Course Information

Course Number: RNSG 1301  
Section Number: 21001  
Credit Hours: 3 Hour  
Contact Hours: 48 class hours  
Class Meeting Time: Tuesday 1 – 4 pm  
Room: X1004  
Course Title: Pharmacology  

Course Description:

This course introduces the science of pharmacology with emphasis on actions, interactions, adverse effects, and nursing implication of each drug classification. Topics include the roles and responsibilities of the nurse in safe administration of medications within a legal/ethical framework. 3 SCH, 3 Lecture, 0 lab Prerequisites: SCIT 1408 or BIOL 2402  
Co-requisites: None  

Student Learning Outcomes:

Identify the roles and responsibilities of the nurse in administering pharmacological agents; and utilize knowledge of pharmacology to demonstrate safe administration of medications validated through written exams by the end of the semester.  

Course Objectives:

1) Apply the principles of pharmacology, including pharmacokinetics and pharmacodynamics in the treatment of common health problems across the lifespan.
2) Identify unexpected and potential adverse reactions to pharmacological agents such as allergic reactions, drug interactions, idiosyncratic reactions, altered metabolism and/or excretion and age/ethnic differences.

3) Identify appropriate methods of monitoring the effectiveness of specific pharmacological therapy.

4) Explain state and federal laws that regulate the dispensing of various classes of drugs.

5) Discuss the use of herbal therapy and/or nutritional supplements and how these practices can be integrated into traditional Western health care.

6) Discuss normal changes related to aging that impact the body’s utilization and elimination of medications.

7) Identify adverse drug reactions that are commonly seen in the older adult.

8) Apply nursing process to the principles and methods of drug administration.

9) Identify the steps of nursing process as they are applied in patient teaching regarding medications.

10) Discuss a nursing approach to foster compliance with medication regimens.

11) Discuss important concepts related to safe and effective medication management.

12) Explain how to assess a client who is receiving medication therapy.

13) Identify prescription drug problems in older adults, such as polypharmacy.

14) Apply critical thinking skills to clinical scenarios that involve drug therapy.

15) Describe the needs of the terminally ill client including palliative care management.

16) Identify appropriate nursing actions related to the administration of medication to children and adults.

17) Describe different classes of medications that are utilized to treat different physiological problems such as hypertension, infections, diabetes, and demonstrate knowledge of rationales for treatment.


Teaching/Learning Activities: Active involvement in classroom activities, and formal and informal exchange of ideas with classmates regarding specific topics utilizing critical thinking skills. Teaching methods include interactive lecture, small group discussion, case study analysis, audio-visual aids, and assignments.
Grading:

Drug cards – 20 % * DUE DATE: DECEMBER 1

Paper – 35 % * DUE DATE: NOVEMBER 24

Test 1 – 15% * SEPTEMBER 29

Test 2 – 15 % * NOVEMBER 3

Test 3 – 15 % * DECEMBER 8

The theory grade is a letter grade. No rounding will occur on quizzes, final or the final course grade.

A = 100 – 90
B = 89 – 81
C = 80 – 76
D = 75 - 65
F = 64 and below

Refer to the course schedule for the grading criteria on special projects.

Attendance Policy:

You are expected to attend all classes to meet course objectives. Attendance will be monitored. *Drop action will be taken if absent more than 10 percent of total class hours.*

CLASSROOM ETIQUETE

Rules for Classroom Conduct and Behavior

It is important that students are respectful towards instructors and fellow classmates, and that their behaviors not interfere with nor disrupt class activities. Therefore, students are expected to adhere to the following rules when attending class:

- Plan to arrive to class on time and to stay for the entire class period (or until dismissed) *because random arrivals and exits are disrespectful and distracting. Attend to personal needs before coming to class.*

- All cell phones and other electronic devices (e.g., pagers, iPods, iPads) must be turned off and hidden from view during class time. *There is NO use of any electronic devices (e.g., cell phones, ipads, smartphones, laptops, etc) allowed during class and/or exams and other graded in-class assignments.*

- Students are responsible for what transpired if they miss a class. It is the student’s responsibility to contact a classmate to determine what was missed.

- Talking and other disruptive behaviors are not permitted while class is in session.
• It is the student’s responsibility to notify the instructor in advance of a need for accommodation of a disability that has been verified by the University.

• Students should address faculty as "Professor" or "Dr." Calling faculty by their first names is not appropriate. (Mr., Ms., or Mrs. is also acceptable). You may call me Ms. Shupe or Professor.

IMPORTANT DATES:

• September 7 – Labor Day
• November 19 – Last Day to Withdraw
• November 26 & 27 Thanksgiving Holiday
• December 14 – 17 Final Exams

LECTURE SCHEDULE

<table>
<thead>
<tr>
<th>Dates</th>
<th>Chapters</th>
<th>Activities/Topics</th>
</tr>
</thead>
<tbody>
<tr>
<td>September 1</td>
<td>1, 2, 3, 6, 7, 8, 9, 11, 12, 18, 19</td>
<td>Introduction to Pharmacology</td>
</tr>
<tr>
<td>September 8</td>
<td>25, 26</td>
<td>Pain and Inflammation Management Agents</td>
</tr>
<tr>
<td>September 15</td>
<td>51, 52</td>
<td>Endocrine Agents</td>
</tr>
<tr>
<td>September 22</td>
<td>49, 50</td>
<td>Ear, Eye, and Skin Agents</td>
</tr>
<tr>
<td>September 29 Test 1 on chapters: 1,2,3,6,7,8,11,12,18,19,25,26,49,50,51,52</td>
<td>29, 30, 31, 32, 33</td>
<td>Antibacterial and Antiinfective Agents</td>
</tr>
<tr>
<td>October 6</td>
<td>40, 41</td>
<td>Respiratory Agents</td>
</tr>
<tr>
<td>October 13</td>
<td>Begin 16, 42, 43</td>
<td>Fluid and Electrolytes/Cardiovascular Agents</td>
</tr>
<tr>
<td>October 20</td>
<td>16, 42, 43</td>
<td>Fluid and Electrolytes/Cardiovascular Agents</td>
</tr>
<tr>
<td>October 27</td>
<td>44, 45, 46</td>
<td>Cardiovascular Agents</td>
</tr>
<tr>
<td>November 3 Test 2 on chapters: 29,30,31,32,33,40,41,16,42,43,44,45,46</td>
<td>47, 48</td>
<td>Gastrointestinal Agents</td>
</tr>
<tr>
<td>November 10</td>
<td>20, 21</td>
<td>Neurological and Neuromuscular Agents</td>
</tr>
<tr>
<td>November 17</td>
<td>22, 23, 24</td>
<td>Neurological and Neuromuscular Agents</td>
</tr>
<tr>
<td>November 24 Paper Due</td>
<td>56, 57</td>
<td>Men and Women Reproductive Agents</td>
</tr>
</tbody>
</table>
December 1
Drug Cards Due
27, 28
Psychiatric agents
Bring headphones if you have them and your iphone.

December 8
Test 3 on chapters:
47,48,56,57,20,21,22,23,24,27,28

Academic Integrity

In addition to the above conduct guidelines, students are expected to do original work for all course assignments, including exams. Students are responsible for their own conduct and all cases of dishonesty (e.g., plagiarism, cheating) will be reported to the proper university officials. Students are expected to adhere to Brookhaven and the District policies regarding Academic Integrity.

Institutional Policies:
Attendance Policy:

You are expected to attend all classes to meet course objectives. Attendance will be monitored. Drop action will be taken if absent more than 10 percent of total class/clinical hours.

DROP/withdrawal policy: Withdrawing from a course is a formal procedure which YOU must initiate; the instructor cannot do it for you. You may withdraw from a class in either the Admissions office or Advising Center. If you stop attending or are unable to complete this class and you do not withdraw before the official drop date, you will receive a performance grade, usually a grade of “F.” Students sometimes drop a class when help is available that would enable them to continue. Please discuss your plans with the instructor if you feel you need to withdraw. The full drop and withdrawal policy is online in the college catalog.

https://www1.dcccd.edu/catalog/ss/oep/dw.cfm?use_nav=acad_info&loc=econ

Withdrawal date is November 19, 2015.

STOP BEFORE YOU DROP:
For students who enroll in college level courses for the first time in the fall of 2007, Texas Education Code 51.907 limits the number of courses a student may drop. You may drop no more than 6 courses during your entire undergraduate career unless the drop qualifies as an exception. Your college counseling/advising center will give you more information on the allowable exceptions. Remember that once you have accumulated six non-exempt drops, you cannot drop any other courses with a “W.” Therefore, please exercise caution when dropping courses in any Texas public institution of higher learning, including all seven of the Dallas County Community Colleges. The full drop and withdrawal policy is online in the college catalog.
FINANCIAL AID STATEMENT: Failure to attend classes could result in a loss of Financial Aid (FA). If you are receiving any form of financial aid, you should check with the Financial Aid Office prior to withdrawing from classes. Withdrawals may affect your eligibility to receive further aid and could cause you to be in a position of repayment for the current semester. Students who fail to attend or participate after the drop date are also subject to this policy.

INTERNATIONAL STUDENTS: Students on an F-1 visa cannot withdraw from classes without jeopardizing their official status. If you are on an F-1 visa, you MUST NOT withdraw from any class without the permission of an International Student Advisor in the Multicultural Center, in Room S-136 or at 972-860-4192.

RELIGIOUS HOLIDAYS: A student shall be excused from attending classes, or other required activities, including examinations, for the observance of a religious holy day, including travel for that purpose. A student whose absence is excused under this provision may not be penalized for that absence and shall be allowed to take an examination or complete an assignment within a reasonable time after the absence.

DISABILITY STATEMENT: Any student who may need accommodations due to a disability should contact the Disability Support Services Office, Room S-136, phone number (214) 860- 4673.

ACADEMIC INTEGRITY: Scholastic dishonesty is a violation of the Student Code of Conduct and is punishable as stated in college policies. Please review the full Student Code of Conduct as listed in the college catalog for additional information.

REPEATING THIS COURSE: Each college of the DCCCD charges additional tuition to students registering the third or subsequent time for a course. All third and subsequent attempts of the majority of credit and continuing education/workforce training courses will result in additional tuition being charged. Developmental Studies and some other courses will not be charged a higher tuition rate. Third attempts included courses taken at any of the DCCCD colleges since the Fall 2002 semester. The District’s policy for tuition charges relating to a third attempt is in the college’s catalog.

GRADE REPORTS: Final grade reports are not mailed to students. You may obtain your final grades online at eConnect, https://econnect.dcccd.edu/. From the student menu, select “My
Grades” under “My Personal Information.” If you are not already logged in, you will be prompted to do so. Select the grade type you wish to review. Press the submit button and all grades for the selected grade type will be displayed.

INSTRUCTOR’S RIGHT TO MODIFY: The instructor has the right to add, delete, or revise segments of this course syllabus.

FERPA: The Family Educational Rights and Privacy Act (FERPA) affords students certain rights with respect to their education records. More information about the FERPA guidelines is available online in the college catalog at https://www1.dcccd.edu/catalog/about/privacy.cfm

Course Outline

I. Role of the nurse in pharmacology
   A. Understanding drug action
      1. Pharmacodynamic
      2. Pharmacotherapeutic
      3. Pharmacokinetic
   B. Nursing process and client teaching
   C. Principles of drug administration
   D. Drug therapy for pediatric patients
   E. Drug therapy for geriatric patients
   F. Drug safety
      1. Drug interaction
      2. Over the counter drugs
      3. Drug abuse
      4. Drug administration principles
   G. Herbal therapy with nursing implications

II. Drugs used to relieve pain and inflammation
   A. Analgesics and antipyretics
      1. Opioids and other narcotics
      2. Opioid antagonist
      3. Non-Opioid analgesics
4. Analgesic antipyretics

B. Anti-inflammatory drugs
1. Nonsteroidal anti-inflammatory drugs
2. Corticosteroids
3. Drugs to treat neuropathic pain

III. Drugs affecting the central nervous system

A. Sedatives and hypnotics
1. Barbiturates
2. Benzodiazepines
3. Alcohol

B. Drugs used to treat psychiatric disorders
1. Antianxiety drugs
2. Antipsychotic drugs
3. Antidepressant drugs
4. Anti-manic drugs

C. Anorectic drugs and central nervous system stimulants
1. Anorexiants
2. Analeptics
2. Anticholinergic agents
3. Other therapies

E. Anticonvulsants (anti-seizure medications)

IV. Drugs used to treat cardiovascular disorders

A. Cardiac stimulants and depressants
1. Cardiac glycosides
2. Anti-dysrhythmic agents
3. Cardiac stimulants

B. Drugs which dilate blood vessels
1. Coronary vasodilators
2. Peripheral vasodilators/vasoconstrictors
C. Drugs affecting blood clotting
1. Anticoagulants
2. Thrombolytic agents
3. Antiplatelet agents
D. Diuretics (5 classes)
E. Anti-hypertensives (various classes)
F. Drugs used in the treatment of hyperlipidemia

V. Agents that interfere with microbial growth (Antibiotics)
   A. Antimicrobial drugs
      1. Antibacterial
      2. Drugs used to treat tuberculosis
      3. Antifungal drugs
      4. Antiviral drugs
   B. Anti-parasitic drug therapy
   C. Antiseptics and disinfectants
   D. Antineoplastic Agents=Drugs used in the treatment of cancer
      1. Alkylating agents
      2. Anti-metabolites
      3. Mitotic inhibitors
      4. Hormones
      5. Radioactive drugs
      6. Miscellaneous antineoplastic agents

VI. Drugs used in the treatment of skin disorders
   A. Anti-neoplastic drugs
   B. Drugs used to treat burns
   C. Corticosteroids

VII. Agents that affect immunity
   A. Interferons and interleukins
   B. Immunosuppressant drugs
VIII. Drugs used to treat gastrointestinal disorders
A. Antacids
B. Antispasmodics
C. Laxatives
D. Anti-diarrhea
E. Emetics and anti-emetics
F. Histamine h2 receptor antagonists
G. Proton pump inhibitors

IX. Drugs affecting nutrition
A. Drugs used to treat nutritional anemia’s
   1. Iron deficiency anemia
   2. Megaloblastic anemia
B. Vitamins, minerals and other nutritional agents (Fat and water soluble vitamins)

X. Drugs used to treat respiratory disorders
A. Antihistamines and nasal decongestants
B. Expectorant and antitussive drugs
C. Bronchodilators and mucolytics
D. Respiratory stimulants

XI. Drugs used in the eye and ears
A. Drugs used in the treatment of glaucoma
B. Mydriatics
C. Anti-infectives
D. Miotics

XII. Drugs used to correct hormonal imbalance
A. Drugs affecting thyroid, parathyroid and pituitary function
B. Drugs used to treat hyperglycemia and hypoglycemia
   1. Insulin therapy
   2. Oral hypoglycemic agents

XIII. Drugs affecting the reproductive system
A. Estrogen and progesterone combinations

B. Male hormones testosterone supplements and erectile dysfunction

We will cover most of these in lecture but not necessarily in the same order as listed. This is a fast paced class. Reading prior to class is helpful. PowerPoints are provided on most content and attendance is recommended. Grades are posted on e-campus following the exams.