University of Beni-Suef
College of Pharmacy
Quality Assurance Unit

جامعة بني سويف
كلية الصيدلة
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Academic Year 2023-2024

Course Specifications

University	Beni-Suef
Faculty	Pharmacy
Dept	Department of Clinical Pharmacy

1-Course Info.

Programme(s) on which the course is given: Bachelor in Pharmacy-Pharm D

Course Name and code No.: Hospital Pharmacy/ **PP 803**

Academic year/ Level: 2023/2024, level 4, semester 8

Credit hours: Lecture   (1) hour   +   Practical   (1) hour

Prerequisite: Registration

Domain	Competencies	Key elements
1	1.1	1.1.1, 1.1., 1.1.
2	2.1	2.1.1, 2.1., 2.1.
	2.2	2.2.2, 2.2.
	2.3	2.3.1, 2.3.
	2.4	2.4.1, 2.4.
	2.5	2.5.1
4	4.1	4.1.1
	4.2	4.2.1

2-Overall Aim of the Course

By the end of the course, students should be able to handle, professionally dispense, store and distribute medication according to regulations

3- Learning Outcomes of the course (LOs)

Domain 1: Fundamental knowledge

1.1.1.1 demonstrate knowledge and identify different concepts of hospital pharmacy.

1.1.1.2 Define pharmaceutical terms as pharmaceutical care , rationale drug therapy and therapeutic drug monitoring.

1.1.2.1 define drug formulary ,patient counseling and safety management

1.1.5.1 Determine concentrations of reconstituted dry powdered drugs.

1.1.5.2 Adjust both insulin and heparin doses.

1.1.6.1 enumerate the advantages of essential drug list.

1.1.7.1 identify the recent techniques for delivering pharmaceutical care to hospitalized patients

Domain 2: Professional and Ethical care

2.1.1.1 Classify the different roles of hospital pharmacists

2.1.1.2 describe both inpatient and outpatient hospital pharmacy responsibilities.

2.1.3.1 describe the difference between each member at the medical team and how to cooberate.

2.2.2.1 Design and calculate the components of total parental nutrition.

2.2.2.2 Differentiate the different steps in preparing total parental nutrition.

2.2.4.1 Perform the required calculation for powder reconstitution.

2.2.4.2 Summarize the different steps in preparing intravenous admixtures.

2.3.1.1 Describe the different steps in managing cytotoxic products.

2.3.2.1 Distinguish between rational and irrational drug use.

2.4.1.1 describe the safe steps in handling the IV mix

2.4.1.2 Calculate the flow rate of intravenous infusion.

2.4.3.1 Solve patient problems.

2.5.1.1 Discuss patient medication record and drug distribution systems.

Domain 4: Personal practice

4.1.1.1 demonstrate effective communication skills verbally, non-verbally, and in writing with professional health care team, patients, and communities at hospital.

4.2.1.1 Acquire the necessary communication skills with both patients and other different healthcare professionals

| Week | Topic | | NO. of Credit hours | |
	Lecture	Practical	Lecture	Practical
W1	Formulary hospital pharmacy	Calculations Involving Capsules, Tablets and Powder Dosage Forms	1	1
W2	Hospital pharmacy facilities	Constitutions of Dry Powders	1	1
W3	The formulary &patient service	Pediatric and Adult Dosage Calculation	1	1
W4	Medication distribution systems	Insulin (insulin types and dosage calculation)	1	1
W5	Total Parentral Nutrition	Total Parenteral Nutrition1 (Definition, calculation of calories, protein-calorie percentage and calorie: nitrogen ratio)	1	1
W6	Monitoring of patient on TPN	Total Parenteral Nutrition 2 (parenteral hyperalimentation and calculation of basal and resting energy expenditure)	1	1
W7	Intravenous dmixture systems &repackaging pharmaceuticals	Intravenous solutions and calculations for pediatrics and adults	1	1
W8	Handling of cytotoxic drugs	Anticoagulants(heparin dosage and calculation of safe IV heparin flow rate)	1	1
W9	Therapeutic drug monitoring	Calculations Involving Capsules, Tablets and Powder Dosage Forms	1	1
W10	Rational drug therapy	Constitutions of Dry Powders	1	1
W11	Patient counseling	Pediatric and Adult Dosage Calculation	1	1
W12	Patient safety and risk management	Insulin (insulin types and dosage calculation)	1	1

4-Course Contents

	12 +12	Total

5- Teaching and learning Methods	
Non active teaching	**Active teaching methods**
5.1. Lectures **100%**	- Self learning
5.2. Practical laboratory 100%	- Non graded assignments
	- Home assignments
	- Case Study
	- Problem solving

6- Teaching and learning methods for the students with disabilities
- Office hours
- Special meetings
- Non-graded exams

7- Student Assessment Methods

a- Matrix alignment of assessment methods/measured LOs:

Methods	Measured Los			
	Fundamental knowledge	Professional and Ethical care	Pharmaceutical care	Personal practice
Non-graded assignments(including online quizzes and tutorials)		2.1.1.1 2.1.1.2		4.2.1.1
Periodical exams	1.1.5.2 1.1.6.1		3.2.6.1	
Practical exams	**1.1.1.1** 1.1.1.2 1.1.2.1 1.1.5.1 1.1.5.2	2.1.1.1 2.1.1.2 2.1.3.1 2.2.2.1 2.2.4.1 2.2.4.2 2.3.1.1 2.3.2.1	3.2.6.1	
Written exam	**1.1.1.1** 1.1.1.2 1.1.2.1 1.1.5.1 1.1.5.2 1.1.6.1	2.2.2.2 2.2.4.1 2.2.4.2 2.3.1.1 2.3.2.1 2.4.1.1 2.4.1.2 2.4.3.1 2.5.1.1	3.2.6.1	
Oral exam	**1.1.1.1** 1.1.1.2 1.1.2.1 1.1.7.1	2.4.1.1 2.4.1.2 2.4.3.1 2.5.1.1		4.1.1.1 4.2.1.1

b-Assessment Schedule

Type of Assessment	Week
Non-graded assignments	5-10
Periodical Exams	7-12
Practical exam	12
Final Written exam	14-16
Final Oral exam	14-16

c- Weighting of Assessment Marks

Type of Assessment	Marks	Weight (%)
Practical exam	25	27.7%

Periodical exams	15	13.3%
Final Written exam	50	50%
Final Oral exam	10	10%
Total	**100**	**100%**

8-List of References

a. **Notes**

    a. Course Notes: prepared by members of the teaching department.

b. **Essential Books (Library Books)**

c. Clinical Pharmacy and Therapeutics 6th Edition(Editors: Cate Whittlesea Karen Hodson, Publisher : Elsevier, Edition :6, Published Date: 27th July 2018)

c. **Suggested Books**

d. Hospital pharmacy (Editor: Martin Stephens, Publisher: Pharmaceutical Pr, Edition: 2, published date : 2011)

e. **Journals and websites**

- European Journal of Hospital Pharmacy - BMJ
- Google classroom

Course Coordinator:

Head of Department:

Date: 9-2023

Matrix of topics/LOs/Teaching methods

Topics			Course Los				Teaching Method
	Lecture	**Practical**	**Fundamental knowledge**	**Professional and Ethical care**	**Pharmaceutical care**	**Personal practice**	
W1	Formulary hospital pharmacy	Anticoagulants (heparin dosage and calculation of safe IV heparin flow rate)	1.1.1.1 1.1.1.2				Lectures Practical sessions Self learning Non

							graded assignments Home assignme Case Study Proble m solving
W2	Hospital pharmac y facilities	Dose Adjustment for aminoglycosid es	1.1.2.1 1.1.5.1	2.1.1. 1 2.2.4. 1			- Lecture s - Practica l session s -Self learnin g -Non graded assign ment - Home assign ment - Case Study - Proble m solving
W3	The formular y &patient service	Pediatric and Adult Dosage Calculation	1.1.2.1 1.1.5.2	2.4.1. 2			- Lecture s - Practica l session s -Self learnin g -Non graded

							assignment - Home assignment - Case Study - Problem solving
W4	Medication distribution systems	Constitutions of Dry Powders	1.1.5.2 1.1.6.1 1.1.7.1	2.1.1.2			- Lectures - Practical sessions -Self learning -Non graded assignment - Home assignment - Case Study - Problem solving
W5	Total Parentral Nutrition	Total Parenteral Nutrition1 (Definition, calculation of calories, protein-calorie percentage and calorie: nitrogen ratio)		2.1.3.1 2.5.1.1			- Lectures - Practical sessions -Self learning -Non

							graded assign ment - Home assign ment - Case Study - Proble m solving
W6	Monitor ing of patient on TPN	Total Parenteral Nutrition 2 (parenteral hyperalimentat ion and calculation of basal and resting energy expenditure)		2.2.2. 1 2.2.2. 2 2.4.1. 1 2.4.1. 2			- Lecture s - Practica l session s -Self learnin g -Non graded assign ment - Home assign ment - Case Study - Proble m solving
W7	Intrveno us dmixtur e systems &repack aging pharmac euticals	Intravenous solutions and calculations for pediatrics and adults		2.2.2. 1 2.4.1. 2			- Lecture s - Practica l session s -Self learnin g

							-Non graded assignment - Home assignment - Case Study - Problem solving
W8	Handling of cytotoxic drugs	Pediatric critical Care		2.2.2.2 2.2.4.2 2.3.1.1 1.1.5.2			-Lectures -Practical sessions -Self learning -Non graded assignment - Home assignment - Case Study - Problem solving
W9	Therapeutic drug monitoring	Adult critical Care		2.3.2.1,			-Lectures -Practical sessions -Self learnin

							g -Non graded assignment - Home assignment - Case Study - Proble m solving
W1 0	Rational drug therapy	Dose Adjustment for phenytoin and theophylline		2.4.3. 1			-Lecture s - Practica l session s -Self learnin g -Non graded assignment - Home assignment - Case Study - Proble m solving

W11	Patient counseling	Insulin (insulin types and dosage calculation)				4.2.11 4.1.1.1	-Lectures -Practical sessions -Self learning -Non graded assignment -Home assignment -Case Study -Problem solving
W12	Patient safety and risk management	Exam		2.4.3.1 2.5.1.1 2.3.1.1			-Lectures -Practical sessions -Self learning -Non graded assignment -Home assignment -Case Study -Problem solving

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