

## **MEDICAL PHYSIOLOGY STUDY AND EXAM REQUIREMENTS FOR MEDICAL STUDENTS (2021-2022 1<sup>st</sup> semester)**

Medical Physiology is taught in two courses: the mandatory Medical Physiology I. and II. course comprising of lectures and laboratory practice sessions, and the compulsory elective Medical Physiology Seminar I. and II courses comprising of a group and a whole class (joined) seminar sessions each week.

The students can change groups only with the permission and cooperation of the Foreign Students' Secretariat and the change must be registered in the Neptun. The students will be evaluated on the end semester exam (Medical Physiology I.), the final exam (Medical Physiology II), and by seminar grades (Medical Physiology Seminar I. and II).

The detailed study material that is the basis for all evaluations is contained in the Learning Objectives made available for the students, the material is comprehensively discussed in the lectures, seminars and laboratory practice sessions. Recommended textbooks include: Guyton and Hall: Textbook of Medical Physiology, Ganong's Review of Medical Physiology, Linda S Costanzo: Physiology, but other sources may also be used that assist in learning the material included in the Learning Objectives.

### **Lectures**

This semester the lectures are planned to be held on campus, however, the pandemic situation may necessitate online lectures. Attendance of the lectures is recommended, however, attendance of the lectures will not be checked. The slides of the lectures will be shared through Coospace and the departmental website as well.

### **Laboratory practical sessions**

Attending the laboratory practice classes is compulsory. Students showing negligence during the semester concerning visiting the laboratory practice (more than 3 missed practical sessions) will not receive a signature, the semester will not be accepted and they will not be permitted to take the end semester exam. The practical sessions will begin on time and on line. Late arrival (>10 min) is also considered as an absence. There is going to be a week in the practical schedule allowing to make up for an absence in the practical session for every student.

The laboratory practice sessions require individual or collective work. The schedule of the practical sessions can be found on the webpage of the Department. Students are expected

to come prepared to the practical sessions. At the beginning of the practical sessions teachers may check the preparedness of the students. Students must take notes concerning the laboratory work; these notes will be checked and signed (accepted) by the practical leader at the end of the session. Missing of the laboratory notes and getting the signature makes the practical void and hence also counts as an absence!

The practical teacher is authorized to deny the acceptance of the practical based on the negligence, unacceptable behaviour, or if the student fails to follow the instructions by the teachers, in such cases the practical session is void and counts as an absence.

In the first semester, there are TWO practical tests, one on the blood tests and one on ECG evaluation. The practical teachers will evaluate the performance on these tests using a conventional 5-grade scale: excellent, good, accepted, passed and failed that yield 4, 3, 2, 1, and 0 exam points, respectively. These maximum 8 points will contribute 10% to the result of the end semester exam (ESE, see details at the description of the ESE). Passing the practical tests is not obligatory for receiving the signature for the practice and to take the ESE. There is no possibility for repeating these tests even in case of an absence, and the tests must be taken with the group practical teacher.

## **Seminars**

The group seminars and the joined seminar class are going to be held on campus. Attending the group seminars is compulsory, attending the joined seminars is recommended but attendance is not checked similar to the lectures. Students showing negligence during the semester concerning visiting the seminars (more than 3 missed group seminars) or not fulfilling the requirements will receive a failed (1) grade that will result in the loss of credits as well. The seminars begin on time, late arrival (>10 min) is also considered as an absence.

The weekly seminars are intended to discuss the topics presented in the lectures. The students are expected to be prepared and be active participants in the seminars with good background knowledge of the topics involved. The student performance on the seminar course will be evaluated on a 5-grade scale, the basis of this evaluation will be the performance on the TWO demonstrations, and any further written or oral examinations of the semester. Demonstrations will take place in the indicated study weeks (the 5<sup>th</sup> and the 10<sup>th</sup> weeks – October 4-8 and November 8-12) in the time frame of the group seminar and the practical, and the seminar teachers will examine the students based on the learning objectives of the indicated study material and evaluate them on a 5-grade scale. For successful completion of the course (gaining credits and a minimum passed (2) grade), the student MUST pass BOTH

demonstrations with at least passed (2) grades. Being absent on the demonstration also counts as a failed demonstration. The failed (1) demonstration can be repeated once, ONLY on the following week with group seminar teacher. Demonstrations cannot be taken or repeated on the joined seminars. Those students who fail on two demonstrations and pass only on the repeated exams, may get a maximum accepted (3) grade. The seminar grades determined by the seminar teachers are final, no improvement of the determined seminar grade is possible in the exam period.

### **Multiple choice question (MCQ) tests during the semester**

In the weeks of the seminar course demonstrations (5th. and 10th week, October 6 and November 10) – in the time of the joined seminar class, there will be 1-1 tests (24-24 MCQs, 30 min, 24-24 points. The rounded average of the two tests can yield maximum 24 points that contribute 30% to the result of the ESE (see details at ESE description).

### **ESE exemption**

The Department of Physiology wishes to provide an opportunity to pass the ESE solely based on the performance during the semester the following way. To take this opportunity, the students should write a THIRD (optional, NOT compulsory) MCQ test on the 14th week (December 10, also 24 MCQ, 30 min, 24 points), from the study material that was NOT included in the first and second tests. The students writing the third test will be evaluated and – if eligible – offered a grade in Neptun based on the sum obtained points. The calculation of points (maximum 80 points) will be the following: the sum of the practical test points (4+4) and the sum of the three tests (24+24+24). The students may freely accept or reject the offered grade in the Neptun, in the latter case they can take the regular ESE in the exam period. The Department of Physiology maintains its right to cancel the exemption program if student compliance with the rules during the lectures or the tests becomes unacceptable, or if due to the pandemic situation full online teaching must resume.

### **Exam information**

**Warning!:** Students caught cheating during the written or the oral exams will be immediately excluded from the exam. The teachers will file a formal report on the misconduct of the student and initiate a disciplinary action. If the teaching will be restricted to online teaching then all ESE exams will be conducted as described for the ESE exam course.

## **ESE**

The first ESE exam is a written MCQ test, however, the repeated and the grade improving ESEs are oral exams. Both the written and the oral exams may yield maximum 48 points that contribute 60% to the result of the ESE.

The written exam will start on the date and at the location specified in Neptun system (48 MCQs, 60 min, 48 points).

The oral exams also starting on the date and at the location (if necessary in the online space) specified in the Neptun.

The oral exam will have two parts, attended by two examiners. First, there is an entry exam in which 2 learning objectives and 3 normal values are asked from the learning objectives and normal values marked as “essential knowledge” (yielding maximum 3 points). Not being able to answer any of these questions will result in a failed exam immediately. In the second part, three topics will be chosen either with topic cards or random number generators. After the selection of the first topic, after minimal (1 min) preparation time, the student starts the exam, the examiners will guide the exam with questions. During the examination, the examiners may show images or ask to draw some graphs in accordance with the learning objectives. At the end of the response the examiners evaluate the performance on a 5-grade scale (excellent – 15 points, good – 12 points, accepted – 9 points, passed – 6 points), if the grade is failed the exam is finished with a failed result, otherwise the next topic is selected. At the end of the exam the sum of all points will yield the exam grade.

The students taking the third exam in the semester (2<sup>nd</sup> repeated exam) or the last chance (6<sup>th</sup>) exam will select topic regardless the result of the entry exam.

### **Grades**

0-42 points = failed (1)

43-49 pont = passed (2)

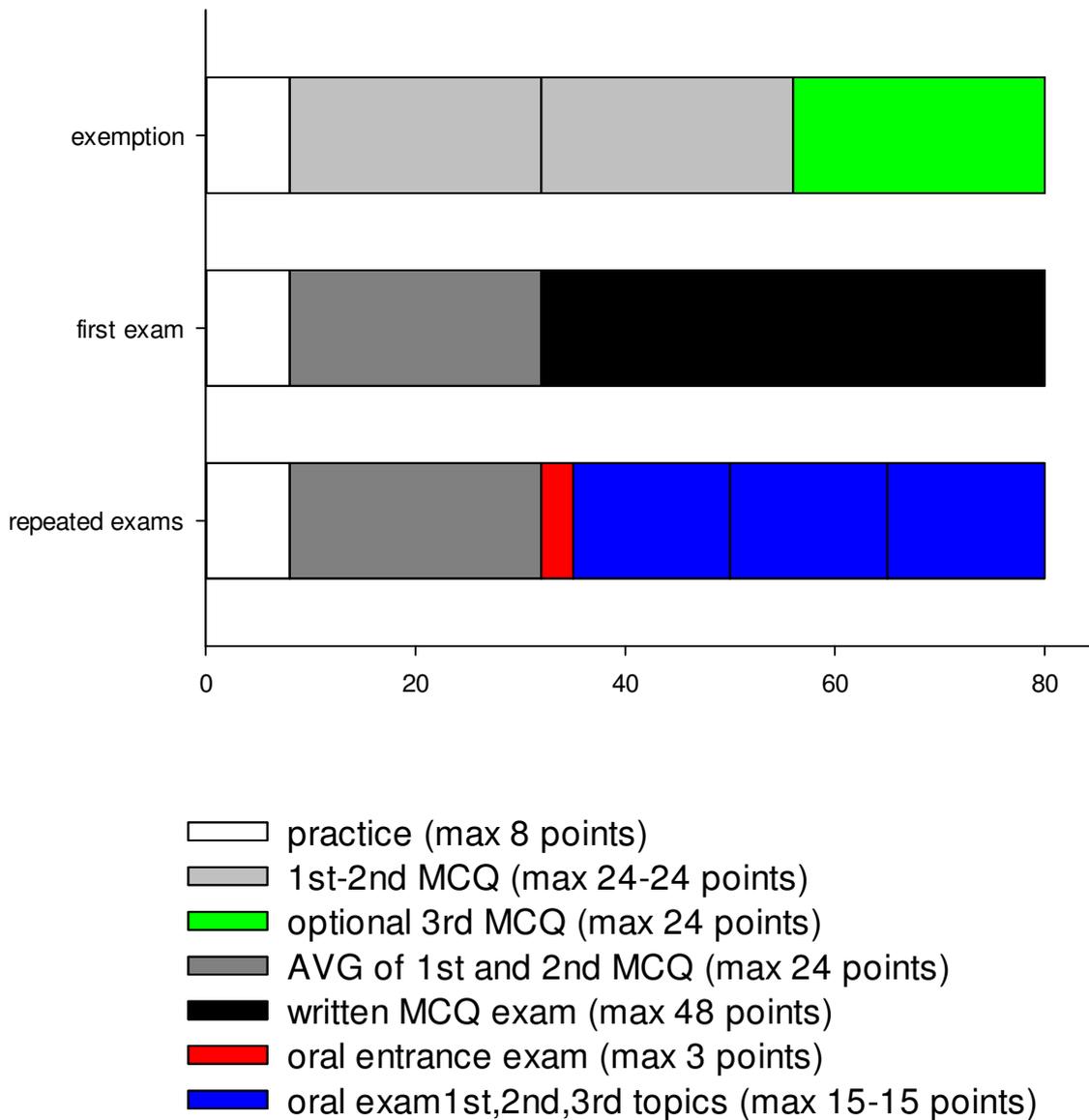
50-56 pont = accepted (3)

57-63 pont = good (4)

64-80 pont = excellent (5)

On the oral exams, the passed (2) grade can be received regardless the number of points, if acceptable knowledge in all three oral topics were demonstrated. The figure below summarizes the point system of the various ESE types to serve as a visual guide:

## 2021/22 ESE system



Students who registered on the Neptun but did not show up on the exam, can justify their absence in order to get back the lost exam chance IF 1) they were admitted to a hospital as an inpatient on the day of the exam or 2) after the closure of the Neptun exam administration of the respective exam date developed an acute medical condition requiring immediate health care, or 3) due to a technical problem the online exam could not be attended. The documentation from the health care providers should be submitted for inspection (in person or attached to an email) to the departmental educational advisor not later than in the first case three workdays after released from the hospital or in the second case three workdays after the missed exam date.

### **ESEnd semester exam (ESE) exam course**

The ESE is an oral exam starting on the date and at the location (if necessary in the online space) specified in the Neptun. In case of an online exam, technical details of the online exam will be provided through Coospace.

The oral exam will have two parts, attended by two examiners. First, there is an entry exam in which 2 learning objectives and 3 normal values are asked from the learning objectives and normal values marked as “essential knowledge”. Not being able to answer any of these questions will result in a failed exam immediately. In the second part, three topics will be chosen either with topic cards or random number generators. After the selection of the first topic, after minimal (1 min) preparation time, the student starts the exam, the examiners will guide the exam with questions. During the examination, the examiners may show images or ask to draw some graphs in accordance with the learning objectives. At the end of the response the examiners evaluate the performance on a 5-grade scale, if the grade is failed the exam is finished with a failed result, otherwise the next topic is selected. At the end of the exam the average of the three grades will yield the exam grade.

If someone desires to improve his/her mark, the faculty rules concerning “improving the result of a successful exam” apply. The students taking the third exam in the semester or the last chance (6<sup>th</sup>) exam will select topic regardless the result of the entry exam.

Students who registered on the Neptun but did not show up on the exam, can justify their absence in order to get back the lost exam chance IF 1) they were admitted to a hospital as an inpatient on the day of the exam or 2) after the closure of the Neptun exam administration of the respective exam date developed an acute medical condition requiring immediate health care, or 3) due to a technical problem the online exam could not be attended. The documentation from the health care providers should be submitted for inspection (in person or attached to an email) to the departmental educational advisor not later than in the first case three workdays after released from the hospital or in the second case three workdays after the missed exam date.

### **Comprehensive exam (CE) exam course**

The CE is an oral exam starting on the date and at the location (if necessary in the online space) specified in the Neptun. In case of an online exam, technical details of the online exam will be provided through Coospace.

The oral exam will have two parts, attended by two examiners. First, there is an entry exam in which 2 learning objectives and 3 normal values are asked from the learning

objectives and normal values marked as “essential knowledge”. Not being able to answer any of these questions will result in a failed exam immediately. In the second part, three topics will be chosen either with topic cards or random number generators. After the selection of the first topic, after minimal (1 min) preparation time, the student starts the exam, the examiners will guide the exam with questions. During the examination, the examiners may show images or ask to draw some graphs in accordance with the learning objectives. At the end of the reponse the examiners evaluate the performance on a 5-grade scale, if the grade is failed the exam is finished with a failed result, otherwise the next topic is selected. At the end of the exam the average of the three grades will yield the exam grade.

If someone desires to improve his/her mark, the faculty rules concerning “improving the result of a successful exam” apply. The students taking the third exam in the semester or the last chance (6<sup>th</sup>) exam will select topic regardless the result of the entry exam.

Students who registered on the Neptun but did not show up on the exam, can justify their absence in order to get back the lost exam chance IF 1) they were admitted to a hospital as an inpatient on the day of the exam or 2) after the closure of the Neptun exam administration of the respective exam date developed an acute medical condition requiring immediate health care, or 3) due to a technical problem the online exam could not be attended. The documentation from the health care providers should be submitted for inspection (in person or attached to an email) to the departmental educational advisor not later than in the first case three workdays after released from the hospital or in the second case three workdays after the missed exam date.

Szeged, September 6, 2021.

prof. Gyula Sary

Head of the Department