

PT 544: PHARMACOLOGY FOR PHYSICAL THERAPISTS
OBJECTIVES
SUMMER 2020

Course Description: The pharmacology component is designed to provide the physical therapist with knowledge of pharmacology theory and application to physical therapy. Course content includes lectures, course handouts, and exams.

This summer the course is delivered by distance as lecture (live and prerecorded) with online exams. The pharmacology exams are self-directed through the Blackboard course management system.

Department Offering the Course
Physical Therapy

Credit Hours: 1 credit hour

Instructor(s):

Mark Romanick PT, PhD, ATC (MR) [course coordinator]

Tom Mohr PT, PhD (TM), Dave Relling PT, PhD (DR), Rachel Bothun PT, DPT (RB)

Clock Hours and Schedule:

Lecture: 14 hours per semester

Schedule: Mondays, 8 – 10 am

Course Prerequisites:

Enrolled in the professional Physical Therapy Curriculum

Course Objectives: At the completion of this course the student will be able to:

- 1) Integrate pharmacokinetic principles with pharmacodynamics and judge how drug effects are influenced by their administration, absorption, distribution, storage, and metabolism in the body.
- 2) Compare and contrast general categories of drugs that are therapeutically utilized for specific disease and dysfunction within the body.
- 3) Compare and contrast the physiological mechanisms by which individual drugs affect different organ systems in the body.
- 4) Evaluate drug side effects and differentiate these side effects from the symptoms of the patient's disease(s).
- 5) Comprehend the capacity for addiction and withdrawal in drugs with those potentials and recognize addictive and withdrawal behaviors in patients exhibiting corresponding signs.
- 6) Describe the pharmacology of opioid prescription drugs used for pain, the DEA schedule of drugs, and the abuse and overdose issues associated with the use of opioid medications.
- 7) Assess situations where drug levels are too high versus too low (ie, increased drug toxicity versus decreased efficacy).

- 8) Judge the potential for harmful interactions between specific drugs and various physical therapy interventions.
- 9) Choose appropriate physical therapy interventions in accordance with the client's drug regimen.
- 10) Summarize pharmacological effects on body systems and influence of polypharmacy in the older adult.

Curriculum Practice Model:

The above objectives contribute to the Curriculum Practice Model component of Patient/Client Management (all subcomponents of direct patient/client care).

Outline of Content and Assigned Instructor:

<u>Date</u>	<u>Topic</u>	<u>Parus Text</u>
May 25-29	Principles of Pharmacology	Ch 1-3 (DR)
June 1-5	Cardiovascular & Pulmonary	Ch 4-11, 35 (DR)
June 8-12	Neurologic Pharmacology	Ch 12-21 (TM)
June 15-19	Neurologic Pharmacology I	Ch 12-21 (TM)
June 22-26	Musculoskeletal Pharmacology II	Ch 33-34 (MR)
June 29-July 3	Endocrine Pharmacology	Ch 22-26 (MR)
July 6-10	Chemotherapeutics, GI, Pharmacology for Seniors	Ch 27-32, 36 (MR)

Description of Teaching Methods and Learning Experiences:

This course is a lecture-based course designed to facilitate learning of pharmacological interventions utilized clinically.

Methods of Evaluation:

Online examinations. Each exam will become available immediately following the corresponding lecture and closed at 8 am Monday of the following week. Each exam must be completed in the week that it is assigned. Each student is required to successfully complete the exams (80% score) for the topics listed above. Students have 1 hour to complete each exam and can take each exam twice, with higher score retained for grading. **Remediation will be performed if high exam score falls below 80% at exam deadline.** If student fails to complete at least one exam by the respective deadline, student will take one exam with score no higher than 76% for that exam; remediation will be undertaken if exam score falls below 80% on this late exam.

Grading:

Course grade will be calculated by the following distribution:

GRADING	
90-100	A
80-89.49	B
76-79.49	C
<76	Unsatisfactory

An overall course grade of at least 76% is required to successfully complete this course. Unsatisfactory grades will be handled according to the guidelines set in the Scholastic Standards and Professional Guidelines.

Textbook and Other Learning Resources:

Panus P et al. Pharmacology for the Physical Therapist. New York: McGraw-Hill; 2009. (required)
This text is available for purchase OR is available as a digital resource via the SMHS library website (under AccessPhysiotherapy) along with Ciccone: Pharmacology in Rehabilitation, 5th ed. FA Davis; 2016, and Ciccone: Davis's Drug Guide for Rehabilitation Professionals. FA Davis; 2013.

Because this class is not a full (12-week) summer term course, the drop and refund dates differ significantly from full term courses. Contact Student Account Services at 701-777-3911 or UND.studentaccounts@email.und.edu to inquire about the dates and deadlines.

Attendance

Attendance policy is in accordance with those listed in the Scholastic Standards and Professional Guidelines. Individual rescheduling the taking of exams and the submission of assignments is at the discretion of the course coordinator. Students will be expected to don appropriate laboratory dress whenever this course is scheduled and in particular during laboratory practical exams.

Academic Integrity:

In accordance with the rules concerning scholastic dishonesty in the Code of Student Life (<http://und.edu/code-of-student-life/>) at the University of North Dakota, I affirm that I understand these rules and I agree to comply with them.

I will **NOT**:

- a) receive any additional information or assistance for any exam/assignment other than what was provided during class or approved tutor sessions
- b) copy from another student's test/assignment
- c) collaborate with or seek aid from another student who may have previously taken the exam/completed the assignment
- d) knowingly use, buy, sell, steal, or solicit in whole or in part the contents of any exam/assignment
- e) bribe another person to obtain information about any exam/assignment

Notice of Nondiscrimination

It is the policy of the University of North Dakota that no person shall be discriminated against because of race, religion, age, color, gender, disability, national origin, creed, sexual orientation, gender identity, genetic information, marital status, veteran's status, or political belief or affiliation and the equal opportunity and access to facilities shall be available to all. Concerns regarding Title IX, Title VI, Title VII, ADA, and Section 504 may be addressed to Donna Smith, Director of Equal Employment

Opportunity/Affirmative Action and Title IX Coordinator, 401 Twamley Hall, 701.777.4171, und.affirmativeactionoffice@UND.edu or the Office for Civil Rights, U.S. Dept. of Education, 500 West Madison, Suite 1475, Chicago, IL 60611 or any other federal agency.

Disability Access Statement

Contact me [insert faculty contact information] to request disability accommodations, discuss medical information, or plan for an [emergency evacuation](#).

To get confidential guidance and support for disability accommodation requests, students are expected to register with DSS at [Disability Services](#), 180 McCannel Hall, or 701.777.3425.

Reporting Sexual Violence

If you or a friend has experienced sexual violence, such as sexual assault, domestic violence, dating violence or stalking, or sex-based harassment, please contact UND's Title IX Coordinator, Donna Smith, for assistance: 701.777.4171; donna.smith@UND.edu or go to [Title IX](#).

Faculty Reporting Obligations Regarding Sexual Violence

It is important for students to understand that faculty are required to share with UND's Title IX Coordinator any incidents of sexual violence they become aware of, even if those incidents occurred in the past or are disclosed as part of a class assignment. This does not mean an investigation will occur if the student does not want that, but it does allow UND to provide resources to help the student continue to be successful at UND. If you have been the victim of sexual violence, you can find information about confidential support services at [Title IX](#).

Ensure Accessibility

To comply with the latest accessibility guidelines, documents posted online, including, but not limited to, Adobe PDF files, Microsoft Word documents, Microsoft PowerPoint presentations, and online flipbooks, must be screen-reader friendly.

For directions on how to make your syllabus and other course materials accessible, go to Blackboard > Services > Atomic Learning > Creating an Accessible Syllabus (for technical assistance with Atomic Learning, contact UND Tech Support at [UND Tech Support](#)).