FUNDAMENTALS OF HUMAN PHYSIOLOGY
ADVANCED BIOMEDICAL SCIENCES CERTIFICATE PROGRAM
COURSE INFORMATION, SPRING 2020

COURSE DIRECTORS:

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COURSE OBJECTIVE

The goal of the Fundamentals of Human Physiology course is to provide the student with a basic understanding of the physiological basis of medicine. The essential concepts of physiology and mechanisms of body function are presented at various levels of organization ranging from the cellular and molecular to the tissue and organ system level. Emphasis is placed on understanding the integrated regulation of various processes among several systems.

FORMAT OF THE COURSE

(NOTE: Students in the Hybrid Section of the course will receive separate information about the format of their version of the course.)

The material in this course is presented through a variety of classroom activities: lectures, problem-solving workshops, and integrated reviews. Each is designed to serve a different educational goal and together they are intended to provide a stimulating atmosphere for learning. Virtually every lecture series is presented by a faculty member who is actively working (and is a recognized expert) in that field of biomedical science. Course materials for the particular sections, such as the educational objectives, sample problems, and additional relevant material will be uploaded by the professors before the beginning of each lecture series. The objectives represent the required knowledge and skills, and are realistically achievable if students

spend time studying and solving problems, and participate in the tutorials and discussion sessions.

Lectures: Didactic lectures are an efficient way of presenting material to a large class. However, problem-solving workshops and integrated reviews are also included to promote active, rather than passive, learning.

Problem-Solving Workshops: These sessions will be given in the lecture hall, but will not be didactic lectures. Rather, the aim of these sessions is to improve students' problem-solving skills by working through several quantitative problems related to the particular physiological system under study.

Integrated Section Review Sessions: Periodic Integrated Section Review Sessions are scheduled throughout the course. The format will be depend on the instructor; in general, clinical cases or pathophysiological states will be discussed to integrate material learned in the didactic presentations.

In rare instances, due to instructor unavailability or class cancellation by the University (see below), class may be delivered through other means, for example, through lecture capture (recordings) or Zoom sessions.

EXAMINATIONS

Four examinations will be given. The tests will consist of multiple choice questions. Students are encouraged to bring a simple, non-graphing calculator to class (cell phones and graphing calculators will not be permitted). The actual examinations and answer sheets will not be returned to students, although students will have an opportunity to review their exams.

GRADES

Grades will be based on the total number of points earned in the course, with all examination questions carrying equal weight. The grading scale is anticipated to be as follows, but may be adjusted to reflect the performance of the class, but only to benefit the class:

90-100%	A
84-89%	B+ to A-
70-83%	B
60-69%	C to B-
Below 60%	Fail

PLEASE NOTE: The B range will be wide, and the B+, A- and B- ranges will be narrow. This is the nature of our grading. Students earning “plus” or “minus” grades will always be “close to the next grade”, either upwards or downwards, and students at the top and

bottom of the B range will be far apart in their numerical scores. We understand these points when we assign grades, and there will be no changes to grades made on this basis.

ACADEMIC INTEGRITY

All suspected or observed violations of the Honor Code below will be reported to the Honor Committee for adjudication. It is expected that students adhere to the George Mason University Honor Code as it relates to integrity regarding coursework and grades. The Honor Code reads as follows:
"To promote a stronger sense of mutual responsibility, respect, trust, and fairness among all members of the George Mason University community and with the desire for greater academic and personal achievement, we, the student members of the University Community have set forth this: Student members of the George Mason University community pledge not to cheat, plagiarize, steal and/or lie in matters related to academic work." More information about the Honor Code, including definitions of cheating, lying, and plagiarism, can be found at the Office of Academic Integrity website at http://oai.gmu.edu

FACULTY AVAILABILITY

Program policy encourages faculty to be available to all students who wish to discuss relevant material. Students who wish to meet with a professor should contact him or her by email to arrange a time, preferably on a day during which the professor will be present at PWC. Students not achieving an appropriate level of competence are strongly urged to contact the Course Director and Supplemental Faculty for advice. Help should be sought promptly when problems are encountered.

NOTICE OF MANDATORY REPORTING OF SEXUAL ASSAULT, INTERPERSONAL VIOLENCE, AND STALKING

As a faculty, we are designated as a "Responsible Employees," and must report all disclosures of sexual assault, interpersonal violence, and stalking to Mason's Title IX Coordinator per University Policy 1202. If you wish to speak with someone confidentially, please contact one of Mason's confidential resources, such as Student Support and Advocacy Center (SSAC) at 703-380-1434 or Counseling and Psychological Services (CAPS) at 703-993-2380. You may also seek assistance from Mason's Title IX Coordinator by calling 703-993-8730, or emailing titleix@gmu.edu.

ATTENDANCE, ANNOUNCEMENTS AND EMAIL POLICY

The ABS Program strongly encourages attendance at all teaching sessions. Students will be held responsible for any announcements made during scheduled classes or through email sent to their GMU email accounts. If you must miss an examination due to an emergency, the course director must be notified beforehand. Documentation of the reason for the absence will be required. In case of absence from an examination without prior notification and permission, a grade of zero will be recorded.

ACADEMIC CONTINUITY AND CLASS CANCELLATION POLICY

Formal classes will be cancelled when GMU closes due to snow or other emergencies. We will NOT follow Georgetown University closing schedules. IF CLASS IS CANCELLED, WATCH YOUR EMAIL FOR INFORMATION REGARDING ACADEMIC CONTINUITY. We may ask you, for example, to watch lecture captures when class is cancelled.

TEXTBOOK

Netter's Essential Physiology, Mulroney & Myers (2nd Edition, Saunders, 2016)
This concise textbook may serve as either a stand-alone textbook for the course or an adjunct to one of the more comprehensive textbooks above, and will be especially useful to visually-oriented learners.

Note about textbooks: Although many students choose to purchase a personal copy of the textbook, Netter's Essential Physiology is available online through Dahlgren Library at Georgetown University. You will need to use your Georgetown University NetID and password. Other physiology texts are also available through Dahlgren, including Textbook of Medical Physiology, by Guyton and Hall, and Physiology, by Costanzo.