PATHOPHYSIOLOGY FOR APN
NUR 805 sections 731 and 732
3 Credits
On Line Course
Fall 2008

Catalog Course Description: Alterations of various physiological systems. Pathophysiology of frequently encountered primary care conditions across the life span and special populations. In-depth case analysis of risk factors, pathophysiological changes, and associated clusters of signs and symptoms. Pathophysiological theories and research as a basis for advanced practice nursing.

Course Objectives: At the end of this course, students will:
1. Analyze the etiology and pathophysiological alterations associated with selected common primary care conditions across the life span.
2. Examine relevant theories and research as a basis for explaining the pathophysiological changes associated with common conditions in primary care.
3. Discuss the pathophysiological basis for development of clinical manifestations in selected common primary care conditions.
4. Discuss the issues/considerations associated with the pathophysiological changes in special populations.
5. Apply the pathophysiological principles to case situations as a basis for APN practice.

Prerequisites: None.

Co-requisites: None

Professional Standards & Guidelines: The curriculum is guided by the following documents:


Faculty: Linda Keilman, MSN, GNP-BC
   Contact Information: 517/355-3365; keilman@msu.edu; A126 Life Sciences Building
   Office Hours: Flexible - please contact for an appointment
   Note: Times can be arranged to accommodate student schedules.

Faculty: Brigid Warren, MSN, RN
   Contact Information: 517/353-8686; brigid.warren@hc.msu.edu; A 106 Life Sciences Building
   Office Hours: Arranged
   Note: Times can be arranged to accommodate student schedules.
**Instruction:**

a. **Methodology:**
This online ANGEL course is built on a weekly framework of material including: guidepost and introduction to the week’s content, objectives, textbook readings, occasional required readings outside of the assigned text, quizzes, Participation/Engagement activity, case studies and a final examination.

This course is not based on a self-paced learning model. Although assignments may be completed at any time during the week they are due, ALL materials need to be posted by 2355 (11:55 pm Eastern Standard Daylight Savings Time) on Saturday evening of each week.

We highly encourage students to participate throughout the week. Friday/Saturday only posts will not be eligible for full points as this is not considered engagement with classmates or faculty. As adult learners, it is expected that students will do relevant reading and study for the identified weekly topics. The expectation is that you will be prepared to participate/engage in the discussions and do so throughout the week.

a. **Required Texts**


- This book comes with a CD which you will find very helpful!

- ISBN #: 978-0-323-03623-8

b. **Optional Texts:**

Recommended books are faculty suggestions for information that “may” help you help yourself in learning difficult material. Recommended textbooks might be particularly of interest to those individuals having taken an undergraduate pathophysiology course more than 10 years ago. A lot has changed! See below!

- ISBN #: 978-0-3230-4990-0

- ISBN #: 978-0-323-04989-4

- ISBN #: 978-0-7817-7912-8

- ISBN #: 978-1-58255-555-3
c. Required Resources, References, Supplies:

ANGEL Help Line
1.800.500.1544 (24 hrs, 7 days/week)
517.355.2345 (24 hrs, 7 days/week)
www.angel.msu.edu (ANGEL Help link in upper right corner)
Always check with the ANGEL Help Line first!

Evaluation:

b. Learning Assessments and Grading

b. Course Grading Scale: Evaluation/Grading Scale

Grades will be determined by adding all of the course activities together and arriving at a specific number (point total). The MSU 4.0 grading system will be utilized to report final course grades.

Points will be rounded to whole numbers using the 0.5 rules. Points at ≥ 0.5 will be rounded up while those < 0.5 will be rounded down to the nearest whole number.

There is no opportunity for “extra credit” in this course.

The following point scale will be used for final grade determination:

<table>
<thead>
<tr>
<th>LOW</th>
<th>HIGH</th>
<th>%</th>
<th>GRADE</th>
</tr>
</thead>
<tbody>
<tr>
<td>353</td>
<td>376</td>
<td>94–100</td>
<td>4.0</td>
</tr>
<tr>
<td>327</td>
<td>352</td>
<td>87–93</td>
<td>3.5</td>
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<tr>
<td>301</td>
<td>326</td>
<td>80–86</td>
<td>3.0</td>
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<td></td>
<td></td>
<td></td>
<td>(Minimum passing grade)</td>
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<tr>
<td>282</td>
<td>300</td>
<td>75–79</td>
<td>2.5</td>
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<tr>
<td>263</td>
<td>281</td>
<td>70–74</td>
<td>2.0</td>
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<tr>
<td>244</td>
<td>264</td>
<td>65–69</td>
<td>1.5</td>
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<tr>
<td>226</td>
<td>243</td>
<td>60–64</td>
<td>1.0</td>
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<tr>
<td>Below 226</td>
<td>Below 60</td>
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<td>0.0</td>
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Point Determination Will Be As Follows:

<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>POINTS</th>
<th>NUMBER</th>
<th>TOTALS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction of Self</td>
<td>2</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Review Practice Quiz</td>
<td>5</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Quiz</td>
<td>10</td>
<td>12</td>
<td>120</td>
</tr>
<tr>
<td>Participation/Engagement (Reaction to Discussion Forum Questions)</td>
<td>5</td>
<td>9</td>
<td>45</td>
</tr>
<tr>
<td>Case Study</td>
<td>10</td>
<td>5</td>
<td>50</td>
</tr>
<tr>
<td>Final Examination</td>
<td>150</td>
<td>1</td>
<td>150</td>
</tr>
<tr>
<td>Midterm Evaluation of Course &amp; Faculty</td>
<td>2</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Final Evaluation of Course &amp; Faculty</td>
<td>2</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td></td>
<td>376</td>
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</tbody>
</table>

Evaluation strategies used may include: Participation/Engagement (your reaction to a question or assignment you need to complete in a Discussion Forum format), quizzes, case studies, final examination, active and positive weekly contribution, student activities, written assignments and online discussions.

Active, relevant, professional and ethical participation is expected. Each student will be evaluated ongoing during the semester.

Students must complete **every** assignment in order to pass NUR 805. It is not an option to not complete an assignment. Assignments include Participation/Engagement on Discussion Forums.

*Any assignment not completed may result in a 0.0 in the course*

If a student has an emergency situation, the expectation is the faculty of record (Keilman) will be contacted prior to the assignment due date to make alternative arrangements.

b. Writing Requirements:

It is expected that students will engage in academic, scholarly dialogue on the discussion board at all times. The minimum expectation for writing is at a graduate level. APA format is essential for citations of work and a reference list is required. This is a minimum academic standard for this course.

For more information about APA requirements, and writing expectations, please go to the course in ANGEL, Course Documents, APA Guidelines. Faculty have provided additional information for you to reference in addition to the required APA Manual.

Web sources such as Wikipedia and Epodunk are not considered scholarly or evidence-based and will not be accepted as sources within the course. Sources older than five years (unless considered by the discipline, a classic) will not be accepted.
*University & College Policies:

The College of Nursing expects that students will demonstrate professional behavior in all situations. Specific expectations for clinical and other professional venues can be found in the appropriate handbook. You are responsible for reviewing and acting in accordance with the policies and procedures found in the following sources, including the following topics: Professionalism, Academic Integrity, Accommodations for Students with Disabilities, Disruptive Behavior, Attendance, Compliance, and Progression.

- CON Student handbook  http://nursing.msu.edu/handbooks.asp
- Information for Current Students—including Rights, Responsibilities and Regulations for Students  http://www.msu.edu/current/index.html
- Academic Programs  http://www.reg.msu.edu/UCC/AcademicPrograms.asp

Course Policies:

Access to Course through ANGEL

You can access the class by going to http://angel.msu.edu. The course will not open until the 1st day of the fall semester: **August 25, 2008 @ 0800** (Eastern Standard Daylight Savings time).

Technical problems with the use of ANGEL should be referred to the ANGEL help desk & not emailed to course faculty. The toll free ANGEL help line number is 1-800-1554 (North America and Hawaii), and the local campus area number is 1-517-355-2345.

The course will close **December 10, 2008 @ 1700** (5:00 pm ESDS).

Academic Integrity

Academic integrity is a minimal expectation of this course and an expected academic standard. **Academic dishonesty in any form will not be tolerated.** Any student involved in academic dishonesty will be reported to the Office of Student Support Services and the Office of Academic and Clinical Affairs in the College of Nursing. A grade of 0.0 may be issued for the course.

Lectures, quizzes and examinations must remain the property of the College of Nursing and must not be copied from the internet. According to university policy, consequences for academic dishonesty may include failure of the course, expulsion from the major, or expulsion from the university.

Guideposts, case studies and Power Point lectures in the course are the intellectual property of faculty. You may copy for personal, study only purposes. Faculty materials may not be shared with others without first asking permission of the faculty author.

Online discussions and exercises are confidential and should not be discussed with others who are not enrolled in the class. It is important for each course participant to express his/her ideas. All ideas need to be respected in discussions and exercises. Any “group projects” that are required, still require individual work as a minimal expectation. Any submission that is deemed unprofessional, negative or inflammatory may be deleted by faculty.
For further information you can access any of the following sites:

- Academic Integrity resource at MSU http://www.msu.edu/unit/ombud/RegsOrdsPolicies.html
- International Studies and Programs http://www.msu.edu/international/index.html

Students are expected to complete all course assignments, including homework, lab work, quizzes, tests and exams, without assistance from any source. You are expected to develop original work for this course; therefore, you may not submit course work you completed for another course to satisfy the requirements for this course. You may not utilize a previous students work or faculty materials and submit as your own. Also, you are not authorized to use the ww.allmsu.com web site to complete any course work in NUR 805.

Students who violate MSU rules may receive a penalty grade, including - but not limited to - a failing grade on the assignment or in the course. Contact the faculty of record for this course if you are unsure about the appropriateness of your course work.

See also http://www.msu.edu/unit/ombud/honestylinks.html

**Plagiarism**

“Plagiarism (from the Latin plagarius, an abductor, and plagiare, to steal) is defined by the White House Office of Science and Technology Policy on Misconduct in Research as “... the appropriation of another person’s ideas, processes, results or words without giving appropriate credit” (Michigan State University, Office of the Ombudsman – What Are MSU’s Policies on Plagiarism? Retrieved August 5, 2008, from http://www.msu.edu/unit/ombud/plagiarism.html).

Academically dishonest behavior presents an ethical and moral dilemma in online learning. With easy access to expanded technology and abundant resources online, the magnitude of academic dishonesty has increased. In this course, it is expected that you will complete your own work and recognize the work of others through appropriate citations including quotation marks, page or paragraph numbers and references.

Paraphrasing means taking someone else’s ideas and words and correlating them to your own ideas - in your own words. Paraphrasing does NOT mean changing a word or two in someone else's sentence, changing the sentence structure while maintaining the original words, or changing a few words to synonyms. If you are tempted to rearrange a sentence in any of these ways, you are writing too close to the original. That’s plagiarizing, not paraphrasing.

Paraphrasing is an acceptable way to use another person's ideas to support your argument as long as you attribute the material to the author and cite the source in the text at the end of the sentence. In order to make sure you are paraphrasing in the first place, take notes from your reading with the book closed. Doing so will make it easier to put the ideas in your own words.

In your individual work you should be able to demonstrate:

- A clear understanding of the material you've read
- Knowledge of scholarly, evidence-based resources that support the ideas you have developed
- Thorough analysis of the material from the textbook or acceptable resources that reflect your understanding
When you cite a source, you are using an expert's ideas as proof or evidence of a new idea that you are trying to communicate to the reader.

You need to cite a resource when:
- You put all direct quotes in quotation marks (requires a name, date & page number as well)
- You changed the words used by the author into synonyms
- You completely paraphrased the ideas to which you referred
- Your sentence is mostly made up of your own thoughts, but contains a reference to the author's ideas
- You mention the author's name in the sentence
- Generally, all statistics, numbers and facts require a citation

_The moral: When in doubt, provide a citation_

Here are two reliable web resources that you may want to investigate:

- Avoiding Plagiarism – the OWL at Purdue [http://owl.english.purdue.edu/owl/resource/589/01/](http://owl.english.purdue.edu/owl/resource/589/01/)

**On-Line Class Attendance**

Class attendance (in an on-line, virtual capacity), or presence, is considered the responsibility of the student and is an essential and intrinsic element of the academic process. Points are earned in this course for participation/engagement in the weeks this activity is offered. Lack of participation is not acceptable. Communication that is not scholarly or academic in nature is not acceptable.

To be engaged in a course, one participates throughout the week – not on the last 2 days only. Active participation and engagement is valued for scholarly debate and dialogue which is essential in an on-line graduate science course.

A student’s absence from class does not relieve him/her from responsibility for punctual fulfillment of any course requirement including participation/engagement. Faculties are not under any obligation to repeat a test, teaching or information given which was missed because of discretionary absence. Each faculty has the responsibility of informing students of what portion of your final grade is determined by regular class attendance. In this course, weekly participation/engagement is considered mandatory.

**MSU Attendance Policy:** Students whose names do not appear on the official class list for this course may not attend this class. Students who fail to attend the first four class sessions or class by the fifth day of the semester, whichever occurs first, may be dropped from the course.

**Professionalism**

Preparation for the professional advanced practice of nursing requires more than the acquisition and application of knowledge. Therefore, in addition to the academic standards listed, the student must demonstrate:

1. Appropriate interpersonal relations and communication with peers, faculty and MSU College of Nursing staff
2. Respect for faculty and classmates
3. Responsible fulfillment of class obligations
4. Honesty and integrity in all academic and professional matters
5. The ability to interact with course faculty when there are questions and/or concerns regarding evaluation. The faculty of record should always be contacted 1st!
Failure to meet any of the above criteria may result in the student earning a grade of 0.0 for the course.

College of Nursing policies regarding Professional Development Guidelines are found in CON Student Handbooks at the CON website. Students are responsible for the information found in the MSN CON Graduate Student Handbook.

**MSU Disruptive Behavior Policy**: Article 2.3.5 of the Academic Freedom Report (AFR) for students at Michigan State University states: "The student's behavior in the classroom shall be conducive to the teaching and learning process for all concerned." Article 2.3.10 of the AFR states that "The student has a right to scholarly relationships with faculty based on mutual trust and civility." General Student Regulation 5.02 states: "No student shall . . . interfere with the functions and services of the University (for example, but not limited to, classes . . .) such that the function or service is obstructed or disrupted. Students whose conduct adversely affects the learning environment in this classroom may be subject to disciplinary action through the Student Faculty Judiciary process.

Disruption for an on-line course environment includes submissions in the discussion board or weekly chat that are inflammatory, disrespectful or negative. If faculty deem a students words to be unacceptable, the submission will be deleted and the student contacted by faculty.

**Library Information**

- Library Services: [http://www.lib.msu.edu/services](http://www.lib.msu.edu/services)
- MSU Library: [http://www.lib.msu.edu](http://www.lib.msu.edu)
- Proxy server: To access MSU library resources from an off-campus site, you must set up a proxy server. Directions to set up a proxy server are at: [http://techbase.msu.edu/viewpathfinder.asp?id=2507](http://techbase.msu.edu/viewpathfinder.asp?id=2507)

(517) 353-8700 or (800) 500-1554.

**Access to Faculty**

In a regular classroom setting, faculty are generally available to meet with students before or after class, during scheduled office hours, or if an appointment is made. In an online course setting, faculty is available to answer questions in a different manner. It may take up to 72 hours for faculty to respond to your questions – especially after 5:00 pm (1700), excluding weekends and holidays.

Faculties are not online 24 hours a day, 7 days a week. Expect a reasonable response time for your questions. Do not wait until the last minute to ask an important question – plan ahead!

Generally, faculty will not respond to Discussion Forums after 1700 (5:00 pm EDST) on Friday. Please write email in complete sentences; your emails are considered professional communication. Remember, you are not internet messaging to a friend. If you would like to make an appointment to meet face to face, please contact the faculty of record (course chair) – Linda Keilman.
Course Calendar:

Course Content, Textbook Readings, Topics & Activities

You will note that in the readings, for some chapters, you are required to read only select topics. The topics are listed after the chapter number. To locate the information, go to the 1st page of the chapter and look at the highlighted outline section. Students are responsible for reading all of the information under the topic heading except when told to “omit”. For example, the topic on Secondary Deficiencies includes pages 276 – 286 in chapter 8.

<table>
<thead>
<tr>
<th>WEEK DATE</th>
<th>UNIT</th>
<th>TEXTBOOK &amp; TOPIC READINGS</th>
<th>ACTIVITY</th>
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<tbody>
<tr>
<td>Aug 25</td>
<td>• Introduction to the Course</td>
<td>McCance</td>
<td>• Introduction of Self</td>
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<td></td>
<td>• Introduction to ANGEL Course Management System</td>
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<td>• Review Quiz</td>
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<td></td>
<td>• Genes &amp; Gene-Environment Interaction</td>
<td></td>
<td>• P/E #1</td>
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<tr>
<td>Aug 31</td>
<td>• Alterations in Immunity &amp; Inflammation</td>
<td>McCance</td>
<td>• Quiz #1</td>
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<td></td>
<td>• Infection</td>
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<td>• P/E #2</td>
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<td></td>
<td>• Stress and Disease</td>
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<td>Sept 7</td>
<td>• Biology of Cancer</td>
<td>McCance</td>
<td>• Quiz #2</td>
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<td></td>
<td>• Tumor Invasion &amp; Metastasis</td>
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<td>• CS #1</td>
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<td>Sept 14</td>
<td>• Hematologic System</td>
<td>McCance</td>
<td>• Quiz #3</td>
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<td>• P/E #3</td>
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<td>Sept 21</td>
<td>• Endocrine System</td>
<td>McCance</td>
<td>• Quiz #4</td>
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<td>• CS #2</td>
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<td>WEEK DATE</td>
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| 6 Sept 28 | Reproductive System | • Chapter 5 Topic (p.157): Diabetes Mellitus
• Chapter 21 Topics (p.683): Mechanisms of Hormonal Alterations, Alterations of the H-P System, Diseases of the Anterior Pituitary (only Hyperpituitarism), Alterations of Thyroid Function (omit Thyroid Carcinoma), Alterations of Parathyroid Function, Dysfunction of the Endocrine Pancreas, Alterations of Adrenal Function (omit Hyperaldosteronism) | • Quiz #5
• P/E #4 |
| 7 Oct 5   | Neurologic System   | • McCance
• Chapter 22: pages 735-769
• Chapter 23: pages 777-854 (omit cancers)
• Chapter 24: pages 863-889 | • Quiz #6
• P/E #5 |
<table>
<thead>
<tr>
<th>WEEK DATE</th>
<th>UNIT</th>
<th>TEXTBOOK &amp; TOPIC READINGS</th>
<th>ACTIVITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>8 Oct 12</td>
<td>Cardiovascular &amp; Lymphatic Systems Part I</td>
<td><strong>McCance</strong>&lt;br&gt;- Chapter 29: pages 1181 – 1203&lt;br&gt;- Chapter 5 Topics (p. 157): Coronary Heart Disease, Hypertension&lt;br&gt;- Chapter 30 Topics (p. 1081): Disease of the Arteries &amp; Veins (omit Thromboangiitis Obliterans, Raynaud Phenomenon), Coronary Artery Disease, Myocardial Ischemia &amp; Myocardial Infarction</td>
<td>• Quiz #7&lt;br&gt;• P/E #6&lt;br&gt;• Midterm Course Evaluation</td>
</tr>
<tr>
<td>9 Oct 19</td>
<td>Cardiovascular &amp; Lymphatic Systems Part II</td>
<td><strong>McCance</strong>&lt;br&gt;- Chapter 30 Topics (p.1081): Disorders of the Pericardium, The Cardiomyopathies, Valvular Dysfunction, Heart Failure, Dysrhythmias&lt;br&gt;- Chapter 31 Topics (p.1147): Defects Increasing Pulmonary Blood Flow (omit Atrioventricular Canal Defect)</td>
<td>• Quiz #8&lt;br&gt;• CS #3</td>
</tr>
<tr>
<td>10 Oct 26</td>
<td>Pulmonary System</td>
<td><strong>McCance</strong>&lt;br&gt;- Chapter 32: pages 1181 -1203&lt;br&gt;- Chapter 33: pages 1205 – 1245</td>
<td>• Quiz #9&lt;br&gt;• P/E #7</td>
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<tr>
<td>11 Nov 2</td>
<td>Renal &amp; Urologic System</td>
<td><strong>McCance</strong>&lt;br&gt;- Chapter 35: pages 1279 – 1299&lt;br&gt;- Chapter 36: pages 1301 – 1332</td>
<td>• Quiz #10&lt;br&gt;• P/E #8</td>
</tr>
<tr>
<td>12 Nov 9</td>
<td>Digestive System</td>
<td><strong>McCance</strong>&lt;br&gt;- Chapter 38: pages 1353 – 1382</td>
<td>• Quiz #11</td>
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<tr>
<td>WEEK DATE</td>
<td>UNIT</td>
<td>TEXTBOOK &amp; TOPIC READINGS</td>
<td>ACTIVITY</td>
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</tbody>
</table>
| 13        | Musculoskeletal System           | • Chapter 39 Topics (p.1385): Clinical Manifestations of GI Function, Disorders of Motility, Peptic Ulcer Disease *(omit Stress-Related Mucosal Disease & Surgical Tx of Ulcer)*, Inflammatory Bowel Disease, Clinical manifestations of Liver Disorders, Cirrhosis *(omit Biliary Cirrhosis)*, Disorders of the Gallbladder, Disorders of the Pancreas, Cancer of the Colon & Rectum  
• Chapter 40 Topics (1447): Pyloric Stenosis, Intussusception, Physiologic Jaundice of the newborn                                                                   | CS #4        |
| Nov 16    |                                   | McCance                                                                                                                                                                                                                   | Quiz #12     |
| 14        | Integumentary System             | • Chapter 41: pages 1471 – 1494                                                                                                                                                                                             | CS #5        |
| Nov 23    |                                   | • Chapter 42 Topics (p. 1497): Musculoskeletal Injuries *(omit Rhabdomyolysis)*, Osteoporosis, Osteoarthritis, Rheumatoid Arthritis                                                                                                                                                  | P/E #9       |
| 15        | Review & Wrap Up                 | • Chapter 43 Topics (p.1547): Juvenile Rheumatoid Arthritis, Osgood-Schlatter Disease, Nonaccidental Trauma                                                                                                                                                                   | Final Examination  
December 4th  
1200 - 1600  
Final Course Evaluation |
**Key**

CS = case study

P/E = participation/engagement

*Other important documents & information can be found online in the ANGEL course – be sure you read all of them as well!*