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	Immunology – 3201– Foundational Year II
Block Type	Foundational
Total contact Hours / week	(Lectures: 5, Lab: 2, Tutorials: 4, Seminars: 2, PBL: 9,
[30 hrs.]	Self-study: 6, Exams: 2)
ECTS Hours	12
Pre-requisites for this Block	Fundamentals of Analytical Chemistry, Physiology,
	Clinical skills, Biochemistry and English Language.
Week period	6

Block Description:

This block introduces students to basic principles of pathology, genetics & immunology. This block also deals with structure and mechanism of blood circulation, microcirculation, lymphatics & liver in addition to the metabolism of basic biological molecules. Students will also develop advanced clinical skills. Problem-based learning strategies are used for this block delivery.

Block Objectives:

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

- Explain the basic principles of pathology.
- Explain the basic concepts of genetics.
- Explain the principles of immunology.
- Discuss the electrochemical and spectrophotometric methods of drug analysis.
- Discuss the physiology of cardiovascular, lymphatic and gastrointestinal systems.
- Discuss the metabolism of basic biological molecules.
- Perform basic clinical skills.
- Develop skills of observation and critical reading.
- Analyze, 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

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

Form No. : QAO-OP.17 Page :2 of 4

• Clinical teaching: Clinical skills lab and Simulation.

Assessment methods:

Continuous assessment:

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

• End-Block exam:

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

Objective structured clinical examination (OSCL)		
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 & OSCE	• 10%	
Total:	100%	
Assessment Schedule:		
Continuous assessment:	During the block	
PBL sessions	Weeks 1-6	
Practical sessions	Weeks 1-6	
Other Activities	Weeks 1-6	
(Tutorial/Seminar/Assignments/Moodle		
Activities)		

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

Form No. : **QAO-OP.17 Page** :3 of 4

Week 3
At the end of the block
At the end of the year
At the end of the year
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):

- Costanzo, L.S., 2014. Physiology. 5th ed. Philadelphia: Saunders Elsevier.
- Denyer, S.P., Hodges, N.A. and Gorman, S.P. eds., 2008. Hugo and Russell's pharmaceutical microbiology. John Wiley & Sons.
- Hall, J.E., 2011. Guyton and Hall textbook of medical physiology. Philadelphia, PA:
 Saunders Elsevier.
- Kumar S., Essential of Microbiology, 1st edition. JP Medical Ltd.
- Murray, R.K., Granner, D.K., Mayes, P.A., Rodwell, V.W. and Biochemistry, H.S.I., 2003. a
 LANGE medical book. *Harper's Illustrated Biochemistry*. 26th ed. New York: McGraw-Hill Companies, Inc.
- Pamela, C.C., Richard, A.H. and Denise, R.F., 2005. Lippincotts illustrated reviews biochemistry. Lippincott Williams & Wilkins, Baltimore.
- Rubin, E. and Reisner, H.M. eds., 2009. Essentials of Rubin's pathology. Lippincott Williams
 & Wilkins.
- Russell P.J., 2006. *iGenetics a molecular approach*. 3rd edition. Pearson /Benjamin Cummings.
- Rules, M.H.R.A., 2007. Guidance for Pharmaceutical Manufacturers and Distributors.
- Sandle, T., 2015. Pharmaceutical Microbiology: Essentials for Quality Assurance and Quality Control. Woodhead Publishing.
- Snustad, D.P. and Simmons, M.J., 2006. *Principles of genetics*. Hoboken: Wiley.
- Truant, A.L., 2016. Manual of commercial methods in clinical microbiology. John Wiley & Sons.

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

Form No. : QAO-OP.17 Page :4 of 4

- Christian, G., Dasgupta, P., Schung, K. 2013. Analytical chemistry. Willey.

- Reddy, I.K. and Khan, M.A. (2003) Essential math and calculations for pharmacy technicians. CRC Press.
- Rees, J.A., Smith, I. and Watson, J. (2015) Introduction to pharmaceutical calculations.
 Pharmaceutical Press.
- Tietze K. J. 2012. Clinical skills for pharmacists " A patient-focused approach". 3rd edition.
 Elsevier mosby. USA.

• Periodicals and websites:

- Becker's Usmle. (2013). Lecture Notes Biochemistry, Genetics. Available online: https://www.scribd.com/document/320574453/Becker-s-USMLE-Step-1-Lecture-NotesBiochemistry-Genetics-2013-UnitedVRG
- Kumar, V., Abbas, A.K. and Aster, J.C., 2017. Robbins Basic Pathology
 E-Book. Elsevier Health Sciences.
- Sattar, H.A., 2016. Fundamentals of pathology: Medical course and step 1 review.
 Pathoma. com
- Watson, D.G., 2005. Pharmaceutical Analysis E-Book: A Textbook for Pharmacy Students and Pharmaceutical Chemists. Elsevier Health Sciences.
- Dhaka S. Role of community pharmacy and pharmacist in immunization.
 Pharmacy Board of Australia. Guidelines for dispensing of medicines.

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.