Graduate Medical Physiology II

MCP8042  
Spring Semester 2021  
Syllabus

Graduate Medical Physiology II is the second of a two-part course intended to provide a thorough introduction to human systems physiology at the level of first year medical school. The course will provide students with an understanding of the function, regulation and integration of human body organ systems, with emphasis on homeostatic maintenance in health as well as in some disease processes. The content of part II will cover respiratory, renal, acid-base, gastrointestinal, endocrine/reproductive and blood physiology. This course is primarily lecture based, but also includes problem-solving, group discussion, and online presentations.

Course Director  
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Instructors  
Dr. John Lorenz (Email: lorenzjn@uc.edu); Office hours: By appointment  
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Coordinator  
Emma Jones (Email: jones2ee@ucmail.uc.edu)

Registration  
Course #  
MCP8042  
Section  
001  
Call #  
4 G  
Credits  
Variable  
Class Schedule*  
Variable

Assessment  
Class Quizzes (20 pts)  
20 scores used (Respiration: best 4; Renal/A-B: best 5; Endocrine/Reproduction: best 5; GI: best 4; Blood: best 2)  
1 point per quiz = 20 points

Small Group Tests (25 pts)  
5 tests  
5 questions/points per test (x5) = 25 points

Exam 1 (60 pts)  
Multiple-choice exam covering respiration, renal and acid-base physiology

Exam 2 (70 pts)  
Multiple-choice exam covering endocrine, reproduction, GI and blood

Grading  
Grading will be in line with CoM policy with no adjustment for the distribution of scores. There is no option for the remediation of grades after the scheduled final exams (i.e. no make-up test).  

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>90%–100%</td>
</tr>
<tr>
<td>A−</td>
<td>85%–89.99%</td>
</tr>
<tr>
<td>B</td>
<td>82%–84.99%</td>
</tr>
<tr>
<td>B−</td>
<td>74%–76.99%</td>
</tr>
<tr>
<td>C</td>
<td>77%–81.99%</td>
</tr>
<tr>
<td>C+</td>
<td>70%–73.99%</td>
</tr>
<tr>
<td>Fail</td>
<td>Below 67%</td>
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</tbody>
</table>

Also for a passing course grade, the average for the two exams must be greater than 67%.

Prerequisites  
Acceptance into Special Master’s Program in Physiology & Graduate Medical Physiology I

Attendance  
Attendance is required

Auditing  
No auditing option
Blackboard & Email Policy Messages sent via Blackboard will be considered sufficient notice. You should make sure that you have entered your preferred email address in Blackboard under Tools → Personal Information → Edit Personal Information.

Textbooks Selected readings from the following textbooks will be required (available online):
- *Medical Physiology: A Systems Approach* (Lange Medical Books) Hershel Raff, Michael Levitzky

Course Content:

Unit 1: Renal-Respiration-Acid Base
Section 1: Respiration: structure & ventilation, gas exchange and transport, ventilation-perfusion, mechanics, control of breathing.
Section 2: Renal physiology: structure, filtration & clearance, tubular transport, salt & water balance, calcium/phosphate and bone, hydrogen ion balance, renal diseases.
Section 3: Acid-Base physiology: A-B disturbances and problem solving.

Unit 2: Endocrine/Reproduction, GI, Blood
Section 3: Hemophysiology: hematopoiesis, hemostasis, iron metabolism.