

**George Mason University**  
**College of Education and Human Development**  
Athletic Training Education Program  
ATEP 600 – 001 Pathopharmacology  
3 Credits, Spring 2018  
MW 10.30-11.45 am, Bull Run Hall 134, SciTech (PW)

**Faculty**

Name: Jatin Ambegaonkar, PhD ATC OT CSCS  
Office Hours: W 12-1 pm and by Appointment  
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**Prerequisites/Corequisites**

Basic human anatomy and physiology and Functional Anatomy knowledge needed.

**University Catalog Course Description**

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

**Course Overview**

Not Applicable.

**Course Delivery Method**

This course will be delivered using a lecture format

**Learner Outcomes or Objectives**

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

1. Discriminate body systems as a series of interrelated functional systems;
2. Appraise 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. Plan 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. Summarize 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 the Drug Facts and Comparisons and other pharmacy resources;
8. Assess 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. Critique performance-enhancing substances and identify which ones are banned in physically active settings

**Professional Standards**

The course meets Commission on Accreditation of Athletic Training Education (CAATE) competencies and proficiencies in one or more of the following content areas: evidence-based practice, prevention and health promotion, clinical examination and diagnosis, acute care of injury and illness, therapeutic

interventions, psychosocial strategies and referral, healthcare administration, professional development and responsibility.

**Required Texts**

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 Performance Evaluation**

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

- **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.
- **Attendance/Participation** – Students are expected to attend class and actively participate in class
- **Quizzes** – Students will be evaluated on content standards (knowledge gained) and performance (demonstration of the content). Content standards will be assessed via written assignments, quizzes, and exams. Performance will be assessed through completion of class participation activities and competency testing.
- **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.
- **Evidence Based Medicine (EBM) Article Review Assignment**- Evidence-based medicine is the practice of medicine based on the best available evidence. Health professionals caring for children and adults need to be aware of the evidence about the benefits and harms of preventive methods, diagnostic strategies, treatments, and rehabilitation techniques in order to provide optimal care to their patients. For this assignment, one article summary report will be written regarding general medical condition related to athletic training from a peer-reviewed journal. Reports must contain a brief summary of the major content and components of the article. Please comment on the author’s completeness and important items that you feel were omitted. This assignment is designed to introduce you to your professional journal as well as the formats and prose of different professional articles. The reports are to be submitted on Blackboard. Please use American Medical Association AMA writing guidelines. More information will be given in class.

**Grading Scale**

ASSESSMENT METHOD	NUMBER	POINTS EACH	POINTS TOTAL
PDR Assignment	1	20	20
Attendance/Participation	Variable	20	20
Quizzes	3	20	60
Midterm Examination	2	100	200
Cumulative Final Examination	1	100	100
EBM Article Review Assignment	1	100	100
<b>TOTAL</b>	—	—	<b>500</b>

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

Grade	Percentage	Quality Points	Grade	Percentage	Quality Points
A+	93%	4.00	B	83%	3.00
A	93%	4.00	B-*	80%	2.67
A-	90%	3.67	C	73%	2.00
B+	87%	3.33	F	<73%	0.00

\* Although a B- is a satisfactory grade for a course, students must maintain a 3.00 average in their degree program and present a 3.00 GPA on the courses listed on the graduation application.

### **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 within and outside class. 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 identifiable information and comply with Health Insurance Portability & Accountability Act (HIPAA) regulations. If you choose to be a part of a professional organization or club i.e. National Athletic Trainers' Association, GMU Athletic Training Club, etc; you will be expected act and perform your duties according to those organizational values or code of ethics.

### **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/>.

### **GMU Policies and Resources for Students**

#### *Policies*

- Students must adhere to the guidelines of the Mason Honor Code (see <https://catalog.gmu.edu/policies/honor-code-system/>)
- Students must follow the university policy for Responsible Use of Computing (see <http://universitypolicy.gmu.edu/policies/responsible-use-of-computing/>).
- Students are responsible for the content of university communications sent to their Mason 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.
- Students with disabilities who seek accommodations in a course must be registered with George Mason University Disability Services. Approved accommodations will begin at the time the written letter from Disability Services is received by the instructor (see <http://ods.gmu.edu/>).
- Students must follow the university policy stating that all sound emitting devices shall be silenced during class unless otherwise authorized by the instructor.

*Campus Resources*

- Support for submission of assignments to Tk20 should be directed to [tk20help@gmu.edu](mailto:tk20help@gmu.edu) or <https://cehd.gmu.edu/aero/tk20>. Questions or concerns regarding use of Blackboard should be directed to <http://coursessupport.gmu.edu/>.
- For information on student support resources on campus, see <https://ctfe.gmu.edu/teaching/student-support-resources-on-campus>

**For additional information on the College of Education and Human Development, please visit our website <https://cehd.gmu.edu/students/> .**

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See <https://cehd.gmu.edu/students/polices-procedures/>



### Tentative Class Schedule

DATE		TOPIC	READINGS
Jan	22	Syllabus Review Introduction to General Medicine Elements of a Prescription	C&W Ch. 1-2
Jan	24	Introduction to Pharmacology Drug References – Physician’s Desk Reference (PDR)	C&W Ch. 4 H&H Ch. 1
Jan	29	Pharmacokinetics	H&H Ch. 2
Jan	31	Pharmacodynamics	H&H Ch. 3 C&W Ch. 4
Feb	5	<b>QUIZ #1 * CAATE Visit 12.45-2.15 pm</b> Allergic Reactions and Anaphylaxis	
Feb	7	Musculoskeletal Disorders	C&W Ch. 17
Feb	12	<b>PDR Assignment Due</b> Review PDR Project Anti-Inflammatory Drugs	H&H Ch. 6
Feb	14	Diabetes Mellitus & Treatment Systemic Disorders (Cancers, Hyper/Hypothyroidism) Thermoregulatory Disorders, Cushing’s Syndrome, Chronic Fatigue	H & H Ch. 14
Feb	19	<b>MID TERM EXAMINATION 1</b>	
Feb	26	Gastrointestinal Disorders & Drugs for Gastrointestinal	C&W Ch. 9 H&H Ch. 11
Feb	28	The Eye	C&W Ch. 12
Mar	5	Infectious Diseases	C&W Ch. 15
Mar	7	Anti-Infectives	H&H Ch. 5
Mar	12-18	<b>SPRING BREAK</b>	C & W Ch. 8 H & H Ch. 12
Mar	19	<b>QUIZ #2</b> Cardiovascular Disorders and Treatment	
Mar	21	Clotting and Hematological Conditions	C&W Ch. 8
Mar	26	Skeletal Muscle Relaxants Analgesics & Local Anesthetics	H&H Ch. 7 & 8

Mar	28	Concussions	
Apr	2	Dermatological Conditions	C&W Ch. 16
Apr	4	Neurological Disorders Psychological Disorders	C&W Ch. 11 & 18 H&H Ch. 11
Apr	9	Genitourinary and Gynecological Conditions	C&W Ch. 10
Apr	11	<b>MID TERM EXAMINATION 2</b>	
Apr	16	Respiratory Disorders	C&W Ch. 7
Apr	18	Respiratory Drugs & Proper Inhaler Technique	H&H Ch. 9
Apr	23	Ear, Nose, Throat & Mouth Disorders	C&W Ch. 13
Apr	25	<b>QUIZ #3</b> Colds & Allergies	H&H Ch. 10
Apr	30	Natural & Ergogenic Supplements Diuretics Drug Testing	H&H Ch. 15 & 17
May	2	Performance Enhancing Drugs, Stimulants, Muscle Building Agents (Anabolics) Blood Doping Psychological and Substance Abuse Disorders <b>EBM Review Assignment Due</b>	H&H Ch. 16 C&W Ch. 18
May	TBA	<b>FINAL EXAMINATION CUMULATIVE</b>	<b>TBA</b>

*Note: Faculty reserves the right to alter the schedule as necessary, with notification to students.*

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**Attendance**

Students are expected to be on time, attend all class meetings, and be prepared for in class assignments and projects. Excused absences include the following: illness (must bring a receipt or note from a doctor), family death, athletic/academic event (contact instructor in advance), and others at the discretion of the instructor. For known upcoming absences, students must contact the instructor at least **one** week in advance to the missed class to make up work. In the case of illness or some other unforeseen absence, the student must contact the instructor via e-mail or telephone the same day of the absence. At the next attended class meeting the student will discuss material that is to be completed with the instructor. *Students will have one week from the excused absence to complete any missed assignments.* It is the student's obligation to pursue any make-up work.

**Assignments**

Late assignments will not be accepted. Assignments should be submitted at the beginning of the class meeting on the due date. Late assignment will result in a zero (0) for the assignment. This applies to electronic submissions as well.

Your name **MUST** be on your papers when you turn them in. Failure to put your name will result in a zero (0) for the assignment.

**Technology Use During Class**

As per GMU policy, all sound emitting technology is required to be turned off during the lecture and laboratory class meeting times. Additionally, no laptop computers or tablets will be permitted for use during class time; the exceptions are for use during presentations/projects, and technology deemed as necessary by the Office of Disability Services. Students utilizing various technology devices during class will be asked to leave class and will not be permitted to complete course work or receive any points for assignments that day.

**E-Mail Correspondence**

Only messages that originate from a George Mason University address will be accepted; thus your e-mail address must end in gmu.edu. The instructor will not read e-mail messages not originating from a GMU account. Also, when corresponding with any professional at GMU or off campus via e-mail, use the following, appropriate professional format; any e-mail not using this format will be returned to the students for revision before a response will be issued:

Dear Dr. Ambegaonkar (Beginning salutation)

I am looking forward to your class.

(Text body)

Regards, (Ending Salutation)

(Your name)

### Student Acknowledgement of Syllabus

I, \_\_\_\_\_, by signing below, attest to the following:  
(Print First and Last Name)

- \*I have read the course syllabus for ATEP 600 in its entirety, and I understand the policies contained therein. This syllabus serves as an agreement for ATEP 600 between me and the instructor.
- \*I have a clear understanding of the due dates for assignments and examinations, and I accept responsibility for the material.
- \*I am aware that failure to submit assignments by the dates assigned will result in no points awarded as late work will not be accepted.
- \*I understand the instructor reserves the right to alter the provided schedules as necessary and I am responsible for the assignments and examination dates for the most current version of the syllabus schedule.
- \*I accept responsibility for reading announcements that are sent to me via e-mail through Blackboard; it is my responsibility to access Blackboard e-mail for announcements and assignments.

\_\_\_\_\_  
(Signature) (Date)

*(Student Copy: This copy should remain attached to your syllabus)*



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- \*I understand the instructor reserves the right to alter the provided schedules as necessary and I am responsible for the assignments and examination dates for the most current version of the syllabus schedule.
- \*I accept responsibility for reading announcements that are sent to me via e-mail through Blackboard; it is my responsibility to access my Blackboard e-mail for announcements and assignments.

\_\_\_\_\_  
(Signature) (Date)

*(Instructor Copy: Submit to the instructor at the end of the first class meeting)*