

**AL-FARABI KAZAKH NATIONAL UNIVERSITY**  
**Medicine and Health Care Faculty**  
**Higher School of Medicine**  
**Department of Fundamental Medicine**

**AFFIRM**  
**Dean of the Faculty**  
**(signature)**

\_\_\_\_\_ (signature)  
**Kalmatayeva Z.A.**  
" \_\_\_\_\_ " \_\_\_\_\_ 2022

**EDUCATIONAL AND METHODOLOGICAL COMPLEX OF DISCIPLINE**

**OCh1201 "The Human Body (Medical terminology include)"**

**Educational program "General medicine"**

Course – 1  
Semester – 1  
Number of credits – 4

**Almaty 2022**

The educational and methodological complex of the discipline was compiled by Nurtaeva G. K., PhD, Mulkitabayeva Sh. Sh., Master of Medicine, Kasenova G. T., Master of Medical Sciences, Nyu M. A., Master of Medical Sciences, Oralkhan Zh., Master of Medical Sciences.

Based on the educational program B086 General medicine

Considered and recommended at a meeting of the fundamental medicine department  
from "\_\_\_" \_\_\_\_\_ 202\_, protocol No. ...

Head of the department \_\_\_\_\_ Sarsenova L.K.  
(signature)

Recommended by the Methodological Council of the Higher School of Medicine  
"\_\_\_" \_\_\_\_\_ 202\_, protocol No.

Chairman of the Method Council of the Higher School of Medicine \_\_\_\_\_ Dzhumasheva R.T.

**AL-FARABI KAZAKH NATIONAL UNIVERSITY**  
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**SYLLABUS**

Spring semester, academic year 2021-2022

**Academic course information**

Discipline's code	Discipline's title	Type	Number of hours per week		Number of credits	ECTS
			Lect.	Pract.		
OACH1201	The Human Body (Medical terminology include)	BD UC	2	2	4	4
<b>Lecturer, e-mail, contact number</b>	Marina Nyu, <a href="mailto:nyu.marina@med-kaznu.com">nyu.marina@med-kaznu.com</a> 87074043181 Mulkibaeva Sholpan, <a href="mailto:mulkibayeva.sholpan@med-kaznu.com">mulkibayeva.sholpan@med-kaznu.com</a> Galiya Nurtayeva, <a href="mailto:nurtayeva.galyia@med-kaznu.com">nurtayeva.galyia@med-kaznu.com</a> 87014579108				<b>Office hours</b>	According to schedule
<b>Teacher of Histology, e-mail, contact number</b>	Mulkibaeva Sholpan, Candidate of Medical Sciences <a href="mailto:mulkibayeva.sholpan@med-kaznu.com">mulkibayeva.sholpan@med-kaznu.com</a> Yespolaeva Aikerim <a href="mailto:yespolayeva.aikerim@med-kaznu.com">yespolayeva.aikerim@med-kaznu.com</a> 87013488207				<b>Office hours</b>	According to schedule
<b>Teachers of Anatomy and Physiology, e-mail, contact number</b>	Orazbaeva Moldir Mazhitovna <a href="mailto:Orazbaeva.moldir@med-kaznu.com">Orazbaeva.moldir@med-kaznu.com</a> 87021623692 Shardarbek Raiymbek <a href="mailto:Shardarbek.raiyimbek@med-kaznu.com">Shardarbek.raiyimbek@med-kaznu.com</a> 87475269645				<b>Office hours</b>	According to schedule
<b>Teachers of Biophysics</b>	Galiya Nurtayeva, <a href="mailto:nurtayeva.galyia@med-kaznu.com">nurtayeva.galyia@med-kaznu.com</a> , 87014579108 Albina Serikbolova, <a href="mailto:serikbolova.albina@med-kaznu.com">serikbolova.albina@med-kaznu.com</a> , 87477041743				<b>Office hours</b>	According to schedule

<p><b>Academic presentation of the course</b></p>	<p><b>The aim of discipline</b> is to form knowledge about the typical normal structure of the human body, understanding the function of organs and body systems based on the application of the principles of bioengineering, to form knowledge about medical terminology - anatomical, pharmacological, clinical</p> <p><b>Learning outcomes of discipline.</b> This course is an introduction to human anatomy, physiology and histology from an integrative point of view. In the course of studying the course, to form students' abilities:</p> <ol style="list-style-type: none"> <li>1) describe and determine the general plan of the structure of the human body;</li> <li>2) describe and localize the bones of the trunk, skull and limbs, taking into account age, gender and individual characteristics;</li> <li>3) describe and localize the joints of the bones of the trunk, head and limbs, their structure and movements in them, taking into account age, gender and individual characteristics;</li> <li>4) describe and localize muscles, places of their beginning and attachment, function taking into account age, gender and individual characteristics;</li> <li>5) to find and show the anatomical structures of their musculoskeletal system on the image, model and preparation, medical imaging materials (taking into account age-related characteristics), call them, including in Latin;</li> <li>6) find and palpate bone and muscle landmarks on a living person;</li> <li>7) apply the basics of medical international terminology - anatomical, and clinical;</li> <li>8) integrate knowledge of anatomy, physiology, histology and medical biophysics to explain the main phenomena of important medical value;</li> <li>9) independently find, analyze and summarize educational and scientific information in relation to situations related to the course content;</li> <li>10) work in a team, defend your point of view reasonably, consider the opinions of others, provide and receive feedback correctly using interpersonal and group communication skills</li> <li>11) recognize the importance and observe ethical principles, demonstrate responsibility and honesty in all educational interactions;</li> </ol> <p>The course gives students a basic understanding of the location, structure and function of the integumentary, skeletal systems from the cell level to the level of the body and gives a broad overview of the relationship between the basic concepts in general biology (including cell transport, biochemistry and metabolism) and complex body processes. Studying the structure and function of the human body also provides for the development of the basics of medical terminology, namely: technology for constructing medical terms and determining their meaning. The principles of biophysics are examined in the clinical context, as well as at the cellular level, then this knowledge is integrated into a single system.</p> <p>The concepts of anatomy, histology, biophysics and physiology are illustrated by medical examples to engage students in analytical thinking and stimulate independent as well as joint work on educational material.</p>
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<b>Prerequisites</b>	-
<b>Post requisites</b>	<b>OMiF1214</b> "Morphology and physiology of human body"

<p><b>Information resources</b></p>	<p><b>Basic literature:</b></p> <ol style="list-style-type: none"> <li>1. Saladin, Kenneth S: Anatomy &amp; Physiology. The Unity of Form and Function (2016, McGraw-Hill Education) на англ. яз. 2. Costanzo, Linda S.: BRS Physiology. Board Review Series.7 edition. -Wolters Kluwer Health, 2018.- 307p. - ISBN 1496367693, 9781496367693</li> <li>3. Leslie P. Gartner: Color Atlas and Text of Histology. - 7th Edition. - Wolters Kluwer, 2017. ISBN 1496346734, 9781496346735</li> <li>4. Russell K. Hobbie, Bradley J. Roth: Intermediate Physics for Medicine and Biology. - Springer, 2015. - ISBN 3319126822, 9783319126821</li> <li>5. Andersson D, Medical Terminology: The Best and Most Effective Way to Memorize, Pronounce and Understand Medical Terms: Second Edition, ISBN-13 : 978-1519066626, 2016</li> <li>6. Shoibekova, Alima Zhorabaevna. Latin and Fundamentals of Medical Terminology for Medical Students with Training English [Text] : educational man. / A. Zh. Shoibekova, 2016. - 163, [1] p.</li> <li>7. Sembulingam, K. Essentials of Medical Physiology [Text] : [monogr.] / K. Sembulingam, P. Sembulingam ; Madha Medical College [et al.]. - 7th ed. - New Delhi ; London ; Philadelphia : Jaypee, 2016. - 1112 p. : il. - Ind.: p. 1069-1112. - ISBN 978-93-85999-11-6</li> </ol> <p><b>Additional literature:</b></p> <ol style="list-style-type: none"> <li>8. Standring, Susan: Gray's Anatomy: The Anatomical Basis of Clinical Practice. - 41 Elsevier Limited, 2016 9. Elaine N. Marieb, Lori A. Smith: Human Anatomy &amp; Physiology Laboratory Manual, Main Version. - 11 edition. - Pearson Education,2015. - ISBN 9780133999143</li> <li>10. Scanlon V. C, Essentials of Anatomy and Physiology 8th Edition, F.A. Davis Company, 2018 11. Victor P. Eroschenko, Atlas of Histology with Functional Correlations 13th Edition, LWW, 2017 12. William Bialek: Biophysics: Searching for Principles. -Princeton University Press, 2012. - ISBN 0691138915, 9780691138916</li> <li>13. Ghosh, Byas Deb. Human Anatomy [Text] : For Students / B. D. Ghosh ; [Anatomical Society of India (West Bengal Chapter) et al.]. - 2nd ed. - New Delhi ; Panama City ; London : Jaypee, 2013. - 948 p. : il. - Ind.: p. 913-948. - ISBN 978-93-5025-942-9</li> <li>14. Mazumdar, Sibani. Anatomy at a Glance [Text] : An Exam-Oriented Text / S. Mazumdar ; Calcutta National Medical College [et al.]. - 2nd ed. - New Delhi ; London ; Philadelphia : Jaypee, 2014. - 534 p. : il. - Ind.: p. 525-534. - ISBN 978-93-5152-355-0 : App.: p. 519-520. Glossary: p. 521-524.</li> </ol>
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	<p>15. Baktybayeva, Lyaila Kyrgyzbayevna. Base of Physiology [Text] : laboratory practicum / L. K. Baktybayeva, G. T. Zhamanbayeva, M. S. Kulbayeva ; Al-Farabi Kazakh National University. - Almaty : Qazaq University, 2017. - 146 p. : il. - Bibliogr.: p. 145. - ISBN 978-601-04-3138-6 :</p> <p><b>Online resources:</b></p> <ol style="list-style-type: none"> <li>1. <a href="https://app.lecturio.com/#/">https://app.lecturio.com/#/</a></li> <li>2. <a href="https://3d4medical.com/">https://3d4medical.com/</a></li> <li>3. <a href="https://www.youtube.com/channel/UCc_I2c2bUtO0p4DVeo6-Kxg">https://www.youtube.com/channel/UCc_I2c2bUtO0p4DVeo6-Kxg</a></li> <li>4. <a href="https://sites.google.com/a/umich.edu/bluelink/curricula/anatomy-403?authuser=0">https://sites.google.com/a/umich.edu/bluelink/curricula/anatomy-403?authuser=0</a></li> <li>5. <a href="https://histologyknmu.wixsite.com/info/gistologicheskie-sajty">https://histologyknmu.wixsite.com/info/gistologicheskie-sajty</a></li> <li>6. <a href="http://www.histology-world.com/contents/contents.htm">http://www.histology-world.com/contents/contents.htm</a></li> <li>7. <a href="http://www.histologyguide.com/slidebox/02-epithelium.html">http://www.histologyguide.com/slidebox/02-epithelium.html</a></li> <li>8. <a href="https://histology.medicine.umich.edu/resources">https://histology.medicine.umich.edu/resources</a></li> <li>9. <a href="https://web.duke.edu/histology/">https://web.duke.edu/histology/</a></li> <li>10. <a href="http://virtuallslides.med.umich.edu/Histology/view.apml?listview=1&amp;">http://virtuallslides.med.umich.edu/Histology/view.apml?listview=1&amp;</a></li> </ol>
<p><b>Academic policy of the course in the context of university moral and ethical values</b></p>	<p><b>CLASSES ATTENDANCE</b></p> <p>Students of Al-Farabi Kazakh National University must attend all types of academic sessions in accordance with the approved schedule. It is not allowed to miss classes without an acceptable reason, proved by suitable documents. Students of Al-Farabi Kazakh National University must attend all types of academic sessions in accordance with the approved schedule. It is not allowed to miss classes without an acceptable reason, proved by suitable documents. Students who have missed classes without a valid reason for more than 5 weeks are subject to expulsion from the university for violating the rules of the university's academic policy. Students who do not attend training sessions for more than 5 weeks due to illness must inform their advisor and instruct a trusted person to issue an academic leave for health reasons. If a student misses more than 50% of study sessions on a discipline, he/she is automatically graded "F" ("unsatisfactory") and is not allowed to the final assessment on the discipline.</p> <p><b>ASSESSMENT OF EDUCATIONAL ACHIEVEMENTS OF STUDENTS</b></p> <p>To assess educational achievements of students (achievement of expected learning outcomes), there are following types of control of students' academic performance: – ongoing assessment; – interim examination (RK1,RK2); – midterm examination (MT); – final assessment (final exam). Grade points of the interim examination reflect cumulative total assessment of current academic performance of the student (according to the grades indicated in the attendance list) and results of performance of special tasks of</p>

interim examination. The maximum level of academic performance for interim and midterm examinations on the discipline is 100 grade points for each interim examination and for midterm examination, including the results of ongoing assessment. Students who have scored at least 50 grade points ( $IE1 + MT + IE2 / 3$ ) are admitted to the final assessment of their academic performance. The maximum grade for the final exam is 100 grade points. Admission to the examination session is issued by order of the dean of the faculty. It is not allowed to change the results of interim and midterm examinations to increase them. To the final examination are not admitted: – students who scored less than 50 points based on the results of interim examinations and MT ( $IE1 + MT + IE2 / 3$ ); – students who missed more than 50% of classes on the discipline, regardless of documentary evidence; – students who have not submitted term papers (projects) on the relevant discipline; – students studying on contractual basis for provision of educational services, who have debts in payment of tuition fees.

#### ASSESSMENT OF LEARNING OUTCOMES, APPEAL, RETAKING OF EXAMS

Academic achievements of students (knowledge, abilities, skills and competencies) are assessed using the 100-point scale in grade points, corresponding to the internationally accepted alphabetic system with digital equivalents (positive grades, in decreasing order, from "A" to "D" (100-50), and “unsatisfactory” - “FX” (25-49), “F” (0-24), and to the grades of the traditional system. “FX” grade is used only for final examinations. The student, who does not agree with the result of the final assessment on the discipline (grade for the exam), has the right to submit a reasoned written application within three working days after the exam results are published in the electronic records sheet in the Univer system. Application for appeal is accepted, if the grade for the exam does not correspond to the objective level of learning outcomes demonstrated by this student: – due to the incorrect wording of the examination question; – due to the fact that the examination question’s content does not correspond to the study program of the discipline; – due to the fact that the student’s response was assessed incorrectly because of the lack of qualification of the members of examination committee. Appealed grade and reason for the appeal should be stated in the student’s application. In the case of receiving the “unsatisfactory” grade corresponding to the “FX” mark (25-49), the student has the opportunity to retake the final assessment on a paid basis without repeated study of the whole program of the discipline / module. This should be done within the special period of time right after the examination session during which this grade was obtained. If the student gets the "F" grade as a result of re-taking the final exam, he/she should re-register for study of this discipline / module on a paid basis. He/she attends all study sessions, performs all types of academic activities according to the program of the discipline and retakes the final exam. If the student does not appear for a re-taking exam on the discipline for which he/she has been graded “FX”, this grade will be transferred to the "F" (“unsatisfactory”) and considered an academic debt. Then the student should attend in the next semester on a paid basis all types of study sessions, perform all types of academic work on this discipline according to the program, and take the final exam. Retaking the exam with an “FX” grade is allowed only once. . A student, who violates requirements of the Rules for conducting final assessment (that is using permitted supporting aids, mobile phones, being late for the exam without an acceptable reason, etc.), will get the "F" grade automatically, based on the record of violation, which is not subject to complain and appeal. In this case, the student should re-study this discipline on a paid basis. In the case of getting the

	<p>"F" grade, the student has the right to repeat studying the discipline (Retake), but no more than two times. Repeated study of disciplines is carried out only on a paid basis.</p> <p>THE CODE OF PROFESSIONAL CONDUCT OF STUDENTS OF THE HIGHER SCHOOL OF MEDICINE OF THE FACULTY OF MEDICINE AND HEALTHCARE OF KAZNU, THE CODE OF HONOR OF KAZNU, THE REGULATIONS ON THE STUDENT OF KAZNU</p> <p>A student of KazNU strictly fulfills his academic duties, does not allow ethical, academic and legal violations, including: plagiarism; forgery; use of cheat sheets, cheating and hints at all stages of various forms of knowledge control; use of family or official ties to obtain a higher grades; bribery; cheating of a teacher and disrespectful attitude towards him; absenteeism and tardiness without a valid reason. A student of KazNU takes care of the safety of the property of KazNU and suppresses vandalism on its territory. In case of illegal actions, appropriate disciplinary penalties will be applied.</p>
<p><b>Evaluation and attestation policy</b></p>	<p><b>Criteria assessment:</b> assessment of learning outcomes in relation to descriptors, verification of the formation of competencies (learning outcomes specified in the goal) is carried out by the following methods:</p> <ol style="list-style-type: none"> <li>1) testing using video, drawings, photographs, diagrams, microphotographs or OSPE using dummies and micropreparations - as part of the current / midterm / final control: final results № 1-5,7,8;</li> <li>2) solution of situational problems, analysis of cases - within the framework of the current / midterm / final control - final results № 1-9;</li> <li>3) interview / oral interview - within the framework of the current / milestone / final control - final results №1-9;</li> <li>4) assessment by direct observation in the framework of current control and CDS - final results №6, 10, 11;</li> </ol> <p><b>Summary assessment:</b></p> <p>In the course, 3 controls (2 interim, 1 midterm examination) are planned, within the framework of which the development of the material is evaluated.</p> <p>For the semester, admission rating points are set: <math>AR = (IE1 + MT \text{ (Mid-Term)} + IE2) / 3</math>, where IE1 / IE2 / MT = the sum of all points for classes + points for interim/midterm examination control and IWS of the corresponding period**. IE1 - 1-5 weeks, MT - 6-10 weeks, IE2 - 11-15 weeks. The final control (exam) is carried out in 2 stages. The first stage is testing or OSPE*** (50%), the second stage is an oral survey of tickets (50%). The final grade for the discipline = <math>AR * 0.6 + Exam * 0.4</math></p> <p>**AR-admission rating, IE - interim examination, MT - midterm examination, IWS - independent work of student</p> <p>***Objective Structured Practical Exam - students passing stations in the number from 5 to 10 in accordance with the topics submitted for the current / interim/midterm examination/ final controls for a limited time.</p>

**Calendar (schedule) of the implementation of the course content -**

<b>Week</b>	<b>Lesson</b>	<b>Topic title (lectures, practical classes, Independent work of students)</b>	<b>Number of hours</b>	<b>Maximum score</b>
1	<b>1</b>	<b>Lecture 1</b> The language of medicine. Pronunciation. The position of the words. Stress rules. Grammatical categories of the noun - Gender. Anatomical position. Anatomical planes and sections. Directional terms.	1	
	<b>2</b>	<b>Practical Lesson 1</b> The language of medicine. Pronunciation. The position of the words. Stress rules. Grammatical categories of the noun - Gender. Anatomical position. Anatomical planes and sections. Directional terms.	1	4
	<b>3</b>	<b>Lecture 2 Human Histology.</b> Introduction. General features of Cell. Cell components, cell membranes, the cytoplasm, organelles. non-cellular structures, syncytium and intercellular substance. Cell inclusions.	1	
	<b>4</b>	<b>Practical Lesson 2</b> Human Histology. Introduction. General features of Cell. Cell components, cell membranes, the cytoplasm, organelles. non-cellular structures, syncytium and intercellular substance. Cell inclusions.	1	4
2	<b>5</b>	<b>Lecture 3</b> The language of medicine - grammatical categories of the noun - Number, Case, Declension. The main regions of the body (axial and appendicular regions). Membranes and cavities. Organ systems.	1	
	<b>6</b>	<b>Practical Lesson 3</b> The language of medicine - grammatical categories of the noun - Number, Case, Declension. The main regions of the body (axial and appendicular regions). Membranes and cavities. Organ systems	1	4

2	7	<b>Lecture 4</b> Human histology. Connective tissue. Connective tissues proper. Loose fibrous connective tissues, dense regular connective tissue and dense irregular connective tissue. adipose connective tissues, reticular connective tissues mucous connective tissues	1	
	8	<b>Practical Lesson 4</b> Human histology. Connective tissue. Connective tissues proper. Loose fibrous connective tissues, dense regular connective tissue and dense irregular connective tissue. adipose connective tissues, reticular connective tissues mucous connective tissues	1	4
3	9	<b>Lecture 5</b> The language of medicine - grammatical categories of noun - Adjective, adjective forms. Scope of Anatomy and Physiology. Human structure.	1	
	10	<b>Practical Lesson 5</b> The language of medicine - grammatical categories of noun - Adjective, adjective forms. Scope of Anatomy and Physiology. Human structure.	1	4
	11	<b>Lecture 6</b> Human histology. Connective tissue. Skeletal connective tissues: cartilage and bone tissues.	1	
	12	<b>Practical Lesson 6</b> Human histology. Connective tissue. Skeletal connective tissues: cartilage and bone tissues.	1	4
4	13	<b>Lecture 7</b> Human histology. Epithelial tissues.General features of Epithelial tissues. Classification of Epithelial tissues.Glands	1	
	14	<b>Practical Lesson 7</b> Human histology. Epithelial tissues.General features of Epithelial tissues. Classification of Epithelial tissues.Glands	1	4

4	<b>15</b>	<b>Lecture 8</b> Human histology. Skin: Thick and thin skin. Skin appendages. Skin of the human body. The skin as an organ.	<b>1</b>	
	<b>16</b>	<b>Practical Lesson 8</b> Human histology. Skin: Thick and thin skin. Skin appendages. Skin of the human body. The skin as an organ. <b>Histology Current control</b>	1	30
		<b>Case study 1</b>	<b>7</b>	<b>10</b>
5	<b>17</b>	<b>Lecture 9</b> Cell biophysics. Structure, properties and functions of cells.	1	
	<b>18</b>	<b>Practical Lesson 9</b> Cell biophysics. Structure, properties and functions of cells.	<b>1</b>	<b>4</b>
	<b>19</b>	<b>Lecture 10</b> The language of medicine - grammatical categories of noun - Adjective, adjective forms. Human function.	1	
	<b>20</b>	<b>Practical Lesson 10</b> The language of medicine - grammatical categories of noun - Adjective, adjective forms. Human function. <b>Current control 1</b>	1	<b>28</b>
Interim Examination-1				<b>100</b>
6	<b>21</b>	<b>Lecture 11</b> The structure and functions of the skin. Dermal circulation. The structure and functions of the cutaneous glands. Skin disorders	2	
	<b>22</b>	<b>Practical Lesson 11</b> The structure and functions of the skin. Dermal circulation. The structure and functions of the cutaneous glands. Skin disorders	2	8

7	23	<b>Lecture 12</b> Functions of the Skeleton. General Features of Bones. Histology of Osseous Tissue. Bone development.	1	
	24	<b>Practical Lesson 12</b> Functions of the Skeleton. General Features of Bones. Histology of Osseous Tissue. Bone development.	1	4
	25	<b>Lecture 13</b> Medical imaging I. X-ray examination; Positron emission tomography	1	
	26	<b>Practical Lesson 13</b> Medical imaging I. X-ray examination; Positron emission tomography	1	4
8	27	<b>Lecture 14</b> Bone physiology. Bone disorders	1	
	28	<b>Practical Lesson 14</b> Bone physiology. Bone disorders	1	4
	29	<b>Lecture 15</b> Medical Imaging II. Computed tomography. Magnetic resonance imaging. Ultrasound examination	1	
	30	<b>Practical Lesson 15</b> Medical Imaging II. Computed tomography. Magnetic resonance imaging. Ultrasound examination. <b>Biophysics Current Control.</b>	1	20
9	31	<b>Lecture 16</b> Overview of the Skeleton. The Vertebral Column. Cranial Bones	2	
	32	<b>Practical Lesson 16</b> Overview of the Skeleton. The Vertebral Column. Cranial Bones	2	8
		<b>Case study 2</b>	7	10

10	33	<b>Lecture 17</b> Facial Bones. Pectoral Girdle. Thoracic cage. Pelvic Girdle.	2	
10	34	<b>Practical Lesson 17</b> Cranial Bones.Facial Bones. <b>Current control 2</b>	2	42
Mid- Term Examination				<b>100</b>
11	35	<b>Lecture 18</b> Upper Limb Bones. Lower Limb Bones.	2	
	36	<b>Practical Lesson 18</b> Pectoral Girdle. Thoracic cage. Pelvic Girdle.	2	8
12	37	<b>Lecture 19</b> Joints and their classification	2	
	38	<b>Practical Lesson 19</b> Upper Limb Bones. Lower Limb Bones.	2	8
13	39	<b>Lecture 20</b> Synovial joints and their movements.	2	
	40	<b>Practical Lesson 20</b> Joints and their classification. Synovial joints and their movements.	2	8
14	41	<b>Lecture 21</b> Anatomy and physiology of the temporomandibular, atlanto-occipital, atlanto-axial, intervertebral, shoulder, elbow joints.	2	

14	42	<b>Practical Lesson 21</b> Anatomy and physiology of the temporomandibular, atlanto-occipital, atlanto-axial, intervertebral, shoulder, elbow joints.	2	8
15		<b>IWS with teacher Presentation of IWS</b> "Special hand, finger and foot movements"	6	10
	43	<b>Lecture 22</b> Anatomy and physiology of the joints of the hand, hip joint, knee, ankle, foot joints.	2	
	44	<b>Practical Lesson 22</b> Anatomy and physiology of the joints of the hand, hip joint, knee, ankle, foot joints. <b>Current control 3.</b>	2	58
Interim Examination 2				<b>100</b>