

PATHOPHYSIOLOGY FOR APN

NUR 805 sections 731 - 733

3 Credits

On Line Course

Fall 2009

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 evidence-based 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:

1. American Association of Colleges of Nursing. (1996). *The essentials of master's education for advanced practice nursing*. Washington, DC: Author.
2. American Nurses Association. (2001). *Code of ethics for nurses with interpretive statements*. Silver Spring, MA: nursesbooks.org.
3. Southern Regional Education Board. (2002). *Nurse educator competencies*. Atlanta: Author.
4. National League for Nursing. (2005). *The scope of practice for nurse educators*. New York: Author.

Faculty: Linda Keilman, MSN, GNP-BC (*faculty of record*)

Contact Information: 517/355-3365
Toll Free #: 1/800/605-6424
keilman@msu.edu
A126 Life Sciences Building

Office Hours: Flexible – please contact for an appointment

Note: *Times can be arranged to accommodate student & faculty schedules*

Faculty: Brigid Warren, MSN, RN, CS

Contact Information: 517/353-8686
brigid.warren@hc.msu.edu
A106 Life Sciences Building

Office Hours: Arranged

Note: *Times can be arranged to accommodate student & faculty schedules*

Required Texts:

- American Psychological Association. (2010). *Publication manual of the American Psychological Association* (6th ed.). Washington, DC: Author.
ISBN #: 978-1-4338-0561-5
- McCance, K.L., & Huether, S.E. (2006). *Pathophysiology: The biological basis of disease in adults and children* (5th ed.). St. Louis, MO: Mosby Elsevier.
ISBN #: 978-0-323-03507-1
- McCance, K.L., & Huether, S.E. (2006). *Study guide and workbook for pathophysiology: The biological basis for disease in adults and children* (5th ed.). St. Louis, MO: Mosby Elsevier.
ISBN #: 978-0-323-03623-8

Optional Texts:

Optional or 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 5 years ago. A lot has changed! See below!

- Huether, S.E., & McCance, K.L. (2008). *Understanding pathophysiology* (4th ed.). Philadelphia: Mosby Elsevier. ISBN #: 978-0-3230-4990-0
- Huether, S.E., McCance, K.L., Brashers, V.L., & Rote, N.S. (2008). *Study guide and workbook: Understanding pathophysiology* (4th ed.). Philadelphia: Mosby Elsevier.
ISBN # 978-0-323-04989-4
- Lippincott Williams & Wilkins. (2009). *Pathophysiology made incredibly easy!* (4th ed.). Philadelphia: Wolters Kluwer Health. ISBN #: 978-0-7817-7912-8
- Lippincott Williams & Wilkins. (2008). *Pathophysiology made incredibly visual*. Philadelphia: Wolters Kluwer Health. ISBN # 978-1-58255-555-3

a. Required Resources, References, Supplies:

ANGEL Help Line
1.800.500.1554 (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!

b. Evaluation/Grading Scale

Grades will be determined by adding all of the course activities together and arriving at a specific number (point total). *This course is founded on points – not percentages!* 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.

The final examination must be passed with an 80% in order to pass the course!

There is no opportunity for “extra credit” or “make up work” in this course.

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

LOW	HIGH	%	GRADE
389	414	94 – 100	4.0
360	388	87 – 93	3.5
331	359	80 – 86	3.0 <i>(Minimum passing grade)</i>
311	330	75 – 79	2.5
290	310	70 – 74	2.0
269	289	65 – 69	1.5
248	268	60 - 64	1.0
	Below 248	Below 60	0.0

Point Determination Will Be As Follows:

ACTIVITY	POINTS	NUMBER	TOTALS
Introduction of Self	5	1	5
Review Practice Quiz	10	1	10
Quiz	10	14	140
Participation/Engagement (Discussion Forum)	5	7	35
Case Study	10	7	70
Final Examination	150	1	150
Midterm Evaluation of Course & Faculty	2	1	2
Final Evaluation of Course & Faculty	2	1	2
TOTAL			414

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.

Eighty percent (80%) must be achieved on the final examination in order to pass the course.

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 and time* to make alternative arrangements.

Assignments submitted as .docx or .pdf files/documents will not be accepted and 0 points will be assigned to the activity.

Late assignments will not be accepted and 0 points will be assigned to the activity.

Directions for submission of case studies must be followed for formatting accuracy. Documents not submitted utilizing the course format will either not be accepted or ½ the total possible points subtracted from the submission per faculty discretion.

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.

Accurate APA formatting must be utilized in the course. Formatting is evaluated based on the 6th edition (2009) of the APA Manual – which is required.

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. Medical-surgical textbooks are not appropriate resources to cite for this course.

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>
- MSU Spartan Life Student Handbook and Resource Guide <http://www.vps.msu.edu/SpLife/index.htm>
- 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>

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Learning Methodology

This online ANGEL course is built on a weekly framework of material including: guidepost and introduction to the week's content, objectives, and textbook readings, occasional required readings outside of the assigned text, quizzes, Participation/Engagement (Discussion Forum) 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 [ESDST]) on Saturday evening of each week unless otherwise indicated by the faculty.

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. If faculties post a question, the expectation is that it will be answered.

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: **September 2, 2009 @ 0800** (ESDST).

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 1-800-500-1554 (North America and Hawaii), and the local campus area number is 1-517-355-2345.

The course will close **December 16, 2009 @ 1700** (5:00 pm, ESDST).

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.

Quizzes or the examination should not be entered before you are ready to take them and submit your answers. Other windows should not be open on your computer during the quiz or exam time. It is imperative that when you open the quiz or exam window, you are prepared to answer the questions in the allotted time frame and submit for evaluation. No books, notes, individuals, or web surfing can be allowed during quizzes/exams; it will not be tolerated. The ANGEL program is able to track access and opening of additional windows. Please do not be tempted to engage in unethical behavior as it will potentially result in no points being awarded for the work and a potential failure for the course.

For further information you can access any of the following sites:

- Academic Integrity resource at MSU
<http://www.msu.edu/unit/ombud/RegsOrdsPolicies.html>
- MSU Spartan Life Student Handbook and Resource Guide
<http://www.vps.msu.edu/SpLife/index.htm>
- 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.

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 *plagiarius*, 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 and unique individualism

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:

- Michigan State University, Office of the Ombudsman – What Are MSU's Policies on Plagiarism? <http://www.msu.edu/unit/ombud/plagiarism.html>
- Avoiding Plagiarism – the OWL at Purdue <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, 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 nurse 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 all 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 first!!

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 student's 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>
- MSU Library: <http://www.lib.msu.edu>

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, faculties are 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 ESDST) 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 Content, Textbook Readings, Topics & Activities

WEEK DATE	UNIT	TEXTBOOK & TOPIC READINGS	ACTIVITY
1 Sept 2	<ul style="list-style-type: none"> • Introduction to the Course • Introduction to ANGEL Course Management System • <u>Review:</u> Cellular Biology; Altered Cellular & Tissue Biology; The Cellular Environment • Genes & Gene-Environment Interaction 	<i>McCance</i> <ul style="list-style-type: none"> • Chapter 1: pages 1-42 • Chapter 2: pages 45-88 • Chapter 3: pages 39-120 • Chapter 4: pages 123-156 • Chapter 5: pages 157-174 	<ul style="list-style-type: none"> • Introduction of Self • Review Quiz
2 Sept 6	<i>Mechanisms of Self-Defense:</i> <ul style="list-style-type: none"> • Alterations in Immunity, Inflammation & Adaptive Immunity • Infection • Stress and Disease 	<i>McCance</i> <ul style="list-style-type: none"> • Chapter 6: pages 175-208 • Chapter 7: pages 211-247 • Chapter 8: pages 249-291 • Chapter 9: pages 293-309 • Chapter 10: pages 311-330 	<ul style="list-style-type: none"> • Quiz #1 • P/E #1
3 Sept 13	<i>Cellular Proliferation:</i> <ul style="list-style-type: none"> • Biology of Cancer • Tumor Invasion & Metastasis • Cancer in Children 	<i>McCance</i> <ul style="list-style-type: none"> • Chapter 11: pages 333-370 • Chapter 12: pages 375-400 • Chapter 13: pages 403-408 	<ul style="list-style-type: none"> • Quiz #2 • CS #1
4 Sept 20	<ul style="list-style-type: none"> • Hematologic System 	<i>McCance</i> <ul style="list-style-type: none"> • Chapter 25: pages 893-925 • Chapter 26: pages 927-951 • Chapter 27: pages 955-995 • Chapter 28: pages 999-1026 	<ul style="list-style-type: none"> • Quiz #3 • P/E #2
5 Sept 27	<ul style="list-style-type: none"> • Endocrine System 	<i>McCance</i> <ul style="list-style-type: none"> • Chapter 20: pages 655-680 • Chapter 21: pages 683-730 	<ul style="list-style-type: none"> • Quiz #4 • CS #2
6 Oct 4	<ul style="list-style-type: none"> • Reproductive System 	<i>McCance</i> <ul style="list-style-type: none"> • Chapter 22: pages 735-769 • Chapter 23: pages 777-854 • Chapter 24: pages 863-889 	<ul style="list-style-type: none"> • Quiz #5 • P/E #3

WEEK DATE	UNIT	TEXTBOOK & TOPIC READINGS	ACTIVITY
7 Oct 11	<ul style="list-style-type: none"> Neurologic System Part I 	<i>McCance</i> <ul style="list-style-type: none"> Chapter 14: pages 411-445 Chapter 15: pages 447-485 Chapter 16 : pages 491-545 	<ul style="list-style-type: none"> Quiz #6 CS #3
8 Oct 18 MT	<ul style="list-style-type: none"> Neurologic System Part II 	<ul style="list-style-type: none"> Chapter 17: pages 547-602 Chapter 18: pages 605-621 Chapter 19: table 19-3 (page 634); table 19-4 (page 635); seizure disorders (page 637-639); figure 19-13 (page 641); box 19-3 (page 643); summary (pages 651-652) 	<ul style="list-style-type: none"> Quiz #7 P/E #4 Midterm Course Evaluation
9 Oct 25	<ul style="list-style-type: none"> Cardiovascular & Lymphatic Systems Part I 	<i>McCance</i> <ul style="list-style-type: none"> Chapter 29: pages 1029-1078 Chapter 30: pages 1081-1115 (stop @ disorders of the heart wall) 	<ul style="list-style-type: none"> Quiz #8 CS #4
10 Nov 1	<ul style="list-style-type: none"> Cardiovascular & Lymphatic Systems Part II 	<i>McCance</i> <ul style="list-style-type: none"> Chapter 30: pages 1115-1140 Chapter 31: pages 1147-1178 	<ul style="list-style-type: none"> Quiz #9 P/E #5
11 Nov 8	<ul style="list-style-type: none"> Pulmonary System 	<i>McCance</i> <ul style="list-style-type: none"> Chapter 32: pages 1181 - 1203 Chapter 33: pages 1205 – 1245 Chapter 34: pages 1249-1274 	<ul style="list-style-type: none"> Quiz #10 CS #5
12 Nov 15	<ul style="list-style-type: none"> Renal & Urologic System 	<i>McCance</i> <ul style="list-style-type: none"> Chapter 35: pages 1279 – 1299 Chapter 36: pages 1301 – 1332 Chapter 37: pages 1337-1350 	<ul style="list-style-type: none"> Quiz #11 CS #6

WEEK DATE	UNIT	TEXTBOOK & TOPIC READINGS	ACTIVITY
13 Nov 22	<ul style="list-style-type: none"> Digestive System 	<i>McCance</i> <ul style="list-style-type: none"> Chapter 38: pages 1353 – 1382 Chapter 39: pages 1385-1439 Chapter 40: 1447-1466 	<ul style="list-style-type: none"> Quiz #12 P/E #6
14 Nov 29	<ul style="list-style-type: none"> Musculoskeletal System 	<i>McCance</i> <ul style="list-style-type: none"> Chapter 41: pages 1471 – 1494 Chapter 42: pages 1497-1543 Chapter 43: pages 1547-1570 	<ul style="list-style-type: none"> Quiz #13 CS #7
15 Dec 6	<ul style="list-style-type: none"> Integumentary System 	<i>McCance</i> <ul style="list-style-type: none"> Chapter 44: pages 1573 – 1604 Chapter 45: pages 1609 – 1620 	<ul style="list-style-type: none"> Quiz #14 P/E #7
16 Dec 13	<ul style="list-style-type: none"> Review & Wrap Up 		<ul style="list-style-type: none"> Final Exam December 14 1200 - 1600 Final Course Evaluation

*The ANGEL course will no longer be available on **December 16, 2009 @ 1700***

Key

CS = case study

P/E = participation/engagement