

## ATEP 600 (002): Pathopharmacology (3 credits)

Spring 2021

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Office hours: By Appointment

02/01/21 Last day to add classes

02/12/21 Last day to drop classes without penalty

02/16/21 Last day to drop (50% tuition penalty)

03/02-04/01 Selective withdrawal period

### Course Description

Prerequisites: Basic Human Anatomy and Physiology and Functional Anatomy knowledge needed.

Examines the assessment and management techniques of general medical conditions and pharmacological principles and interventions.

### Blackboard Login Instructions

Access to [MyMason](#) and GMU email are required to participate successfully in this course. Please make sure to update your computer and prepare yourself to begin using the online format BEFORE the first day of class. Check [the IT Support Center](#) website. Navigate to [the Student Support page](#) for help and information about Blackboard. In the menu bar to the left you will find all the tools you need to become familiar with for this course. Take time to learn each. Make sure you run a system check a few days before class. Become familiar with the attributes of Blackboard and online learning.

### Required Textbooks

1. Cuppett M, Walsh KM. General Medical Conditions in the Athlete, 2nd edition. St. Louis, MO: Elsevier Mosby; 2011.
2. Houglum, JE Harrelson G & Seefeldt TM. Principles of Pharmacology for Athletic Trainers, 3<sup>rd</sup> Edition. Slack Inc. 2016

## Course Learning Outcomes

The course is designed to enable students to do the following:

1. Differentiate body systems as a series of interrelated functional systems;
2. Recognize acute and chronic physiological and pathological responses of the body to various stimuli e.g. environment, drugs, pathogens, and physical activity;
3. Describe mechanisms of general medical conditions in the physically active including the etiology, pathogenesis, pathomechanics, signs, symptoms, and epidemiology of these conditions;
4. Describe basic principles of management of general medical conditions in physically active populations;
5. Interpret and use appropriate medical terminology and employ medical documentation techniques;
6. Recognize legal regulation of pharmaceuticals, and the athletic trainer's responsibility in storing, transporting, dispensing, and recording of prescription and non-prescription medications;
7. Demonstrate the use of the Physician's Desk Reference and other pharmacy resources;
8. Explain general pharmacodynamic and pharmacokinetic principles and the influence of physical activity on these processes;
9. Compare and contrast common routes used to administer medications; and
10. Discuss performance-enhancing substances and identify which ones are banned in physically active settings

## Technology Requirements

**Hardware:** You will need access to a Windows or Macintosh computer with at least 2 GB of RAM and access to a fast and reliable broadband internet connection (e.g., cable, DSL). A larger screen is recommended for better visibility of course material. You will need speakers or headphones to hear recorded content and a headset with a microphone is recommended for the best experience. For the amount of Hard Disk Space required taking a distance education course, consider and allow for:

1. the storage amount needed to install any additional software and
2. space to store work that you will do for the course.

If you consider the purchase of a new computer, please go to [Patriot Tech](#) to see recommendations.

**Software:** Many courses use Blackboard as the learning management system. You will need a browser and operating system that are listed compatible or certified with the Blackboard version available on the [myMason Portal](#). See [supported browsers and operating systems](#). Log in to [myMason](#) to access your registered courses. Some courses may use other learning management systems. Check the syllabus or contact the instructor for details. Online courses typically use [Acrobat Reader](#), [Flash](#), [Java](#), and [Windows Media Player](#), [QuickTime](#) and/or [Real Media Player](#). Your computer should be capable of running current versions of those

applications. Also, make sure your computer is protected from viruses by downloading the latest version of Symantec Endpoint Protection/Anti-Virus software for free [here](#).

Students owning Macs or Linux should be aware that some courses may use software that only runs on Windows. You can set up a Mac computer with Boot Camp or virtualization software so Windows will also run on it. Watch [this video](#) about using Windows on a Mac. Computers running Linux can also be configured with virtualization software or configured to dual boot with Windows.

Note: If you are using an employer-provided computer or corporate office for class attendance, please verify with your systems administrators that you will be able to install the necessary applications and that system or corporate firewalls do not block access to any sites or media types.

### Course-specific Hardware/Software

Check the syllabus for your course or contact the instructor prior to the start of the course to find out about specific technical requirements for your class. Hardware or software required for your course or program may be available for purchase at [Patriot Computers](#) (the University's computer store that offers educational discounts and special deals).

### Course Schedule

Week # (Monday-Sunday)	TOPIC/READINGS/VIDEOS	ASSIGNMENTS DUE
<b>Week 1</b> <b>01/25-01/31</b>	Ch 1 (Houglum): Introduction to Pharmacology	Chapter review & vocab due Thursday 1/28/21 by 11:59 PM
<b>Modular 1</b>	Ch 1 (Cuppet): Foundational Issues	<b>Open and look over PDR assignment that is due in 2 weeks.</b>
	Ch 4 (Houglum): Medication Management in an Athletic Training Facility	
	Ch 3 (Cuppet): Diagnostic Imaging and Testing	
<b>Week 2</b> <b>02/01-02/07</b>	Ch 2 (Houglum): Pharmacokinetics Principles:	Chapter review & vocab due Thursday 02/04/21 by 11:59 PM

<b>Week # (Monday-Sunday)</b>	<b>TOPIC/READINGS/VIDEOS</b>	<b>ASSIGNMENTS DUE</b>
<b>Modular #</b>		
<b>Modular 2</b>	Process That Affect Drugs from Entry to Exit  Ch 4 (Cuppett): Basic Principles of Pharmacology  Ch 3 (Houglum): Pharmacodynamic Principles: Mechanism of Drug Action and Therapeutic Considerations  Ch 5 (Cuppett): Drug Categories	<b>PDR assignment due next week</b>
<b>Week 3 02/08-02/14</b>	<b>Exam (50 questions, 100 pts); PDR Due</b>	<b>PDR due Thursday 02/11/21</b>
<b>Modular 3</b>		Exam due Sunday 02/14/21 by 11:59 PM
<b>Week 4 02/15-02/21</b>	Ch 14 & 16 (Cuppett): Systemic Disorders & Dermatological Conditions  Ch 5 (Houglum): Drugs for Treating Pain  Ch 15 (Cuppett): Infectious Disease	Chapter review & vocab due Thursday 02/18/21 by 11:59 PM
<b>Week 5 02/22-02/28</b>	Ch 6 (Houglum): Drugs for Treating Inflammation  Ch 13 (Cuppett): Ear, Nose, Throat, and Mouth  Ch 7 (Houglum): Drugs for Treating Pain	Chapter review & vocab due Thursday 02/25/21 by 11:59 PM
<b>Week 6 03/01-03/07</b>	Ch 12 (Cuppett): The Eye	Chapter review & vocab due Thursday 03/04/21 by 11:59 PM

<b>Week # (Monday-Sunday)  Modular #</b>	<b>TOPIC/READINGS/VIDEOS</b>	<b>ASSIGNMENTS DUE</b>
<b>Modular 6</b>	Ch 8 (Houglum): Drugs for Relaxing Skeletal Muscles  Ch 11 (Cuppett): Neurological System	
<b>Week 7 03/08-03/14  Modular 7</b>	<b>TEST (50 question, 100 pts)</b>	Exam due Sunday 03/14/21 by 11:59 PM
<b>Week 8 03/15-03/21</b>	Ch 9 (Houglum): Drugs for Treating Asthma  Ch 7 (Cuppett): Respiratory System  Ch 10 (Houglum): Drugs for Treating Colds and Allergies	Chapter review & vocab due Thursday 03/18/21 by 11:59 PM
<b>Week 9 03/22-03/28  Modular 8</b>	Ch 11 (Houglum): Drugs for Treating Gastrointestinal Disorders  Ch 9 (Cuppett): Gastrointestinal System  Ch 12 (Houglum): Drugs for Treating Hypertension and Heart Disease  Ch 8 (Cuppett): Cardiovascular System	Chapter review & vocabs due Thursday 03/25/21 by 11:59 PM
<b>Week 10 03/29-04/04</b>	Ch 13 (Houglum): Drugs for Treating Psychiatric Disorders  Ch 17 (Cuppett): Psychological and Substance Use Disorders	Chapter review & vocab due Thursday 04/01/21 by 11:59 PM

<b>Week # (Monday-Sunday)  Modular #</b>	<b>TOPIC/READINGS/VIDEOS</b>	<b>ASSIGNMENTS DUE</b>
	Ch 14 (Houglum): Drugs for Treating Diabetes Mellitus	
<b>Week 11 04/05-04/11  Modular 9</b>	<b>TEST (50 questions, 100 pts)</b>	Chapter review & vocabs due Thursday 04/08/21 by 11:59 PM
<b>Week 12 04/12-04/18  Modular 10</b>	Ch 15 (Houglum): Herbal and Fitness Supplement  Ch 16 (Houglum): Performance-Enhancing Drugs	Chapter review & vocab due Thursday 04/15/21 by 11:59 PM
<b>Week 13 04/19-04/25  Modular 11</b>	Ch 17 (Houglum): Drugs Testing in Sports  Ch 10 (Cuppett): Genitourinary and Gynecological Systems  Ch 18 (Cuppett): Working with Special Population	Chapter reviews & vocab due Thursday 04/22/21 by 11:59 PM
<b>Week 14 04/26-05/01 (Sat)  Modular 12</b>	<b>TEST (50 questions, 100 pts)</b>	Exam due Saturday 05/01/21 by 11:59 PM
<b>Week 15 05/03-05/09</b>	<b>FINAL (Drug Evaluation Paper &amp; Presentation)</b>	Due Sunday 05/09 by 11:59 PM
<b>Week 16 05/10</b>	<b>Summer Break!!!</b>	

## Assignments Description

### Course Performance Evaluation

Students are expected to submit all assignments on time in the manner outlined by the instructor.

- **Examinations**

Three exams (2 midterm examinations and one final cumulative examination) will be issued which may include multiple choice, true/false, fill in the blank, matching, short answer, and essay questions. Each of the examinations will test material covered during the prior class meetings and previous reading assignments. Exams will also cover material in the textbook and activities completed during class sessions. Each examination is worth 100 points. You are required to bring a Scantron to each examination.

- **Attendance**

Students are expected to attend class and actively participate in class discussions. Attendance is physically being present in class. That encompasses arriving prior to the start of class and leaving when the class concludes. Arriving late or leaving early will impact the attendance points.

- **Online Discussion Board Posts**

Your discussion will be graded based upon the rubric, which looks to quality, timeliness, responsiveness, and moving the discussion forward. Discussions will run from **Monday to Sunday**, after which discussion postings will not count. You are expected to participate throughout the week in the discussions -not clump them all together on one day (see rubric).

**Each of you should make a minimum of one response addressing the key question (no later than Thursday 11:59 pm) AND then also make a minimum of two additional comments to responses made from your classmates (no later than Sunday 11:59 PM).** You will be given online discussion participation points based on the quality of your responses.

- **Weekly Assignments**

- **Collaborate Ultra Attendance**

- **Physicians' Desk Reference (PDR) Assignment**

Students will be provided names of different medications. They will then use the PDR to write information about these medications using a question and answer sheet provided on Blackboard.

## **Course Policies**

### **Professional Dispositions**

Students are expected to exhibit professional behaviors and dispositions at all times.

It is critical each student conduct themselves in an appropriate manner and decorum fitting of a health care provider. Making light of injuries, conditions, or illnesses that is not respectful to the class, instructor, or patient study will not be tolerated. Submission of documents or assignments should not include personal information and comply with Health Insurance Portability & Accountability Act (HIPPA) regulations.

### **Core Values Commitment**

The College of Education and Human Development is committed to collaboration, ethical leadership, innovation, research-based practice, and social justice. Students are expected to adhere to these principles: <http://cehd.gmu.edu/values/>.

**Late Assignments:** All assignments must be turned in on the due date given on the assignment sheet.

**Instructor-Student Communication:** I will respond to your emails within 48 hours. If I will be away from email for more than one day, I will post an announcement in the Blackboard course folder. Before sending an email, please check the following (available on your Blackboard course menu) unless the email is of a personal nature:

1. Syllabus
2. Ask Professor
3. On-demand Blackboard videos on how to use Blackboard features, and Technical Requirements.

Feel free to respond to other students in the Ask Professor forum if you know the answer.

**Technology.** You will need a reliable computer and internet access to view course materials in Blackboard. You will need to video record your two role-plays and you can do that with a smartphone or other video camera, such as Kaltura CaptureSpace in Blackboard.

### **Grading Scale**

The student's final letter grade will be earned based on the following scale:



<b>ASSESSMENT METHOD</b>	<b>NUMBER</b>	<b>POINTS EACH</b>	<b>POINTS TOTAL</b>
PDR Assignment	1	25	25
Weekly Assignments	34	10	340
Assessment (50 Questions)	4	100	400
Final Project	1	200	200
<b>TOTAL</b>			965

A: (93%)

A-: (90%)

B+: (87%)

B: (83%)

B-: (80%)

C+: (77%)

C: (73%)

C-: (70%)

F: (63%)

## University Policies and Resources

- a. **Academic Honesty:** You are expected to be familiar with and abide by the University's Honor Code. The Code can be found [here](#). It is your responsibility to see me if you have questions about these policies. George Mason University has an honor code that states the following:  
*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:*
- b. Students must follow the university policy for [Responsible Use of Computing](#)
- c. **Student services:** The University provides range of services to help you succeed academically and you should make use of these if you think they could benefit you. I also invite you to speak to me (the earlier the better).
- d. Students are responsible for the content of university communications sent to their George Mason University email account and are required to activate their account and check it regularly. All communication from the university, college, school, and program will be sent to students solely through their Mason email account.
- e. [The George Mason University Counseling and Psychological Services \(CAPS\)](#) staff consists of professional counseling and clinical psychologists, social workers, and counselors who offer a wide range of services (e.g., individual and group counseling, workshops and outreach programs) to enhance students' personal experience and academic performance. Counseling Center: Student Union I, Room 364, 703-993-2380.
- f. Students with disabilities who seek accommodations in a course must be registered with the [George Mason University Office of Disability Services \(ODS\)](#) and inform their instructor, in writing, at the beginning of the semester. All academic accommodations must be arranged through that office. Please note that accommodations **MUST BE MADE BEFORE** assignments or exams are due. I cannot adjust your grade after the fact.
- g. Students must follow the university policy stating that all sound emitting devices shall be turned off during class unless otherwise authorized by the instructor.
- h. [The George Mason University Writing Center](#) staff provides a variety of resources and services (e.g., tutoring, workshops, writing guides, handbooks) intended to support students as they work to construct and share knowledge through writing. University Writing Center: Robinson Hall Room A114, 703-993-1200. The writing center includes assistance for students for whom English is a second language.
- i. **Diversity:** George Mason University promotes a living and learning environment for outstanding growth and productivity among its students, faculty and staff. Through its curriculum, programs, policies, procedures, services and resources, Mason strives to maintain a quality environment for work, study and personal growth.