

PHBS 2901
Applied Sciences of Pharmacy
Spring 2013

Course Description: 3 hours of lecture/discussion

Fundamental principles and professional applications of basic and applied sciences, such as physics and biostatistics, are explored in relation to advanced science topics and integrated clinical sciences. Drug discovery and development, medical imaging, and the science of alternative medicine are discussed in the context of applications to pharmacy practice. Model drug compounds are presented to illustrate the critical need for thorough understanding and broad integration of basic science principles when considering the multitude of related professional applications in the practice of pharmacy.

Prerequisites:

PHPR 2011 (or PHPR 201)
STAT 1761 or STAT 1561 (or STAT 156 or STAT 256)

General Education Tags & Artifacts:

This course is approved for the tag, Integration of Disciplines (General Education Outcome #5), for the Capstone 200 drug monograph writing exercise. Students will need to upload/post their drug monograph writing assignment submission to both Taskstream and Moodle.

Faculty Contact Information:

Name	Office	Phone	E-mail
Dr. Jeffrey Christoff (coordinator)	HP 267	x2658	j-christoff.1@onu.edu
Professor Cristina Sheridan	SA 110	x2739	m-sheridan@onu.edu
Dr. Karen Kier	RE 236	x2285	k-kier@onu.edu
Dr. David Kisor	HP 253	x2294	d-kisor@onu.edu
Dr. Michael Milks	RE 237	x2297	m-milks@onu.edu
Dr. Amy Stockert	HP 266	x3953	a-stockert@onu.edu
Dr. Megan Stojic (Roxanne Labs)			Megan.Stojic@boehringer-ingelheim.com

Textbooks: none required. Reference texts:

Physics, 9th edition, J.D. Cutnell, K.W. Johnson, John Wiley & Sons, Inc., Hoboken, NJ, 2012.
ISBN: 978-1118-12917-3 (Binder Ready) - see Dr. Christoff for other ISBN numbers.

Physics for Health Sciences, 3rd edition, C.R. Nave, B.C. Nave, Saunders, Philadelphia, PA, 1985. ISBN: 0-7216-1309-8.

Diagnostic Imaging Agents, Christoff, J. *Wilson and Gisvold's Textbook of Organic, Medicinal, and Pharmaceutical Chemistry*, 12th edition, J. H. Block, J.M. Beale, Jr., Eds. Lippincott, Williams & Wilkins, Baltimore, 2010. ISBN: 978-0-7817-7929-6

Course Goals and Objectives:

Course goals and objectives are in accordance with The Raabe College of Pharmacy Mission Statement, The Raabe College of Pharmacy General Ability Based Outcomes, and The Raabe College of Pharmacy Professional Ability Based Outcomes. Specific goals and objectives for each content topic will be distributed to the student as the course progresses.

Course meetings:

Lecture: 11:00-11:50 AM, Monday, Wednesday, Friday in **HPPEC 151**

on Monday, January 28, 2013, PHBS 2901 ASP will meet from 11:00 – 11:50 and 12:00 – 12:50 **in HPPEC 151** to accommodate travel for guest lecturers from Roxanne Laboratories.

on Wednesday, January 30, 2013 PHBS 2901 ASP will not meet
PHPR 2021 POP4 will meet from 11:00 – 11:50 and 12:00 – 12:50 **in HPPEC 151**

Exams: 11:00-11:50 AM during class meetings **in HPPEC 151** and additional rooms TBA

Evaluation and Grading:

The instructors reserve the right to make adjustments to the grading policy as the module progresses. **Exceptional circumstances may require a change in the proposed schedule and/or a change of examinations.** In general, each lecture hour is allocated 15 points (generally 3 questions @ 5 points each at the discretion of the instructor) on the next mid-course exam as well as 5 points on the comprehensive final exam.

Exam #1 (10 hours) Jan 14 th – Feb 11 th	150 points	Wednesday, February 13, 2013
Exam #2 (9 hours) Feb 15 th – Mar 13 th	135 points	Friday, March 15, 2013
Exam #3 (10 hours) Mar 18 th – Apr 12 th	150 points	Monday, April 15, 2013
Final Exam (new = 8 hours) Apr 30 th – May 4 th (cumulative = 37 hours)	160 points (new) <u>145 points (cum)</u> 305 points (total)	Friday, May 10, 2013 11:45 – 1:45 rooms HPPEC 151 & TBA
Exam Subtotal	740 points	
Top 200 paper	100 points	due February 27, 2013
*Moodle homework (up to 6 points per lecture)	*110-210 points	as assigned by the instructor
Course Totals	*950-1050 points	

*approximate: points subject to change at the discretion of the instructors.

Grading Scale	Grade
90 % and above	A
80.000 % - 89.999%	B
70.000 % - 79.999%	C
60.000 % - 69.999%	D
less than 60 %	F

Attendance Expectations: Regular class attendance is expected. If circumstances prevent the student from attending class, the burden of responsibility for obtaining missed information and/or materials lies entirely with the student.

Attendance at examinations is mandatory. An unexcused absence will result in a zero for the examination. Approved absences for exams may be given for University sponsored events, death in the immediate family, acute illnesses of the student, or unsafe travel conditions for commuters. The course coordinator must authorize any absence in advance. **Documentation will be required and a copy will be submitted to the Dean's office for permanent placement in your academic file.**

In order to obtain an excused absence, you must obtain prior permission from the course coordinator. The course coordinator will consult with **all professors involved in the material constituting the exam or other assignment, and participating faculty must unanimously agree to grant an excused absence.** If an excused absence from an exam is granted, the professors involved will determine whether or not they will be willing to give the student a make-up exam (to be taken as soon as possible by the student). If all involved professors are not willing to give a make-up exam, the student's grade for the missed exam will be pro-rated based on the score received on their cumulative final examination. If an excused absence is granted for any other assignment or assessment, a make-up assignment may be administered or the student's score will be prorated by the faculty based on student performance for similar work.

If a student misses an exam for emergency circumstances (where it is impossible or impractical to contact the course coordinator), the student will be considered to have an excused absence, **ONLY IF** he/she can supply the appropriate course coordinator with legitimate documentation for the absence (*i.e.* admittance papers from an emergency room).

Exam Procedures:

Nonessential materials are NOT allowed at the students' desks during examination periods (e.g., books, coats, hats, notes, note cards, purses, etc.). Please leave all these materials at the front of the examination room. Possession of any such materials during an examination is considered to be evidence of dishonesty. Please note the only calculator you will be permitted to use during examinations is a Casio fx-300W. Use of any other calculator will be interpreted as evidence of cheating. DISHONESTY of any sort will absolutely NOT be tolerated. Violations will be addressed with the most severe of consequences *allowed by the established policies of the College and the University.*

Grade Review: The student may contact the instructor to discuss, reconsider, or re-grade any returned examination within the first TWO (2) working days following the time that the examination was made available for the student to pick up. These activities must be carried out

during office hours or by appointment. The student must inform the course coordinator of all such inquiries. The course coordinator reserves the right to facilitate student inquiries with off campus instructors and may extend the timeline of communication if appropriate.

Student Academic Conduct:

Academic Conduct Policies are defined by the Code of Student Academic Conduct and infractions will be handled according to the policies therein. The Code may be found at: http://www.onu.edu/studentaffairs/handbook/student_handbook07.pdf

Students with Learning Disabilities:

In accordance with University policy, students who have a documented learning disability and require academic accommodations for the Applied Sciences of Pharmacy course should contact the course coordinator at the beginning of the term or as soon as possible when charged with an assignment for which an accommodation may be required. Students with learning disabilities must first verify their qualification for accommodations through Pharmacy Student Services.

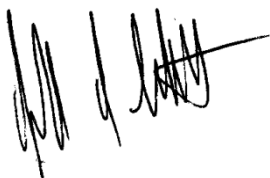
Assessment

Internal Assessment: Regular meetings are held during the course for faculty involved. Faculty focus groups are conducted during and/or after completion of the course to identify strengths and weaknesses and remedies for the latter.

External Assessment: The College Assessment Committee arranges periodic classroom visits and student and faculty focus groups.

Student assessment: Students assess the course and the individual instructors at the end of the term by established procedures. A student focus group will also meet periodically with the coordinator.

The course coordinator, in conjunction with participating faculty, reserves the right to modify the syllabus at any time during the course as long as students are provided with such changes via classroom announcements as well as written distribution of such changes via e-mail announcements to the P2 list serve. (see Section 3.35, Informing Students of Course Expectations, Ohio Northern University Handbook) Students not subscribed to the P2 List Serve must inform the course coordinator immediately.



Jeffrey J. Christoff, Ph.D., R.Ph., ANP
Course Coordinator
1/14/13