Form Name : Block Catalogue Revision No. :01/2020

Basic information:	
Program on which the Block is offered	PharmD
Qualification Awarded	BPharmD
Block title - Code - Year	Drug Delivery – 3101– Foundational Year I
Block Type	Foundational
Total contact Hours / week	(Lectures: 5, Lab: 5, Tutorials: 3, Seminars: 2, PBL: 9,
[31 hrs.]	Self-study: 6, Exams: 1)
ECTS Hours	20
Pre-requisites for this Block	Fundamentals of Biology, Chemistry, Physics, English
	Language and Math.
Week period	10
Diad. Description.	

Block Description:

This block introduces students to drug dosage forms, routes of drug administration, practicing pharmacy and procedures within pharmacy facilities according to law. This block also deals with molecular theory, thermodynamics, atoms bonding, in addition to functional groups, nomenclature, stereochemistry, physical & chemical properties of aliphatic hydrocarbon compounds. This block also provides students with overview of plant's & animal's structures and emphasizes the correlation between structure & function of tissues, organs & systems. Problem-based learning strategies are used for this block delivery.

Block Objectives:

By the end of this Block the student should be able to:

- Recognize the different drug dosage forms preparations and applications.
- Apply basic pharmaceutical calculations in preparing different dosage forms.
- Develop a solid foundation of basic biological concepts that inform scientific understanding.
- Explain the basic building blocks for analytical chemistry.
- Recognize all the conditions and procedures for pharmacy facilities in terms of opening, management and drug registration according to the Libyan Law.
- Recognize the elementary concepts regarding pharmacy practice.
- Discuss the principles of atomic and molecular structure of the matter.
- Differentiate functional groups of aliphatic organic compounds as well as their properties, nomenclature, and chemical reactions.
- Discuss the concept of mass, weight, density, viscosity, pressure, surface tension and the differences between them.
- Develop skills of observation and critical reading.

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• Analyse, interpret, and evaluate data from various sources.

Learning and Teaching Methods, & Assessment Methods

Learning and Teaching Methods:

- Problem-Based Learning (PBL)
- Lectures
- Tutorials
- Practice in lab
- Independent study assignments
- Presentations
- Seminars

Assessment methods:

• Continuous assessment:

- Problem Based Learning sessions (Brain-storming/Debriefing)
- Reports
- Report Discussion
- Individual reassurance test (IRAT): MCQs
- o Group reassurance test (GRAT): MCQs
- Presentations (oral/ poster)
- o Practice in lab
- Open-book/open-web exam

End-Block exam:

- Written
- Final-Block exam:
 - Written
 - Objective structured practical examination (OSPE)

Weighting of Assessment:

Continuous assessment:	60%
PBL sessions	• 30%
 Practical sessions 	• 10%
Other Activities	• 10%
(Tutorial/Seminar/Assignments/Moodle	
Activities)	
Mid-block Exam	• 5%
End-block exam	• 5%
Final Exam:	40%
Written	• 30%
• OSPE	• 10%
Total:	100%

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Assessment Schedule:		
Continuous assessment:	During the block	
PBL sessions	Weeks 1-10	
 Practical sessions 	Weeks 1-10	
 Other Activities (Tutorial/Seminar/Assignments/Moodle Activities) 	Weeks 1-10	
Mid-block exam	Week 5	
End-block exam	At the end of the block	
Final exam:	At the end of the year	
Written	At the end of the year	
• OSPE	At the end of the block	

Examination Regulations:

- If the student absenteeism is more than 25 % he/she cannot attempt the final exam.
- The total required percentage to pass this course is at least 60 %

List of textbooks and references:

Course Notes:

 PowerPoint presentations, videos and other materials related to lectures, tutorials and practical sessions are uploaded to the Moodle by experts on weekly basis according to teaching schedule.

• Essential Books (Text Books):

- Ansel, H. and Popovich, N., (2011) Ansel's Pharmaceutical Dosage Forms and Drug Delivery Systems. 9th edition. Lippincott Wi
- Iliams & Wikins.
- Aulton, M. (2008) Pharmaceutics the science and practice of pharmacy. 2nd ed. Churchill Livingstone.
- Harvey, R.A. and Ferrier, D.R. (2010) Biochemistry (Lippincott Illustrated Reviews Series). Biochemistry (Lippincott Illustrated Reviews Series). 5th Edition.
- Christian, Gary D., Dasgupta, Purnendu k., Schug and Kevina. (2013) Analytical chemistry.
 7ed.
- Ebbing, Darrell and Steven D Gammon. (2016) General chemistry (Cengage Learning).
- Felton L. (2013). Remington, Essential of pharmaceutics. 1st edition. Pharmaceutical Press.
- John D. Cutnell & Keneeth W. Johnson. Physics. USA: John Wiley & Son, Ltd.
- Jones, D. (2008) Fast track, pharmaceutics-dosage form and design. 1st edition.
 Pharmaceutical Press.
- McMurry, J.E. (2015) Organic chemistry. Cengage Learning.
- Roth, J.A. (1989) Organic Chemistry, (Solomons, TW Graham).

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> Satyajit D. Sarker, Nahar, L. (2007) Chemistry for Pharmacy Students General, Organic and Natural Product Chemistry, UK: John Wiley & Son, Ltd.

- Chang, R. (2010) Chemistry. 10th ed. New York: McGraw-Hill.
- Fowler, S., Roush, R., Wise, J. and Stronck, D. (2013) Concepts of Biology. Openstax College,
 Rice University.

Periodicals and websites:

- Guyton and Hall. Year. Textbook of Medical Physiology, 12th ed .[online] Available from (www.medstudents.ir).
- Joint FIP/WHO Guidelines on GPP: Standards for quality of pharmacy services. Available form: https://www.fip.org/www/uploads/database_file.php?id=331&table_id=
- Central Pollution Control Board (2011) Guide manual: water and wastewater analysis, Delhi, india.
- BC open textbook, Concepts of biology, 1st Canadian edition. Available from https://opentextbc.ca/biology/chapter/3-3-eukaryotic-cells/
- The executive regulations of the Libyan health law. No. 654 (1975).
- Adjei, M., 2012. Clinical Pharmacy: A theoretical framework for practice.

Block Policies:

Code of conduct

Please refer to LIMU code of ethics http://limu.edu.ly/images/11/ethcode.pdf

Academic integrity

Please be aware that cheating, plagiarism, in-class disruption and dishonesty are vigorously prosecuted and that LIMU has a zero-tolerance policy.