Academic Unit: School of Nursing

Course prefix: NUR 520

Course title: Applied Pathophysiology for APNs

Term offered: Fall and Spring

Credit hours/Clock Hours: 3 credits/45 Clock Hours

Course prerequisites: Admission to Nursing graduate program or non-degree seeking.

Co-requisite: NUR 540

Mode of Instruction: Online

Instructor Name:

Instructor Contact Information:

Instructor Availability:

Catalog description: This course is designed to promote understanding and application of pathophysiological phenomena in clinical settings across the lifespan. General concepts of disease, including etiology, pathogenesis, and clinical significance are explored and applied in a systems-oriented approach.

This online course uses a Blackboard Learn platform. The course focuses on pathophysiologic principles underlying situations and disorders that nurses commonly encounter when assisting clients to manage their health care. The course utilizes assignments, quizzes, asynchronous online discussions, case studies, synchronous individual presentations and asynchronous group presentations to assist with understanding and applying pathophysiologic principles. Methods of evaluation may include discussions, structured blogs, group wikis, case studies, individual and group projects, quizzes, and examinations. This course awards a letter grade only.

Course Purpose: The purpose of this course is to provide the graduate health professions student with advanced understanding and application of pathophysiological phenomena in clinical settings across the lifespan. General concepts of disease, including etiology, pathogenesis, and clinical significance are explored and applied in a systems-oriented approach. Key learning strategies include asynchronous discussion of pathophysiological concepts through discussion
boards, group work, case studies, and individual reading and research. Understanding of critical reasoning is evaluated through completion of key deliverables including the identification of a specific and measurable environmental hazard on global and local health of individuals through a group project, an educational care plan for a patient with a specific pathophysiologic process, scholarly papers exploring specific pathophysiological processes, wikis, case studies, quizzes, and exams. This course prepares graduate healthcare students for progression in graduate work where an understanding of pathophysiological processes form the foundation of work in clinical practice, generalist practice, evidence-based practice, and education.

**Student Learning Outcomes**

On completion of this course the student will be able to:

**Clinical Practice and Prevention**

- Analyze the relationships between normal physiological processes and pathophysiological processes across the lifespan.
- Explain the etiology, at-risk populations, pathogenesis morphology, and clinical and diagnostics manifestations of selected acute and chronic disease states across the lifespan.
- Analyze physiologic responses and data with illness and treatment modalities with respect to acute and chronic disease.
- Synthesize current research-based knowledge regarding pathological changes in selected disease states.

**Communication**

- Discuss issues and considerations associated with the pathophysiologial changes in special populations.

**Critical Reasoning**

- Apply critical reasoning skills to correlate abnormal functions of body systems with disease processes.

**Global (Diversity Education)**

- Differentiate gender, genetic, cultural, and environmental issues that impact human pathophysiology and response to disease processes.
Required Textbook


Other Required Materials and References

1) Microsoft Office (Word, Excel, and PowerPoint)
2) Adobe acrobat
3) Textbooks from pathophysiology, pharmacology, and assessment
4) Access to reliable internet service

Assessment of Student Learning Outcomes

<table>
<thead>
<tr>
<th>Assessment</th>
<th>Points</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Written examinations</td>
<td>240</td>
<td>60%</td>
</tr>
<tr>
<td>Assignments</td>
<td>160</td>
<td>40%</td>
</tr>
<tr>
<td>Total</td>
<td>400</td>
<td>100%</td>
</tr>
</tbody>
</table>

A timeline for assessments is included in the course outline. Written examinations must be taken on designated days and times. Proctored examinations may be required at the discretion of the instructor.

Grading System

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>93-100%</td>
<td>(372-400)</td>
</tr>
<tr>
<td>B</td>
<td>84-92%</td>
<td>(336-371)</td>
</tr>
<tr>
<td>C</td>
<td>78-83%</td>
<td>(300-335)</td>
</tr>
<tr>
<td>F</td>
<td>78% or less</td>
<td>(299 or less)</td>
</tr>
</tbody>
</table>

Students must receive a grade of A or B (a percentage of 84.00 or higher) to receive a passing grade and progress to the next course. No rounding of grades will occur in this course.
Course Policies

1. Examinations: Examinations will be completed in Bblearn. It is the student’s responsibility to make arrangements to take each examination during the arranged day and time. All examinations are timed and must be completed once started. It is the student’s responsibility to ensure access to a working computer and reliable Internet. Examinations are to be completed without the assistance of books, Internet or other resources, or in collaboration with other students.

2. Rescheduling an examination: In the event of an emergency, rescheduling of an examination may be arranged at the discretion of the instructor. This is for extenuating circumstances only.

3. Scholarship: Assignments, including discussions and Wikis, must be written in American Psychological Association (APA) format 6th edition – 3rd printing (typewritten, double-spaced, in-text citations, reference list, use of tables, etc.). It is expected that content, grammar, and writing style will reflect graduate level scholarship.

4. Assignments: Students are expected to complete all assignments, including discussions on or before the due date. All group participants must participate in the assignments for credit. All assignments must be submitted through Bb Learn. Microsoft Word (.doc or .docx) is the required word processing program for sending papers as attachments. Do not e-mail assignments to the instructor. PDF documents are not accepted. Unless otherwise noted, assignments are due by midnight of the due date.

5. Late work: Late assignments, if accepted, will incur a point deduction of 10% per day. Extenuating circumstances (circumstances beyond the student's control) resulting in a late submission will be evaluated on a case-by-case basis. A student requesting acceptance of late work must contact the instructor through course e-mail no later than 24 hours after the due date.

6. Graduate Handbooks: It is expected that students will conform to and comply with the Northern Arizona University’s Graduate Student Handbook and the SON Graduate Student Handbook.

7. Academic Integrity: Academic dishonesty is a form of misconduct that is subject to disciplinary action under the Student Code of Conduct and includes the following: Cheating; Collusion; Fabrication; Fraud; Obtaining an unfair advantage; and Plagiarism. All students are expected to adhere to the Academic Integrity policy. Violations of the Academic Integrity policy are detailed in the policy. It is the student’s responsibility to read the policy prior to beginning the course. The policy is available at:


University Policy Statements for Course Syllabi

https://nau.edu/OCLDAA/_Forms/UCC/SyllabusPolicyStmts2-2014/

Graduate College

http://nau.edu/GradCol/
Academic Calendar
https://nau.edu/Registrar/Important-Dates/

Holidays and Important dates
- First day of Fall 2016 Term 8/29/16
- Labor day (university closed) 9/5/16
- Add/Drop deadline 9/8/16
- Course withdrawal (W) Deadline 11/4/16
- Veteran’s Day (university closed) 11/11/16
- Thanksgiving (university closed) 11/24/16-11/25/16
- Last day to withdraw from the Fall 2016 term 12/2/2016
- Reading week 12/5/16-12/9/16
- Finals week 12/12/16-12/15/16
- Commencement 12/16/16
<table>
<thead>
<tr>
<th>Week</th>
<th>Module</th>
<th>Activities</th>
</tr>
</thead>
</table>
| Week 1| Module 1: Altered Cellular and Tissue Biology | Read chapters 1-2  
Discussion 1: Introductions |
| Week 2| Module 2: The Cellular Environment: Fluids and Electrolytes  
Module 3: Genes and Genetic Diseases | Read chapter 3-5  
Assignment 1: Case Study Genetics |
| Week 3| Module 4: Innate Immunity, Inflammation  
Module 5: Adaptive Immunity  
Module 6: Alterations in Immunity and Inflammation | Read chapters 7-9  
Exam 1 (modules 1-3) |
| Week 4| Module 7: Infection             | Read chapters 10-11  
Assignment 2: Stress Response (Group) |
| Week 5| Module 8: Biology, Clinical Manifestations, and Treatment of Cancer Part A & B | Read chapters 12-14  
Exam 2 (modules 4-7) |
| Week 6| Module 9: Disorders of Neurologic Function | Read chapters 15-20  
Assignment 3: Somatosensory Function (Group) |
| Week 7| Module 10: Alterations of Hormonal Regulation | Read chapters 21-22  
Exam 3 (modules 8-9) |
| Week 8| Module 11: Alterations of the Reproductive System | Read chapters 23-26  
Assignment 4: Female Reproductive (Group) |
| Week 9| Module 12: Alterations of Erythrocyte Function  
Module 13: Alterations of Leukocyte, Lymphoid, and Hemostatic Function | Read chapters 27-30  
Exam 4 (modules 10-11) |
<table>
<thead>
<tr>
<th>Week</th>
<th>Module</th>
<th>Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Week 10</td>
<td>Module 14: Alterations of Cardiovascular Function Parts A &amp; B</td>
<td>Read chapters 31-33</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Assignment 5: Hypertension</td>
</tr>
<tr>
<td>Week 11</td>
<td>Module 15: Alterations of Pulmonary Function</td>
<td>Read chapters 34-36</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Assignment 6: Pulmonary System</td>
</tr>
<tr>
<td>Week 12</td>
<td>Module 16: Alterations of Renal and Urinary Tract Function</td>
<td>Read chapters 37-39</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Exam 5 (modules 12-15)</td>
</tr>
<tr>
<td>Week 13</td>
<td>Module 17: Alterations of Digestive Function</td>
<td>Read chapters 40-42</td>
</tr>
<tr>
<td>11/21</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Week 14</td>
<td>Module 18: Alterations of Musculoskeletal Function</td>
<td>Read chapters 43-45</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Assignment 7: Musculoskeletal</td>
</tr>
<tr>
<td>Week 15</td>
<td>Reading Week</td>
<td>Assignment 8: Environmental Presentation</td>
</tr>
<tr>
<td>Week 16</td>
<td>Finals</td>
<td>Exam 6 (modules 16-18)</td>
</tr>
<tr>
<td>12/12</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>