.
8)	Student presentation	---

Sources

Course Notes / Textbooks:	<ul style="list-style-type: none"> • Kayaalp, O. (2012). Rasyonel Tedavi Yönünden Tıbbi Farmakoloji (13'üncü baskı). Ankara: Pelikan Tıp Teknik Yayıncılık. • Brunton, L., Knollman, B., Hilal-Dandan, R. (2021). Goodman and Gilman s The Pharmacological Basis of Therapeutics (14th edition). USA: McGraw and Hill Company. • Whalen, K., Radhakrishnan, R., Felid, K.(2018). Lippincott s Illustrated Reviews: Pharmacology (7th edition). USA: Lippincott Williams & Wilkins. • Katzung, B.G. (2020). Basic and Clinical Pharmacology (15th edition). USA: McGraw-Hill Companies.
References:	<ul style="list-style-type: none"> • Kayaalp, O. (2012). Rasyonel Tedavi Yönünden Tıbbi Farmakoloji (13'üncü baskı). Ankara: Pelikan Tıp Teknik Yayıncılık. • Brunton, L., Knollman, B., Hilal-Dandan, R. (2021). Goodman and Gilman s The Pharmacological Basis of Therapeutics (14th edition). USA: McGraw and Hill Company. • Whalen, K., Radhakrishnan, R., Felid, K.(2018). Lippincott s Illustrated Reviews: Pharmacology (7th edition). USA: Lippincott Williams & Wilkins. • Katzung, B.G. (2020). Basic and Clinical Pharmacology (15th edition). USA: McGraw-Hill Companies.

Course - Program Learning Outcome Relationship

Course Learning Outcomes	1	2	3	4	5	6	7
Program Outcomes							
1) When Istinye University Faculty of Medicine student is graduated who knows the historical development of medicine, medical practices, and the medical profession and their importance for society.							
2) knows the normal structure and function of the human body at the level of molecules, cells, tissues, organs and systems.							
3) is capable of systematically taking an accurate and effective social and medical history from their patients and make a comprehensive physical examination.							
4) knows the laboratory procedures related to diseases; In primary care, the necessary material (blood, urine, etc.) can be obtained from the patient with appropriate methods and can perform the necessary laboratory procedures for diagnosis and follow-up or request laboratory tests.							
5) can distinguish pathological changes in structure and functions during diseases from physiological changes and can Interpret the patient's history, physical examination, laboratory and imaging findings, and arrive at a pre-diagnosis and diagnosis of the patient's problem.							
6) knows, plans and applies primary care and emergency medical treatment practices, rehabilitation stages.							
7) can keep patient records accurately and efficiently, know the importance of confidentiality of patient information and records, and protects this privacy.							
8) knows the clinical decision-making process, evidence-based medicine practices and current approaches.							
9) knows and applies the basic principles of preventive health measures and the protection of individuals from diseases and improving health, and recognizes the individual and/or society at risk, undertakes the responsibility of the physician in public health problems such as epidemics and pandemics.							
10) knows the biopsychosocial approach, evaluates the causes of diseases by considering the individual and his / her environment.							
11) is capable of having effective oral and/or written communication with							

patients and their relatives, society and colleagues.							
Course Learning Outcomes	1	2	3	4	5	6	7
12) knows the techniques, methods and rules of researching. It contributes to the creation, sharing, implementation and development of new professional knowledge and practices by using science and scientific method within the framework of ethical rules.							
13) can collect health data, analyze them, present them in summary, and prepare forensic reports.							
14) knows the place of physicians as an educator, administrator and researcher in delivery of health care. It takes responsibility for the professional and personal development of own and colleagues in all interdisciplinary teams established to increase the health level of the society.							
15) knows employee health, environment and occupational safety issues and takes responsibility when necessary.							
16) knows health policies and is able to evaluate their effects in the field of application.							
17) keeps medical knowledge up-to-date within the framework of lifelong learning responsibility.							
18) applies own profession by knowing about ethical obligations and legal responsibilities, prioritizing human values and with self-sacrifice throughout own medical life.							

Course - Learning Outcome Relationship

No Effect	1 Lowest	2 Average	3 Highest

	Program Outcomes	Level of Contribution
1)	When Istinye University Faculty of Medicine student is graduated who knows the historical development of medicine, medical practices, and the medical profession and their importance for society.	
2)	knows the normal structure and function of the human body at the level of molecules, cells, tissues, organs and systems.	
3)	is capable of systematically taking an accurate and effective social and medical history from their patients and make a comprehensive physical examination.	

4)	knows the laboratory procedures related to diseases; In primary care, the necessary material (blood, urine, etc.) can be obtained from the patient with appropriate methods and can perform the necessary laboratory procedures for diagnosis and follow-up or request laboratory tests.	
5)	can distinguish pathological changes in structure and functions during diseases from physiological changes and can Interpret the patient's history, physical examination, laboratory and imaging findings, and arrive at a pre-diagnosis and diagnosis of the patient's problem.	
6)	knows, plans and applies primary care and emergency medical treatment practices, rehabilitation stages.	
7)	can keep patient records accurately and efficiently, know the importance of confidentiality of patient information and records, and protects this privacy.	
8)	knows the clinical decision-making process, evidence-based medicine practices and current approaches.	
9)	knows and applies the basic principles of preventive health measures and the protection of individuals from diseases and improving health, and recognizes the individual and/or society at risk, undertakes the responsibility of the physician in public health problems such as epidemics and pandemics.	
10)	knows the biopsychosocial approach, evaluates the causes of diseases by considering the individual and his / her environment.	
11)	is capable of having effective oral and/or written communication with patients and their relatives, society and colleagues.	
12)	knows the techniques, methods and rules of researching. It contributes to the creation, sharing, implementation and development of new professional knowledge and practices by using science and scientific method within the framework of ethical rules.	
13)	can collect health data, analyze them, present them in summary, and prepare forensic reports.	
14)	knows the place of physicians as an educator, administrator and researcher in delivery of health care. It takes responsibility for the professional and personal development of own and colleagues in all interdisciplinary teams established to increase the health level of the society.	
15)	knows employee health, environment and occupational safety issues and takes responsibility when necessary.	
16)	knows health policies and is able to evaluate their effects in the field of application.	

17)	keeps medical knowledge up-to-date within the framework of lifelong learning responsibility.	
18)	applies own profession by knowing about ethical obligations and legal responsibilities, prioritizing human values and with self-sacrifice throughout own medical life.	

Assessment & Grading

Semester Requirements	Number of Activities	Level of Contribution
Homework Assignments	2	% 20
Project	1	% 20
Midterms	1	% 20
Final	1	% 30
Final Pratik	1	% 10
total		% 100
PERCENTAGE OF SEMESTER WORK		% 70
PERCENTAGE OF FINAL WORK		% 30
total		% 100

Workload and ECTS Credit Calculation

Activities	Number of Activities	Workload
Course Hours	8	16
Application	5	5
Field Work	1	0
Study Hours Out of Class	14	14
Presentations / Seminar	7	7
Project	2	2
Homework Assignments	2	2
Quizzes	2	2
Midterms	1	1

Final	1	1
Total Workload		50