

## LIBYAN INTERNATIONAL MEDICAL UNIVERSITY

**Form Name : Block Catalogue**

**Revision No. :01/2020**

**Form No. : QAO-OP.17**

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### Basic information:

Program on which the Block is offered	PharmD
Qualification Awarded	BPharmD
Block title - Code - Year	Cardiovascular and Pulmonary Disorders– 3303– Professional Year I
Block Type	Professional
Total contact Hours / week [50 hrs.]	(Lectures: 4.5, Lab: 1, Tutorials: 3, TBL: 4.5, PBL: 6.5, Clinical: 2, Self-study: 26, Exams: 2)
ECTS Hours	12
Pre-requisites for this Block	Fundamentals of Medicinal Chemistry, Fundamentals of Pharmacology, Anatomy, Histology, Physiology, Biochemistry, Pathology, Pharmacogenomics Primer Course, Pharmaceutical Microbiology, Biopharmaceutics, Pharmaceutical Calculations, Drug Quality Assurance, Biotechnology, Pharmacy Practice, and Clinical Skills.
Week period	6

### Block Description:

This block covers aetiology, pathophysiology, clinical presentation, complications, investigations, clinical assessment, management and treatment of cardiovascular and pulmonary disorders. Problem-Based learning and Team-Based learning strategies are utilized in this block to assist in combining clinical expertise, patient characteristics and medical evidence for clinical decision-making.

### Block Objectives:

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

- Demonstrate comprehensive knowledge, and clear understanding of Pathophysiology, Clinical Pharmacology, Pharmacotherapeutics, Medicinal Chemistry, Toxicology, Clinical Pharmacokinetics, Clinical Biochemistry, Pharmacogenomics, Patient Assessment, Self-care Management, Complementary & Alternative Medicine regarding Cardiovascular and Pulmonary Disorders.
- Apply clinical pharmacokinetic principles in calculating and monitoring drug doses.
- Analyse the biochemical laboratory results of patients with cardiovascular and pulmonary disorders.
- Prevent, identify, and resolve drug-induced problems in cardiovascular and pulmonary disorders.
- Provide drug information, education and evidence-based pharmacotherapy services to patients with cardiovascular and pulmonary disorders, and to other healthcare professionals.
- Provide patient-centred care as the medication expert.

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- Apply the principles of medical ethics and communication skills on patients with cardiovascular and pulmonary disorders.

## Learning and Teaching Methods, & Assessment Methods

### Learning and Teaching Methods:

- Problem-Based Learning (PBL)
- Team-Based Learning (TBL)
- Lectures
- Tutorials
- Practice in lab
- Independent study assignments
- Presentations
- Clinical teaching: Clinical skills lab, Simulation, Field trips.

### Assessment methods:

- **Continuous assessment:**
  - Problem Based Learning sessions (Brainstorming/Debriefing)
  - Reports
  - Individual reassurance test (IRAT): MCQs
  - Group reassurance test (GRAT): MCQs
  - Problem solving (mini cases)
  - Presentations (oral/ poster/brochure)
  - Practice in lab
  - Clinical sessions
  - Open-book/open-web exam
  - Mid-block exam (MCQs, problem solving, short notes)
- **End-Block exam:**
  - Written
- **Final-Block exam:**
  - Written
  - Objective structured clinical examination (OSCE)

### Weighting of Assessment:

Continuous assessment:	70%
• PBL sessions	• 25%
• TBL sessions	• 25%
• Clinical sessions	• 12.5%
• Mid-block exam	• 2.5%
• End-block exam	• 5%
Final Exam:	30%
• Written	• 20%

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• OSCE	• 10%
<b>Total:</b>	<b>100%</b>
<b>Assessment Schedule:</b>	
<b>Continuous assessment:</b>	<b>During the block</b>
• PBL sessions	Weeks 1-6
• TBL sessions	Weeks 1-6
• Clinical sessions	Weeks 1-6
• Mid-block exam	Week 4
• End-block exam	At the end of the block
<b>Final exam:</b>	<b>At the end of the year</b>
• Written	At the end of the year
• OSCE	At the end of the year
<b>Examination Regulations:</b>	
<ul style="list-style-type: none"> <li>• If the student absenteeism is more than 25 % he/she cannot attempt the final exam.</li> <li>• The total required percentage to pass this course is at least 60 %</li> </ul>	
<b>List of textbooks and references:</b>	
<ul style="list-style-type: none"> <li>• <b>Course Notes:</b> <ul style="list-style-type: none"> <li>– 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.</li> </ul> </li> <li>• <b>Essential Books (Textbooks):</b> <ul style="list-style-type: none"> <li>– William F. Wright. (2018). Essential of Clinical Infectious Disease. 2<sup>nd</sup> edition.</li> <li>– Anne Ballinger. (2018). Essential of Kumar &amp; Clarks Clinical Medicine. 6<sup>th</sup> edition.</li> <li>– Foye`s, Principles of Medicinal Chemistry. (2012). 7th Edition, Lippincott Williams &amp; Wilkins Publishers.</li> <li>– Larry A. Bauer. (2014). Applied clinical Pharmacokinetics. 3<sup>rd</sup> edition.</li> <li>– Philip Rowe. (2012). Pharmacokinetics. (E-Book)</li> <li>– Paul M. Dewick. (2002) (Medicinal Natural Products: A Biosynthetic Approach). 3rd edition. John Wiley &amp; Sons.</li> <li>– Michael Heinrich, Joanne Barnes, Simon Gibbons, Elizabeth M. Williamson (2012). (Fundamentals of Pharmacognosy and Phytotherapy E-Book) Elsevier Health Sciences. 2nd edition.</li> <li>– Yui-Wing Francis Lam Stuart Scott. (2018). Pharmacogenomics Challenges and Opportunities in Therapeutic Implementation. 2nd Edition. Academic press USA.</li> <li>– Xiaodong Feng, Hong-Guang Xie. (2012). Applying Pharmacogenomics in Therapeutics. 1 edition. Cambridge University Press.</li> </ul> </li> </ul>	

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- Karen Whalen, Richard Finke Thomas A. Panavelil, 2015, Lippincott Illustrated Reviews: Pharmacology, 6<sup>th</sup> Edition
- Lawrence Tierney, Sanjay Saint, Mary Wholey. (2011). Current Essentials of Medicine. 4<sup>th</sup> Edition. McGraw Hill Medical.
- Harsh Mohan. (2010). Textbook of Pathology. 6<sup>th</sup> Edition. Jaypee Brothers Medical Publisher.
- Roger Walker, Cate Whittlesea. (2012) Clinical Pharmacy and Therapeutics, 5<sup>th</sup> edition, Elsevier Ltd. London, UK. International ISBN – 978-0-7020-4294-2
- Casarett and Doull's. (2008). Toxicology: The Basic Science of Poisons 7<sup>th</sup> edition.
- Allan Gaw. (2013). Clinical Biochemistry an Illustrated Colour text. Fifth edition. China.
- **Recommended Books:**
  - Stantny Davidson. (2018). Davidson's Principle & Practical of Medicine. 23<sup>rd</sup> edition.
  - Harrison Principle of Internal Medicine. (2017). 20<sup>th</sup> edition.
  - Graham L. Patrick. (2005). Introduction to Medicinal Chemistry, Oxford University Press.
  - Graham L. Patrick. (2013). An Introduction to Medicinal Chemistry, Fourth Edition, Oxford University Press.
  - Wilson and Gisvold's. (2011). Textbook of Organic Medicinal and Pharmaceutical Chemistry. Twelfth Edition, Wolters Kluwer Health/Lippincott Williams & Wilkins Publishers.
  - G. Thomas. Medicinal Chemistry: An introduction. Wiley
  - John E. Murphy. (2017). Clinical pharmacokinetics. 6<sup>th</sup> edition. American Society of Health-System.
  - Leon Shargel. (2016). Applied Biopharmaceutics and Pharmacokinetics. 7<sup>th</sup> Edition.
  - Sandosh Padmanabhan. (2014). Handbook of Pharmacogenomics and Stratified Medicine. 1<sup>st</sup> Edition. Academic Press USA.
  - Chidinma Adanna Okolo and Esther Udo Asamudo. (2017). Cardiovascular Diseases: Genetic Susceptibility, Environmental Factors, and Their Interaction. 1<sup>st</sup> edition. London.
  - Bruneton Jean. (2008). (Pharmacognosy, Phytochemistry, Medicinal Plants). Lavoisier .2nd Edition.
  - Andrew Chevallier. (2016). Encyclopedia of Herbal Medicine. 3<sup>rd</sup> Edition. Penguin Random House.
  - James Ritter, Lionel Lewis, Timothy Mant, Albert Ferro. Goodman & Gilman's: The Pharmacological basis of Therapeutics. 12<sup>th</sup> Edition. McGraw Hill Education
  - Gary Hammer, Stephen McPhee. (2014). Pathophysiology of Disease: An Introduction to Clinical Medicine. 7<sup>th</sup> Edition. McGraw Hill Lange
  - Kumar, Abbas, Aster. (2018). Robbins Basic Pathology. 7<sup>th</sup> Edition. McGraw Hill Lange
  - Geoffrey Beckett (2013). Clinical Biochemistry. 8<sup>th</sup> edition. Malaysia.
- **Periodicals and websites:**
  - Nature Reviews Drug Discovery

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- Drug Discovery Today
- Anna Kakafika, George Liamis, Moses Elisaf and Dimitri Mikhailidis. (2001). Effect of Atorvastatin on Serum Creatinine Levels. 17(3)
- Sekar Kathiresan and Deepak Srivastava. (2012). Genetics of Human Cardiovascular Disease. 16; 148(6): 1242–1257
- [www.drugs.com](http://www.drugs.com)
- [www.qxmd.com/calculate/](http://www.qxmd.com/calculate/)
- [www.londoncuppingclinic.com/newlondoncupping/portfolio-view/high-blood-pressure](http://www.londoncuppingclinic.com/newlondoncupping/portfolio-view/high-blood-pressure).
- [www.acupuncture.org.uk](http://www.acupuncture.org.uk)

### 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.