

## Course E-Syllabus

1	Course title	Pharmacology for Nursing
2	Course number	5701204
3	Credit hours	3
	Contact hours (theory, practical)	(3,0)
4	Prerequisites/corequisites	(5701103, 5701210)/--
5	Program title	Bachelor of nursing
6	Program code	07
7	Awarding institution	The University of Jordan
8	School	Faculty of Nursing
9	Department	Clinical Nursing
10	Level of course	Second year
11	Year of study and semester (s)	2020/2021; 2 <sup>nd</sup> semester
12	Final Qualification	B.Sc. in Nursing
13	Other department (s) involved in teaching the course	None
14	Language of Instruction	English
15	Teaching methodology	<input type="checkbox"/> Blended <input checked="" type="checkbox"/> Online
16	Electronic platform(s)	<input checked="" type="checkbox"/> Moodle <input checked="" type="checkbox"/> Microsoft Teams <input type="checkbox"/> Skype <input type="checkbox"/> Zoom <input type="checkbox"/> Others.....
17	Date of production/revision	18 FEB 2021

### 18 Course Coordinator:

Faculty member: Rasha Dabbour RN, PhD.  
Office number: School of Nursing/ 3rd floor  
Office hours: **Sunday (13:00-14:00); Monday (15:30-16:30); Wednesday (10:00-11:00), Thursday (12:30-13:30)**  
Phone numbers: 03-+962-3-2090450, Ext. 36075  
Email addresses: r.dabbour@ju.edu.jo  
Faculty member website: <http://academic.ju.edu.jo/>

### 19 Other instructors:

Name:  
Office number:  
Phone number:  
Email:

## 20 Course Description:

This course is briefly describing the general principles of pharmacology and the relationship of the nursing profession in this science, as well as covering the most important drugs used in the treatment of various diseases and the relationship of the nurse in administering medications and observes the action of medications and side effects in the patient. The course includes self-nervous system drugs, central nervous system drugs, heart medications and blood vessels, diuretics, anti-infection drugs, cancer drugs, endocrine drugs, digestive system drugs, respiratory drugs, and hormones self-positional drugs.

## 21 Course aims and outcomes:

### A- Aim/s

This course introduces the science of pharmacology and considers the role of the registered nurse in the preparation, management and administration of medications

### B- Intended Learning Outcomes (ILOs):

Upon successful completion of this course, students will be able to:

1. Discuss the major concepts associated with pharmacology including pharmacodynamics, pharmacokinetics, therapeutic effects, adverse effects, and factors affecting drug therapy.
2. Explain the legal regulation for drug development, approval and testing.
3. Discuss the important lifespan considerations associated with the major drug groups.
4. Identify the prototype for each of the major drug groups.
5. Correlate the actions of the major drug groups with the body system(s) affected.
6. Explain the mechanism of action, indications, contraindications and cautions, common adverse effects, and clinically important drug-drug interactions for each of the major drug groups.
7. Describe the nursing considerations related to drug therapy, including important teaching points, for each of the major drug groups.

## **Specific learning objectives**

### Cognitive and intellectual skills

1. Define the basic principles and terminology of pharmacology
2. Describe the drug marketing and regulation phases.
3. Apply knowledge of a drug pharmacokinetics to explain and predict its administration, safety and efficacy
4. Describe the principle of drug pharmacodynamics in drug selection and efficacy
5. Relate the importance of renal and hepatic function with drug therapy.
6. Recognize differences in physiology and pathophysiology responses that must be considered in assessing correct dosages administered to “at risk” populations such as the child, pregnant woman, and elderly.
7. Recognize the importance consider the variation of drug response among patients
8. Define the pharmacological terminology pertinent to specific categories and classifications of medications in relation to drug effects on commonly occurring diseases.
9. Identify major classifications of pharmacotherapeutics by prototypes as used in the treatment of commonly occurring health problems.
10. Classify the Apply what was learnt in the class into clinical situations in the undertaken clinical courses.

### Affective skills

1. Synthesis the medication record of assigned patients during clinical courses
2. Relate the action, therapeutic indication, adverse reactions clinical monitoring and nursing consideration of major drug classes to treat common medical conditions of the body systems
3. Respect the variation of medication response among patients of different physical and pathological medical situations
4. Predict potential drug-drug interactions and drug-food interactions based on physiologic responses to pharmacological agents
5. Apply critical thinking skills in solving various patients’ medical problems.
6. Integrate effective communication in reports of the action, rationale for use, common and/or life threatening side effects, nursing implications, and client teaching issues for each major classification of medications.

### Psychomotor skills

1. Utilize the nursing process to assess appropriate/inappropriate responses to therapy.
2. Create individualized nursing care plan for patients with various medical conditions undertaking specific drug.
3. Construct an educational teaching pamphlet for a patient with selected drug.
4. Employ critical thinking skills to determine the effectiveness of medication administration on client care outcomes
5. Locate drug information sources and interpret the drug information data provided for health care professionals
6. Work efficiently in groups and individually
7. Manage their time in covering the suggested reading and submission the needed assignments

## 22. Topic Outline and Schedule:

### Class 1: Wednesday and Thursday 11:00-12:30

Week	Day/date	Topic	Teaching Methods*/platform	Evaluation Methods**	References (Karch 2013)
1	24 & 25 FEB 2021	Introduction to the course <b>Part 1: Introduction to Pharmacology/foundational concepts</b> <ul style="list-style-type: none"><li>• Introduction to drugs (Ch. 01)</li><li>• Drug classes and schedule</li></ul>	Synchronous lecturing/Microsoft teams, Moodle	HW	(p. 03-17)
2	3 & 4 FEB/MAR 2021	<ul style="list-style-type: none"><li>• Drugs and the body (Pharmacodynamics, Pharmacokinetics)</li></ul>	Synchronous lecturing/Microsoft teams, Moodle	HW, Q., Ex.	(p. 18-32)
3	10 & 11 MAR 2021	<ul style="list-style-type: none"><li>• Toxic effect of drugs (Ch.03)</li><li>• The nursing process in drug therapy and patient safety (Ch. 04)</li></ul>	Synchronous lecturing/Microsoft teams, Moodle	HW Ex. SA	(p. 33-42) (p. 43-55)
4	17 & 18 MAR 2021	<b>Part 2: Chemotherapeutic Agents</b> <ul style="list-style-type: none"><li>• Anti-infective Agents (Ch. 08)</li><li>• Antibiotics (Ch. 09)</li></ul>	Synchronous lecturing/Microsoft teams, Moodle	HW Ex. SA	(p. 86-95) (p. 96-136)
5	24 & 25 MAR 2021	<ul style="list-style-type: none"><li>• Antiviral Agents (Ch. 10)</li><li>• Antifungal Agents (Ch. 11)</li></ul>	Synchronous lecturing/Microsoft teams, Moodle	HW Ex. SA	(p. 137-162) (p. 163-176)

6	31 & 1 MAR/A PR 2021	<b>Part 3: Drug acting on the central and peripheral nervous system</b> <ul style="list-style-type: none"> <li>Anxiolytic and Hypnotic Agents (Ch. 20)</li> <li>Anti-seizure Agents (Ch. 23)</li> <li>Narcotics, Narcotic antagonists, &amp; Antimigraine Agents (Ch. 26)</li> <li>General and Local Anesthetic Agents (Ch. 27)</li> </ul>	Synchronous lecturing/Microsoft teams, Moodle	HW Ex. SA	(p. 324-338) (p. 376-396) (p. 423-443) (p. 444-461)
7	7 & 8 APR 2021	<b>Drug acting on immune system</b> Analgesics & anti-inflammatory Agents (Ch. 16) Immune modulators (Ch 17) Vaccines (Ch 18)			
8	14 & 15 APR 2021	<b>Midterm exam (25%)</b> <ul style="list-style-type: none"> <li>Adrenergic Agonists (Ch. 30)</li> <li>Adrenergic Blocking Antagonists (Ch. 31)</li> <li>Cholinergic Agonists (Ch. 32)</li> <li>Anticholinergic Agents (Ch. 33)</li> </ul>	Synchronous lecturing/Microsoft teams, Moodle	HW Ex. SA Q.	(p. 486-500) (p. 501-519) (p. 520-534) (p. 535-546)
9	21 & 22 APR 2021	<b>Part 4: Drugs acting on Cardiovascular System</b> <ul style="list-style-type: none"> <li>Antihypertensive Agents (Ch. 43)</li> <li>Cardiotonic Agents (Ch. 44)</li> <li>Antiarrhythmic Agents (Ch. 45)</li> </ul>	Synchronous lecturing/Microsoft teams, Moodle	HW Ex. SA	(p. 701-726) (p. 727-742) (p. 743-760)
10	28 & 29 APR 2021	<ul style="list-style-type: none"> <li>Antianginal Agents (Ch. 46)</li> <li>Lipid-Lowering Agents (Ch. 47)</li> <li>Drugs Affecting Blood Coagulation (Ch. 48)</li> <li>Drugs Used to Treat Anemias (Ch. 49)</li> </ul>	Synchronous lecturing/Microsoft teams, Moodle	HW Ex. SA	(p. 761-776) (p. 777-798) (p. 799-823) (p. 824-844)
11	5 & 6 MAY 2021	<b>Deadline assignment 29 April 2021 @ 16:00</b> <b>Part 5: Drugs acting on Renal System</b> <ul style="list-style-type: none"> <li>Diuretic Agents (Ch. 51)</li> <li>Drugs Affecting the Urinary Tract and the Bladder (Ch. 52)</li> </ul>	Synchronous lecturing/Microsoft teams, Moodle	HW Ex. SA	(p. 855-871) (p. 872-888)
12	12 & 13 MAY 2021	<b>Part 6: Drugs acting on Respiratory System</b> <ul style="list-style-type: none"> <li>Drugs Acting on the Upper Respiratory Tract (Ch. 54)</li> <li>Drugs Acting on the Lower Respiratory Tract (Ch. 55)</li> </ul>	Synchronous lecturing/Microsoft teams, Moodle	HW Ex. SA	(p. 889-920) (p. 921-944)

<b>13</b>	19 & 20 MAY 2021	<b>Part 7: Drugs acting on Gastrointestinal (GI) System</b> <ul style="list-style-type: none"> <li>• Drugs Affecting the GI Secretions (Ch. 57)</li> <li>• Drugs Affecting GI Motility (Ch. 58)</li> <li>• Antiemetic Agents (Ch. 59)</li> </ul>	Synchronous lecturing/Microsoft teams, Moodle	HW Ex. SA	(p. 955-975)  (p. 976-992) (p. 993-1005)
<b>14</b>	26 & 27 May 2021	<b>Part 8: Drugs acting on Endocrine System</b> <ul style="list-style-type: none"> <li>• Hypothalamic and Pituitary Agents (Ch. 35)</li> <li>• Adrenocortical Agents (Ch. 36)</li> <li>• Thyroid and Parathyroid Agents (Ch. 37)</li> <li>• Agents to Control Blood Glucose Levels (Ch. 38)</li> </ul>	Synchronous lecturing/Microsoft teams, Moodle	HW Ex. SA	(p. 557-572) (p. 573-587) (p. 588-609) (p. 610-634)
<b>15</b>	<b>30 May 2021</b>	<b>Revision</b>			
	<b>2 – 14 June 2021</b>	<b>FINAL EXAMS WEEK</b>			

- Teaching methods include: Synchronous lecturing/meeting; Asynchronous lecturing/meeting
- Evaluation methods include: HW: Homework, Q.: Quiz, Ex.: Exam, SA: short assignment...etc

### 23 Evaluation Methods:

Opportunities to demonstrate achievement of the ILOs are provided through the following assessment methods and requirements:

<b>Evaluation Activity</b>	<b>Mark</b>	<b>Topic(s)</b>	<b>Period (Week)</b>	<b>Platform</b>
Mid-semester test	25%	Topics covered from Week 1-week 6	Week 7	TBA
Lecture based online assignment (group work)	15% *	Selected topics	Week 10	Moodle, Microsoft teams
Participation, quizzes, home works	10%	All	Ongoing	Moodle, Microsoft teams
Final exam	50%	All	TBA 18-31 May 2021	TBA

\* assignment specification and rubric refer to section 27

**24 Course Requirements (e.g.: students should have a computer, internet connection, webcam, account on a specific software/platform...etc.):**

- Audio-Visual Aids
- E-Learning Website
- Library Resources Textbook, CDs, Journals.
- Audiovisual Materials.
- Handouts
- Computer/smart phone
- internet connection

## 25 Course Policies:

### **A- Attendance policies:**

- Students must attend all classes of this course.
- Any student with absence of 15% of the classes of any course, will not be allowed to sit for the final exam and will be given the university zero (F grade) in this course.
- In the case (b) above, if a student submits an official sick report authenticated by university clinic or an accepted excuse by the Dean of his/her faculty, the student will be considered as withdrawn from the course, and a "W" will be shown in the transcript for this course.
- Students are not allowed to come late to classes. Any student coming late will not be allowed to attend the class and he/she will be marked absent.

### **B- Absences from exams and submitting assignments on time:**

- Failure in attending a course exam other than the final exam will result in zero mark unless the student provides an official acceptable excuse to the instructor who approves a make-up exam.
- Failure in attending the final exam will result in zero mark unless the student presents an official acceptable excuse to the Dean of his/her faculty who approves an incomplete exam, normally scheduled to be conducted during the first two weeks of the successive semester.
- Failure in attending the final clinical exam will result in zero mark and the student will not be allowed to set for the final theory exam, unless the student presents an official acceptable excuse to the Dean of his/her faculty (before the final theory exam) who approves an incomplete exam, normally scheduled to be conducted during the first two weeks of the successive semester
- Assignments and projects should be submitted to the instructor on the due date and will not be accepted after the due date.

### **C- Health and safety procedures:**

- comply with all regulations and standards of regulatory authorities representing occupational health and safety.
- Staff should ensure that students in their areas of assignment, have been given adequate direction, training and instruction in the safe performance of their work and that it is performed without unnecessary risk;
- immediately reporting to a supervisor all work related incidents and obtaining medical treatment without delay.
- Ensure compliance with occupational health and safety standards in conformity with both university policies
- Promote frequent and thorough hand washing using soap and running water, or for immediate action, use alcohol-based hand rubs containing at least 60% alcohol.
- Students should stay home if you are sick.
- Encourage respiratory etiquette, including covering coughs and sneezes
- Students should not use other students' phones, desks, pens, lab coat, stethoscope, , or other work tools and equipment, when possible.

**D- Honesty policy regarding cheating, plagiarism, misbehavior:**

Cheating, plagiarism, misbehavior are attempts to gain marks dishonestly and includes; but not limited to:

- Copying from another student's work.
- Using materials not authorized by the institute.
- Collaborating with another student during a test, without permission.
- Knowingly using, buying, selling, or stealing the contents of a test.
- Plagiarism which means presenting another person's work or ideas as one's own, without attribution.

Using any media (including mobiles) during the exam

- **The participation or the commitment of cheating will lead to applying penalties according to the University of Jordan Students' Discipline rules and regulations No. (94, 49, 47,27, 29): <http://units.ju.edu.jo/ar/LegalAffairs/Regulations.aspx>**

**E- Grading policy:**



A grade of (D) is the minimum passing grade for the course.

Mark Range	Grade
0-35	F
36-49	D <sup>-</sup>
50-53	D
54-57	D <sup>+</sup>
58-61	C <sup>-</sup>
62-65	C
66-69	C <sup>+</sup>
70-73	B <sup>-</sup>
74-77	B
78-81	B <sup>+</sup>
82-85	A <sup>-</sup>
86-100	A

F- Available university services that support achievement in the course:  
Electronic library databases

## 26 References:

A- Required book(s), assigned reading and audio-visuals:

- Karch, A. (2013). *Focus on Nursing Pharmacology*. 6<sup>th</sup> ed. Philadelphia, PA: Lippincott Williams & Wilkins. 978-1-4511-2834-5

B- Recommended books, materials and media:

- Adams, P., Holland, L. & Urban, C. (2011). *Pharmacology for Nurses: a pathophysiologic approach*. (3rd Ed) New Jersey: Prentice Hall. ISBN 13-978-0-13-508981-1.
- Wilson, B. et al (2012). *Nurse's drug guide 2012* New Jersey: Prentice Hall. ISBN-10: 0-13-259867-X or ISBN-13: 978-0-13-255867-9
- Adam, M. & Urban, C. (2013). *Pharmacology*. Pearson New International Edition. Connections to Nursing Practice. ISBN10:129202786X
- Smith, B. (2016). *Pharmacology for Nurses*. Jones & Barlett Learning. ISBN: 978-1-284-044799.

- Range, H.; Dale, M.; Ritter, J. and Moore, P. (2005). *Pharmacology*. 5<sup>th</sup> ed. Lippincott
- Lahne, R. (2016). *Pharmacology for Nursing Care*. 9th Ed. ISBN-13-978-0323321907.
- Bullock, S. and Manias, E. (2011). *Fundamentals of Pharmacology*, 6th Ed. Pearson Australia
- Karch, A. (2013). 2013 *Lippincott's Nursing Drug Guide*. Philadelphia, PA: Lippincott Williams & Wilkins. 978-1-4511-5022-3
- Nursing pharmacology made incredibly easy (2012). ISBN-13-978-145
- Kizior R. et al (2016). *Nursing Drug handbook*. 24th ed. ISBN: 978-0-323-35379-3 Elsevier

## 27 Additional information:

Written assignment: drug label and nursing care plan (weighted 15%)

### **Pharmacology for nursing (5701204) course**

#### **Drug label and nursing care plan assignment (15%)**

Each group (2 students) will work together to prepare a medication card and a nursing process for the selected drug. A list of the most commonly used drugs in the hospital to treat various medical conditions will be prepared from your instructor. You will be allocated a drug by chance (choosing from a pool of undisclosed drugs). [Aspirin, Ibuprofen, Morphine, Lidocaine, Colexitab, Dopamine, Atropine, Adrenalin, Captopril, Propranolol, Diltiazem, Losartan, Isordil, Activase, Warfarin, Atorvastatin, Ferrous sulfate, Aldactone, Lasix, Benadryl, Nystatin, Vermox, Levodopa, Zantac, Ondansetron, Metamucil, Omeprazole, Humulin, Gliclazide]

The following information should be included on each medication card. Please use your creativity to prepare a drug form to fill in the extracted information from a specialized drug guide for nursing reference. Please do not exceed an A4 page for the drug instruction.

1. Pharmacological classification
2. Write the other generic names of the same classifications (if applicable)
3. Write trade names (available in Jordan).
4. Indications/use: List

5. Action. How does this medication work in the body?
6. Route, Dose and frequency: List for adults
7. Adverse reactions. List life threatening ones first in ALL CAPS. Then list the most common.
8. Contraindications. List the conditions which would prohibit use of this drug.
9. Food/Drug interactions and/or incompatibility. List.

You also need to write a nursing care plan for a patient receiving the selected drug. This also should not exceed another A4 page. Your nursing process focus for the patient receiving the selected drug and should include the following:

10. Assessment prior to administration
11. Potential nursing diagnosis
12. Planning (patient goal and expected outcomes)
13. Implementation and rationales
14. Patient education/discharge planning
15. Evaluation of outcome criteria

**The deadline for this assignment is 29 April 2021 @ 16:00.**

Note: Paper must be submitted by due date to be graded. Late papers will not be accepted unless prior arrangements have been made with instructor. If accepted, a late paper will lose 5 points for every day it is late. **This paper is mandatory and must be submitted in order to receive a grade for this course**

Key criteria for the drug label and nursing care plan are *completeness, accuracy, visual effectiveness, and written convention (see the attached assessment rubric) see appendix 1*

**Appendix 1: drug label and nursing process focus Assessment Rubric**

	Level 1 (poor)	Level 2 (acceptable)	Level 3 (good)	Level 4 (really good)	Level 5 (amazing)
<b>Completeness</b>	<ul style="list-style-type: none"> <li>- missing 2 or more pieces of required information</li> <li>- information is sketchy</li> <li>- no rationales</li> </ul>	<ul style="list-style-type: none"> <li>- missing 1 piece of required information</li> <li>- information given is missing a couple of points</li> <li>- few rationales</li> </ul>	<ul style="list-style-type: none"> <li>- all required information is present</li> <li>- information is thorough, with rational where possible</li> </ul>	<ul style="list-style-type: none"> <li>- all required information is present</li> <li>- information is very thorough (with rationales) and well organized</li> </ul>	<ul style="list-style-type: none"> <li>- all required information is present</li> <li>- information is very thorough (with rationales) and well organized</li> <li>- some extra information is given</li> </ul>
<b>Accuracy</b>	<ul style="list-style-type: none"> <li>- 3 pieces of information in the wrong category</li> <li>- 0 sources (references) are given</li> <li>- 3 minor errors in your facts OR 2 major errors</li> </ul>	<ul style="list-style-type: none"> <li>- 2 pieces of information in the wrong category</li> <li>- 1 sources (references) are given</li> <li>- 3 minor errors in your facts OR 1 major error</li> </ul>	<ul style="list-style-type: none"> <li>- 1 piece of information in the wrong category</li> <li>- 2 source (references) are given</li> <li>- 2 minor errors in your facts</li> </ul>	<ul style="list-style-type: none"> <li>- 1 piece of information in the wrong category</li> <li>- 3 sources (references) are given</li> <li>- 1 minor error in your facts</li> </ul>	<ul style="list-style-type: none"> <li>- More than 3 sources (references) are given on the back.</li> <li>- information is correctly categorized according to ideas</li> <li>- no errors in your facts</li> </ul>
<b>Visual Effectiveness</b>	<ul style="list-style-type: none"> <li>- barely organized</li> <li>- Titles, dates etc. are present</li> <li>- parts are less neat, legible</li> <li>- little use of color</li> <li>- little effort is evident</li> <li>- few pictures</li> </ul>	<ul style="list-style-type: none"> <li>- somewhat organized</li> <li>- Titles, dates etc. are present</li> <li>- somewhat neat, legible</li> <li>- some use of color</li> <li>- some effort is evident</li> <li>- some pictures</li> </ul>	<ul style="list-style-type: none"> <li>- organized</li> <li>- Titles, dates etc. are clear</li> <li>- underlines etc.</li> <li>- reasonably neat, legible</li> <li>- some use of color &amp; pictures</li> <li>- effort is evident</li> </ul>	<ul style="list-style-type: none"> <li>- clearly organized</li> <li>- Titles, dates etc. are clear</li> <li>- underlines etc.</li> <li>- neat, legible</li> <li>- use of color &amp; pictures</li> <li>- effort is evident</li> </ul>	<ul style="list-style-type: none"> <li>- clearly organized</li> <li>- Titles, dates etc. are clear</li> <li>- underlines etc.</li> <li>- neat, legible, good font</li> <li>- use of color &amp; pictures</li> <li>- effort &amp; creativity are evident</li> </ul>
<b>Written Conventions</b>	<ul style="list-style-type: none"> <li>- 4 errors in spelling, grammar or other writing conventions</li> </ul>	<ul style="list-style-type: none"> <li>- 3 errors in spelling, grammar or other writing conventions</li> </ul>	<ul style="list-style-type: none"> <li>- 2 errors in spelling, grammar or other writing conventions</li> </ul>	<ul style="list-style-type: none"> <li>- 1 error in spelling, grammar or other writing conventions</li> </ul>	<ul style="list-style-type: none"> <li>- no errors in spelling, grammar or other writing conventions</li> </ul>

**Dr. Rasha Dabbour**

Name of Course Coordinator: -----Signature: ----- Date: -----

Head of Curriculum Committee/Department: ----- Signature: -----

Head of Department: ----- Signature: -----

Head of Curriculum Committee/Faculty: ----- Signature: -----

Dean: ----- Signature: -----