**NURS 3366: Pathophysiologic Processes: Implications for Nursing**

Spring 2013

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**Time and Place of Class Meetings:** N3366-001: Wednesdays 1-3:50 pm; room 104 (Pickard Hall)

N3366-002: Thursdays 8-10:50 am; room 104 (Pickard Hall)

**Description of Course Content:** Pathophysiologic alterations, their interactions, and effects on persons across the life span as a basis for therapeutic nursing interventions. Prerequisite: BIOL 2457, 2458, CHEM 1451.

**Student Learning Outcomes:**

1. Discuss human anatomical structures, physiologic processes and pathologic alterations that are expressed as diseases of cells, organs and body systems across the lifespan.

2. Describe environmental and genetic factors known to influence disease development.

3. Describe epidemiological, etiological, and risk factors associated with prevention, transmission, restoration, and/or modification of disease processes.

4. Describe specific compensatory mechanisms used by the human body in response to pathophysiologic processes.

5. Relate pathophysiologic functioning of selected processes with the resulting signs and symptoms.

6. Apply knowledge of select pathologic processes in the nursing management of patient diseases across the lifespan.

7. Apply current research findings with evidence-based guidelines for the nursing management of selected diseases.

**REQUIRED TEXTBOOKS:**

McCance & Huether. (2013). *Understanding pathophysiology.* (5th ed). Mosby. ISBN 9780323078917

**RECOMMENDED TEXTBOOKS:**

For reference *as needed*: any nursing/medical dictionary (examples: Mosby’s, Tabers); any anatomy and physiology book; any microbiology book.

**Assignments/Exams:**

There are a total of five exams, each worth 20%. See Class Schedule for their dates.

* Exams 1, 2, 3, & 4 will be given during the first hour of class, with lecture following the exam. Content on each of these exams is not cumulative.
* Exam 5 is the final exam. Its content is cumulative. Students will be given 2 hours to complete the final exam. ***If*** ***the final exam grade is higher than any of the first 4 test grades, it will be used as a substitute for the lowest.***

\*\*See *Exam Rules* further below for test conduct imperatives.

**UTA College of Nursing Grading Criteria**

In order to successfully complete an undergraduate nursing course at UTA, the following minimum criteria must be met:

70% weighted average on proctored exams.

70% weighted average on major written assignments.

90% on math test (if applicable).

90% on practicum skills check offs (if applicable).

In undergraduate nursing courses, all grade calculations will be carried out to two decimal places and there will be no rounding of final grades. Letter grades for tests, written assignments and end-of-course grades, etc. shall be:

            A= 90.00 – 100.00

            B= 80.00 - 89.99

            C= 70.00 – 79.99

            D= 60.00 – 69.99

The existing rule of C or better to progress remains in effect; therefore, to successfully complete a nursing course, students shall have a course grade of 70.00 or greater. Grades will be accessible via Blackboard.

**TEACHING METHODS:**

1. Lecture and preparation (See Class Schedule & Objectives further below)

**Lecture Notes:** Lecture notes will be provided on Blackboard. Please download and print them a day or two before coming to class. ***You will be expected to have prepared for class by studying the notes thoroughly ahead of time.***  Note that these notes are only outlines and there may be some material presented in lecture not found in the notes. In these instances you will be required to take notes appropriately. ***Although the notes correspond to class lecture, please be aware that if unavoidable circumstances result in not finishing the entire lecture content prior to a test or in the event of a lecture cancellation, you will still be held responsible for the content of the notes on the test. Course instructors reserve the right to adjust the schedule in any way to serve the educational needs of the students enrolled in this course.***

**Prep:** Prior to each lecture, review the lecture “Prep” that will be available each week on Blackboard. It is designed to assist you with recalling basic anatomical and physiological concepts in preparation for learning how normal structure and function is affected by the pathological process. Each individual will vary in the intensity of his or her study of the Preps, depending on A&P knowledge of the subject. The less you remember and understand about the A&P, the more you will need to study the Prep prior to class.

2. Learning exercises

**Case studies and critical thinking questions (CTQs**):

* There will be several CTQs at the end of each set of lecture notes. They are configured exactly like test questions. The answers will be available on Blackboard.
* There will be case studies associated with each set of lecture notes. The case studies are short answer, and the answers will be available on Blackboard.
* Each student is ***strongly*** encouraged to do the CTQs and case studies each week. Working through the CTQs and case studies will be ***enormously beneficial*** to understanding concepts and being able to apply them to a variety of situations, thus developing critical thinking skills that are necessary to be successful at test-taking in this class and in nursing in general.

**BLACKBOARD discussion board /email**

* Questions can be asked / answered / discussed on Blackboard with instructor, mentors, other students.
* Students ***must*** check Blackboard for messages and important information ***on a daily or near-daily basis.***

**Post-test review sessions**

* Times will be available, usually one week after each test, during which students can study their scantrons and copies of test answer rationales. It is ***highly*** recommended that students take advantage of this feedback as a corrective learning experience.
* Many of the ***Exam Rules*** (see below) will apply to these sessions. ***No******note-taking is allowed***, and all scantrons and rationale packets *must be returned* at the end of the sessions.

**EXAM RULES**

***Missed******exam policy***

* Exams are to be taken at the scheduled time, according to the course schedule (as found in the syllabus).
* ***There are no make-up exams*.** If an exam is missed, the final exam grade will be used as the grade for the missed exam.
* The final exam ***must not*** be missed unless there is a dire emergency; examples: you are hospitalized, there is a death in the immediate family, etc. You will need to provide substantial written documentation of an excusable reason for missing a final.
* If content objectives are not covered in lectures for reasons of time constraint, cancellation of lecture, or other unanticipated obstacles to lecture completion, the content ***will still be eligible for inclusion on the test.***

***Policies on being late for an exam***

* ***Please arrive in plenty of time to be ready at the hour.*** Each student should be in his or her seat & ready to take the exam ***at the hour***.
* Anyone late for an exam will be asked to sign a lateness roster. If you are late twice, 2.86 points will be deducted off of your exam score for each additional late arrival. (“Late” means not being in your seat and ready to go at the hour.)
* If you arrive late for an examination, you will not be given any additional time to complete the examination.
* If you arrive late to an examination after the first person has turned in their examination, you will not be allowed to take the examination.

***Day of test information***

* Students must take tests during the class section time for which they are registered. Occasionally a student may take a test during a different class time, but only if special permission from the instructor has been granted.
* All cell phones, pagers, PDAs, and laptop computers must be turned off and placed at the side of the room upon arrival to the classroom on exam day. ***No electronics may be on your person.*** If an electronic device is discovered to be on or close to you, points may be deducted from the exam.
* All books, notes, backpacks, book bags, and purses must be placed at the side of the classroom. You may study in the classroom up until 5 minutes before the test begins. AT 5 ***minutes till test time, all papers, books, & belongings must be put up.***
* Students must come to class for each exam ***with their student ID***. ID should be kept on the desk at all times and will be checked upon turning in of tests at the end. ***Failure to produce an official student ID will result in the delay of exam results. The grade will be posted on blackboard after the student submits their official student ID to the instructor.***
* In addition to the student ID, the only items allowable on the desks are pencils. Please bring at least one #2 pencil ***with a good eraser***. It is advisable to bring extra pencils. ***No pens allowed***.
* Eating during exams is not permitted except for candy, lozenges, etc, which must be noise-free. Drinks are permitted, but drink containers must not have labels or writing of any sort.
* No talking is allowed when the exams are being distributed.
* To ask a question after the test has been distributed, ***remain in the seat***, raise your hand, and wait till the instructor comes to you. The instructor will answer only questions that do not give away content.
* Writing on the actual test packet is allowed, but students must realize that whatever is ***not*** marked on the scantron ***is not counted***—only the filled-in bubbles on the scantrons count for the grade. Each individual’s test packet will not be available for viewing and is usually shredded after the test.
* ***Keep scantron covered at all times***. Use the extra cover sheet that is provided.
* Brief bathroom breaks are allowed at the discretion of the instructor. If a bathroom break is permitted, the student should bring the entire test packet up to the instructor and retrieve it upon returning. Depending on circumstances, a proctor may need to accompany the student.
* When you have finished the exam, please do not enter the room again until the instructor gives the ok. ***Please avoid gathering and talking in the hallway outside the testing classroom***. The noise can be very distracting to the remaining test-takers.
* ***Do not discuss test content on blackboard, social media sites or in the hallways, and especially do not discuss tests with students from other pathophysiology class sections who have not yet taken the exam.*** If you are aware that someone is sharing answers with a student who has not taken the test, you are obligated to come forward and report it. Both ***directly discussing test content***in the above mannerand ***failure to report someone else discussing test content*** are considered examples of academic dishonesty that are reportable to the UTA Judicial Affairs Department.

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**CLASSROOM CONDUCT RULES:**

* RE: lateness to class:
  + Class begins at the hour. Students are expected to be in their seats and ready to begin taking notes at that time. This applies to post-break time lecture continuation as well.
  + If a *pattern of lateness* is noted, you may be asked to sign a lateness roster upon your late arrival and later counseled. If the pattern continues, points may be taken off of your next exam score.
* RE: attention to lecture:
  + Participating in class discussions is encouraged, but talking / whispering between students during lecture is disruptive, disrespectful, and minimally tolerated. If necessary, students who talk excessively amongst themselves will be asked not to sit together, and/or to leave the class.
  + Similarly, if you would prefer to read the newspaper or magazines, or engage in other non-class-related activities during lecture time, please don’t come to class.
* RE: electronics:
  + All beepers and cell phones must be ***off*** during class and ***put away*--** ***no cell phones may be on your desk or in your hand during class*.** If there are special circumstances that necessitate having your cell phone on your desk, please obtain special permission.
  + During breaks, students are expected to go out into the hall if they want to have a conversation on their cell phone.
  + Computers may be used in class for the purpose of personal note taking only. Students are expected to refrain from playing games, watching movies, listening to CDs, or doing other computer work during class.
  + Audiotaping the lecture is permitted, but the taped lecture ***must not be posted online*** in any form. Taking pictures or videotaping is ***not permitted***.
  + If a pattern of non-adherence to the above rules of conduct is noted, the student will be counseled and/or asked to leave the class.

**Professional Conduct on Blackboard and Social Media Sites**

The Blackboard Discussion Board is to be viewed as a professional forum for student discussions. Students are free to discuss academic matters and consult one another regarding academic resources. The tone of postings on the Blackboard Discussion Board is to remain professional in nature at all times.  It is not appropriate to post statements of a personal or political nature, or statements criticizing classmates or faculty. Statements considered inappropriate will be deleted by course faculty.

Announcements from student organizations may be posted to the designated level discussion board (not associated with this course).

Students are to refrain from discussing this course, including clinical situations, written assignments, peers, or faculty on all social networking sites such as Facebook, Twitter, etc.

Failure to comply with these expectations may result in further action including but not limited to removal from the discussion board.

**Grade Grievances**: Any appeal of a grade in this course must follow the procedures and deadlines for grade-related grievances as published in the current undergraduate catalog. <http://wweb.uta.edu/catalog/content/general/academic_regulations.aspx#10>

**Drop Policy:** Students may drop or swap (adding and dropping a class concurrently) classes through self-service in MyMav from the beginning of the registration period through the late registration period. After the late registration period, students must see their academic advisor to drop a class or withdraw. Undeclared students must see an advisor in the University Advising Center. Drops can continue through a point two-thirds of the way through the term or session. It is the student's responsibility to officially withdraw if they do not plan to attend after registering. **Students will not be automatically dropped for non-attendance**. Repayment of certain types of financial aid administered through the University may be required as the result of dropping classes or withdrawing. For more information, contact the Office of Financial Aid and Scholarships (<http://wweb.uta.edu/ses/fao>).

**Americans with Disabilities Act:** The University of Texas at Arlington is on record as being committed to both the spirit and letter of all federal equal opportunity legislation, including the *Americans with Disabilities Act (ADA)*. All instructors at UT Arlington are required by law to provide "reasonable accommodations" to students with disabilities, so as not to discriminate on the basis of that disability. Any student requiring an accommodation for this course must provide the instructor with official documentation in the form of a letter certified by the staff in the Office for Students with Disabilities, University Hall 102. Only those students who have officially documented a need for an accommodation will have their request honored. Information regarding diagnostic criteria and policies for obtaining disability-based academic accommodations can be found at [www.uta.edu/disability](http://www.uta.edu/disability) or by calling the Office for Students with Disabilities at (817) 272-3364.

**Academic Integrity:** All students enrolled in this course are expected to adhere to the UT Arlington Honor Code:

*I pledge, on my honor, to uphold UT Arlington’s tradition of academic integrity, a tradition that values hard work and honest effort in the pursuit of academic excellence.*

*I promise that I will submit only work that I personally create or contribute to group collaborations, and I will appropriately reference any work from other sources. I will follow the highest standards of integrity and uphold the spirit of the Honor Code.*

Instructors may employ the Honor Code as they see fit in their courses, including (but not limited to) having students acknowledge the honor code as part of an examination or requiring students to incorporate the honor code into any work submitted. Per UT System *Regents’ Rule* 50101, §2.2, suspected violations of university’s standards for academic integrity (including the Honor Code) will be referred to the Office of Student Conduct. Violators will be disciplined in accordance with University policy, which may result in the student’s suspension or expulsion from the University.

**PLAGIARISM:** Copying another student’s paper or any portion of it is plagiarism. Additionally, copying a portion of published material (e.g., books or journals) without adequately documenting the source is plagiarism. If five or more words in sequence are taken from a source, those words must be placed in quotes and the source referenced with author’s name, date of publication, and page number of publication.  If the author’s ideas are rephrased, by transposing words or expressing the same idea using different words, the idea must be attributed to the author by proper referencing, giving the author’s name and date of publication.  If a single author’s ideas are discussed in more than one paragraph, the author must be referenced at the end of each paragraph. Authors whose words or ideas have been used in the preparation of a paper must be listed in the references cited at the end of the paper.  Students are encouraged to review the plagiarism module from the UT Arlington Central Library via <http://library.uta.edu/plagiarism/index.html>. Papers are now checked for plagiarism and stored in Blackboard.

**Student Support Services Available**:UT Arlington provides a variety of resources and programs designed to help students develop academic skills, deal with personal situations, and better understand concepts and information related to their courses. Resources include tutoring, major-based learning centers, developmental education, advising and mentoring, personal counseling, and federally funded programs. For individualized referrals, students may visit the reception desk at University College (Ransom Hall), call the Maverick Resource Hotline at 817-272-6107, send a message to [resources@uta.edu](mailto:resources@uta.edu), or view the information at [www.uta.edu/resources](http://www.uta.edu/resources).

**Electronic Communication Policy:** UT Arlington has adopted MavMail as its official means to communicate with students about important deadlines and events, as well as to transact university-related business regarding financial aid, tuition, grades, graduation, etc. All students are assigned a MavMail account and are responsible for checking the inbox regularly. There is no additional charge to students for using this account, which remains active even after graduation. Information about activating and using MavMail is available at <http://www.uta.edu/oit/cs/email/mavmail.php>.

**Observance of Religious Holy Days:**

Undergraduate Nursing faculty and students shall follow the University policy regarding Observance of Religious Holy Days: (<http://wweb.uta.edu/catalog/content/general/academic_regulations.aspx#6>

**N3366-001 Pathological Processes: Implications for Nursing**

**Classroom Lecture Schedule for Wednesdays, Spring 2013**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **W**  **E**  **E**  **K** | **Date**  **Wedn.**  **class**  **(Section 001)** | **Lecture content** | **Required study**  **\*\* = *Reviewing lecture notes for each subject PRIOR TO & AFTER class is the FIRST study priority each week.*** | **Adjunc-tive reading** |
| 0 |  | ***UTA*** *FIRST DAY OF CLASS – Monday, 1/14/2013* |  |  |
| 1 | (**PATHO**  **1st day**)  1/16 | * Course Overview * Basic Concepts of Pathophysiology * Genetic Influence in Disease | Syllabus  Prep #1 | Pg xxiii  Ch. 2 |
| 2 | 1/23 | * Alterations in Fluids, Electrolytes, & Intracellular Functions | **\*\*,** Prep #2 | Ch.1 & 4 |
| 3 | 1/30 | * Altered Tissue & Cellular Proliferation | **\*\*,** Prep #3 | Ch. 3,9,10 |
| **4** | **2/6** | **Exam 1 (1 hr)**   * Mechanisms of Defense: Alterations in Inflammation & Immune Function | **\*\*,** Prep #4 | Ch.5,6,7 |
| 5 | 2/13 | ***~~Post-test 1 Self-Study Session~~***   * Mechanisms of Defense, cont | **\*\*,** Prep #4 | Ch.5,6,7 |
| 6 | 2/20 | * Mechanisms of Defense: Infection * Disorders of Hematologic Systems | **\*\*,** Prep #4  **\*\*,** Prep #5 | Ch.5,6,7  Ch.19, 20 |
| **7** | **2/27** | **Exam 2 (1 hr)**   * Disorders of Circulatory System: Peripheral Vascular Problems | **\*\*, PREPCAST**,  Prep #6 | Ch.22, 23 |
| 8 | 3/6 | ***~~Post-test 2 Self-Study Session~~***   * Disorders of Circulatory System: Cardiovascular Problems | **\*\*,** Prep #6 | Ch.22, 23 |
| 9 |  | ***No class! Have a wonderful spring break*** |  |  |
| 10 | 3/20 | * Disorders of Circulatory System: Cardiovascular Problems, cont * Disorders of Pulmonary System | **\*\*,** Prep #7 | Ch.25  & 26 |
| **11**  ***drop date 3/29*** | **3/27** | **Exam 3** (1 hr)   * Disorders of Renal & Genitourinary Systems | **\*\*,** Prep #8 | Ch.28,29,  31,32 |
| 12 | 4/3 | ***~~Post-test 3 Self-Study Sessions~~***   * Disorders of Renal & GU Systems, cont * Disorders of Neurologic System | **\*\*,** Prep #8  **\*\*,** Prep #9 | Ch.28, 29, 31,32  Ch 14, 15 |
| 13 | 4/10 | * Disorders of Neurologic System, cont * Disorders of Endocrine System, Part I | **\*\*,** Prep #9  **\*\*,** Prep #10 | Ch 14, 15  Ch. 17,18 |
| **14** | **4/17** | **Exam 4** (1 hr)  Disorders of Endocrine System, Part II | **\*\*,** Prep #10 | Ch. 17, 18 |
| 15 | 4/24 | ***~~Post-test 4 Self-Study Session~~***   * Disorders of Gastrointestinal System | **\*\*,** Prep #11 | Ch. 33, 34 |
| 16 | 5/1 | * ***Formal review for Final Exam AND Self-Study Session*** | | |
| **17** | **5/8** | **Final Exam** (2 hrs)  *NOTE: FINAL EXAM DATES MAY CHANGE ACCORDING TO UNIVERSITY SCHEDULE* | | |

**N3366 Pathological Processes: Implications for Nursing**

**Classroom Lecture Schedule for Thursdays, Spring 2013**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **W**  **E**  **E**  **K** | **Date**  **Thurs.**  **class**  **(Section002)** | **Lecture content** | **Required study**  **\*\* = *Reviewing lecture notes for each subject PRIOR TO & AFTER class is the FIRST study priority each week.*** | **Adjunc-tive reading** |
|  |  | ***UTA*** *FIRST DAY OF CLASS – Monday, 1/14/2013* |  |  |
| 1 | 1/17  (**PATHO**  **1st day**) | * Course Overview * Basic Concepts of Pathophysiology * Genetic Influence in Disease | Syllabus  \*\*, Prep #1 | Pg xxiii  Ch. 2 |
| 2 | 1/24 | * Alterations in Fluids, Electrolytes, & Intracellular Functions | **\*\*,** Prep #2 | Ch.1 & 4 |
| 3 | 1/31 | * Alterations in Fluids, Electrolytes, & Intracellular Functions, cont. * Altered Tissue & Cellular Proliferation | **\*\*,** Prep #3 | Ch. 3,9,10 |
| **4** | **2/7** | **Exam 1 (1 hr)**   * Mechanisms of Defense: Alterations in Inflammation & Immune Function | **\*\*,** Prep #4 | Ch.5,6,7 |
| 5 | 2/14 | ***~~Post-test #1 Self-Study Session~~***   * Mechanisms of Defense, cont | **\*\*,** Prep #4 | Ch.5,6,7 |
| 6 | 2/21 | * Mechanisms of Defense: Infection * Disorders of Hematologic Systems | **\*\*,** Prep #4  **\*\*,** Prep #5 | Ch.5,6,7  Ch.19, 20 |
| **7** | **2/28** | **Exam 2 (1 hr)**   * A & P review of circulatory system | **\*\*,** Prep #6 | Ch.22, 23 |
| 8 | 3/7 | ***~~Post-test #2 Self-Study Session~~***   * Disorders of Circulatory System: Peripheral Vascular Problems * Disorders of Circulatory System: Cardiovascular Problems | **\*\*,** Prep #6 | Ch.22, 23 |
| 9 |  | ***No class Have a wonderful spring break*** |  |  |
| 10 | 3/21 | * Disorders of Circulatory System: Cardiovascular Problems, cont * Disorders of Pulmonary System | **\*\*,** Prep #7 | Ch.25  & 26 |
| **11**  ***drop date 3/29*** | **3/28** | **Exam 3** (1 hr)   * Disorders of Renal & Genitourinary Systems | **\*\*,** Prep #8 | Ch.28,29,  31,32 |
| 12 | 4/4 | ***~~Post-test #3 Self-Study Sessions~~***   * Disorders of Renal & GU Systems, cont * Disorders of Neurologic System | **\*\*,** Prep #8  **\*\*,** Prep #9 | Ch.28, 29, 31,32  Ch 14, 15 |
| 13 | 4/11 | * Disorders of Neurologic System, cont * Disorders of Endocrine System, Part I | **\*\*,** Prep #9  **\*\*,** Prep #10 | Ch 14, 15  Ch. 17,18 |
| **14** | **4/18** | **Exam 4** (1 hr)   * Disorders of Endocrine System, Part II | **\*\*,** Prep #10 | Ch. 17, 18 |
| 15 | 4/25 | ***~~Post-test #4 Self-Study Session~~***   * Disorders of Endocrine System, Part II, cont * Disorders of Gastrointestinal System | **\*\*,** Prep #11 | Ch. 33, 34 |
| 16 | 5/2 | ***Formal review for Final Exam AND Self-Study Session*** | | |
| **17** | **5/9** | **Final Exam** (2 hrs)  *NOTE: FINAL EXAM DATES MAY CHANGE ACCORDING TO UNIVERSITY SCHEDULE* | | |

**N3366 Pathological Processes: Implications for Nursing**

**OBJECTIVES**

|  |  |
| --- | --- |
| Content | Learning Objectives  **STUDENT WILL DESCRIBE/DISCUSS/IDENTIFY:** |
| Basic Concepts of Pathophysiology | 1. concepts underlying the nomenclature of physiology and pathophysiology. 2. appropriate, general application of those concepts to disease processes and situations. |
| Genetic Influence in Disease | 1. various multifactorial genetic disorders 2. pathophysiology of basic chromosomal problems such as Down’s 3. single-gene alterations resulting in protein synthesis defects and their relationship to disease processes & symptoms, such as sickle cell anemia, polycystic kidney disease, hemophilia 4. some therapeutic uses of recombinant DNA. |
| Alterations in Fluids, Electrolytes, & Intracellular Functions | 1. the concepts of physiologic and pathophysiologic fluid shifts between the body’s fluid compartments as driven by alterations in osmolality, oncotic pressure, tonicity, hydrostatic pressure, and control mechanisms such as RAAS, natriuretic peptide system, & ADH. 2. the effect of alterations of key molecular substances such as sodium, potassium, and calcium on electrical properties of cells. 3. normal cellular metabolism and its alternate states, including anaerobic metabolism and the processes of glycogenesis, glycogenolysis, and gluconeogenesis. 4. the relationship of all the above to certain disease processes and signs and symptoms (S&S), including:    * fluid overload and fluid deficit states.    * basic states of acidosis and alkalosis.    * hyperpolarized and hypopolarized plasma membrane.    * alterations of glucose availability.    * alterations in usage of certain vitamins. |
| Altered Tissue  &  Cellular Proliferation | 1. key aspects of normal tissue types and normal cellular life /death cycle such as differentiation & apoptosis. 2. aspects of the cell injury process such as spectrum of injury, cell swelling, enzymatic spillage such as CK, myoglobin, and troponin. 3. causative factors and sequela of reversible and irreversible cellular injury such as hypoxia & necrosis; ischemia & infarct; carbon monoxide poisoning; free radical attack; cellular accumulations such as lipids & uric acid; abnormal cellular proliferation (cancer). 4. causative factors, mechanism, and significance of tissue adaptation processes such as atrophy, hypertrophy, hyperplasia, metaplasia, dysplasia. 5. causative factors in pathologic cellular proliferation, including genetic influence, infective processes, and environmental effects. 6. nomenclature of benign versus malignant cancers, diagnostic & genetic markers, classifications, staging, and clinical significance of each.   7. correlation of information in 1-5 above with disease processes and manifestations. |
| Mechanisms of Defense: Alterations in Inflammation & Immune Function;  Infection | 1. basic aspects of 1st line of defense and effects of pathologies such as Sjogren’s syndrome. 2. normal & abnormal basic aspects of 2nd line of defense, including  * normal inflammatory processes: roles of mast cells, biochemical mediators such as histamine, prostaglandins, leukotrienes, acute phase reactants, & clotting cascade; and phagocytes such as neutrophils and macrophages * relationship of above processes to acute local S&S (erythema, swelling, heat, pain, exudate, granulation) and systemic manifestations (leukocytosis, fever); diagnostic tests such as CRP; and basic treatment modalities. * disorders of hyper-inflammation such as septic shock and of hypo-inflammation, such as leukopenia and chemotactic defects.   3. basic aspects of 3rd line of defense, including   * normal immunocyte processes, including roles of cell-mediated and humoral systems * differences between active & passive immunity and their subcategories natural and artificial * therapeutic / preventative measures such as vaccinations & immunoglobulin therapy * immune deficiency disorders such as AIDS: * its epidemiological considerations, including prevention. * its pathophysiology, including mechanisms of action of its causative retrovirus, HIV. * diagnostic & monitoring tests, S&S, and basic treatment modalities. * opportunistic infections such as CMV retinitis, thrush, PCP pneumonia, & Kaposi’s sarcoma, and their significance. * hypersensitivities such as * allergic reactions, including anaphylaxis. * autoimmune processes such as Graves disease, myasthenia gravis, systemic lupus erythematosus, rheumatoid arthritis, Goodpasture’s, hemolytic reactions, Type I diabetes, multiple sclerosis, celiac disease * alloimmune reactions such as blood transfusions, Rh factor incompatibility of fetuses, histocompatibility   4. concepts underlying and application of infectious disease terminology such as  endemic, epidemic, pandemic; portals of entry such as breaching of skin integrity,  airborne, oral/fecal, & bloodborne; issues of antibiotic resistance, especially related  to MRSA, resistant streptococcus, and VRE.  5. the interrelationships between the etiology, pathophysiology, clinical manifestations,  and basic treatment modalities of select infectious disorders |
| Disorders of the Hematologic System | 1. key physiologic features of hematological system & their relationship to  Pathological derangements;   * hematopoietic system: leukemia, multiple myeloma, various anemias, polycythemias, leukemias; and splenic problems. * platelets, the clotting cascade, and the fibrinolytic system: ITP, hemophilia, von Willebrand disease, and thromboembolic disorders.   2. correlation to clinical manifestations, diagnostic tools, and basic treatment modalities  of the above pathologies. |
| Disorders of the Circulatory System | 1. influences upon and results of appropriate, forward, effective, oxygenated blood flow through the heart and peripheral system, such as normal cardiac structure, cardiac cycle, cardiac output, preload, afterload (AKA vascular resistance), contractility, neuroelectrical status of the heart, status of peripheral vessels, perfusion of tissues. 2. relationship between derangements of the above structural and hemodynamic processes and the etiological factors, clinical manifestations, diagnostics, and basic treatment modalities of disorders such as:    * arteriosclerosis and atherosclerosis    * peripheral arterial disease    * venous disorders    * hypertension    * coronary artery disease    * stable angina and acute coronary syndrome    * valvular disorders    * heart failure    * cardiogenic shock |
| Disorders of the Pulmonary System | 1. the relationship between key aspects of normal pulmonary function and the pathophysiology involved in:    * select restrictive pulmonary conditions, including:      + pleural alterations such as effusion and pneumothorax      + airway & pulmonary tissue disorders such as croup, pneumonia, pulmonary edema, tuberculosis, and bronchogenic cancer.      + vascular disorders such as pulmonary embolus.    * select obstructive pulmonary conditions, including  * asthma, chronic bronchitis, emphysema,   2. signs and symptoms related to above pathological conditions, including significance  of diagnostic test results used to evaluate and monitor pulmonary function, including  peak flow test, ABGs, and V/Q computations |
| Disorders of Renal & Genitourinary Systems | 1. the relationship between key aspects of normal genitourinary function and the pathophysiology involved in select genitourinary-related conditions, including:  * female-specific disorders: endometriosis, ovarian cancer, PID, UTIs. * male-specific disorders: testicular cancer, benign prostatic hyperplasia, prostate cancer * nongender-specific problems: STIs, urologic obstructions   2. the relationship between key aspects of normal renal function and the pathophysiology  involved in select renal conditions, including:   * hydronephrosis. * glomerulonephritis * acute kidney injury (AKI; previously known as ARF—acute renal failure) and chronic kidney disease   3. signs and symptoms related to above pathological conditions, including significance of  diagnostic test results used to evaluate and monitor renal and genitourinary function, such  as:   * PSA * BUN, creatinine, urinalysis, creatinine clearance   4. basic treatment modalities of the above pathologies. |
| Disorders of Neurologic System | 1. the relationship between key aspects of normal neurological function and the pathophysiology involved in select neurologically-related conditions, including:   ophthalmic-related derangements/vocabulary   * alterations in homeostasis of the CNS, including:   + principles of CPP & ICP; effect of increased ICP (IICP) & cerebral edema   + general states of altered states of consciousness & mentation such as delirium & dementia   + meningitis   + seizures.   + brain attack—ischemic, hemorrhagic.   + migraines   + Parkinson’s   + Alzheimer’s   + multiple sclerosis   + alterations in homeostasis of the peripheral nervous system including   myasthenia gravis   1. signs and symptoms and basic treatment modalities associated with above pathological conditions. |
| Disorders of Endocrine System | 1. key aspects of normal endocrine function, especially feedback systems and influences on other body systems. 2. pathophysiology of select derangements of endocrine glands, including:  * hyperthyroidism & hypothyroidism * calcium movement problems caused by disorders of calcitonin and PTH * hormonally-related bone disorders such as osteopenia & osteoporosi~~s~~ caused by above problems, as well as menopause. * diabetes mellitus. * Cushing’s syndrome & Addison’s disease  1. signs and symptoms related to above pathological conditions, including the significance of diagnostic test results used to evaluate and monitor endocrine function, such as TSH, T4, T3, cortisol, blood sugar, and glycosylated hemoglobin. 2. basic treatment modalities related to altered endocrine conditions. |
| Disorders of the Gastrointestinal System | * 1. the relationship between key aspects of normal gastrointestinal function and pathophysiology involved in select gastrointestinal and accessory organ conditions including: * colorectal cancer, GERD, hiatal hernia, peptic ulcer disease, intestinal obstruction, inflammatory bowel disease, diverticular disease, appendicitis, upper and lower GI bleed. * jaundice, viral hepatitis, cirrhosis, cholelithiasis, cholecystitis, acute pancreatitis, pancreatic cancer, cystic fibrosis.   1. signs and symptoms related to the above pathological conditions, including significance of diagnostic tests results such as hemoccult, bilirubin, amylase, lipase, liver enzymes, endoscopy, sweat test.   2. basic treatment modalities related to altered gastrointestinal and accessory organ conditions. |

**LIBRARY INFORMATION: Helen Hough**, Nursing Librarian

(817-272-7429), Email: [hough@uta.edu](mailto:hough@uta.edu)

Research Information on Nursing:

[**http://libguides.uta.edu/nursing**](http://libguides.uta.edu/nursing)

**UNDERGRADUATE**

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**STUDENT CODE OF ETHICS:**

The University of Texas at Arlington College of Nursing supports the Student Code of Ethics Policy. Students are responsible for knowing and complying with the Code. The Code can be found in the Student Handbook.

**APA FORMAT:**

*APA* style manual will be used by the UTACON with some specific requirements for the undergraduate courses. The sample title page & instructions, as well as a Manuscript Preparation document can be found at: [www.uta.edu/nursing/handbook/bsn\_policies.php#apa](http://www.uta.edu/nursing/handbook/bsn_policies.php#apa)

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**HONORS COLLEGE:**

***Students who are members of the Honors College may wish to take this course for Honors credit. If you wish to do so, please provide the instructor with an Honors Credit Contract (downloaded from*** [***http://honors.uta.edu/documents/credit.pdf***](file:///C:\Documents%20and%20Settings\dhughes\Local%20Settings\AppData\Local\Microsoft\AppData\Local\Local%20Settings\Local%20Settings\Temporary%20Internet%20Files\OLK19\redir.aspx%3fC=a5ce89fc595646a49a968883e99ecfd5&URL=http:\honors.uta.edu\documents\credit.pdf)***). You and the instructor will together determine an appropriate supplemental assignment to justify the awarding of Honors credit. If you are not in the Honors College and would like to learn more about the benefits of membership, visit the website at*** [***http://honors.uta.edu/***](file:///C:\Documents%20and%20Settings\dhughes\Local%20Settings\AppData\Local\Microsoft\AppData\Local\Local%20Settings\Local%20Settings\Temporary%20Internet%20Files\OLK19\redir.aspx%3fC=a5ce89fc595646a49a968883e99ecfd5&URL=http:\honors.uta.edu\)***, where you will find an application form for electronic submission.***

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**CLASSROOM CONDUCT GUIDELINES:**

The Faculty of the BSN Program believes that classroom teaching has two goals: the provision of content pertinent to the discipline of nursing and the socialization of students into the professional role. We are committed to providing the curriculum in an atmosphere conducive to student learning and in a manner that will prepare graduates to be successful in the health care workplace. Refer to the Student Handbook for more information.

**Testing EnvirOnment:**

Although faculty strives to provide a quiet learning/testing environment there may be noises and distractions in any testing environment that are beyond the control of the exam proctors.  If a student feels that the testing environment is unduly noisy or distracting for any reason, it is the responsibility of the student to report this to an exam proctor as soon as possible during the exam so corrective action may be taken.

**NO GIFT POLICY:**

In accordance with Regents Rules and Regulations and the UTA Standards of Conduct, the College of Nursing has a “no gift” policy. A donation to the UTA College of Nursing Scholarship Fund would be an appropriate way to recognize a faculty member’s contribution to your learning. For information regarding the Scholarship Fund, please contact the Dean’s office.

***The Student Handbook can be found by going to the following link:*** <http://www.uta.edu/nursing/bsn-program/> and clicking on the link titled BSN Student Handbook.