



Clinical Pathophysiology

NUR301 Section 001

Life Science Building Room A131

Mondays and Wednesdays, 11:30 am – 12:50 pm

3 credits

Spring 2017

- I. Catalog Course Description:** How disrupting normal structures and functions of the human body leads to disease processes from the cellular to the multi-system level. Critical examination of the mechanisms underlying signs and symptoms of diseases.
- II. Course Objectives:**
- Describe mechanisms of health dysfunction as deviations from or interruptions to normal body structure and/or function.
 - Explain and diagram how underlying disease processes produce manifestations, including abnormal lab values.
 - Explain and diagram how adaptive/compensatory mechanisms attempt to restore normal structure and/or function, and how they produce manifestations.
 - Explain and diagram how dysfunction of one body system affects function of another body system.
 - Explain and diagram how risk factors modify normal anatomy and/or physiology to promote dysfunction.
 - In select states of dysfunction, explain and diagram how treatment targets part of the underlying process.
 - In select states of dysfunction, explain and diagram how diagnostic tests elucidate the underlying process.
 - Incorporate liberal education principles to application, synthesis and evaluation of course concepts.
- III. Additional Course Detail:** NUR301 explores how mechanisms from the molecular to the multi-system level disrupt normal cellular biology, anatomy, and physiology to produce dysfunction, how those processes produce manifestations, and how the body compensates. Learners actively engage course content, with independent preparation for each unit and with class analysis of patient cases. In class, students work with peers to think critically about course content, analyze patient cases, and apply pathophysiologic mechanisms. The course structure requires students to practice skills that are used by health care professionals such as analyzing cases, solving problems, using evidence based resources, and learning independently.
- IV. Prerequisites:** ANTR 350 and {PSL 310 or PSL 250 or (PSL 431 and 432)}
- V. Co-requisites:** None
- VI. Standards Documents:** The curriculum is guided by the following documents.

American Association of Colleges of Nursing (2008). *The essentials of baccalaureate education for professional nursing practice*. Washington, DC.

<http://www.aacn.nche.edu/education-resources/BaccEssentials08.pdf>

American Nurses Association (2015). *Guide to the code of ethics for nurses with interpretive statements*.

Washington, DC <http://tinyurl.com/codeofethics2015>

American Nurses Association (2015). *Nursing: Scope and standards of practice* (2nd ed.). Washington, DC
<http://tinyurl.com/scopeandstandards2015>

American Nurses Association (2015). *Nursing's social policy statement: The essence of the profession* (3rd ed.).
Washington, DC <http://tinyurl.com/socialpolicy2015>

VII. Course Faculty:

Della Hughes-Carter, RN, DNP, GNP-BC
A270 Life Science, 517-432-6673
Office Hours: Wednesdays 1-3 pm

Victoria Marshall
PhD Nursing Student
Graduate Research Assistant
Office Hours: Mondays 1-2 pm

VIII. Instruction:

- a. **Methodology:** Attendance to class periods is essential to achieving success and meeting the objectives of the course. The course content will be found in D2L Course Management System.
- b. **Writing Requirements:** Use of APA Style formatting is required for all written assignments. Written work is expected to be clear, concise and professional.
- c. **Use of laptops, iPads, and other online devices:** Students will use laptops, IPADs, tablets, smart phones or other electronic online devices during theory classes as instructed by the faculty member for specific class activities. Students will not have the option of using laptops, IPADs, tablets, smart phones or other electronic online devices during theory for note-taking. To facilitate note-taking faculty will number each slide enabling students to readily link slides with written notes. No taping of lectures or presentations is permitted without instructor consent. Students will need to use their personal laptop to take the quizzes and exams.
- d. **Course Materials**

Please read carefully through this entire section before making purchases.

Check List Summary

- Capriotti's Advantages for pathophysiology: Introductory concepts and clinical perspectives, 2016
- Davis Advantage Pathophysiology Online resource <http://davisadvantage.com/>
Enter the course number class # 580811014916JDFAB
- Medical Dictionary
- Adobe Reader
- D2L access with reliable, high-speed connection
- NUR301 Library Guide access at <http://libguides.lib.msu.edu/nur301> (also in D2L)
- CON Technology Requirements (BSN Handbook; NUR301 students need to be in compliance.

e. **Required Texts:**

Capriotti, T. (2016). *Advantages for pathophysiology: Introductory concepts and clinical perspectives*. Philadelphia: F.A. Davis Company

And the online resource that accompanies this book; Please register at: <http://davisadvantage.com/>

Use the course code: 580811014916JDFAB (I suggest you cut and paste this code)

f. **Optional Texts:** None

IX. American Nurses Association Electronic Books (E-books):

*American Nurses Association (2015). ***Guide to the Code of Ethics for Nurses: Interpretation and Application:** <http://tinyurl.com/codeofethics2015>

*American Nurses Association (2015). ***Nursing Scope and Standards of Practice:** <http://tinyurl.com/scopeandstandards2015>

*American Nurses Association (2015). ***Nursing's Social Policy Statement: The Essence of the Profession** <http://tinyurl.com/socialpolicy2015>

*Access these e-books through the MSU Libraries Catalog or the Nursing E-book page: <http://libguides.lib.msu.edu/nursingebooks>. These e-books allow unlimited concurrent users.

X. Other Required Resources, References, Supplies:

a. **Desire2Learn Helpline**

1-800-500-1554 (24 hrs, 7 days/week)

517-355-2345 (24 hrs, 7 days/week)

www.d2l.msu.edu (D2L Help link in upper right corner)

<http://help.d2l.msu.edu/>

Always check with the Help Line first!

<http://help.d2l.msu.edu/students/quick-start-guide>

b. **Frequently Called Telephone Numbers**

Simulation Lab, Life Sciences; 355-5765 (with answering machine)

Media Lab (Andy Greger) Life Sciences, 353-9020

College of Nursing Office of Student Support Services C120 Bott Building 353-4827.

DMC- College of Osteopathic Medicine, 4707 St. Antoine St, Detroit, MI 48201; 517-884-9674

XI. Evaluations:

- a. **Learning Assessments and Grading:** NUR 301 course grade will be calculated as showed in the table below. In order to pass the course with a 2.0 or higher, the student must also earn an assessment average of $\geq 75\%$ and a pass in clinical utilizing the Clinical Evaluation Tool. A student who earns an assessment average of $< 75\%$ will not pass NUR 301. A student who is determined by the clinical faculty to have deficiencies in clinical will receive an *unsatisfactory rating* on the final evaluation and will not pass NUR 301.

ITEMS GRADED	WEIGHT (% OF COURSE GRADE)
Learning Activities in Davis Advantage	45 activities worth .33% each = 15% toward the total grade
4 Exams	Exam 1 = 15% Exam 2 = 15% Exam 3 = 15% Exam 4 = 15%
Final Exam	Final Exam = 25%

- b. **Course Grading Scale:** * The standard College of Nursing grading scale will be utilized

%	GRADE
94-100 %	4.0
89-93.99%	3.5
84-88.99%	3.0
79-83.99%	2.5
75%-78.99%	2.0 (Minimum passing grade)
70%-74.99	1.5
65%-69.99%	1.0
<65%	0.0

CON does not round Course Grades. (eg. 93.9%=93% =3.5)

*For specific information regarding grading related to student progression through the curriculum, please refer to the “Progression through the Major Policies” section of the Baccalaureate Student Handbook.

XII. Examinations:

- a. Tardiness: If a student is late, he/she will only be allowed the allotted time remaining to complete the exam.
- b. Absences: Students must notify course faculty of any absence prior to the start of the exam.
- c. Excused Absence: Absence from an exam may be excused for such reasons as a family death, serious family illness, court mandated appearance, and personal illness (requiring HCP documentation). Excused absence must have appropriate documentation in order to be excused. Course faculty will make the determination of whether an absence is excused if it meets the above criteria.
- d. Unexcused Absence: No make-up exam will be scheduled. Student will receive a zero grade.
- e. Make-up Exam (for excused absence only):
 - a. Students must contact the faculty member to schedule the make-up examination. The exam must be made-up within 1 week of the original examination date; any extension beyond 1 week is at the

discretion of faculty and would only occur in the event of extraordinary circumstances. Faculty will determine the date and time of the make-up exam.

b. Make-up exams may differ from the original exam and include, for example, essay, short answer, matching, and true/false type questions.

f. Proctor Process: See the BSN Student Handbook for the proctoring process.

XIII. 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 BSN Student Handbook: <http://nursing.msu.edu/BSN%20Programs/Handbooks/default.htm>
 - Includes Professional Development Guidelines
 - Students are responsible for the information found in the CON BSN Student Handbook.
- MSU Spartan Life Online: <http://www.vps.msu.edu/SpLife>.
- Information for MSU Students: <http://www.msu.edu/current/index.html>
- Academic Programs: <http://www.reg.msu.edu/AcademicPrograms>
- Code of Teaching Responsibility and Student Assessments and Final Grades: <http://www.reg.msu.edu/AcademicPrograms/Print.asp?Section=514>
- Integrity of Scholarship and Grades: <http://www.reg.msu.edu/AcademicPrograms/Print.asp?Section=534>

Professionalism

It is expected that a professional, courteous, and positive demeanor will be exhibited to peers, faculty and College of Nursing staff with each encounter. It is expected that you will be on time to theory, lab and clinical. If for some reason you have to be late or leave early, the course coordinator or your lab instructor should be notified and plans will be made so you will not disturb the entire class. Talking, utilizing Wi-Fi enabled devices to surf the web and sleeping are considered unacceptable during lecture. Asking questions and requesting clarification of information is highly encouraged as student input is valued and worthwhile. Timeliness, honesty and integrity, a positive attitude, assertive communication skills and motivation are some of the personal skills that one should be developing, or refining, during nursing school. These positive skills will be utilized in your time at the College of Nursing and in your chosen profession.

Clinical Course Compliance Requirements

All Michigan State University College of Nursing (CON) Undergraduate Nursing Students are **required to be in compliance** with all health/immunization requirements, criminal background checks, BLS certification, blood borne pathogen training, HIPAA training, and any other agency specific requirement while in the nursing program (Refer to BSN Handbook for detailed policy and procedures).

Students will be considered **out of compliance** if a designated immunization or other item required to be submitted to the University Physician's Office, Office of Student Support Services, ACEMAPP, or other agency is not updated by the designated deadline.

Students enrolled in clinical nursing courses who are **out of compliance will receive a 1% reduction** to the overall course grade which will be applied at the end of the semester for each item out of compliance during the course. If an item is not brought into compliance within 1 week an additional 1% reduction will be taken for each week the student is out of compliance.

Additionally, students enrolled in clinical courses who are identified as out of compliance will not be permitted to attend clinical until documentation has been submitted to the correct compliance monitoring office. Clinical absences that result from out of compliance status may affect the ability of the student to successfully meet clinical course objectives, which may result in course failure.

Guidelines to Enhance Personal Safety

The following are recommendation to enhance personal safety when traveling to and from clinical experiences.

Travel Using Public Transportation

- Follow the recommended route when traveling by bus or subway.
- Know the directions to the clinical site prior to leaving home.
- Travel in groups, never alone.
- Have your clinical faculty member's telephone number in your cell phone in case you become lost.
- Never carry a purse. Keep your money and keys in a small wallet that fits in your pocket.
- Always walk with one arm free.
- Walk with confidence. Use eye contact when looking at others.
- Do not openly Do not talk on your phone or text while walking.
- Do not have earbuds in use.
- Be aware of your surroundings; do not engage in excessive conversation.
- Avoid isolated areas.
- Trust your instincts. If you feel unsafe, leave the area. Call your instructor when it is safe to do so.
- Communicate any safety concerns to your clinical instructor or any faculty member immediately.

Travel Using Personal Vehicle

- Obtain directions to site prior to the first clinical day.
- Test drive your vehicle to the clinical site and calculate estimated travel time.
- Check with your clinical instructor about the availability for parking prior to deciding to drive.
- If street parking is the only option, park in view of the clinic site.
- Residents often save a parking spot by placing lawn chairs in front of their homes. Do not remove.
- Keep your doors locked at all times while in vehicle.
- Do not text or talk on your cell phone while driving, parking, and exiting your vehicle.
- Lock your car upon exiting. Lock valuables in your trunk prior to traveling to the clinical site. Never have valuables visible in your car.
- Do not carry a purse; keep money and valuables in a pocket.
- Do not exit the car if you feel unsafe. Find a different parking spot or call your instructor.
- When returning to your car, have keys in hand when leaving the clinical site.

- Do not drive down dead-end streets which makes turning around difficult.
- Do not drive down alleys with debris or glass which may cause flat tires.
- Do not drive down narrow streets which could restrict movement if you need to exit the vehicle.

Honors Option: H-Option is available only for traditional undergraduate students (not second degree students).

XIV. University Policies:

Academic Integrity

Article 2.3.3 of the [Academic Freedom Report](#) states that "The student shares with the faculty the responsibility for maintaining the integrity of scholarship, grades, and professional standards." In addition, the College adheres to the policies on academic honesty as specified in General Student Regulations 1.0 on Protection of Scholarship and Grades, the all-University Policy on Integrity of Scholarship and Grades, and Ordinance 17.00 on Examinations. (See [Spartan Life: Student Handbook and Resource Guide](#) <http://splife.studentlife.msu.edu/> and/or the MSU Web site: www.msu.edu). Therefore, unless authorized by your instructor, you 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. Also, you are not authorized to use the www.allmsu.com web site or other similar sites to complete any course work for this course. Students who violate course, College, or University policy may receive a penalty grade, including – but not limited to – a failing grade on the assignment or in the course. Contact your instructor if you are unsure about the appropriateness of your course work. See also: <https://www.msu.edu/unit/ombud/academic-integrity/index.html#regulations>

Accommodations for students with disabilities

Students with disabilities should contact the Resource Center for Persons with Disabilities to establish reasonable accommodations. For an appointment with a disability specialist, call 353-9642 (voice), 355-1293 (TTY), or visit MyProfile.rcpd.msu.edu. Students who use RCPD accommodations must adhere to the RCPD policies and procedures.

Attendance

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. See the Ombudsman's web site for a discussion of student observance of major religious holidays, student-athlete participation in athletic competition, student participation in university-approved field trips, medical excuses and a dean's drop for students who fail to attend class sessions at the beginning of the semester.

Disruptive behavior

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 that "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.

Grief Policy

The faculty and staff should be sensitive to and accommodate the bereavement process of a student who has lost a family member or who is experiencing emotional distress from a similar tragedy so that the student is not academically disadvantaged in his/her classes. It is the responsibility of the student to: **a)** notify the Associate Dean by completing the grief absence request form <https://reg.msu.edu/StuForms/Stuinfo/GriefAbsenceForm.aspx>. **b)** complete all missed work as determined by the instructor. It is the responsibility of the Associate Dean or designee to: **a)** determine with the student the expected period of absence – it is expected that some bereavement processes may be more extensive than others depending on individual circumstances, **b)** notify the faculty that the student will be absent, and **c)** receive verification of the authenticity of a grief absence request upon the student's return. It is the responsibility of the instructor to work with the student to: **a)** make reasonable accommodations and **b)** to include appropriate language describing such accommodations in their course syllabus, so that the student is not penalized due to a verified grief absence. Students who believe their rights under this policy have been violated should contact the University Ombudsperson.

Spartan Honor Code

“As a Spartan, I will strive to uphold values of the highest ethical standard. I will practice honesty in my work, foster honesty in my peers, and take pride in knowing that honor is worth more than grades. I will carry these values beyond my time as a student at Michigan State University, continuing to endeavor to build personal integrity in all that I do.”

XV. Course Calendar:

Date	Topic	Assignment due before class- 11:30 am	
M 1/9	Getting started	Sign up for Davis Advantage	Hughes
W 1/11	Cellular Processes and Stress Response Genetic Basis of Disease	Ch. 1 Ch. 2 Ch. 3 to page 35 Davis Advantage <ul style="list-style-type: none"> • #1 Cellular Injury and Adaptations • #2 Genetic Basis of Disease 	Hughes
M 1/16	Holiday		
W 1/18	Stress, Exercise and Immobility Obesity and Nutritional Imbalances	Ch. 4 Ch. 5 Davis Advantage <ul style="list-style-type: none"> • #3 Stress Response 	Marshall
M 1/23	Acid-Base Imbalance	Ch. 8 Davis Advantage <ul style="list-style-type: none"> • #4 Acid-Base Imbalance 	Marshall
W 1/25	Exam 1	Chapters 1 through 8	Hughes
M 1/30	Fluid and Electrolyte Imbalance	Ch. 7 Davis Advantage <ul style="list-style-type: none"> • #5 Fluid Imbalances • #6 Electrolyte Imbalances 	Marshall
W 2/1	Inflammation and Wound Healing	Ch. 9 Davis Advantage <ul style="list-style-type: none"> • #7 Inflammation and Wound Healing 	Marshall
M 2/6	Infectious Disease	Ch. 10 Davis Advantage <ul style="list-style-type: none"> • #8 Infectious Disease 	Marshall
W 2/8	Immune Disorders	Ch. 11 Davis Advantage <ul style="list-style-type: none"> • #9 Hypersensitivity and Immune Disorders • #10 Immunodeficiency and HIV 	Hughes

M 2/13	Hematopoietic Disorders	Ch. 12 Davis Advantage <ul style="list-style-type: none"> #11 Disorders of WBC 	Hughes
W 2/15	Hematopoietic Disorders	Ch. 13 Ch. 14 Davis Advantage <ul style="list-style-type: none"> #12 Disorders of RBC #13 Disorders of Platelets, Homeostasis and Coagulation 	Hughes
M 2/20	Exam 2	Chapters 7 through 14	Marshall
W 2/22	Disorders of Cardiovascular Function	Ch. 15 Ch. 16 Davis Advantage <ul style="list-style-type: none"> #14 Atherosclerosis #15 Ischemic Heart Disease 	Hughes
M 2/27	Disorders of Cardiovascular Function	Davis Advantage <ul style="list-style-type: none"> # 16 Conduction Disorders # 17 Hyperlipidemia 	Hughes
W 3/1- mid	Disorders of Cardiovascular Function	Ch. 17 Ch. 18. Ch. 19 Davis Advantage <ul style="list-style-type: none"> # 18 Cardiac Function #19 Left and Right Heart Failure #20 Heart Valve Disease 	Hughes
SPRING BREAK			
M 3/13	Course Review and Pulmonary Disorders	Course Review Ch. 20	Marshall
W 3/15	Pulmonary	Ch. 21 Davis Advantage	Hughes

		<ul style="list-style-type: none"> • #21 Upper and Lower Respiratory Tract Disorders • #22 Obstructive Pulmonary Disorders • #23 Restrictive Disorders 	
M 3/20	Renal and Urological Disorders	Ch. 22 Ch.23 Davis Advantage <ul style="list-style-type: none"> • #24 Basic Pathology of Renal Disorders • #25 Renal Disorders • #26 Urological Disorders 	Marshall
W 3/22	Exam 3	Chapters 15 through 23	Hughes
M 3/27	Diabetes and Metabolic Syndrome	Ch. 25 Davis Advantage <ul style="list-style-type: none"> • #27 Types of Diabetes • #28 Short Term Complications • #29 Long Term Complications 	Marshall
W 3/29	Endocrine Disorders	Ch. 24 Davis Advantage <ul style="list-style-type: none"> • #30 Basic Pathologies of Endocrine • #31 Pituitary and Thyroid • #32 Parathyroid and Adrenal Disorders 	Hughes
M 4/3	Reproductive Disorders and STD	Ch. 26 Ch. 27 Ch. 28	Hughes
W 4/5	Gastrointestinal Disorders	Ch. 29 Ch. 30 Davis Advantage <ul style="list-style-type: none"> • #33 Disorders of Esophagus, Stomach, Small Intestine • #34 Disorders of the Large Intestine 	Marshall
M 4/10	Gastrointestinal Disorders	Ch. 31 Ch. 32 Davis Advantage	Marshall

		<ul style="list-style-type: none"> • #35 Disorders of the Liver • #36 Disorders of Gallbladder, Pancreas, Bile Duct 	
W 4/12	Exam 4	Chapters 24 through 32	Hughes
M 4/17	Neurological Disorders	Ch.33 Ch. 34 Davis Advantage <ul style="list-style-type: none"> • #37 CVD 	Hughes
W 4/19	Neurological Disorders and Pain	Ch. 35 Ch. 6 Davis Advantage <ul style="list-style-type: none"> • #38 Chronic and Neurological Disorders • #39 Brain and Spinal Cord Injury 	Hughes
M 4/24	Musculoskeletal Disorders	Ch. 37 Ch. 38 Ch. 39 Davis Advantage <ul style="list-style-type: none"> • #40 M/S Trauma • #41 Degenerative M/S • #42 Musculoskeletal Infection and Inflammation 	Marshall
W 4/26	Neoplasm and Multiple Organ Failure	Ch. 40 Ch. 47 Davis Advantage <ul style="list-style-type: none"> • #43 Cancer • #44 SIRS • #45 Shock 	Hughes
Final Exam	May 4 th at 10 am to 12 noon	Fifty questions: chapters 6, 33-35, 37-40, 47; Twenty questions comprehensive 70 questions total	

