Pathophysiology, the altered physiology that results from deviations in health and wellness, explores the cellular alterations associated with changes in normal physiological function which result in pathologic processes. Etiology, pathogenesis, clinical manifestations and clinical course of the disease will be emphasized. Mechanisms of disease states will focus on alterations in cell function affects tissue and organ system function(s), preventing or limiting homeostatic adaptive responses, and how these relate to the disease processes of the body.

**COURSE DIRECTOR: Dr. Barry J. Potter**

The Course Director is directly responsible for the supervision and administration of the HS3410 Pathophysiology course. Any policy or schedule changes will be **formally announced** by Dr. Potter & confirmed in a class e-mail. While Communication by telephone is allowed a faster response will usually be given via e-mail. **Include 3410 RN in the heading to identify yourself & ensure receiving the correct information.** E-mails without this heading will not be answered promptly. Please also use your school e-mail account for e-mails; otherwise they tend to be re-routed to “Spam” or “Junk” folders.

Office hours will be posted will be posted weekly outside of the course director’s office once the term has started. However, if you prefer, a specific appointment may be made with him outside of these times.

**LECTURES, ATTENDANCE, TEXTBOOK**

Pathophysiology is a 3 credit course. Classes will be given mainly through Web enhancement using Wimba. Slides will be posted on Moodle. Exams will be given at LSU Health. There will be 5 “live” sessions throughout the semester, 4 following the exams (see the lecture schedule) which will be overviews & reviews of the course material. Handouts will not be given for these sessions.

You are responsible for ALL the presented and assigned material. **The textbook is required reading.** The required book is *Essentials of Pathophysiology, 3e*, by *C.M. Porth* (ISBN 978-1-58255-724-3). The Essentials of Pathophysiology text is well written with numerous diagrams and illustrations. We do not intend that you master the details of all the information in the book. We ask that you know where to find an answer to your questions. We may approach the topic and explain it differently from that found in the course textbook, but the lectures support and supplement the textbook readings. In some cases, very recent information may also be included, which could supplant the textbook. We also recommend that you purchase the study guide that accompanies the text book. This is very useful & contains similar NCLEX questions to those that will be found in the exams.

The handouts for the classes will be distributed via Moodle. For this semester, students will be able to access lectures via the Adobe Connect archives (the dates of the appropriate lectures will
be posted on Moodle). Students must ensure that they are able to access these via the LSUHSC School of Nursing website by the second week of class. All enquiries, problems, etc, relating to access should be via e-mail to Ms. Michelle Lowery or Mr. Marco Sosa at the School of Nursing. **IT IS THE STUDENTS RESPONSIBILITY TO ENSURE THEIR ACCESS TO ALL OF THESE PROGRAMS.**

**ACADEMIC HONESTY:** You will be asked to sign and comply with an honor code for each exam. The Health Sciences Center policy on cheating and plagiarism, as stated in the catalogue, will be strictly enforced.

**STUDENTS WITH DISABILITIES:** Students with disabilities must inform the Nursing School Administrative Assistant Dean of their **authenticated disability**. They will inform the course director that the student will require additional time or accommodations.

**EXAMINATIONS:** Four section multiple-choice examinations are scheduled for the spring semester. You will be asked to sign and return an honor code, and comply with it. In accordance with The School of Nursing Compliance Regulations. You can be requested to take a new examination if discrepancies are noted in your attempt.

Questions (multiple choice) will be from both lecture and textbook material; some will be based on current as well as previously covered principles. Questions will ask you to apply principles learned in the lectures and reading to a clinical situation. If you understand the concepts, if you have learned essential details, then you should do well. At least 10-15% of the questions will be in NCLEX format.

Unit exams may be **comprehensive** such that the nature of the material presented each unit is built on earlier concepts. Each exam may cover material from the previous section. The comprehensive final will be mainly based on case studies covered during the course.

**Pop quizzes:** There will be multiple pop quizzes weekly throughout the course and will be worth 100 points. It is possible to earn more than 100 points; the additional will be considered bonus points. Quiz answers will be due at midnight on Sundays & no excuses (apart from documented excuses – see below) for extensions will be accepted.

**Missing an Exam:**

Times set for the exams will be strictly adhered to except for exigent circumstances. Students must have a legitimate excuse for missing an examination. Please inform the course directorbefore the exam dates, if possible. If a student misses an examination, has a written legitimate medical excuse, and informs the program or course coordinator no later than 24 hours after the exam has been closed, then the student will be offered a make-up exam. You must inform the coordinator no later than 24 hours after the exam is given why you were unable to take the exam. **Students with a valid excuse must take a “make-up” exam within one week of returning to the course. It is the student’s responsibility to schedule this make-up exam!** Failure to do so will result in a grade of “0” for any examination missed. Excused absences will include but not be
limited to death of a family member or significant other, illness of student or dependent, accidents, authorized attendance at university activities.

**STUDENT EVALUATION:** Evaluation is based on 4 unit exams (400 points), multiple pop quizzes (100 points) and a comprehensive final exam (200 points) for a total of 600 points. Grades will **NOT** be rounded up; you will have to score the absolute minimum points given below to earn your letter grade for the course.

**ANONYMITY!** It’s imperative to protect the anonymity of people described in scenarios, and to obtain the written consent of all such people, even if individual names are not used, whenever the identity of such a person could accidentally be determined. HIPAA regulations state we remove all personal identifying information from records and adhere to stipulations that maintain client confidentiality about people discussed in the scenarios, including clinical and personal details.

**Final Grades:** Grades are based on 90% (A), 80% (B), 70% (C), 60% (D), and <60% (F):

- A (90%) 630 - 700 points
- B (80%) 560 - 629 points
- C (70%) 490 - 559 points
- D (60%) 420 - 489 points
- F (<60%) 000 - 419 points

**GRADES ARE CONSIDERED FINAL ONCE SUBMITTED TO THE REGISTRAR!** Appeals against the final grades must be submitted in person within 48 hours of the posting of the final letter grade by the course director.
## LECTURE SCHEDULE

<table>
<thead>
<tr>
<th>Lecture</th>
<th>Topic</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lecture 01:</td>
<td>Introduction to the Course</td>
<td>January 16</td>
</tr>
<tr>
<td>(8 am – 9.30 am, Seminar Room 1)</td>
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<tr>
<td>Lecture 02:</td>
<td>Cells, disease &amp; Cell Biology</td>
<td>January 16</td>
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<tr>
<td>[Porth Chapters: 1, 2 &amp; 4]</td>
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<tr>
<td>Case Study:</td>
<td>Approach to Pathophysiology</td>
<td>January 16</td>
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<tr>
<td>Lecture 03:</td>
<td>Genetic Disorders</td>
<td>January 16</td>
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<tr>
<td>[Porth: Chapters 5 &amp; 6]</td>
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<tr>
<td>Lecture 04:</td>
<td>The Molecular Biology of Cancer</td>
<td>January 23</td>
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<tr>
<td>[Porth: Chapter 7]</td>
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<tr>
<td>Case Studies:</td>
<td>Breast Cancer &amp; Turner Syndrome</td>
<td>January 23</td>
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<tr>
<td>Lecture 05:</td>
<td>Inflammation &amp; Infectious Disorders</td>
<td>January 23</td>
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<tr>
<td>[Porth: Chapters 3 &amp; 14]</td>
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<tr>
<td>Lecture 06:</td>
<td>Immune System-related Diseases</td>
<td>January 23</td>
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<tr>
<td>[Porth: Chapters 15 &amp; 16]</td>
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<tr>
<td>Case Studies:</td>
<td>Rheumatoid Arthritis &amp; SLE.</td>
<td>January 23</td>
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<tr>
<td>Lecture 07:</td>
<td>Blood Disorders – I. Erythrocytes</td>
<td>January 30</td>
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<tr>
<td>[Porth: Chapter 13]</td>
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<tr>
<td>Lecture 08:</td>
<td>Blood Disorders – II. Other Components</td>
<td>January 30</td>
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<tr>
<td>[Porth: Chapters 11 &amp; 12]</td>
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<tr>
<td>Case Study:</td>
<td>Anemia</td>
<td>January 30</td>
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<tr>
<td>Lecture 09:</td>
<td>Addiction</td>
<td>January 30</td>
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<tr>
<td>EXAM 1: LECTURES 1-8</td>
<td>February 05-08</td>
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<tr>
<td>Lecture 10:</td>
<td>Arrhythmias – EKG interpretation</td>
<td>February 13</td>
</tr>
<tr>
<td>[Porth pages 389-391]</td>
<td></td>
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<tr>
<td>Lecture 11:</td>
<td>Atherosclerosis &amp; Other Vascular Disorders</td>
<td>February 13</td>
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<tr>
<td>[Porth: Chapter 18]</td>
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<tr>
<td>Lecture 12:</td>
<td>Disorders of Cardiovascular Function</td>
<td>February 13</td>
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<tr>
<td>[Porth: chapter 19 &amp; pp 486-499]</td>
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<tr>
<td>Lecture 13:</td>
<td>CAD &amp; cardiac failure</td>
<td>February 13</td>
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</tbody>
</table>
Case Studies: Coronary & Peripheral Arterial Diseases  
February 13

Case Study-based Seminar  
(9am -10.00 am Seminar Room 1)  
February 20

Lecture 14: Shock  
February 20

Case Studies: Hypovolemic & Septic Shock  
February 20

Lecture 15: Disorders of the Respiratory System  
February 20

Lecture 16: Asthma, COPD & Emphysema  
February 20

Case Studies: Pneumonia & Cystic Fibrosis  
February 20

EXAM 2: LECTURES 9-14  
February 26-29

Lecture 17: Blood Gases  
March 05

[ Porth: Chapter 8]

Lecture 18: Fluid & Electrolyte Balance  
March 05

[ Porth: Chapter 8]

Lecture 19: Disorders of Renal Function  
March 05

[ Porth: Chapters 25-27]

Lecture 20 & 21: Upper & Lower GI Disorders  
March 12

[ Porth: chapter 29]

Lecture 22: Diseases of the Liver & Pancreas  
March 12

[ Porth: Chapter 30]

Case Studies: Diarrhea & Viral Hepatitis  
March 12

Case Study-based Seminar  
March 19

(9 am -10.00 am Seminar room 1)

Lecture 23: Nutritional Disorders  
March 19

[ Porth Chapter 10]

Lecture 24: Gut microbiome in disease states  
March 19
**Lecture 25: Pain**  
[Porth chapter 35]  
Case Study: Migraine  
March 19

**EXAM 3: LECTURES 15-22**  
April 01-03

**Lecture 26: Endocrine Disorders**  
[Porth: Chapter 32]  
April 09

**Lecture 27: Obesity, Metabolic Syndrome & Diabetes**  
[Porth: Chapter 33]  
April 09

**Lecture 28: Genitourinary & Reproductive Disorders**  
[Porth: Chapters 39-41]  
April 09

**Lecture 29: Disorders of the skeletal system**  
[Porth: Chapters 43]  
April 16  
**Case Studies: Osteoarthritis & Osteoporosis**  
April 16

**Lecture 30: Metabolic & Rheumatic Disorders**  
[Porth chapter 44]  
April 16  
**Case Studies: Multiple Sclerosis & Parkinson’s disease**  
April 16

**Case Study-based Seminar**  
(9 am -10.00 am Seminar Room 1)  
April 16

**EXAM 4 LECTURES  23-30**  
April 22-24

**Lecture 31: Disorders of Neuromuscular Function**  
[Porth chapter 36]  
April 30

**Lecture 32: Alterations in Brain Function**  
[Porth chapter 37]  
April 30

**Lecture 33: Stress**  
[Porth: Chapter 9]  
April 30

**Seminar: Case-study approach to Pathophysiology**  
May 07

**COMPREHENSIVE FINAL EXAM**  
May 06-08