

UNIVERSITY OF UTAH COLLEGE OF NURSING  
**Doctor of Nursing Practice Program**

<b>COURSE NUMBER:</b>	NURS 7054
<b>TITLE:</b>	Advanced Pathophysiology II for DNP Students
<b>ACADEMIC TERM:</b>	Spring Semester
<b>MEETING TIME/LOCATION:</b>	Annette Poulson Cumming College of Nursing Building Room 2300
<b>PREREQUISITE:</b>	NURS 7053 or instructor permission
<b>TOTAL CREDITS:</b>	2
<b>DIDACTIC CREDITS:</b>	2
<b>CLINICAL CREDITS:</b>	0
<b>FACULTY:</b>	Alexa Doig, PhD, RN Associate Professor Office: Rm 4645, Annette Poulson Cumming College of Nursing Building <a href="mailto:alexa.doig@nurs.utah.edu">alexa.doig@nurs.utah.edu</a> or through Canvas 801-581-4381
<b>FACULTY OFFICE HOURS:</b>	By appointment
<b>TEACHING ASSISTANTS:</b>	Suzanne Milne Stephanie Caille <i>Contact through Canvas email</i>

**COURSE DESCRIPTION:**

This is the second of two foundational courses for DNP students emphasizing pathophysiologic changes at the molecular, cellular and systemic levels. The content focuses on alterations in cell function and systemic manifestations by using selected contemporary, prevalent diseases of the core organ systems. Etiologic mechanisms associated with cell dysregulation and specific/nonspecific responses that combine to restore normal cell-tissue-organ function will also be presented. Topics include alterations in hematological, pulmonary, digestive, neurological, musculoskeletal and reproductive function.

## **COURSE OBJECTIVES:**

At the end of the course the student will be able to:

1. Analyze pathophysiologic mechanisms of disease by:
  - a. Identifying etiologic mechanisms of cellular dysregulation that lead to disease, including genetic and environmental contributors;
  - b. Explaining models of molecular and cellular alterations associated with the development of specific disease processes;
  - c. Predicting the regional and systemic responses to disease based on knowledge of metabolic, neurological, inflammatory, immune, and hormonal responses.
  - d. Predicting the clinical consequences and manifestations of disease based on pathophysiology knowledge.
2. Compare and contrast patterns of normal and abnormal physiological responses to disease including metabolic, neurological, inflammatory, immune, and hormonal systems.
3. Propose how knowledge and understanding of pathophysiology can guide assessment, diagnosis, and therapeutics.

## **TEACHING METHODS:**

This is a hybrid course that integrates traditional classroom and asynchronous online teaching/learning methods. Specific teaching methods may include, but are not limited to: participative lectures and discussion, interactive online learning modules and online discussions, review of selected audiovisual materials, directed readings of text and journal articles.

## **EVALUATION METHODS:**

Evaluation will be based upon the completion of 14 weekly quizzes, 2 exams, the Advanced Physiology Blog assignment, and two in-class case study assignments.

### **1. Quizzes (11): (20 points each) - 35% of total grade**

Each week there will be a 10 question online quiz taken in the Canvas system worth 20 points (2 points per question) that will help you review the previous week's content. Quizzes will be released every Monday after class and must be completed by midnight (11:59 pm) the following Sunday. Quizzes are 'open book', but you are required to take the quiz on your own (i.e., not in groups). Your graded quiz will not be released until after the deadline.

*Quiz Make Up Work opportunity:* You have the opportunity to earn back up to half your 'lost' points for each quiz. To complete this 'quiz make up' review your quiz, and for each question that you did not answer correctly, copy the question, your response and the correct response into a Word document. Explain, in detail, why your response was not correct and the rationale for the correct response. Submit this file through the 'Assignment' tool in Canvas. Quiz make up work is due one week after the associated quiz deadline.

## 2. Exams (2 noncumulative) - 50% of total grade

Exams are closed-book, in-class tests. Exams cover information from lectures and online learning modules. The format will consist of multiple choice questions.

Distance students will take the exams with an approved proctor on the date that the exam is scheduled.

Please make arrangements with your proctor as soon as possible. Proctors must be at a testing center or library. Please email your proctor's contact information (name, location, email address, phone number) to the instructor at least **2 weeks prior to the first exam date for proctor verification**.

All students are expected to take each exam on the dates scheduled unless an arrangement has been made with the instructor prior to the exam. Special arrangements will be made on a case by case basis and only for truly extenuating. Please review the exam schedule and plan ahead.

## 3. Advanced Pathophysiology Blog Assignment - 10% of total grade (5% for Part 1 and 5% for Part 2)

This assignment gives you the opportunity to explore a topic in pathophysiology not covered in this class and share your knowledge with the class. Reviewing your colleagues' blog posts will advance your knowledge in a wide array of pathophysiological conditions.

Part 1: Choose a specific disease within the general physiological systems that we are covering in this class that is not covered as part of the core content. Find an article on PubMed, CINAHL, E-medicine/Medscape, or some other 'peer-reviewed' source. Thoroughly review this article and write a summary that provides and overview of the disease (definition, causes, risk factors, genetics, as appropriate) and the pathophysiology. Be sure to include specific pathophysiological mechanisms in your summary and if possible, include mechanisms that go beyond what we have discussed in class. Be very careful not to plagiarize from your chosen article or any other source.

Create a descriptive title for your summary and include this as the first line in your summary. Copy and paste your summary into the body of the appropriate Discussion topic in Canvas and include a link to your article or attach the article as a PDF document. *Please do not attach your summary – we want everyone to be able to read your summary without downloading a document.* An example blog post is provided under Alterations in Cardiovascular Function – Advanced Pathophysiology Blog Postings' on the 'Discussions' board in Canvas.

**In addition, please attach your summary document to the assignment titled 'Part 1: Advanced Pathophysiology Blog' under the 'Assignments' tab so that we can give you credit towards your grade.**

Opportunities to post your 'blog' topic will open and close within the following windows so that student posts coincide with the topics covered in lecture.

Alterations in Pulmonary Function	Jan. 9 through Jan. 30
Alterations in Musculoskeletal Function	Jan. 23 through Feb. 13
Alterations in Hematological Function	Jan. 30 through February 27
Alterations in Gastrointestinal Function	March 20 through April 3
Alterations in Neurological Function	April 3 through April 17
Alterations in Reproductive Function	April 17 through May 1

Part 2: During the semester, read 10 other blog posts. To log your efforts, download the 'Part 2: Advanced Physiology Blog – Verification Log' (fillable PDF form) under the 'Assignments' tab and fill in the date and title of the blog post you have reviewed. I encourage you to review posts from multiple (if not all) topics areas).

Submit your completed log by attaching it to the 'Part 2: Advanced Physiology Blog – Verification Log' assignment by **Friday, May 5, 2016**.

#### **4. Collaborative Case Study Assignments (3/6/16 and 4/24/16) – 5% of total grade (Credit/No Credit)**

This in-class, small group assignments will provide you with the opportunity to synthesize and apply your pathophysiology knowledge in the course. The assignment will be distributed electronically just prior to the start of class. The groups will work on the case study assignment for the first hour of class and the second hour will consist of presentations and discussion with the entire class. Each student will complete and submit their own assignment. Do not submit identical assignments for each member of the group.

In the case of illness or an emergency, students who miss class will be required to complete the assignment on their own time and submit it by the posted deadline or, by a date negotiated with the course faculty.

#### **TEXTS:**

Required: McCance, K. L., & Huether, S. E. (2015). *Pathophysiology: The biologic basis for disease in adults and children* (7<sup>th</sup> ed.). St. Louis: Mosby.

#### Other Supplemental Texts:

The current editions of the texts listed below offer excellent reviews of physiology and pathology:

Kumar, V., Abbas A.K., and Fausto, N. (2015). *Robbins and Cotran: Pathologic basis of disease* (9<sup>th</sup> ed.). Philadelphia: Elsevier.  
Guyton: *Textbook of medical physiology*  
Sherwood: *Human physiology*  
Ganong: *Review of medical physiology*

#### **GRADING SCALE:**

95-100% = A  
90-94% = A-  
87-89% = B+  
84-86% = B  
80-83% = B-  
77-79% = C+  
74-76% = C  
70-73% = C-

## ONLINE GUIDELINES:

There are unique responsibilities that come with taking courses with online components.

Electronic or equipment failure: It is your responsibility to maintain your computer and other equipment needed to participate in online forums. **Equipment failures are not an acceptable excuse for late or absent assignments, quizzes, or exams.**

Computer literacy: You will need to gain access to a computer and to the Internet at least twice a week, as well as to MS Word®, & PowerPoint®. It is assumed that you have a basic knowledge of computers, including but not limited to how to navigate the Internet, attach a document to an email and send the email with the attachment, and use basic software packages (e.g., MS Word®).

Assignment archiving: To prevent problems involving corrupt or lost files, each assignment should be saved in at least two places (e.g. on hard and flash drive; and on drive or as attachment to an email message you send to yourself). Each student is responsible for making sure assignments (including attachments) are submitted before the deadline, via the Assignment Dropbox, using the requested software in the required version, with the required extension. This generally means a MS Word® (.doc or .docx) or MS PowerPoint® (.ppt or .pptx) files.

Naming files for submission: When submitting individual assignments, name files with your last name followed by an underscore and the assignment name (e.g., Harrison\_endnote1.docx). **Do not put spaces in the file names** as Canvas inserts a %20 where the space is and may lead to assignment confusion. **Incorrectly named files will not be accepted and returned ungraded.**

Classroom equivalency: Discussion threads, e-mails, and chat rooms are all considered to be equivalent to classrooms, and student behavior within those environments shall conform to the Student Code. Specifically:

- Posting photos or comments that would be off-topic in a classroom are still off-topic in a discussion thread.
- Off-color language is never appropriate.
- Using angry or abusive language is called "flaming", is not acceptable, and will be dealt with according to the Student Code.
- Do not use ALL CAPS, except for titles, since it is the equivalent of shouting online, as is overuse of certain punctuation marks such as exclamation points !!!! and question marks ?????.
- E-mail, e-journals, and other online communications in the course are part of the classroom and as such, are University property and subject to GRAMA regulations and the Student Code. Privacy regarding these communications between correspondents must *not* be assumed and should be mutually agreed upon in advance, in writing.

## EMAIL CORRESPONDENCE:

Email communication is the official communication medium of the University. Faculty will respond to your email correspondence within 3 business days (i.e., Monday through Friday) and expect that students will respond to faculty email correspondence in the same time frame. Please re-send your email and/or contact faculty by phone if you do receive a response to your email within these parameters.

Faculty expects that students will check their Canvas email at least three times per week.

Students can email faculty through the Canvas email system.

Electronic communication etiquette includes respectfully addressing the recipient of the email and use of appropriate font (use of all caps, all bolded, or all italicized font is equivalent to yelling or 'flaming' and is unacceptable). Please write out all words. The use of acronyms may lead to misinterpretation. If you are uncertain of your electronic communication, please speak directly with your course faculty.

#### **FACULTY RESPONSIBILITIES:**

Your faculty will:

- Treat students with respect
- Inform students at beginning of class of general content, course activities, evaluation methods, grading, and schedule
- Convene scheduled classes unless valid reason and notice are given to students
- Respond to email correspondence and phone calls in a timely manner
- Perform high quality, constructive evaluations of written work and exams
- Return evaluations in a timely manner
- Make every effort to ensure an environment that is conducive to learning
- Enforce student code

#### **Course assignments**

- All assignments must be submitted by the due date listed in the assignment
- If you are experiencing a personal or family emergency, you will need to contact the course faculty individually to address late assignments
- Except in unforeseen circumstances, students are expected to notify the course faculty in advance
- Turnitin, a plagiarism checker technology tool, will be used for assignments in this course

#### **DISCLAIMERS AND INFORMATION STATEMENTS:**

**Non-contract Note:** The syllabus is not a binding legal contract. It may be modified by the instructor when the student is given reasonable notice of the modification, particularly when the modification is done to rectify an error that would disadvantage the student.

**Professionalism:** Students in the College of Nursing are expected to maintain professional behavior in both the clinical and classroom settings. This professional behavior includes, but is not limited to:

- Attending orientations, class and clinical
- Taking exams as scheduled
- Arriving and leaving class and clinical as scheduled
- Accepting responsibility for their own actions
- Giving prior notification in writing to the instructor when they are unable to meet commitments and detailing how and when they will make-up requirements
- Dealing with others (peers, faculty, patients and clients) in a respectful, sensitive and nonjudgmental manner

The faculty acknowledges that true life emergencies do exist and will work with students in these situations as they arise.

The following are expectations and professional standards for classroom and clinical behaviors for both students and faculty:

- Respecting others - space, quiet (i.e., no pagers, cell phones)
- Start and end class on time
- Professional appearance - image
- Be accountable for preparation for class and clinical
- Constructive verbal and non-verbal behavior
- Care for others in an empathetic manner
- Honest, open, assertive communication
- Confidentiality of all patient information
- Teamwork, helping behavior for colleagues
- Honesty, Integrity
- Personal/professional ethics
- Respecting all individual differences (i.e., culture, ethnicity, religion, work experience, gender, age, sexual orientation, etc).

### **CONSEQUENCES UNPROFESSIONAL BEHAVIOR**

Students are held responsible for content presented in class. Students whose behavior is unprofessional will receive sanctions, which may include: class grade being lowered, failing a course, or expulsion from the class or program.

### **ADA – NONDISCRIMINATION AND DISABILITY ACCESS STATEMENT:**

The University of Utah seeks to provide equal access to its programs, services and activities for people with disabilities. If you have physical or mental health disabilities that may compromise your success with program progression and will need accommodations in the class, reasonable prior notice needs to be given to the Center for Disability Services, 162 Olpin Union Building, 581-5020 (V/TDD). CDS will work with you and the instructor to make arrangements for accommodations. All written information in this course can be made available in alternative format with prior notification to the Center for Disability Services.

If you are struggling with mental health concerns, please contact the University Counseling Center at 801-581-6826 during business hours. They also have many resources online at <http://counselingcenter.utah.edu>. For after-hours urgent concerns, contact the 24/7 Crisis line at 801-587-3000.

### **STUDENT RESPONSIBILITIES:**

"All students are expected to maintain professional behavior in the classroom setting, according to the Student Code, spelled out in the Student Handbook. Students have specific rights in the classroom as detailed in Article III of the Code. The Code also specifies proscribed conduct (Article XI) that involves cheating on tests, plagiarism, and/or collusion, as well as fraud, theft, etc. Students should read the Code carefully and know they are responsible for the content. According to Faculty Rules and Regulations, it is the faculty responsibility to enforce responsible classroom behaviors, beginning with verbal warnings and progressing to dismissal from class and failing grade. Students have the right to appeal such action to the Student Behavior Committee."

"Faculty...must strive in the classroom to maintain a climate conducive to thinking and learning." PPM 8-12.3, B.

“Students have a right to support and assistance from the University in maintaining a climate conducive to thinking and learning.” PPM 8-10, II. A.

#### **PLAGIARISM:**

Refer to UNIVERSITY REGULATIONS- Chapter X - CODE OF STUDENT RIGHTS AND RESPONSIBILITIES (“STUDENT CODE”)

Section I.B.2. “Plagiarism” means the intentional unacknowledged use or incorporation of any other person's work in, or as a basis for, one's own work offered for academic consideration or credit or for public presentation. Plagiarism includes, but is not limited to, representing as one's own, without attribution, any other individual's words, phrasing, ideas, sequence of ideas, information or any other mode or content of expression. [UNIVERSITY REGULATIONS, Policy 8-10 Rev 5 Date: May 10, 2004].

The complete University of Utah Code of Student Rights can be found on the University web site, at <http://regulations.utah.edu/academics/6-400.php>. The complete College of Nursing Handbook can be found on the College of Nursing website, at <http://nursing.utah.edu/pdfs/dnphandbook.pdf>. **It is the student's responsibility to be familiar with these documents.**

#### **WELLNESS STATEMENT:**

Personal concerns such as stress, anxiety, relationship difficulties, depression, cross-cultural differences, etc., can interfere with a student's ability to succeed and thrive at the University of Utah. For helpful resources contact the Center for Student Wellness - [www.wellness.utah.edu](http://www.wellness.utah.edu); 801-581-7776.

#### **VETERAN'S STATEMENT:**

If you are a **student veteran**, the U of Utah has a Veterans Support Center on campus. They are located in Room 161 in the Olpin Union Building. Hours: M-F 8-5pm. Please visit their website for more information about what support they offer, a list of ongoing events and links to outside resources: <http://veteranscenter.utah.edu/>. Please also let your instructor know if you need any additional support in this class for any reason.

#### **LGBT RESOURCE CENTER:**

If you are a member of the **LGBTQ community**, I want you to know that my classroom is a safe zone. Additionally, please know that the U of Utah has an LGBT Resource Center on campus. They are located in Room 409 in the Oplin Union Building. Hours: M-F 8-5pm. You can visit their website to find more information about the support they can offer, a list of events through the center and links to additional resources: <http://lgbt.utah.edu/>. Please also let me know if there is any additional support you need in this class.

#### **LEARNERS OF ENGLISH AS A SECOND LANGUAGE:**

If you are an English language learner, please be aware of several resources on campus that will support you with your language development and writing. These resources include: the Department of Linguistics ESL Program (<http://linguistics.utah.edu/esl-program/>); the Writing Center (<http://writingcenter.utah.edu/>); the Writing Program (<http://writing-program.utah.edu/>); the English Language Institute (<http://continue.utah.edu/eli/>). Please let me know if there is any additional support you would like to discuss for this class.



**NURS 7007: Advanced Pathophysiology II**  
**Topic Schedule & Assigned Readings**  
**Spring 2017**

Required readings are from the related sections of the McCance & Huether, Pathophysiology: The Biological Basis of Disease in Adults and Children, 7th ed. Textbook (see the textbook's detailed table of contents for page references). Online quizzes cover the content from the previous week's lecture and/or online learning modules, including basic information from the readings.

Date	Topic	Required Text Readings, Assignments and Quizzes
1/9/16	<u>Lecture:</u> <i>Alterations of Pulmonary Function I</i>  <u>Topics:</u> Venous thromboembolism, pneumonia,	Review Chapter 34 prior to lecture Read related sections of Chapter 35 after lecture  <b>Online Quiz due Sunday 1/15 @ 11:59 PM (midnight)</b>
1/16/16	<u>Online Module:</u> <i>Alterations of Pulmonary Function II</i>  <u>Topics:</u> Asthma, COPD, cystic fibrosis	Read related sections of Chapter 35, 36 while completing the online module  <b>Online Quiz due Sunday 1/22 @ 11:59 PM (midnight)</b>
1/23/16	<u>Lecture:</u> <i>Alterations of Musculoskeletal Function I</i>  <u>Topics:</u> Osteoarthritis, gout, fibromyalgia	Review Chapter 43 prior to lecture Read related sections of Chapter 44 after lecture  <b>Online Quiz due Sunday 1/29 @ 11:59 PM (midnight)</b>
1/30/16	<u>Lecture:</u> <i>Alterations of Musculoskeletal Function II</i>  <u>Topics:</u> Osteoporosis  <u>Lecture:</u> <i>Alterations of Hematological Function I</i>  <u>Topics:</u> Anemia	Read related sections of Chapter 44 after lecture   Review Chapter 27 prior to lecture Read related sections of Chapter 28 after lecture  <b>Online Quiz due Sunday 2/5 @ 11:59 PM (midnight)</b>
2/6/16	<u>Lecture:</u> <i>Alterations of Hematological Function II</i>  <u>Topics:</u> Anemia	Read related sections of Chapter 28 after lecture  <b>Online Quiz due Sunday 2/12 @ 11:59 PM (midnight)</b>
2/13/16	<u>Lecture:</u> <i>Alterations of Hematological Function III</i>  <u>Topics:</u> Disorders of hemostasis	Review Chapter 27 prior to lecture Read related sections of Chapter 29 after lecture  <b>Online Quiz due Sunday 2/26 @ 11:59 PM (midnight)</b>
2/20/16	<i>No lecture or online module – President's Day holiday</i>	
2/27/16	Collaborative Case Studies	<b>You must attend the class session in order to earn credit.</b>
3/6/16	<b>Midterm Exam</b>	
<b>Spring Break – March 13-17</b>		

**NURS 7007: Advanced Pathophysiology II**  
**Topic Schedule & Assigned Readings**  
**Spring 2017**

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<b>Date</b>	<b>Topic</b>	<b>Required Text Readings, Assignments and Quizzes</b>
3/20/16	<u>Lecture: Alterations of Gastrointestinal Function I</u>  <u>Topics:</u> Disorders of the liver and pancreas	Review Chapter 40 prior to lecture Read related sections of Chapter 41 after lecture  <b>Online Quiz due Sunday 3/26 @ 11:59 PM (midnight)</b>
3/27/16	<u>Online Module: Alterations of Gastrointestinal Function II</u>  <u>Topics:</u> Peptic ulcer disease, inflammatory bowel disease, intestinal vascular insufficiency	Review Chapter 40 prior to lecture Read related sections of Chapter 41 after lecture  <b>Online Quiz due Sunday 4/2 @ 11:59 PM (midnight)</b>
4/3/16	<u>Lecture: Alterations of Neurological Function I</u>  <u>Topics:</u> Mood & anxiety disorders, pain; sleep disorders	Review Chapter 15 Read Chapters 16, 19  <b>Online Quiz due Sunday 4/9 @ 11:59 PM (midnight)</b>
4/10/16	<u>Lecture: Alterations of Neurological Function II</u>  <u>Topics:</u> Neurodegenerative and demyelinating disorders	Review Chapter 15 Read Chapter 17  <b>Online Quiz due Sunday 4/16 @ 11:59 PM (midnight)</b>
4/17/16	<u>Lecture: Alterations of Reproductive Function</u>  <u>Topics:</u> Benign prostatic hypertrophy, prostate cancer; Menstrual alterations, polycystic ovarian syndrome, endometriosis	Review Chapter 23 Read Chapter 24, 25  <b>Online Quiz due Sunday 4/23 @ 11:59 PM (midnight)</b>
4/24/16	Collaborative Case Studies	<b>You must attend the class session in order to earn credit.</b>
5/01/16	<b>Final Exam</b>	