DATE OF LAST REVIEW: 12/2015

CIP CODE: 51.3901

SEMESTER: Departmental Syllabus

COURSE TITLE: KSPN Pharmacology

COURSE NUMBER: KSPN0110

CREDIT HOURS: 3

INSTRUCTOR: Departmental Syllabus

OFFICE LOCATION: Departmental Syllabus

OFFICE HOURS: Departmental Syllabus

TELEPHONE: Departmental Syllabus

E-MAIL: Departmental Syllabus

KCKCC issued email accounts are the official means for electronically communicating with our students.

REQUIRED TEXT AND MATERIALS:
Please check with the KCKCC bookstore, http://www.kckccbookstore.com/, for the required texts for your particular class.

COURSE DESCRIPTION:
This course introduces the principles of pharmacology, drug classifications, and the effects of selected medications on the human body as well as the administration of medications. The nursing process is used as the framework for ensuring safe and effective nursing care for clients across the lifespan.

METHOD OF INSTRUCTION:
A variety of instructional methods may be used depending on content area. These include but are not limited to: lecture, multimedia, cooperative/collaborative learning, labs and demonstrations, projects and presentations, speeches, debates, and panels, conferencing, learning experiences, and performances outside the classroom. Methodology will be selected to best meet student needs.

COURSE OUTLINE:
I. The student will identify basic pharmacologic terms, abbreviations, and symbols related to medication management.
A. Medication Terminology
B. Abbreviations
C. Symbols

II. The student will examine federal laws and regulations as they relate to use of medications in clinical practice.
A. Drug Legislation and Drug Standards
   1. American Drug Legislation
   2. Drug Standards
   3. Proprietary (Trade) Names
B. Controlled Substance Act
C. Administration of Medications
   1. Guidelines for Safety in Drug Administration
   2. Methods of Drug Administration
D. Labeling Requirements
E. Taking Medication Orders
F. Six Rights of Medication Administration

III. The student will explain pharmacodynamics and pharmacokinetics principles of medications properties.
A. Contrast Pharmacodynamics and Pharmacokinetics
B. Four Basic Pharmacokinetic Processes
   1. Absorption
   2. Distribution
   3. Metabolism
   4. Excretion
C. Adverse Drug Actions
   1. Toxicity
   2. Synergism
   3. Antagonists
D. Pharmacodynamics and Pharmacokinetics Influence
   1. Age
   2. Gender
   3. Weight
   4. Psychological State
E. Influence Pharmacodynamics and Pharmacokinetics on Drug Routes
   1. IM
   2. Oral
   3. I.V.
   4. Sublingual
IV. The student will apply the components of the nursing process to the administration of medications that affect the skin and mucous membranes.
A. Adverse Effects
B. Expected Effects
C. Side Effects
D. Actions/interactions/incompatibilities
E. Safe Administration

V. The student will apply the components of the nursing process to the administration of autonomic nervous system medications.
A. Adverse Effects
B. Expected Effects
C. Side Effects
D. Actions/interactions/incompatibilities
E. Safe Administration

VI. The student will apply the components of the nursing process to the administration of analgesic and perioperative medications.
A. Adverse Effects
B. Expected Effects
C. Side Effects
D. Actions/interactions/incompatibilities
E. Safe Administration

VII. The student will apply the components of the nursing process to the administration of respiratory medications.
A. Adverse Effects
B. Expected Effects
C. Side Effects
D. Actions/interactions/incompatibilities
E. Safe Administration

VIII. The student will apply the components of the nursing process to the administration of cardiovascular medications.
A. Adverse Effects
B. Expected Effects
C. Side Effects
D. Actions/interactions/incompatibilities
E. Safe Administration

IX. The student will apply the components of the nursing process to the administration of renal medications.
A. Adverse Effects
B. Expected Effects
C. Side Effects
D. Actions/interactions/incompatibilities
E. Safe Administration
X. The student will apply the components of the nursing process to the administration of gastrointestinal medications.
   A. Adverse Effects
   B. Expected Effects
   C. Side Effects
   D. Actions/interactions/incompatibilities
   E. Safe Administration

XI. The student will apply the components of the nursing process to the administration of central nervous system medications
    A. Adverse Effects
    B. Expected Effects
    C. Side Effects
    D. Actions/interactions/incompatibilities
    E. Safe Administration

XII. The student will apply the components of the nursing process to the administration of endocrine system medications.
    A. Adverse Effects
    B. Expected Effects
    C. Side Effects
    D. Actions/interactions/incompatibilities
    E. Safe Administration

XIII. The student will apply the components of the nursing process to the administration of complementary and alternative medications.
    A. Adverse Effects
    B. Expected Effects
    C. Side Effects
    D. Actions/interactions/incompatibilities
    E. Safe Administration

XIV. The student will apply the components of the nursing process to the administration of immunological system medications.
    A. Adverse Effects
    B. Expected Effects
    C. Side Effects
    D. Actions/interactions/incompatibilities
    E. Safe Administration

XV. The student will apply the components of the nursing process to the administration of hematologic medications.
    A. Adverse Effects
    B. Expected Effects
    C. Side Effects
    D. Actions/interactions/incompatibilities
    E. Safe Administration
XVI. The student will apply the components of the nursing process to the administration of psychotropic medications.
   A. Adverse Effects
   B. Expected Effects
   C. Side Effects
   D. Actions/interactions/incompatibilities
   E. Safe Administration

XVII. The student will apply the components of the nursing process to the administration of reproductive system medications.
   A. Adverse Effects
   B. Expected Effects
   C. Side Effects
   D. Actions/interactions/incompatibilities
   E. Safe Administration

XVIII. The student will apply the components of the nursing process to the administration of sensory medications.
   A. Adverse Effects
   B. Expected Effects
   C. Side Effects
   D. Actions/interactions/incompatibilities
   E. Safe Administration

XIX. The student will apply the components of the nursing process to the administration of shock medications
   A. Adverse Effects
   B. Expected Effects
   C. Side Effects
   D. Actions/interactions/incompatibilities
   E. Safe Administration

EXPECTED LEARNER OUTCOMES:
Upon successful completion of the course, on written and/or practical examination:
   A. The student will identify basic pharmacologic terms, abbreviations, and symbols related to medication management.
   B. The student will examine federal laws and regulations as they relate to use of medications in clinical practice.
   C. The student will explain pharmacodynamics and pharmacokinetics principles of medications properties.
   D. The student will apply the components of the nursing process to the administration of antimicrobial medications.
   E. The student will apply the components of the nursing process to the administration of antihistamine medications.
F. The student will apply the components of the nursing process to the administration of medications that affect the skin and mucous membranes.

G. The student will apply the components of the nursing process to the administration of autonomic medications.

H. The student will apply the components of the nursing process to the administration of analgesic medications.

I. The student will apply the components of the nursing process to the administration of respiratory medications.

J. The student will apply the components of the nursing process to the administration of cardiovascular medications.

K. The student will apply the components of the nursing process to the administration of renal medications.

L. The student will apply the components of the nursing process to the administration of gastrointestinal medications.

M. The student will apply the components of the nursing process to the administration of central nervous system medications.

N. The student will apply the components of the nursing process to the administration of endocrine system medications.

O. The student will apply the components of the nursing process to the administration of complementary and alternative medications.

P. The student will apply the components of the nursing process to the administration of immunological system medications.

Q. The student will apply the components of the nursing process to the administration of hematologic medications.

R. The student will apply the components of the nursing process to the administration of psychotropic medications.

S. The student will apply the components of the nursing process to the administration of reproductive system medications.

T. The student will apply the components of the nursing process to the administration of prostaglandin and prostaglandin inhibitor medications.

COURSE COMPETENCIES:

The student will identify basic pharmacologic terms, abbreviations, and symbols related to medication management.

1. The student will explain the pharmacologic term using prepared medication administration record.

2. The student will explain the pharmacologic abbreviations using a prepared medication administration record.

3. The student will explain the pharmacologic symbol using a prepared medication administration record.

The student will examine federal laws and regulations as they relate to use of medications in clinical practice.

5. The student will describe the schedules and examples of drugs listed in the Controlled Substance Act.
6. The student will describe the responsibility of the practitioner in dispensing and administering medication in regard to legislation and other governing bodies.
7. The student will explain the labeling requirements and the legal components of a prescription.
8. The student will define who can give and receive a medication order.
9. The student will demonstrate the six rights of medication administration.

*The student will explain pharmacodynamics and pharmacokinetics principles of medications properties.*

10. The student will contrast the terms pharmacodynamics and pharmacokinetics.
11. The student will describe absorption, distribution, metabolism and excretion of medications as they pass through the body.
12. The student will explain toxicity, synergism, antagonism, and adverse effects of drugs.
13. The student will describe how age, gender, sex, weight and psychological state affects pharmacodynamics and pharmacokinetics.
14. The student will summarize the effects of drug dosages and routes on pharmacodynamics and pharmacokinetics.

*The student will apply the components of the nursing process to the administration of antimicrobial medications.*

15. The student will summarize adverse effects.
16. The student will summarize expected effects.
17. The student will summarize side effects.
18. The student will identify the pharmacological actions, interactions and incompatibilities.
19. The student will demonstrate the PN's role in safe administration of antimicrobial medications.

*The student will apply the components of the nursing process to the administration of antihistamine medications.*

20. The student will summarize adverse effects.
21. The student will summarize expected effects.
22. The student will summarize side effects.
23. The student will identify the pharmacological actions, interactions and incompatibilities.
24. The student will demonstrate the PN's role in safe administration of antimicrobial medications.

*The student will apply the components of the nursing process to the administration medications that affect the skin and mucous membranes.*

25. The student will summarize adverse effects.
26. The student will summarize expected effects.
27. The student will summarize the side effects.
28. The student will identify the pharmacological actions, interactions and incompatibilities.
29. The student will demonstrate the PN’s role in safe administration of antimicrobial medications.

The student will apply the components of the nursing process to the administration of autonomic medications.

30. The student will summarize adverse effects.
31. The student will summarize expected effects.
32. The student will summarize side effects.
33. The student will identify the pharmacological actions, interactions and incompatibilities.
34. The student will demonstrate the PN’s role in safe administration of autonomic medications.

The student will apply the components of the nursing process to the administration of analgesic medications.

35. The student will summarize adverse effects.
36. The student will summarize expected effects.
37. The student will summarize side effects.
38. The student will identify the pharmacological actions, interactions and incompatibilities.
39. The student will demonstrate the PN’s role in safe administration of analgesic medications.

The student will apply the components of the nursing process to the administration of respiratory medications.

40. The student will summarize adverse effects.
41. The student will summarize expected effects.
42. The student will summarize side effects.
43. The student will identify the pharmacological actions, interactions and incompatibilities.
44. The student will demonstrate the PN’s role in safe administration of respiratory system medications.

The student will apply the components of the nursing process to the administration of cardiovascular medication.

45. The student will summarize adverse effects.
46. The student will summarize expected effects.
47. The student will summarize side effects.
48. The student will identify the pharmacological actions, interactions and incompatibilities.
49. The student will demonstrate the PN’s role in safe administration of cardiovascular system medications.
The student will apply the components of the nursing process to the administration of renal medications.

50. The student will summarize adverse effects.
51. The student will summarize expected effects.
52. The student will summarize side effects.
53. The student will identify the pharmacological actions, interactions and incompatibilities.
54. The student will demonstrate the PN’s role in safe administration of renal system medications.

The student will apply the components of the nursing process to the administration of gastrointestinal medications.

55. The student will summarize adverse effects.
56. The student will summarize expected effects.
57. The student will summarize side effects.
58. The student will identify the pharmacological actions, interactions and incompatibilities.
59. The student will demonstrate the PN’s role in safe administration of gastrointestinal system medications.

The student will apply the components of the nursing process to the administration of central nervous system medication.

60. The student will summarize adverse effects.
61. The student will summarize expected effects.
62. The student will summarize side effects.
63. The student will identify the pharmacological actions, interactions and incompatibilities.
64. The student will demonstrate the PN’s role in safe administration of central nervous system medications.

The student will apply the components of the nursing process to the administration of endocrine system medications.

65. The student will summarize adverse effects.
66. The student will summarize expected effects.
67. The student will summarize side effects.
68. The student will identify the pharmacological actions, interactions and incompatibilities.
69. The student will demonstrate the PN’s role in safe administration of endocrine system medications.

The student will apply the components of the nursing process to the administration of complementary and alternative medications.

70. The student will summarize adverse effects.
71. The student will summarize expected effects.
72. The student will summarize side effects.
The student will identify the pharmacological actions, interactions and incompatibilities.

The student will demonstrate the PN’s role in safe administration of complementary and alternative medications.

The student will apply the components of the nursing process to the administration of immunological system medication.

The student will summarize adverse effects.
The student will summarize expected effects.
The student will summarize side effects.
The student will identify the pharmacological actions, interactions and incompatibilities.
The student will demonstrate the PN’s role in safe administration of immunological system medications.

The student will apply the components of the nursing process to the administration of hematologic medications.

The student will summarize adverse effects.
The student will summarize expected effects.
The student will summarize side effects.
The student will identify the pharmacological actions, interactions and incompatibilities.
The student will demonstrate the PN’s role in safe administration of hematologic medications.

The student will apply the components of the nursing process to the administration of psychotropic medications.

The student will summarize adverse effects.
The student will summarize expected effects.
The student will summarize side effects.
The student will identify the pharmacological actions, interactions and incompatibilities.
The student will demonstrate the PN’s role in safe administration of psychotropic medications.

The student will apply the components of the nursing process to the administration of reproductive system medications.

The student will summarize adverse effects.
The student will summarize expected effects.
The student will summarize side effects.
The student will identify the pharmacological actions, interactions and incompatibilities.
The student will demonstrate the PN’s role in safe administration of reproductive system medications.
The student will apply the components of the nursing process to the administration of prostaglandin and prostaglandin inhibitor medications.

95. The student will summarize adverse effects.
96. The student will summarize expected effects.
97. The student will summarize side effects.
98. The student will identify the pharmacological actions, interactions and incompatibilities.
99. The student will demonstrate the PN’s role in safe administration of antimicrobial.

ASSESSMENT OF LEARNER OUTCOMES:
Assessment methods include, but may not be limited to: written tests, laboratory practicals, homework assignments and observation of professional behavior.

The classroom grading scale is as follows:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>90% - 100%</td>
</tr>
<tr>
<td>B</td>
<td>82% - 89%</td>
</tr>
<tr>
<td>C</td>
<td>76% - 81%</td>
</tr>
<tr>
<td>D</td>
<td>65% - 75%</td>
</tr>
<tr>
<td>F</td>
<td>0% - 64%</td>
</tr>
</tbody>
</table>

The course grade is determined by rounding from the tenth decimal place only.

Students are required to make at least a “C” in all required courses. Students earning a “D” or below must repeat the course.

SPECIAL NOTES:
This syllabus is subject to change at the discretion of the instructor. Material included is intended to provide an outline of the course and rules that the instructor will adhere to in evaluating the student’s progress. However, this syllabus is not intended to be a legal contract. Questions regarding the syllabus are welcome any time.

Kansas City Kansas Community College is committed to an appreciation of diversity with respect for the differences among the diverse groups comprising our students, faculty, and staff that is free of bigotry and discrimination. Kansas City Kansas Community College is committed to providing a multicultural education and environment that reflects and respects diversity and that seeks to increase understanding.

Kansas City Kansas Community College offers equal educational opportunity to all students as well as serving as an equal opportunity employer for all personnel. Various laws, including Title IX of the Educational Amendments of 1972, require the college’s policy on non-discrimination be administered without regard to race, color, age, sex, religion, national origin, physical handicap, or veteran status and that such policy be made known.
Kansas City Kansas Community College complies with the Americans with Disabilities Act. If you need accommodations due to a documented disability, please contact the Director of the Academic Resource Center at (913) 288-7670.

All enrolled students at Kansas City Kansas Community College are subject to follow all rules, conditions, policies and procedures as described in both the Student Code of Conduct as well as the Student Handbook. All Students are expected to review both of these documents and to understand their responsibilities with regard to academic conduct and policies. The Student Code of Conduct and the Student Handbook can be found at: