



Robert D. & Carol Gunn College of Health Sciences & Human Services
Course Syllabus: Foundations of Comprehensive Pathophysiology
NURS 3733
Fall 2025

Faculty: Adrianna Vinar, Ph.D., RN

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Course Description:

1. This course is designed to enhance the working RN's existing understanding of the pathophysiological processes of disease as they affect clients across the lifespan. The interrelationship of structural and functional reaction of cells and tissues to genetic alterations and injurious agents provide the foundation for comprehending clinical manifestations and treatment protocols. Critical thinking and nursing management are enhanced through the use of case studies that integrate nutritional and pharmacological concepts. The understanding of environmental and biological risks factors provides the nurse with the knowledge to provide health promotion and prevention education.
2. Credit hours for the course is 3 hours.
3. AACN Essentials: For further information regarding the AACN Essentials identified for each course objective, refer to: [The Essentials of Baccalaureate Education for Professional Nursing Practice](#)

Course Objectives:

Upon completion of this course, the student will be able to:

1. Demonstrate understanding of the pathological processes and how these produce diseases.
2. Relate disease signs, symptoms and laboratory findings to their underlying pathology.
3. Use knowledge of genetic inheritance, environment, lifestyle choices and other identified risk factors to disease development and progression to identify patient education needs.
4. Evaluate for the presence and effects of compensatory mechanisms in response to major pathological alterations.

5. Apply knowledge of variables affecting the healing process in primary tissues an organ system to management of common diseases and injuries.
6. Employ select nursing and biomedical research studies in the application of pathophysiological principles to nursing practice.
7. Apply critical thinking process to the use of pathophysiologic principles as a basis for nursing practice.

Clinical Objectives:

1. Demonstrate understanding of the pathological processes and how these produce disease (AACN VII, IX).
2. Relate disease signs, symptoms and laboratory findings to their underlying findings to their underlying pathology (AACN VII, IX).
3. Use knowledge of genetic inheritance, environment, lifestyle choices and other identified risk factors to disease development and progression to identify patient education (AACN III, VII, IX).
4. Evaluate for the presence and effects of compensatory mechanisms in response to major pathological alterations (AACN VII).
5. Apply knowledge of variables affecting the healing process in primary tissues and organ systems to management of common diseases and injuries (AACN VII, IX).

Textbooks:

American Psychological Association. (2019). *Publication manual of the American Psychological Association* (7th ed.). American Psychological Association. [ISBN: 9781433832161]

VanMeter, K.C. & Hubert, R. J. (2023) *Gould's pathophysiology for the health profession* (7th ed.), St. Louis, MO: Elsevier. [ISBN: 978-0323792882]

Student Handbook:

Refer to: [_ Student Handbook](#)

Communication with the Instructor:

Communication will be through the student's Midwestern State University email account. An email account is created for every MSU student. If you have not accessed this account yet, please do so by logging into the Portal and clicking the student email account icon located in the Portal. You have the option to have any messages sent here to be forwarded to the email account of your choice.

The instructor will respond or at least acknowledge email messages from students within a maximum of five (5) business days when MSU is in session. Beyond standard

university holidays and breaks, the instructor will notify students of any extended periods of time when email contact is not practical (professional meetings, etc.).

***When emailing the instructor, please include your full name, course, and section number, and a thorough explanation in your message. This will help expedite your request or needs.**

Class Meeting Date and Time:

Since this is an online course, there are no mandatory face-to-face sessions. However, the student should be vigilant in logging into D2L. Regular checks will ensure messages from the instructor are received in a timely manner. This course is on a schedule that will be strictly adhered to. See the Course Schedule at the end of this syllabus for specific information about activities and due dates.

Methodology/Teaching Strategies:

Independent reading assignments, discussion boards, and writing assignments.

Evaluation Method:

- | | |
|---------------------|-------------|
| • Discussion Boards | 50% |
| • Essay Exams | 50% |
| Total Points | 100% |

Grading Scale:

All programs consider a grade of 70 a 'C' for this class

Grade	Range
A	90-100
B	80-89
C	74-79
D	65-73
F	64 or less

Important Dates

Last Day to drop with a grade of "W:" November 24th, 2025.

Refer to: [Drops, Withdrawals & Void](#)

In an emergency or extenuating circumstance, a student may request a grade of "Incomplete" in a course before grades are submitted. If the instructor grants the "Incomplete," the student has until thirty (30) days after the beginning of the next long semester to complete the course requirements. If the student does not complete the course requirements within the deadline, the grade of "Incomplete" will automatically convert into a grade of "F."

Activities and Assignments:

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If students have technical difficulties, they should use the “Help” link on D2L, contact the MSU Information Systems Support Staff, and send an email to the professor explaining what happened. Waiting until the last minute to ask for help or reporting incidents AFTER a due date or an exam expires may result in a grade of zero, even if it was a failure of D2L.

- All work submitted to the instructor will be considered complete and final, and will be graded as such.
- All assignments must be written at the baccalaureate level and will be graded for accuracy, completeness, quality, spelling, grammar, and integrity.
- Because of the nature of the assignments, late submissions will not be accepted. *It is the expectation of the faculty that you complete work on time.*
- Rubrics are available for all written assignments and can (and should) be viewed by the students prior to submitting any work.

Assignments vary in each module and each assignment has its own rubric for completion and grading. Written work is to be completed and submitted electronically in the appropriate assignment (drop box) on D2L and submitted by 10:59 pm Central Standard Time on due date. A course average of at least 74% is required to pass this course. No rounding of final grades per the WSON handbook. Faculty reserves the right to make changes at any time to this syllabus. Students are to be accountable for all communications sent by faculty on Desire 2 Learn; therefore, you must check the site for announcements, assignments, and messages. Direct e-mails from your MSU e-mail account to the provided instructor e-mail is the preferred method of communication to ensure timely responses. Virtual and phone appointments are available upon request.

Discussion Boards:

You must post a substantive response to each of the required questions. A substantive response is constructive and adds value to the weekly discussions. Substantive responses should be at least 150 words in length. Your responses need to reflect critical thought and demonstrate an understanding of the relevant concepts. All factual knowledge must be supported with appropriate APA citation of source. Response to the discussion board questions must be posted by 10:59 PM Central Standard Time on or before the due date on the Discussion Board section in the appropriate Discussion Question thread as stated in the course outline. **Discussion responses (initial) posted more than 2 days late and or in the wrong thread will not be accepted. Peer response post will not be accepted late. Late initial postings will receive a 10 point deduction for each day late and will not be accepted if posted more than 2 days late.** It is the responsibility of the student to post the assignment on the correct thread by 10:59 PM Central Standard Time on or prior to the due date. Participation in the classroom discussion is required. In addition to posting your responses to the discussion questions you must post a substantive comment to at least two of your

classmate's posts. This post may be made anytime during the week but must be made prior to the close of the week before the due date and time. Each peer response must have at least one accompanying APA citation. Peer Posts made after the due date and time of the week will not be accepted for credit.

Late Work:

Assignments more than two days late will not be accepted. Assignments submitted late which are within two days of the due date will receive a ten-point deduction for each day they are late.

Desire-to-Learn (D2L):

Extensive use of the MSU D2L program is a part of this course. Each student is expected to be familiar with this program as it provides a primary source of communication regarding assignments, examination materials, and general course information. You can log into D2L through the MSU Homepage. If you experience difficulties, please contact the technicians listed for the program or contact your instructor.

Online Computer Requirements:

Taking an online class requires you to have access to a computer (with Internet access) to complete and upload your assignments. It is your responsibility to have (or have access to) a working computer in this class. Assignments and tests are due by the due date, and personal computer technical difficulties will not be considered reason for the instructor to allow students extra time to submit assignments, tests, or discussion postings. Computers are available on campus in various areas of the buildings as well as the Academic Success Center. Your computer being down is not an excuse for missing a deadline!! There are many places to access your class! Our online classes can be accessed from any computer in the world which is connected to the internet. Contact your instructor immediately upon having computer trouble. If you have technical difficulties in the course, there is also a student helpdesk available to you. The college cannot work directly on student computers due to both liability and resource limitations however they are able to help you get connected to our online services. For help, log into D2L.

Instructor Class Policies

Instructor Drop. An instructor may drop a student any time during the semester for excessive absences, for consistently failing to meet class assignments, for an indifferent attitude or for lack of engagement in the online learning environment. For example, failure to participate in online discussions as scheduled and on time is considered being absent. Prior to dropping a student from the class, the instructor must give the student a verbal or written warning. An instructor's drop of a student takes precedence over the student-initiated course drop at a later date. The instructor will assign a grade of WF or F the 6th week of a 10 week summer term. After this time, the grade will be an F. The

date the Office of the Registrar receives the instructor drop form is the official drop date. If a student does not maintain enrollment for one long semester they will be placed on inactive status. If a student were to withdraw for a second time from the same and or any nursing course and or received a second D or F in the same and or any nursing course, even if the student has repeated a course and received a grade of C or above the student will be dismissed from the program. All submissions earning a Turn-it In Similarity score above 20% will receive a 30-point deduction. Students may submit assignments as many times as needed before the due/date and time to review and revise as needed to earn a Turn-it In Similarity score at or less than 20%. Only the last submission before the due date and time will be graded.

Change of Schedule

A student dropping a course (but not withdrawing from the University) within the first 12 class days of a regular semester or the first four class days of a summer semester is eligible for a 100% refund of applicable tuition and fees. Dates are published in the Schedule of Classes each semester.

Refund and Repayment Policy

A student who withdraws or is administratively withdrawn from Midwestern State University (MSU) may be eligible to receive a refund for all or a portion of the tuition, fees and room/board charges that were paid to MSU for the semester. HOWEVER, if the student received financial aid (federal/state/institutional grants, loans and/or scholarships), all or a portion of the refund may be returned to the financial aid programs. As described below, two formulas (federal and state) exists in determining the amount of the refund. (Examples of each refund calculation will be made available upon request).

Disability Support Services:

Midwestern State University is committed to providing equal access for qualified students with disabilities to all university courses and programs, and by law all students with disabilities are guaranteed a learning environment that provides reasonable accommodation of their disability. This guarantee is provided through Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act. The ADA reads: "No qualified individual with a disability shall, by reason of such disability, be excluded from participation in or be denied the benefits of the services, programs, or activities of a public entity, or be subject to discrimination by any such entity." The Director of Disability Support Services serves as the ADA Coordinator and may be contacted at (940) 397.4140, TDD (940) 397.4515, or 3410 Taft Blvd., Clark Student Center 168.

College Policies:

Campus Carry Rules/Policies

Refer to: [Campus Carry Rules and Policies](#)

Smoking/Tobacco Policy

Refer to: [Smoking and Tobacco Policy](#)

Alcohol and Drug Policy

Refer to: [Alcohol and Drug Policy](#)

Disability Support Services

Midwestern State University is committed to providing equal access for qualified students with disabilities to all university courses and programs, and by law all students with disabilities are guaranteed a learning environment that provides reasonable accommodation of their disability. This guarantee is provided through Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act. The ADA reads: "No qualified individual with a disability shall, by reason of such disability, be excluded from participation in or be denied the benefits of the services, programs, or activities of a public entity, or be subject to discrimination by any such entity." The Director of Disability Support Services serves as the ADA Coordinator and may be contacted at (940) 397-4140, TDD (940) 397-4515, or 3410 Taft Blvd., Clark Student Center 168.

Academic Misconduct Policy & Procedures/Honesty/Honor System:

This course adheres to the MSU Code of Conduct. Academic dishonesty, however small, creates a breach in academic integrity. A student's participation in this course comes with the expectation that his/her work will be completed in full observance of the MSU Code of Student Conduct. A student should consult the Student Handbook for answers to any questions about the code.

The components of this course are designed to represent the efforts of each student individually and are NOT to be shared. Submitting someone else's work as your own or improperly cited work constitutes plagiarism. Please see the Midwestern State University Catalog for further discussion of plagiarism. Plagiarism will constitute in an F for the course and the student will be referred to administration for further action. When students submit their efforts for grading, they are attesting they abided by this rule.

Cheating includes, but is not limited to: (1) use of any unauthorized assistance in taking quizzes, tests, or examinations; (2) dependence upon the aid of sources beyond those authorized by the instructor in writing papers, preparing reports, solving problems, or completing other assignments; or (3) the acquisition of tests or other academic materials belonging to the university faculty or staff without permission.

Plagiarism includes, but is not limited to: the use of, by paraphrase or direct quotation without correct citation in the text and on the reference list, the published or unpublished works of another person. Students may not submit papers and assignments that they have previously submitted for this or other courses. The use of materials generated by agencies engaged in "selling" term

papers is also plagiarism. Students are encouraged to review the tutorials and suggested websites for more information about plagiarism.

By enrolling in this course, the student expressly grants MSU a limited right in all intellectual property created by the student for the purpose of this course. The limited right shall include but shall not be limited to the right to reproduce the students' work product in order to verify originality and authenticity, and for educational purposes.

Administrative Process:

Unresolved issues related to this course should be first addressed between the student and the course instructor. If there is no resolution, students must follow this sequence:

1. Nursing Department Chair – Dr. Robin Lockhart (940-397-4614)
2. College Dean – Dr. Jeff Killion (940-397-4594)
3. Dean of Students – Matthew Park (940-397-7500)

Grade Appeal Process

Individual course grades are not allowed to be appealed. Students who wish to appeal a Final overall course grade should consult the Midwestern State University Undergraduate Catalog.

*Notice: Changes in the course syllabus, procedure, assignments, and schedule may be made at the discretion of the instructor.

Course Schedule

Week	Activities/Assignments/Exams	Due Date (all times are in Central Standard Time (CST))
Week 1 Course Orientation, Introductions on Discussion Board, Introduction to pathophysiology, Fluid, electrolyte, Acid-base imbalance, and Pain	Introduction to Pathophysiology What is pathophysiology and why study it? Introduction to cellular changes: <ul style="list-style-type: none"> • Fluid, Electrolyte, and Acid-Base Imbalances • Fluid Imbalance • Electrolyte Imbalances • Acid-base Imbalance • Treatment of Imbalances Pain • Etiology and Sources of Pain • Structures and Pain Pathways • Characteristics of Pain • Basic Classifications of Pain • Pain Control Readings <ul style="list-style-type: none"> • VanMeter & Hubert Chapters 1, 2, and 4. 	Introduction Post and Week 1 Discussion post due by Friday 8/29 at 10:59 PM. The 2 peer response posts are due by Sunday 8/31 at 10:59 PM.
Week 2 Defense/Protective Mechanisms	Congenital and Genetic Disorders <ul style="list-style-type: none"> • Review of Genetic Control • Congenital Anomalies • Genetic Disorders • Developmental Disorders • Diagnostic Tools • Genetic Technology • Down Syndrome • Blood and Circulatory System Disorders • Review of the Circulatory System and Blood • Blood Dyscrasias • Neoplastic Blood Disorders • Lymphatic System Disorders • Review of the Lymphatic System • Lymphatic Disorders 	Week 2 discussion post due by Friday 9/5 at 10:59 PM The 2 peer response posts are due by Sunday 9/7 at 10:59 PM

	Readings VanMeter & Hubert Chapter 10,11, and 21. Websites Human Genome Project Website	
Week 3 Immunity and Immune Disorders	<ul style="list-style-type: none"> • Immunity • Review of the Immune System • Tissue and Organ Transplant Rejection • Hypersensitivity Reactions • Autoimmune Disorders • Immunodeficiency Readings VanMeter & Hubert Chapter 7.	Assignment 1 (Exam I) due by Sunday 9/14 at 10:59 PM.
Week 4 Inflammation, Inflammatory Disorders, and Skin Disorders	Inflammation and Healing <ul style="list-style-type: none"> • Review of Body Defenses • Review of Normal Capillary Exchange <ul style="list-style-type: none"> • Physiology of Inflammation • Acute Inflammation • Chronic Inflammation • Treatment of Inflammation • Healing • Examples of Inflammation and Healing <ul style="list-style-type: none"> • Skin Disorders • Review of the Skin • Skin Lesions • Inflammatory Disorders • Skin Infections • Skin Tumors • Skin Disorders • Bacterial Infections • Viral Infections • Fungal Infections • Other Infections Readings VanMeter & Hubert Chapter 5 and 8.	Week 4 discussion post due by Friday 9/19 at 10:59 PM The 2 peer response posts are due by Sunday 9/21 at 10:59 PM
Week 5 Cardiovascular, Respiratory, and	Infection <ul style="list-style-type: none"> • Review of Microbiology • Principles of Infection 	Week 5 discussion post due by

Eye and Ear Diseases	<ul style="list-style-type: none"> • Physiology of Infection <p>Cardiovascular System Disorders</p> <ul style="list-style-type: none"> • Review of the Cardiovascular System • Heart Disorders • Vascular Disorders • Shock <p>Respiratory System Disorders</p> <ul style="list-style-type: none"> • Review of Structures of the Respiratory System • General Manifestations of the • Respiratory Disease • Common Treatment • Measures for Respiratory • Disorders • Infectious Diseases • Obstructive Lung Diseases • Chronic Obstructive Pulmonary Disease • Restrictive Lung Disorders • Vascular Disorders • Expansion Disorders <p>Diseases of the Eye and Ear</p> <ul style="list-style-type: none"> • Infections and Trauma • Ear Infections <p>Readings VanMeter & Hubert Chapters 6, 12,13, and 24.</p> <p>Website CDC Infectious Disease</p>	<p>Friday 9/26 at 10:59 PM</p> <p>The 2 peer response posts are due by Sunday 9/28 at 10:59 PM</p>
<p>Week 6</p> <p>Reproductive, Urinary, Eyes, and Ears</p>	<p>Infection</p> <ul style="list-style-type: none"> • Review of Microbiology • Principles of Infection • Physiology of Infection • Urinary System Disorders • Urinary Tract Infections • Inflammatory Disorders • Reproductive System Disorders • Inflammation and Infections • Inflammatory Disorders • Diseases of the Eye and Ear (pages 390 to 398) • Infections and Trauma • Ear Infections <p>Readings</p>	<p>Week 6 discussion Initial Post due by Friday 10/3 at 10:59 PM</p> <p>2 peer posts are due by Sunday 10/5 at 10:59 PM</p>

	VanMeter & Hubert Chapter 6, 18, and 19	
Week 7 Malignancies	Neoplasms and Cancer Review of Normal Cells <ul style="list-style-type: none"> • Benign and Malignant Tumors • Malignant Tumors: Cancer • Examples of Malignant Tumors • Blood and Lymphatic Disorders • Neoplastic Blood Disorders • Lymphatic Disorders • Urinary System Disorders • Reproductive System Disorders • Congenital Disorders • Acute Neurologic Disorders • Acute Neurologic Problems • Vascular Disorders • Infections • Brain Injuries • Spinal Cord Injury • Skin Disorders • Skin Tumors • Benign Tumors • Malignant Tumors Readings VanMeter & Hubert Chapter 20, 10, 18, 14, 8 and 19 Websites MD Anderson American Cancer Society	Week 7 discussion post due by Friday 10/9 at 10:59 PM The 2 peer responses due by Sunday 10/12 at 10:59 PM
Week 8 Degenerative Disease and Disease related to Aging, Digestive System Disorders, Chronic Neurologic Disorders	Complications of Aging The Aging Process Physiological Changes with Aging Other Factors <ul style="list-style-type: none"> • Multiple Disorders Digestive System Disorders <ul style="list-style-type: none"> • Common Manifestations of Digestive System Disorder • Basic Diagnostic Tests • Common Therapies and Prevention • Upper Gastrointestinal Tract Disorders • Lower Gastrointestinal Tract Disorders Chronic Neurologic Disorders <ul style="list-style-type: none"> • Chronic Degenerative Disorders • Dementia • Mental Disorders 	Assignment 2 (Exam 2) due by Sunday 10/19 at 10:59 PM

	Readings Ch 24, 17, 14 Website Anderson, H.S. and Hoffmann, M. (2015). Alzheimer's Disease. Retrieved from http://emedicine.medscape.com/article/1134817-overview	
Week 9 Diseases Related to Trauma, Overuse or Immobility	Immobility and Associated Problems Factors Involving Immobility <ul style="list-style-type: none"> • Musculoskeletal System Effects • Cutaneous Effects • Cardiovascular System Effects • Respiratory System Effects • Digestive System Effects • Urinary System Effects • Neurological System Effects • Effects of Immobility on • Children • Musculoskeletal Disorders • Review of the Musculoskeletal System • Trauma • Bone Disorders • Disorders of Muscle, Tendons, and Ligaments • Joint Disorders Readings VanMeter and Humbert Chapter 9, 14, and 25 Videos Fracture Healing Part 1 Fracture Healing Part 2 Pulmonary Thrombosis and Embolism Pressure Sores Websites Decubitus Ulcers	Week 9 discussion post due by Friday 10/24 at 10:59PM 2 peer posts due by Sunday 10/26 at 10:59PM
Week 10 Chemical Imbalance and Disorders of Regulation:	Substance Abuse and Associated <ul style="list-style-type: none"> • Problems • Terminology • Predisposing Factors • Environmental and Behavioral Risk Factors • Indications and Recognition of Abuse 	Week 10 discussion post due by Friday 10/31 at 10:59 PM

Mental Health	<ul style="list-style-type: none"> • Potential Complications of Substance Abuse • Treatment for Substance Abuse • Nervous System Disorders • Chronic Degenerative Disorders • Dementia • Mental Disorders • Spinal Cord Disorders <p>Readings VanMeter and Hubert Chapters 27 and 14</p> <p>Video Types of Schizophrenia: A day in the life symptoms simulation</p> <p>Websites National Institute of Mental Health</p>	2 peer posts are due by Sunday 11/2 at 10:59 PM
Week 11 Stress	<p>Stress and Associated Problems</p> <ul style="list-style-type: none"> • Review of the Stress Response • Stress and Disease <p>Readings VanMeter and Hubert Chapter 26</p> <p>Website http://www.mayoclinic.com/health/HealthyLivingindex</p>	Week 11 Assignment 3 (Exam 3) due by Sunday 11/9 at 10:59 PM
Week 12 Chemical Imbalances and Regulation: Endocrine Imbalances Part 1.	<p>Endocrine System Disorders</p> <ul style="list-style-type: none"> • Endocrine Disorders • Insulin and Diabetes Mellitus • Parathyroid Hormone and Calcium • Pituitary Hormone • Thyroid Disorders • Adrenal Glands <p>Readings VanMeter and Hubert Chapter 16</p> <p>Website American Diabetes Association</p>	<p>Week 12 discussion post due by Friday 11/14 at 10:59 PM</p> <p>2 peer posts are due by Sunday 11/16 at 10:59 PM</p>
Week 13	Cardiovascular Disorders	Week 13

Lifestyle and Disease	<ul style="list-style-type: none"> • Heart Disorders • Shock <p>Readings VanMeter and Hubert Chapter 12</p> <p>Videos What happens during a heart attack? What Is Heart Disease? Preventing Coronary Artery Disease </p> <p>Websites Pathophysiology of Hypertension American Heart Association American Heart Association and American Stroke Association Stroke Guidelines National Stroke Association </p>	<p>discussion post due by Friday 11/21 at 10:59 PM</p> <p>2 peer posts due by Sunday 11/23 at 10:59 PM</p>
Week 14 Disease Interactions Part 1	<p>Textbook Readings VanMeter and Hubert Chapter 12 and 16</p> <p>Article Readings https://emedicine.medscape.com/article/162449-overview?form=fpf https://emedicine.medscape.com/article/1134817-overview </p>	<p>Week 14 Assignment 4 (Exam 4) due Sunday 11/30 at 10:59 PM</p>
Week 15 A) Endocrine continued Part 2 B) Disease Interactions Part 2	<p>Endocrine System Disorders</p> <ul style="list-style-type: none"> • Growth Hormone • Antidiuretic Hormone (Vasopressin) <p>Textbook Readings VanMeter and Hubert Chapter 16</p> <p>Article Readings https://emedicine.medscape.com/article/162449-overview?form=fpf https://emedicine.medscape.com/article/1134817-overview </p>	<p>Week 15 Discussion post due by Friday 12/5 at 10:59 PM</p> <p>2 peer posts due by Sunday 12/7 at 10:59 PM</p>
Week 16	<p>Use this time to reflect on the progress you have made this semester.</p>	<p>Week 16 Discussion post due Sunday 12/14 at 10:59 PM</p> <p>No peer</p>

		responses due
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