

	<b>Board Code and Name</b>	<b>Term of the Board</b>	<b>Course Hours of the Board (Theoretical/ Practical)</b>	<b>ECTS of the Board</b>	<b>Language of the Board</b>	<b>Board Type</b>
	TIP201 - Musculoskeletal System and Related Disorders	2nd Year / Fall Semester	79/24	8	Turkish	Imperative
<b>Responsible for the Board (s)</b>	Prof. Dr. E. İlker SAYGILI, Chairman of the Course Board Assoc. Prof. Dr. Hadiye DEMİRBAKAN, Head of Course Board Assist. Assist. Prof. Dr. Mehmet Emre KURTGİL, Head of the Course Board. Assist.					
<b>Board's Learning and Teaching Techniques</b>	<ol style="list-style-type: none"> <li>1. Theoretical Lecture</li> <li>2. Practice/Practice</li> <li>3. Interactive Presentation</li> <li>4. Q&amp;A</li> <li>5. Argument</li> <li>6. Observation</li> <li>7. Team/Group Work</li> </ol>					
<b>Measuring the Board Techniques</b>	<ol style="list-style-type: none"> <li>1. Written Exam</li> <li>2. Practice Exam</li> <li>3. Formative Assessment</li> </ol>					
<b>Purpose of the Board</b>	<p>At the end of the TIP201 Course Board, students; Normal structure, development and functions of the elements that make up the musculoskeletal system, biochemical properties, basic about this system</p> <p>to gain general information about the etiopathogenesis of diseases, symptoms, basic clinical and laboratory findings, diagnostic methods and drugs used in treatment; It is aimed to have knowledge about the basic approach to a clinical case and to be able to apply basic professional skills on the model itself.</p>					

<p><b>Learning Objectives of the Board</b></p>	<p>Knowledge</p> <ol style="list-style-type: none"> <li>1. It counts the anatomical structures of the musculoskeletal system completely.</li> <li>2. Explain their embryological origin and development respectively.</li> <li>3. Describe their histological structure and physiological mechanisms.</li> <li>4. Classify the biochemical components of bone, muscle and connective tissue.</li> <li>5. Describe the production of bacteria, antibiotic susceptibility tests and resistance mechanisms.</li> <li>6. etiopathogenesis of basic diseases related to the system, symptoms, clinical, laboratory and</li> </ol> <p>Histopathological basis counts their findings.</p> <ol style="list-style-type: none"> <li>7. Defines the imaging methods used.</li> <li>8. Explains the treatment methods applied in basic diseases related to the system and the mechanisms of action of the drugs used; indications, common side effects, contraindications and major drug interactions.</li> </ol> <p>Skill</p> <ol style="list-style-type: none"> <li>1. It shows the anatomical structures of the musculoskeletal system.</li> <li>2. Distinguish the media used in the production of bacteria.</li> <li>3. It makes intramuscular injection on the model.</li> <li>4. He sutures and takes sutures on the model.</li> <li>5. Simulated makes an elastic bandage on the patient.</li> <li>6. It makes a splint on the simulated patient.</li> </ol> <p>Economy</p> <ol style="list-style-type: none"> <li>1. Exhibits the motivation to learn knowledge and skills related to theoretical and applied courses.</li> <li>2. Acts in accordance with the rules and hygiene rules for the safety of himself and the patient during professional skill practices.</li> <li>3. The importance of an evidence-based scientific approach in the evaluation of a clinical case Adopts.</li> </ol>
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<b>Content of the Board</b>	<p>About the normal structure, development and functions of bones, joints and muscles in the musculoskeletal system, biochemical properties, etiopathogenesis of the main diseases related to this system, symptoms, basic clinical and laboratory findings, diagnostic methods and drugs used in their treatment</p> <p>General information is given. Vocational Skills Practices (MBU) in small groups</p> <p>In the courses, intramuscular injection, suturing and suturing, bandage and splint applications are performed. In the Clinical Case Evaluation (CODE) courses, which are taught in the form of discussions together, predictions are presented about the scientific approach to different cases.</p>
<b>Resources</b>	<ol style="list-style-type: none"> <li>1. Mescher AL. Junqueira's basic histology: text and atlas. 14th ed. New York: McGraw-Hill Education; c2016. 572 p. ISBN: 978-0-07-184270-9.</li> <li>2. Ross MH, Pawlina W. Histology: a text and atlas: with correlated cell and molecular biology. 7th ed. Philadelphia: Wolters Kluwer/Lippincott Williams &amp; Wilkins; c2016. 1003 p. ISBN 978-1-4511-8742-7.</li> <li>3. Moore KL, Persaud TVN (Vid), Torchia MG. The developing human: clinically oriented embryology. 10th ed. Philadelphia: Elsevier; c2016. 679 p. ISBN: 978-0-323-31338-4.</li> <li>4. Sadler TW. Langman's medical embryology. 13th ed. Philadelphia: Wolters Kluwer Health; c2015. 423p. ISBN 978-1-4511-9164-6.</li> <li>5. Eroschenko VP. diFiore's atlas of histology: with functional correlations. 12th ed. Philadelphia: Wolters Kluwer/Lippincott Williams &amp; Wilkins; c2013. 625 p. ISBN 978-1-4511-1341-9.</li> <li>6. Goodman and Gilman's The Pharmacological Basis of Therapeutics, 13th Edition</li> <li>7. Basic &amp; Clinical Pharmacology, 14e (Bertram G. Katzung)</li> <li>8. Oğuz Kayaalp - Medical Pharmacology in Terms of Rational Treatment 1-2</li> <li>9. Sobotta Atlas of Anatomy, Package, 16th ed</li> <li>10. Guyton and Hall Textbook of Medical Physiology (Guyton Physiology) 13th Edition</li> <li>11. Textbook of Medical Biochemistry (Full Colour) 7th ed. Edition</li> <li>12. Harper's Illustrated Biochemistry, 28th Edition1. Gray's Anatomy The Anatomical Basis of Clinical Practice- Editor-in-Chief: Susan Standing, 41. Edition-Elsevier</li> <li>13. Guyton and Hall Medical Physiology- John E. Hall Translation Editor: Berrak Ç. Yeğen, Güneş Tıp Bookstores-13. Oppression</li> <li>14. Robbins Basic Pathology, Translation Editors S. Tuzlalı, M. Güllüoğlu, U. Çevikbaş, Nobel Medicine Bookstore</li> </ol>

<b>Weeks</b>	<b>Board Courses (Theoretical/Practical)</b>
1st Week	Biochemistry (T), Physiology (T), Anatomy (T), Histology/Embryology (T), Pathology (T), Microbiology (T).
2nd Week	Biochemistry (T), Physiology (T), Anatomy (T), Microbiology (T), MBU (U).
3rd Week	Microbiology (T), Pharmacology (T), Pathology (T), Clinical Approach (T/ Radiology, Nuclear Medicine), Anatomy (T), Biochemistry (T), MBU (U).
4th Week	Anatomy (T/U), Microbiology (T), Clinical Approach (T/ Orthopedics, Physics-Therapy), Pharmacology (T), MBU (U).
5th Week	Pharmacology (T), Clinical Approach (T/ Orthopedics, Infectious Diseases, Physical Therapy), Biochemistry (T), Anatomy (U), Pathology (U), MBU (U).
6th Week	Clinical Approach (T/ Orthopedics, Pediatrics, CODE, Physical Therapy, Internal Medicine), Anatomy (U), Microbiology (U), PANEL.

Explanation:

T: Theoretical

U: Application

MBU: Vocational Skills Practices

CODE: Clinical Case Review

<b>Number of Questions in the Board</b>		
<b>Exam Type</b>	<b>Theoretical</b>	<b>Application</b>
Board Exam	100	0
Finale	100	0
Integration	100	0

<b>Evaluation System</b>		
<b>Semester Studies</b>	<b>Number</b>	<b>Total Contribution (%)</b>
Continuation	0	0
Laboratory	0	0
Application	4	12
Fieldwork	0	0
Course-Specific Internship (If Available)	0	0
Assignments	0	0
Presentation	0	0
Projects	0	0
Seminar	0	0
Theoretical Midterm Exam	2	28
Finale	1	60
	<b>Sum</b>	<b>100</b>
Success of Semester Studies	1	40
Final Work	1	60
	<b>Sum</b>	<b>100</b>
<p><b>Explanation:</b> While calculating the contribution rates of the evaluation system, <b>SANKO University Associate Degree and Undergraduate Education and Examination Regulations and Faculty of Medicine Education and Measurement-Evaluation Directive</b> are valid.</p>		

<b>Student Workload Table</b>			
<b>Events</b>	<b>Number (weeks)</b>	<b>Duration (class hours)</b>	<b>Sum</b>
Course duration (also during the exam week)	6	13	79
Laboratory	0	0	0
Application	6	4	24
Course-Specific Internship (If Available)	0	0	0
Fieldwork	0	0	0
Studying Outside the Classroom	6	17	102
Presentation/Seminar Preparation	0	0	0
Project	0	0	0
Assignments	0	0	0
Board Exam	0	0	0
Final Exams	0	0	0
<b>Total Workload</b>	<b>18</b>	<b>34</b>	<b>205</b>

Program Competencies	TIP201 COURSE BOARD LEARNING OBJECTIVES																
	B1	B2	B3	B4	B5	B6	B7	B8	BC1	BC2	BC3	BC4	BC5	BC6	T1	T2	T3
PY_B1	5	5	5	5					5						4		
PY_B2					3	5	3			3							
PY_B3																	
PY_B4						4	5	5		3							4
PY_B5																	
PY_B6																	
PY_B7																	
PY_B8																	
PY_B9																	
PY_B10																	
PY_B11																	
PY_B12																	
PY_B13																	
PY_BC1																	
PY_BC2																	
PY_BC3									2								
PY_BC4						3	4	4	2	2	5	5	5	5			
PY_BC5									2	2	5	5	5	5			
PY_BC6																	
PY_BC7																	
PY_BC8											4	4	4	4			
PY_BC9																	
PY_BC10											2	2	2	2			
PY_BC11																	
PY_BC12											2	2	2	2			
PY_BC13																	
PY_BC14																	
PY_T1																	
PY_T2															5		5
PY_T3																	
PY_T4																	
PY_T5																	
PY_T6																4	
PY_T7																	
PY_T8																	
PY_T9											3	3	3	3			
PY_T10																	

**Explanation**

PY: Program qualifications                      PY\_B: Program competencies "Information"                      PY\_BC: Programme qualifications "Skills"  
 PY\_T: Program competencies "Attitude"

B: Course Board's "Knowledge" Learning Objective                      BC: Course Board's "Skills" Learning Objective  
 T: Course Board's "Attitude" Learning Objective

**Level of Relationship between Program Competencies and Course Board Learning Objectives;**

1: Very low                      2: Miscarriage                      3: Middle                      4: High 5: Very high

## Program Qualifications

### KNOWLEDGE

1. To be able to explain the basic structure, development and normal functioning of the human body at the level of atoms, molecules, cells, tissues, organs and systems
2. To be able to question the abnormal structuring and functioning of the human body and to explain it with information based on qualified scientific research
3. Determinants of health and diseases; to be able to evaluate with individual, social and global dimensions
4. To be able to evaluate diseases, clinical decision-making and management processes under the guidance of evidence-based medicine practices
5. To be able to define practices for the protection and development of health in individual and social dimensions
6. To be able to explain the practices to protect and improve the health of vulnerable/vulnerable/disadvantaged/stigmatized groups
7. To be able to define effective communication methods and tools
8. To be able to explain the processes of a scientific research
9. To have a level of foreign language knowledge to follow scientific developments in the field of medicine
10. To be able to define the concepts of health and disease in an individual and social context, to explain health seeking and health protection behaviors, national health service delivery and administrative processes.
11. To be able to define the concepts of health and disease from a behavioral, social and human sciences perspective
12. To be able to explain the importance of professional organizations and to define their place in professional life
13. To be able to explain the concepts of medical law, health law and general law at a level that can defend their own rights and patient rights

### SKILL

1. To be able to plan and carry out practices for the protection and development of health in individual and social dimensions in the provision of primary health care services.
2. To be able to take medical history from the patient and their relatives
3. To be able to perform physical examination, including the mental and cognitive status of individuals, to make a preliminary diagnosis, to plan diagnostic tests
4. To be able to manage the diagnosis and treatment processes by using the procedure steps rationally
5. To be able to apply medical interventions for diagnosis, treatment or prevention of individuals
6. To be able to organize and keep records of health and disease-related data obtained from individuals and society in a medical and administrative context.
7. To be able to use information management systems
8. To be able to inform the patient and their relatives before any procedure planned for the patient, to obtain consent, and to give bad news when necessary.
9. To be able to plan, implement and evaluate the results of a scientific research
10. To be able to work as a team by communicating effectively with colleagues, other healthcare professionals and other professional groups in the processes of protecting and developing health in individual and social dimensions and managing diseases.
11. To be able to carry out social responsibility projects
12. To show exemplary behaviors within the health team during service delivery, to be able to lead
13. To be able to plan and present health education to healthy/sick individuals and their relatives and other healthcare professionals by recognizing the characteristics, needs and expectations of the target audience
14. To be able to plan practices to protect and improve the health of vulnerable/vulnerable/disadvantaged/stigmatized groups

### ECONOMY

1. To be able to exhibit an attitude towards the protection, development and advocacy of health in individual and social dimensions
2. To be able to adapt to these changes by making use of scientific and technological developments for professional and social changes, and To be able to demonstrate lifelong learning behavior
3. Professional values, ethics regardless of language, religion, race, gender, social and cultural discrimination among individuals in the society it serves.  
To be able to fulfill their responsibilities within the framework of principles and legal regulations
4. To be able to advocate for the protection and development of the health of the individual and the society and the realization of health services for the benefit of the individuals who make up the society.
5. To be able to prioritize national and international laws and ethical values while fulfilling their duties and obligations during medical practice, taking into account the concepts of social reliability and social obligation
6. To be aware of and protect the importance of one's own and other health personnel's health, rights and safety in the provision of health services
7. To be able to take into account environmental characteristics, differences and changes in health service delivery.
8. To be able to make a self-assessment of the practices related to the profession
9. To be able to show a patient-centered approach in diagnosis, treatment, follow-up and rehabilitation processes
10. To be able to demonstrate the attitude and behavior of a responsible physician who adopts facilitating approaches and social justice principles while providing health services for sensitive/vulnerable/disadvantaged/stigmatized groups.