

**SAMPLE TESTS OF WRITTEN EXAMS AND CONCEPTS OF ORAL  
AND PRACTICAL EXAMS  
FOR  
INTEGRATED UNIVERSITY STUDY PROGRAM  
MEDICAL STUDIES IN ENGLISH  
FOR THE ACADEMIC YEAR 2024./2025.**

## MEDICAL CHEMISTRY AND BIOCHEMISTRY II (MFMSE301)

### Sample test – written exam

| Learning outcome code | Number of questions/assignments | Maximum number of points on the question/assignment | Minimum number of points for achieving the learning outcome |
|-----------------------|---------------------------------|---|---|
| IU-MFMSE301-1         | 12                              | 12  | 5   |
| IU-MFMSE301-2         | 16                              | 16  | 8   |
| IU-MFMSE301-3         | 12                              | 12  | 5   |
| IU-MFMSE301-4         | 4                               | 12  | 6   |
| IU-MFMSE301-5         | 3                               | 9   | 3   |
| IU-MFMSE301-6         | 3                               | 9   | 6   |

**IU-MFMSE301-1** – twelve multiple choice questions with one correct answer (1 point x 12 = 12)  
The minimum number of points to achieve the learning outcome IU-MFMSE301-1 is 5.

**IU-MFMSE301-2** – sixteen multiple choice questions with one correct answer (1 point x 16 = 16)  
The minimum number of points to achieve the learning outcome IU-MFMSE301-2 is 8.

**IU-MFMSE301-3** – twelve multiple choice questions with one correct answer (1 point x 12 = 12)  
The minimum number of points to achieve the learning outcome IU-MFMSE301-3 is 5.

**IU-MFMSE301-4** – four tasks of drawing structures and fill in the blanks (3 points x 4 = 12)  
The minimum number of points to achieve the learning outcome IU-MFMSE301-4 is 6.

**IU-MFMSE301-5** – three calculation tasks (3 points x 3 = 9)  
The minimum number of points to achieve the learning outcome IU-MFMSE301-5 is 3.

**IU-MFMSE301-6** – drawing structure + 2 calculation tasks (3 points x 3 = 9)  
The minimum number of points to achieve the learning outcome IU-MFMSE301-6 is 6.

|   |  |
|---|--|
| The range for each grade and passing threshold: | excellent (5) – 91-100 % (64-70 points)<br>very good (4) – 79-90 % (55-63 points)<br>good (3) – 67-78 % (47-54 points)<br>sufficient (2) – 55-66 % (39-46 points)<br>insufficient (1) – less than 55% (less than 39 points),<br>provided that the minimum number of points to achieve the learning outcomes for each task is achieved. |
|---|--|

## Medicinska genetika (MFMSE302)

### WRITTEN EXAM

| Code of learning outcome | Number of questions/assignments | Max. number of points on the question/assignments | Min. the number of points for achieving learning outcomes |
|--------------------------|---------------------------------|---|---|
| IU- MFMSE302-1           | 16                              | 16  | 8   |
| IU- MFMSE302-2           | 16                              | 16  | 8   |
| IU- MFMSE302-3           | 18                              | 18  | 9   |

(50 multiple choice questions, each correct answer earns one point).

IU-MFMSE302-1 minimum 8 points.

IU-MFMSE302-2 minimum 8 points

IU-MFMSE302-3 minimum 9 points

|                                    |   |
|------------------------------------|---|
| Range of points of passing grades: | Additional clarifications:<br>Evaluation criteria for the written exam:<br>Final written exam<br>27-33 = (2);<br>33-39 = (3);<br>40-45 = (4);<br>46-50 = (5); |
|------------------------------------|---|

|        |  |
|--------|--|
| Notes: | The questions (multiple choice) consist of a clearly defined question and five (5) offered answers, of which there is always only one correct answer. There is no question with more than one correct answer and no negative points for wrong answers. |
|--------|--|

### PROJECT TASK

For learning outcomes IU-MFM302-4 and IU-MFM302-5, students are required to do a project assignment. For the same, they will receive previously prepared topics, and they are required to prepare a written document of at least 3 pages in Word (spacing 1.5, font 12, Times New Roman style) and a presentation with a minimum of 10 slides, which they will present in 15 minutes in the allotted time. Through this project, students will search the diagnostic and educational databases of genetic disorders, describe the genetic causes of numerous disorders, and through this apply basic communication skills in the transmission of genetic information. The project assignment carries 20% of the final grade.

| Learning outcome code | Name of content                               | Max. number of points on the question/task | Min. number of points on the question/task |
|-----------------------|---|--|--|
| IU- MFM302-4          | Student writes a scientific paper             | 10 points                                  | 5 points                                   |
| IU- MFM302-5          | Student argues and presents a scientific work | 10 points                                  | 5 points                                   |

## Medicinska genetika (MFMSE302)

The student can receive a total of 20 points for the project assignment (10 points for the written part and 10 points for the presentation), and the range of grades is defined as follows:

1-10 – (1)

11-13 – (2)

14-16 – (3)

17-18 – (4)

19-20 – (5)

The final grade is obtained as a weighting of the grades from the project assignment (20% of the grade) and the written exam (80% of the grade).

The grade is calculated as follows: grade on the written test  $\times 0.8$  + grade from the project assignment  $\times 0.2$ . A grade below 0.5 is a grade below, and a grade above 0.5 is a grade above.

## Histology and embryology– MFMSE303

### Sample test of the written exam

| Learning outcome code          | Number of questions/tasks | Max. Number of points on the questions/tasks | Min.broj bodova za ostvarivanje ishoda učenja |
|--------------------------------|---------------------------|--|---|
| IU-MFMSE303-3<br>IU-MFMSE303-5 | 30                        | 30   | 15  |
| IU-MFMSE303-4                  | 30                        | 30   | 15  |
| IU-MFMSE303-3<br>IU-MFMSE303-5 | 20                        | 20   | 10  |
| IU-MFMSE303-4                  | 30                        | 30   | 15  |

### The written exam consists of two partial exams (H1+H2)

**H1** (sixty multiple choice questions, each correct answer earns one point)

|                                    |  |
|------------------------------------|--|
| Range of points of passing grades: | Success in the written exam is scored according to the following key:<br><br>Less than 36 points = grade 1<br>36 – 41 = grade 2<br>42 – 48 = grade 3<br>49 – 54 = grade 4<br>55 – 60 = grade 5<br>(provided that the minimum number of points is achieved to complete the learning outcomes for each task) |
|------------------------------------|--|

**H2** (fifty multiple choice questions, each correct answer earns one point)

|                                    |  |
|------------------------------------|--|
| Range of points of passing grades: | Success in the written exam is scored according to the following key:<br><br>Less than 30 points = grade 1<br>30 – 35 = grade 2<br>36 – 40 = grade 3<br>41 – 45 = grade 4<br>46 – 50 = grade 5<br>(provided that the minimum number of points is achieved to complete the learning outcomes for each task) |
|------------------------------------|--|

**(H1+H2)** Complete written test (110 multiple-choice questions, each correct answer earns one point)

|                                    |   |
|------------------------------------|---|
| Range of points of passing grades: | <p>Success in the written exam is scored according to the following key:</p> <p>Less than 66 points = grade 1<br/>         66 – 76 = grade 2<br/>         77 – 88 = grade 3<br/>         89 – 99 = grade 4<br/>         100 – 110 = grade 5<br/>         (provided that the minimum number of points is achieved to complete the learning outcomes for each task)</p> |
|------------------------------------|---|

|        |   |
|--------|---|
| Remark | <p>The questions (multiple choice) consist of a clearly defined question and five (5) offered answers, of which there is always only one correct answer. There is no question with more than one correct answer and no negative points for wrong answers.</p> |
|--------|---|

**Subject: Histology and embryology**

**Concept for practical exam**

| Learning outcome code              | The name of the unit  | Number of questions/tasks related to the learning outcome   | Min. the number of answered questions / solved tasks to achieve learning outcomes |
|------------------------------------|---|---|---|
| IU- MFMSE303-1<br>IU- MFMSE303-2   | Recognizing the structure of different tissues and organs on microscopic preparations and photographs | 21  | 12  |
| Range of points of passing grades: |   | <p>Less than 12 points = grade 1<br/>         12-14 = grade 2<br/>         15 – 17 = grade 3<br/>         18 – 19 = grade 4<br/>         20–21= grade 5</p> |   |

**Subject: Histology and embryology****Concept for oral exam**

| Learning outcome code            | The name of the unit | Number of questions/tasks related to the learning outcome | Min. the number of answered questions / solved tasks to achieve learning outcomes |
|----------------------------------|----------------------|---|---|
| IU- MFMSE303-3<br>IU- MFMSE303-5 | General embryology   | 4   | 2   |
| IU- MFMSE303-4                   | General histology    | 4   | 2   |
| IU- MFMSE303-3<br>IU- MFMSE303-5 | Special embryology   | 4   | 2   |
| IU- MFMSE303-4                   | Special histology    | 4   | 2   |

|                                    |  |
|------------------------------------|--|
| Range of points of passing grades: | excellent (5) – all questions from all sections were answered correctly<br>very good (4) – 13-14 questions answered correctly and a minimum number of questions per unit<br>good (3) – correctly answered 12-11 questions and a minimum number of questions per unit<br>sufficient (2) – 10 questions answered correctly and a minimum number of questions per unit<br>insufficient (1) – the minimum number of questions for each unit was not answered |
|------------------------------------|--|

In the oral exam, the student answers four questions (please see the list below).

In the oral part of the exam, the student must demonstrate satisfactory knowledge in answering all the questions in order to pass the exam. List of exam questions:

**GENERAL EMBRIOLOGY**

1. Gametogenesis
2. Oogenesis
3. Spermatogenesis
4. The ovarian cycle
5. Fertilization
6. Cleavage
7. Uterus at the time of implantation
8. Bilaminar Germ Disc
9. Gastrulation
10. Notocord
11. Ectoderm derivatives
12. Neurulation
13. Derivatives of the mesodermal germ layer
14. Derivatives of the endodermal germ layer
15. External appearance of the embryo during the 2nd month
16. Fetal period (changes by months)
17. Development of the placenta (changes in trophoblasts)
18. Development of placental membranes

19. The structure of the placenta
20. The function of the placenta
21. Development of the umbilical cord
22. Amniotic fluid
23. Developmental anomalies (types of disorders)

### **SPECIAL EMBRIOLOGY**

1. Neurocranial development
2. Development of viscerocranium
3. Development and growth of limbs
4. Development of vertebra
5. Skeletal muscle development and formation
6. Development and formation of the head muscles
7. Development and formation of limb muscles
8. Development of cardiac and smooth muscles
9. Formation of body cavity
10. Development of the diaphragm
11. Formation and position of the heart tube
12. Formation of the cardiac loop
13. Development of the venous sinus
14. Heart partitioning
15. Development of arteries and veins
16. Fetal circulation
17. Formation of the lung buds
18. Maturation of the lungs
19. Primitive gut tube
20. Development of mesenteries
21. Foregut development and derivatives
22. Midgut development and derivatives
23. Hindgut development and derivatives
24. Kidney development
25. Development of the urinary bladder and urethra
26. The development of the female gonads
27. The development of the male gonads
28. Development of female genital ducts
29. Development of male genital ducts
30. Development of external genitalia
31. Pharyngeal arch derivatives
32. Derivatives of pharyngeal pouches and clefts
33. Development of the tongue and thyroid gland
34. Development of viscerocranium
35. Tooth development
36. Spinal cord development
37. Differentiation of nervous system cells
38. Brain development
39. Development of the autonomic nervous system
40. Development of the inner ear
41. Development of the middle and outer ear
42. Development of the eye



#### 43. Skin development

### **GENERAL HISTOLOGY**

1. Intercellular junctions
2. Specialized formations on the cell surface
3. Basal lamina and membrane
4. Types of epithelium
5. Cells and fibers of connective tissue
6. Type 1 collagen biosynthesis
7. Basic intercellular matrix of connective tissue
8. Types of connective tissue
9. Lipid storage and release in the fat cell
10. Types of cartilage tissue
11. Bone tissue cells
12. Bone structure
13. Intramembrane ossification
14. Endochondral ossification
15. The structure of neurons
16. Synapses
17. Nervous Support Cells
18. Structure of the central nervous system
19. Nerve fiber structure
20. The structure of the autonomic nervous system
21. Organization and structure of skeletal muscle and fibers
22. Mechanism of muscular contraction
23. Motor plate
24. Structure of cardiac muscle tissue
25. Structure of smooth muscle tissue

### **SPECIAL HISTOLOGY**

1. Structure of blood vessels
2. Types of capillaries
3. Blood cells
4. Bone marrow structure
5. Structure of lymphatic organs
6. Basic types of immune reactions
7. Immune system cells
8. Basic structure of the digestive tube
9. Oral cavity structure
10. Structure of the stomach
11. structure of the small and large intestine
12. Structure of the salivary glands
13. Pancreas structure
14. Liver structure
15. The structure of the conductive part of the respiratory system
16. Structure of respiratory part of the respiratory system
17. Skin structure
18. Hair structure

19. Structure of the kidney
20. Structure of the lower urinary system
21. Structure of the pituitary gland
22. Structure of the adrenal gland
23. Structure of thyroid gland and epithelial bodies
24. Structure of testes and prostate
25. Structure of male conducting ducts
26. Structure of the ovary
27. Structure of uterus and vagina
28. Structure of the mammary gland
29. Outer eye layer
30. Middle eye layer
31. Internal eye layer
32. Middle ear
33. Inner ear

|        |  |
|--------|--|
| Remark | <p>The final grade is generated from three evaluation elements:</p> <ol style="list-style-type: none"><li>1. The written exam makes up 50% of the final grade</li><li>2. The practical exam makes up 20% of the final grade</li><li>3. The oral exam makes up 30% of the final grade</li></ol> |
|--------|--|

## BASIC NEUROSCIENCE (MFMSE304)

### Written Exam Sample Test

| Course learning outcome code | Number of questions | Max. number of points for the questions/tasks | Min. number of points required to achieve learning outcomes |
|------------------------------|---------------------|---|---|
| <b>IU-MFMSE304-1</b>         | 25                  | 25  | 14  |
| <b>IU-MFMSE304-2</b>         | 20                  | 20  | 11  |
| <b>IU-MFMSE304-3</b>         | 15                  | 15  | 8   |
| <b>IU-MFMSE304-4</b>         | 13                  | 13  | 7   |
| <b>IU-MFMSE304-5</b>         | 11                  | 11  | 6   |
| <b>IU-MFMSE304-6</b>         | 10                  | 10  | 6   |
| <b>IU-MFMSE304-7</b>         | 4                   | 4   | 2   |
| <b>IU-MFMSE304-8</b>         | 2                   | 2   | 1   |

**IU- MFMSE304-1** (25 multiple-choice questions with one correct answer, 4 of which involve images of specific neuroanatomical structures; 1 point x 25 = 25 points). To achieve **IU- MFMSE304-1**, a minimum of 14 points is required.

**IU-MFMSE304-2** (20 multiple-choice questions with one correct answer, 1 point x 20 = 20 points). To achieve **IU- MFMSE304-2**, a minimum of 11 points is required.

**IU-MFMSE304-3** (15 multiple-choice questions with one correct answer, 1 point x 15 = 15 points). To achieve **IU- MFMSE304-3**, a minimum of 8 points is required.

**IU- MFMSE304-4** (13 multiple-choice questions with one correct answer; 1 point x 13 = 13 points). To achieve **IU- MFMSE304-4**, a minimum of 7 points is required.

**IU- MFMSE304-5** (11 multiple-choice questions with one correct answer; 1 point x 11 = 11 points). To achieve **IU- MFMSE304-5**, a minimum of 6 points is required.

**IU- MFMSE304-6** (10 multiple-choice questions with one correct answer; 1 point x 10 = 10 points). To achieve **IU- MFMSE304-6**, a minimum of 6 points is required.

**IU-MFMSE304-7** (4 specific problem-solving tasks regarding electrophysiology and neuron potentials; 1 point x 4 = 4 points). To achieve **IU- MFMSE304-7**, a minimum of 2 points is required.

**IU-MFMSE304-8** (2 images of an bioelectrical potential; 1 point x 2 = 2 points). To achieve **IU- MFMSE304-8**, a minimum of 1 point is required.

|                      |  |
|----------------------|--|
| <b>Scores/grades</b> | <b>Excellent (5)</b> – 91-100 points<br><b>Very good (4)</b> – 79-90 points<br><b>Good (3)</b> – 67-78 points<br><b>Sufficient (2)</b> – 55-66 points<br><b>Insufficient (1)</b> – less than 55 points,<br>provided that the minimum number of points for achieving learning<br>outcomes has been met. |
|----------------------|--|

Ispit iz kolegija Croatian language 2

| Kod ishoda učenja                               | Broj pitanja/zadatka | Max. broj bodova na pitanju/zadatku | Min. broj bodova za ostvarivanje ishoda učenja |
|---|----------------------|-------------------------------------|--|
| MF MSE305-IU1<br>MF MSE305-IU2<br>MF MSE305-IU4 | 1. – 20.             | 70                                  | 35   |
| MF MSE305-IU3                                   | 3. – 4.              | 4                                   | 2  |
| MF MSE305-IU5                                   | 9.                   | 6                                   | 3  |

1. Dopunite sljedeće rečenice

- prezentom glagola *morati*:

Kad imaju ispite, studenti \_\_\_\_\_ čitati i učiti.

Vi \_\_\_\_\_ biti točni kad idete na posao.

- niječnim prezentom glagola *morati*:

Ako sve znaš, \_\_\_\_\_ više učiti.

\_\_\_\_\_ ići na posao u subotu.

- upitnim prezentom glagola *morati*:

\_\_\_\_\_ danas vratiti knjige u knjižnicu? (mi)

2. Upišite:

- prezent glagola *smjeti*:

Maja \_\_\_\_\_ ići navečer van.

Tinejdžeri \_\_\_\_\_ biti vani do 11 sati.

- niječni prezent glagola *smjeti*:

Vi \_\_\_\_\_ raditi sve što želite.

- upitni prezent glagola *smjeti*:

\_\_\_\_\_ pas ući u trgovinu?

\_\_\_\_\_ student kasniti na predavanja?

3. Dopršite rečenice.

Ja mogu \_\_\_\_\_

Stariji ljudi ne mogu \_\_\_\_\_

4. Dopršite rečenice:

Studenti neće \_\_\_\_\_

Političari hoće \_\_\_\_\_

5. Napravite rečenice s ponuđenim riječima.

Primjer: on, morati jesti, juha      *On mora jesti juhu.*

Ti, htjeti, bijela kava

On, moći, dugo vježbati (upitna) \_\_\_\_\_

Vi, smjeti, voziti, auto (upitna) \_\_\_\_\_

Ja, trebati, piti, vitamin mn. \_\_\_\_\_

Ja, trebati, piti, vitamin mn. (niječna) \_\_\_\_\_

6. Napravite rečenice s ponuđenim glagolima.

Prijatelji, putovati, u, Južna Amerika \_\_\_\_\_

Mi, kupovati, mlijeko, kruh, i, meso \_\_\_\_\_

7. Odgovorite na pitanja.

Gdje je Pariz? Pariz je u \_\_\_\_\_.

Gdje je Prag? Prag je u \_\_\_\_\_.

8. Upišite čije je što: pizza, piramide, sir, vulkani

talijanska \_\_\_\_\_

francuski \_\_\_\_\_

islandski \_\_\_\_\_

egipatske \_\_\_\_\_

9. Dopunite sljedeće rečenice prijedlozima u, na, po, o.

Veronika je \_\_\_\_\_ u Zadru \_\_\_\_\_ glavnom trgu. Ona je novinarka i treba pisati putopis \_\_\_\_\_ Zadru. Zadar je poznat \_\_\_\_\_ sportašima, na primjer \_\_\_\_\_ Luki Modrići. I on ima mjesto \_\_\_\_\_ putopisu.

10. Napravite rečenice uz pomoć perfekta glagola biti.

Mi \_\_\_\_\_ u centru.

On \_\_\_\_\_ u kupovini.

Ja \_\_\_\_\_ u kinu.

Dijete \_\_\_\_\_ u parku. (niječna)

Ona \_\_\_\_\_ u bolnici. (niječna)

11. Napravite upitne rečenice uz pomoć perfekta glagola biti.

ona, na fakultetu \_\_\_\_\_

djeca, u školi \_\_\_\_\_

12. Napišite perfekt.

Veronika \_\_\_\_\_ dugo \_\_\_\_\_ u subotu. (spavati)

Veronika \_\_\_\_\_ u subotu u 9 sati. (probuditi se)

Veronika i njezine prijateljice \_\_\_\_\_ u subotu. (odmarati se)

13. Dopunite rečenice glagolom u futuru,

\_\_\_\_\_ kolače. (peći, mi)

\_\_\_\_\_ posao. (naći, on)

14. Što će Alvaro pokloniti? (bicikl, bombonijera, knjiga, kravata, magnet mn.)

Alvaro će djevojci pokloniti \_\_\_\_\_, bratu \_\_\_\_\_, Erwanu \_\_\_\_\_, prijateljici \_\_\_\_\_ i prijateljima iz Čilea \_\_\_\_\_.

15. Dopunite rečenice instrumentalom.

Turisti putuju \_\_\_\_\_. (vlak mn.)

Ivana se često vozi \_\_\_\_\_. (taksi)

Moji rođaci uvijek putuju \_\_\_\_\_. (autobus)

16. Upišite zamjenicu u instrumentalu.

Tko ide sa \_\_\_\_\_ na koncert? (ja)

Radit ću prezentaciju s \_\_\_\_\_. (ona)

Želim razgovarati s \_\_\_\_\_. (ti)

17. Upišite genitiv.

Volim jesti kolače od \_\_\_\_\_. (čokolada)

Nije dobro jesti previše \_\_\_\_\_. (šećer)

Vegetarijanci jedu jela bez \_\_\_\_\_. (meso)

18. Napišite imenice uz brojeve.

3 \_\_\_\_\_ 15 \_\_\_\_\_ Nijemac

2 \_\_\_\_\_ 5 \_\_\_\_\_ olovka

14 \_\_\_\_\_ 3 \_\_\_\_\_ životinja

19. Upišite točan oblik imenice čovjek/ljudi.

Čekam dva \_\_\_\_\_.

Čekam pet \_\_\_\_\_.

20. Napišite kondicional.

Marija \_\_\_\_\_, ali nema vremena. (kuhati)

Ti \_\_\_\_\_ čokoladu. (jesti)

Ja danas \_\_\_\_\_. (učiti, neg., ž. r.)

Mi sada \_\_\_\_\_ televiziju. (gledati, neg.)

|                                    |  |
|------------------------------------|--|
| Raspon bodova<br>prolaznih ocjena: | <p>odličan (5) – 63 – 70 osvojenih bodova</p> <p>vrlo dobar (4) – 55 – 62 osvojenih bodova</p> <p>dobar (3) – 47 – 54 osvojenih bodova</p> <p>dovoljan (2) – 39 – 46 osvojenih bodova</p> <p>nedovoljan (1) – manje od 38 bodova,</p> <p>pod uvjetom da je postignut minimalan broj bodova za ostvarivanje svakog ishoda učenja.</p> <p>Napomena: Ako se bude mijenjao ukupan broj bodova u testu, mijenjat će se i minimalan broj bodova za ostvarivanje ishoda učenja.</p> |
|------------------------------------|--|

## Medical Studies in English

### Course: MEDICAL PHYSIOLOGY (MFMSE401)

#### WRITTEN EXAM / PARTIAL EXAMS

| Learning outcome code | Number of questions/assignments | Maximum number of points on the question/assignment | Minimum number of points for achieving the learning outcome |
|-----------------------|---------------------------------|---|---|
| IU- MFMSE401-1        | 80 MCQ                          | 80  | 44  |
| IU- MFMSE401-2        | 80 MCQ                          | 80  | 44  |
|                       |                                 |   |   |

The questions on the written part of the exam are of the multiple choice question type (MCQ), where as a rule only one of the five possible answers is correct. In order to meet the above-mentioned outcomes, the student must achieve a minimum of 44 points per outcome. The achieved outcomes (passed partial exams) are recognized throughout the academic year.

During classes, integration and repetition seminars are organized, where questions with multiple offered answers that correspond in difficulty to the questions on the test are analyzed. Furthermore, a total of 6 weekly tests with similar questions are given. Students can earn extra points on weekly tests.

*Example of a question from the database:*

*Which statement is true regarding the transport of substances through the membrane?*

- A. ions such as sodium and potassium pass through the cell membrane exclusively through active channels*
- B. glucose can be transported by a secondary active transport*
- C. The Na<sup>+</sup>/H<sup>+</sup> exchanger is an example of primarily active transport*
- D. water passes through the membrane by facilitated diffusion*
- E. passive potassium-permeable channels have an activation gate on the inner side of the membrane*

|                                     |  |
|-------------------------------------|--|
| Range of points for passing grades: | 44-53 = sufficient (2);<br>54-63 = good (3);<br>64-72 = very good (4);<br>73-80 (86) = excellent (5).<br>Both outcomes (partial tests) are evaluated and graded separately, and valid throughout the academic year upon achievement. |
| Remark:                             | On partial exams in the pre-term (during classes), students who achieve a minimum of 42 points are also given additional points earned during classes. These are NOT added in the regular terms.                                     |



## THE MIDTERM/COLLOQUIUM OF THE EXERCISES – OSCE

Learning outcome code: **IU- MFMSE401-5**

The colloquium of the exercises refers to the skill of measuring blood pressure. The student should demonstrate the ability to measure arterial pressure and interpret the measured values. The exam is conducted according to the model of an objectively structured clinical exam with one workstation. Students receive detailed instructions and a checklist during the corresponding exercises. Assessment is descriptive - passed/failed.

The colloquium is organized twice during classes. A passed colloquium is recognized as a part of the practical exam and is valid throughout academic year. Students who do NOT pass the colloquium during classes, have to pass the blood pressure measurement colloquium as one of the components of the practical exam.

## THE PRACTICAL EXAM

The practical exam is evaluated descriptively - the student passed/failed.

| Learning outcome code | Number of questions/assignments | Maximum number of points on the question/assignment | Minimum number of points for achieving the learning outcome |
|-----------------------|---------------------------------|---|---|
| IU- MFMSE401-6        | 5                               | 5   | 4   |
| IU- MFMSE401-7        | 5                               | 5   | 4   |
|                       |                                 |   |   |

In addition to the outcomes listed in the table, for students who have not passed the blood pressure measurement colloquium, the practical exam also contains an OSCE station that examines the learning outcome: **IU-MFMSE401-5** (see description above).

To pass the practical exam, the student must successfully solve 4 tasks from ECG (80%) and 4 tasks from other sections (and eventually, the blood pressure measurement assignment, if not passed).

Failure in one section of the exam means that the student has failed the practical exam and must take the complete practical exam the next time they take the Medical Physiology exam.

*Example of tasks:*

*Based on the shown record, determine the heart rate.*

*Based on the data, determine the vital capacity.*

## THE ORAL EXAM

The written exam is followed by an oral exam. The student answers 4 questions. Each question must be answered. The learning outcomes that are checked in the oral exam are:

- **IU- MFMSE401-3**
- **IU- MFMSE401-4**

During oral exam, the integrative knowledge is assessed. The list of questions is available on the course website throughout the year. The student must give an acceptable answer to each question in order to pass the oral exam, and the answers are evaluated on the basis of their quality, coherence and integration of the subject matter, and additional 2-3 sub-questions may be given.

*Example of an oral exam question:*

*Regulation of cardiac work*

*(knowledge of local regulation mechanisms, the influence of the sympathetic and parasympathetic NS on the heart rate, excitability and contractility of the heart, the influence of circulatory changes, concentration of ions and hormones on the heart's work, the influence of changes in the heart's work on the coronary circulation etc...)*

## THE FINAL GRADE

The final grade is obtained as the arithmetic mean of the grades from the written (two partial exams P1 and P2) and the oral exam (the sum of the grades from P1, P2 and the oral exam divided by 3), in accordance with Article 60, paragraph 7 of the Rulebook on Studying at the University of Mostar (May 2024 . year):

average grade equal to or above 4.50 – excellent (5)  
average grade from 3.50 to 4.49 – very good (4)  
average grade from 2.50 to 3.49 – good (3)  
average grade from 2.00 to 2.29 – sufficient (2).

## Medical psychology

### Sample test of the written exam

| Learning outcomes | Number of questions/tasks | Max. number of points on the questions/tasks | The minimum number of points for achieving learning outcomes |
|-------------------|---------------------------|--|--|
| IU- MFM402-1      | 7                         | 20   | 10   |
| IU- MFM402-2      | 6                         | 15   | 7  |
| IU- MFM402-3      | 5                         | 20   | 10   |
| IU- MFM402-4      | 13                        | 35   | 18   |
| IU- MFM402-5      | 2                         | 4  | 2  |
| IU- MFM402-6      | 3                         | 6  | 3  |

IU-MFM402-1 (five multiple choice questions with one correct answer ( $2 \text{ points} \times 5 = 10$ ) + 2 questions writing a text answer ( $2 \times 5 = 10$  points). To achieve IU-MFM402-1 minimum 10 points.

IU-MFM402-2 minimum 10 points. IU-MFM402-2 (five multiple choice questions with one correct answer ( $2 \text{ points} \times 5 = 10$ ) + 1 text answer question ( $1 \times 5 = 5$  points). Minimum 7 points to complete IU-MFM402-2.

IU-MFM402-3 five calculation tasks ( $5 \times 4 = 20$  points) To complete IU-MFM402-3 a minimum of 10 points

IU-MFM402-4 (10 multiple choice questions with one correct answer ( $2 \text{ points} \times 10 = 20$ ) + 3 questions Writing a text answer ( $3 \times 5 = 15$  points). To achieve IU-MFM402-4 minimum 18 points.

IU-MFM402-5 (two questions writing text answer ( $2 \times 2 = 4$ ) To achieve

IU-MFM402-5 minimum 2 points

IU-MFM402-6 (3 questions Writing a text answer - calculation of analysis results ( $3 \times 2 = 6$ )

To achieve IU-MFM402-6 minimum 3 points.

|                                    |   |
|------------------------------------|---|
| Range of points of passing grades: | <p>excellent (5) – 91-100 points won</p> <p>very good (4) – 79-90 points won</p> <p>good (3) – 67-78 points won</p> <p>enough (2) – 55-66 points won</p> <p>insufficient (1) – less than 55 points,</p> <p>provided that the minimum number of points to achieve the learning outcomes for each task is achieved.</p> |
|------------------------------------|---|

## IMMUNOLOGY MFMSE403

### SAMPLE TEST OF WRITTEN EXAM

| Course learning outcome code | Number of questions | Max. number of points on the questions/tasks | Min. number of points for achieving learning outcomes |
|------------------------------|---------------------|--|---|
| IU-MFMSE403-1                | 10                  | 10   | 5   |
| IU-MFMSE403-2                | 10                  | 10   | 5   |
| IU-MFMSE403-3                | 10                  | 10   | 5   |
| IU-MFMSE403-4                | 10                  | 10   | 5   |
| IU-MFMSE403-5                | 10                  | 10   | 5   |

**IU-MFMSE403-1** (ten multiple-choice questions with one correct answer: 1 point x 10 = 10). The minimum number of points for achieving learning outcomes of the **IU-MFMSE403-1** code is 5.

**IU-MFMSE403-2** (ten multiple-choice questions with one correct answer: 1 point x 10 = 10). The minimum number of points for achieving learning outcomes of the **IU-MFMSE403-2** code is 5.

**IU-MFMSE403-3** (ten multiple-choice questions with one correct answer: 1 point x 10 = 10). The minimum number of points for achieving learning outcomes of the **IU-MFMSE403-3** code is 5.

**IU-MFMSE403-4** (ten multiple-choice questions with one correct answer: 1 point x 10 = 10). The minimum number of points for achieving learning outcomes of the **IU-MFMSE403-4** code is 5.

**IU-MFMSE403-5** (ten multiple-choice questions with one correct answer: 1 point x 10 = 10). The minimum number of points for achieving learning outcomes of the **IU-MFMSE403-5** code is 5.

|                                      |   |
|--------------------------------------|---|
| The points range of the final grade: | excellent (5) – 46-50<br>very good (4) – 40-45<br>good (3) – 34-39<br>sufficient (2) – 28-33<br>insufficient (1) – less than 28 points,<br>provided that the minimum number of points to achieve the learning outcomes for each task is achieved. |
|--------------------------------------|---|

**Course: PHYSICAL EDUCATION 2 - MEDICAL STUDIES IN ENGLISH  
(MFMSE404)**

**Practical Assignment for the Course: Physical Education 2**

Purpose: The purpose is to assess practical knowledge through participation in physical activities, monitoring student engagement, and evaluation based on the descriptive grade ("completed").

**Evaluation elements:**

**1. Proper execution of warm-up exercises:**

- During the practical class, students will demonstrate the performance of general preparatory exercises (warm-up).
- **Grade:** "Completed" if the student performs the exercises correctly and independently.

**2. Participation in sports games:**

- Students will actively participate in sports such as soccer (futsal, small soccer), handball, volleyball, basketball, and tennis.
- **Grade:** "Completed" if the student regularly participates and demonstrates basic skills and game rules.

**3. Organization of active breaks:**

- Students will design and conduct short programs for active breaks between lectures or during free time.
- **Grade:** "Completed" if the student successfully creates and demonstrates the active break program.

**4. Engagement in outdoor activities:**

- Students will participate in the organization of hiking trips or other outdoor activities.
- **Grade:** "Completed" if the student actively participates and contributes to the organization and execution of the activity.

**5. Attendance and engagement in exercises:**

- Attendance and student engagement in exercises will be monitored. Students who attend regularly (at least 80% of the classes) and actively participate will receive the descriptive grade "Completed."

**Absences must be justified by medical reasons or participation in sports activities (elite athletes), in which case a written paper is required as a substitute for the exercises.**

**Evaluation:**

- **Attendance and engagement in exercises:** 100% of the final grade.

- Students who attend more than 80% of the exercises automatically receive the grade "Completed."

**Note:**

For students exempt from exercises due to sports or health reasons, the replacement is writing a seminar paper on a topic related to physical exercise and health.

**This approach focuses on practical application and assessment through attendance and participation in physical activities, aligning with the intended learning outcomes of the course.**

**Sample Test**

| Learning Outcome (LO) | Task Number | Maximum Points | Minimum Points Required for Learning Outcome |
|-----------------------|-------------|----------------|--|
| IU-MFMSE404-1         | 1.          | 30             | 15   |
| IU-MFMSE404-2         | 2.          | 10             | 5  |
| IU-MFMSE404-3         | 3.          | 20             | 10   |
| IU-MFMSE404-4         | 4.          | 20             | 10   |
| IU-MFMSE404-5         | 5.          | 20             | 10   |

**For the practical part of the course *Physical and Health Education 2*, since the grade is based on regular attendance of exercises, we can define the point range as follows:**

**Point Range for the Descriptive Grade "Completed":**

**Attendance in exercises:**

- **91-100 points:** Exceptional effort, very active participation in all exercises, achieving maximum or nearly maximum points on tasks.
- **79-90 points:** Highly engaged students, regular attendance, and solid participation, with possible minor shortcomings.
- **67-78 points:** Good engagement, regular attendance, with some tasks scoring fewer points.
- **55-66 points:** Minimum satisfactory criteria for passing, the student has completed all tasks and achieved the minimum points.

**Final Descriptive Grade:**

- **"Completed"** – awarded to students who have accumulated at least 55 points (including meeting the minimum points for each learning outcome).
  - Includes regular attendance (80% or more of the exercises) and active participation.
- **"Not completed"** – awarded to students who have accumulated less than 55 points or failed to meet the minimum points for one or more learning outcomes.

This point range allows for flexibility, with a focus on regular attendance and engagement in exercises, aligning with the course's goals and learning outcomes.

**TERATOLOGY – TAKING DRUGS DURING PREGNANCY MFMSEI03 - Medical studies in English**

| Course learning outcome code | Total number of questions | Maximum number of points on questions | Minimum number of points on questions |
|------------------------------|---------------------------|---------------------------------------|---------------------------------------|
| IU- MFMSEI03-1               | 5                         | 5                                     | 3                                     |
| IU- MFMSEI03-2               | 5                         | 5                                     | 3                                     |
| IU- MFMSEI03-3               | 5                         | 5                                     | 3                                     |
| IU- MFMSEI03-4               | 5                         | 5                                     | 3                                     |
| IU- MFMSEI03-5               | 5                         | 5                                     | 3                                     |

The written exam consists of 25 questions, for which student provides a textual answer or chooses the correct answer (multiple choice question).

Examples of questions:

Q1. List and explain at least three syndromes as examples of chromosomal structural abnormalities.

Q2. Briefly explain at least two historical examples of anomalies that influenced the rise of teratology as scientific branch.

Q3. List at least three drugs commonly used for various treatments and explain their potential to cause anomalies in foetus if used by mother during pregnancy.

|   |   |
|---|---|
| The range for each grade and passing threshold: | The subject is considered passed for a student who has achieved at least 55% of the points provided that the minimum number of points to achieve the learning outcomes for each task is achieved. The grade is descriptive. |
|---|---|



## HELLO KIDNEY MFMSEI04 - Medical studies in English

| Course learning outcome code | Total number of questions | Maximum number of points on questions | Minimum number of points on questions |
|------------------------------|---------------------------|---------------------------------------|---------------------------------------|
| IU- MFMSEI04-1               | 9                         | 9                                     | 4                                     |
| IU- MFMSEI04-2               | 8                         | 8                                     | 4                                     |
| IU- MFMSE04-3                | 8                         | 8                                     | 4                                     |

The written exam consists of 25 questions, for which student chooses the correct answer (multiple choice question).

|   |   |
|---|---|
| The range for each grade and passing threshold: | The subject is considered passed for a student who has achieved at least 55% of the points provided that the minimum number of points to achieve the learning outcomes for each task is achieved. The grade is descriptive. |
|---|---|