

LIBYAN INTERNATIONAL MEDICAL UNIVERSITY

Form Name : Block Catalogue

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Basic information:

Program on which the Block is offered	PharmD
Qualification Awarded	BPharmD
Block title - Code - Year	Oncology Disorders– 3302– Professional Year I
Block Type	Professional
Total contact Hours / week [53 hrs.]	(Lectures: 6, Lab: 3, Tutorials: 3, TBL: 4.5, PBL: 6.5, Clinical: 2, Self-study: 26, Exams: 3)
ECTS Hours	8
Pre-requisites for this Block	Fundamentals of Pharmacology, Anatomy, Histology, Physiology, Biochemistry, Pathology, Pharmacogenomics Primer Course, Biopharmaceutics, Pharmaceutical Calculations, Drug Quality Assurance, Biotechnology, Pharmacy Practice, and Clinical Skills.
Week period	4

Block Description:

This block covers aetiology, pathophysiology, clinical presentation, complications, investigations, clinical assessment, management and treatment of oncology 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, Pharmacology, Clinical Pharmacology, Pharmacotherapeutics, Clinical Pharmacokinetics, Medicinal Chemistry, Parasitology, Clinical Biochemistry, Pharmacogenomics, Toxicology, Patient Assessment, Self-care Management, Complementary and Alternative Medicine regarding oncology disorders.
- Apply clinical pharmacokinetic principles in calculating and monitoring drug doses.
- Analyse the biochemical laboratory results of patients with oncology disorders.
- Prevent, identify, and resolve drug-induced problems in oncology disorders.
- Provide drug information, education and evidence-based pharmacotherapy services to patients with oncology problems, 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 oncology 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
- **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%
• End-block exam	• 7.5%
Final Exam:	30%
• Written	• 20%
• OSCE	• 10%
Total:	100%

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Assessment Schedule:

Continuous assessment:	During the block
• PBL sessions	Weeks 1-4
• TBL sessions	Weeks 1-4
• Clinical sessions	Weeks 1-4
• End-block exam	At the end of the block
Final exam:	At the end of the year
• Written	At the end of the year
• OSCE	At the end of the year

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 (Textbooks):**
 - William F. Wright. (2018). Essential of Clinical Infectious Disease. 2nd edition.
 - Anne Ballinger. (2018). Essential of Kumar & Clarks Clinical Medicine. 6th edition.
 - Foye`s, Principles of Medicinal Chemistry. (2012). 7th Edition, Lippincott Williams & Wilkins Publishers.
 - Bogitsh, B. J., Carter, C. E., & Oeltmann, T. N. (2018). Human parasitology. Academic Press.
 - Gupte, S. (2010). The Short Textbook of Medical Microbiology: Including Parasitology. Jaype Brothers Medical Publishers.
 - Larry A. Bauer. (2014). Applied clinical Pharmacokinetics. 3rd edition.
 - Philip Rowe. (2012). Pharmacokinetics. (E-Book)
 - Paul M. Dewick. (2002) (Medicinal Natural Products: A Biosynthetic Approach). 3rd edition. John Wiley & Sons.
 - Michael Heinrich, Joanne Barnes, Simon Gibbons, Elizabeth M. Williamson (2012). (Fundamentals of Pharmacognosy and Phytotherapy E-Book) Elsevier Health Sciences. 2nd edition.
 - Fred Bunz. (2016). Principles of Cancer Genetics. 2nd Edition. China.
 - David N. Cooper and Jian-Min Chen (2012). Mutations in human genetic disease. First edition. Croatia.

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- Karen Whalen, Richard Finke Thomas A. Panavelil, 2015, Lippincott Illustrated Reviews: Pharmacology, 6th Edition.
- Lawrence Tierney, Sanjay Saint, Mary Wholey. (2011). Current Essentials of Medicine. 4th Edition. McGraw Hill Medical.
- Harsh Mohan. (2010). Textbook of Pathology. 6th Edition. Jaypee Brothers Medical Publisher.
- Roger Walker, Cate Whittlesea. 2012, Clinical Pharmacy and Therapeutics, 5th edition, Elsevier Ltd. London, UK. International ISBN – 978-0-7020-4294-2.
- Casarett and Doull's. (2008). Toxicology: The Basic Science of Poisons 7th edition.
- Allan Gaw. (2013). Clinical Biochemistry an Illustrated Colour text. Fifth edition. China.
- B. G. Katzung,(2018) Basic & Clinical Pharmacology, Fourteenth Edition, United States of America: McGraw-Hill Education,
- **Recommended Books:**
 - Stantý Davidson. (2018). Davidson's Principle & Practical of Medicine. 23rd edition.
 - Harrison Principle of Internal Medicine. (2017). 20th 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.
 - Bauman, R. W., Machunis-Masuoka, E., & Cosby, C. D. (2018). Microbiology: with diseases b body system. Benjamin Cummings.
 - Garcia, L. S. (2007). Diagnostic medical parasitology. American Society for Microbiology Pres
 - John E. Murphy. (2017). Clinical pharmacokinetics. 6th edition. American Society of Health-System.
 - Leon Shargel. (2016). Applied Biopharmaceutics and Pharmacokinetics. 7th Edition.
 - Bruneton Jean. (2008). (Pharmacognosy, Phytochemistry, Medicinal Plants). Lavoisier. 2nd Edition.
 - Antonarakis and Motulsky. (2010). Human genetics Problems and Approaches. 4th Edition. Spain.
 - András Falus, Valéria László, and, Sára Tóth. (2016). Medical genetics and genomics. 1st edition.
 - James Ritter, Lionel Lewis, Timothy Mant, Albert Ferro. Goodman & Gilman's: The Pharmacological basis of Therapeutics. 12th Edition. McGraw Hill Education.
 - Gary Hammer, Stephen McPhee. (2014). Pathophysiology of Disease: An Introduction to Clinical Medicine. 7th Edition. McGraw Hill Lange.
 - Kumar, Abbas, Aster. (2018). Robbins Basic Pathology. 7th Edition. McGraw Hill Lange.
 - Geoffrey Beckett (2013). Clinical Biochemistry. 8th edition. Malaysia.

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- P. KUMAR, M. CLARK (2016) Kumar & Clark's Medical Management and Therapeutics, 9th edition, China: Elsevier Ltd.
- D. L. Longo, A.S. Fauci, D. L. Kasper, S. L. Hauser, J. L. Jameson, J. Loscalzo, (2018) Harrison's MANU A LO F M E D I C I N E, 20th edition, McGraw-Hill Companies,
- **Periodicals and websites:**
 - Nature Reviews Drug Discovery
 - Drug Discovery Today
 - Barbara Asselin & Carmelo Rizzari. (2015). Asparaginase pharmacokinetics and implications of therapeutic drug monitoring, *Leukemia & Lymphoma*, 56:8, page 2273-2280.
 - Pamela J. White. (2010). Patient Factors That Influence Warfarin Dose Response. Volume: 23 issue: 3, page(s): 194-204.
 - Yuen Yi Hon and William E. Evans. (1998). Making TDM work to optimize cancer chemotherapy: a multidisciplinary team approach. 44:2, 388-400.
 - Lamya Alnaim. (2007). Therapeutic drug monitoring of cancer chemotherapy. 13:207-221. *J Oncol Pharm Practice*.
 - Vered Stearns. (2013). Pharmacogenomics of Breast Cancer Therapy: An Update. *Pharmacol Ther*; 139(1): Page 6–11.
 - Cinnamon". *Encyclopædia Britannica*. 2008. (species *Cinnamomum zeylanicum*), bushy evergreen tree of the laurel family (Lauraceae) native to Bangladesh, Sri Lanka (Ceylon), the neighboring Malabar coast of India, and Myanmar (Burma), and also cultivated in South America and the West Indies for the spice consisting of its dried inner bark. The bark is widely used as a spice due to its distinct odor.
 - Chhavi G and Surbhi S (2011), "Effect of Garden Cress Seeds and Amla Intervention on the Haemoglobin Status of Non-Pregnant Women", *AJHS*, Vol. 6, No. 4, pp. 216-219.
 - Agrwal N and Sharma S (2013), "Garden Cress (*Lepidium sativum* L.)—A Non Conventional Traditional Plant Item for Food Product", *Indian J Traditl Know.*, Vol. 12, No. 4, pp. 699-706.
 - Malleshi N and Guo M (2004), "Chemical Composition of Garden Cress Seeds and its Fractions and Use of Bran as a Functional Ingredient", *Indian J Traditl Know.*, Vol. 12, No. 2, pp. 105-111.
 - Malleshi N and Guo M (2004), "Chemical Composition of Garden Cress Seeds and its Fractions and Use of Bran as a Functional Ingredient", *Indian J Traditl Know.*, Vol. 12, No. 2, pp. 105-111.
 - U.S. National Plant Germplasm System. 9 May 2011. Retrieved 5 September 2017.
 - NewCROP, the New Crop Resource Online Program, Center for New Crops & Plant Products, Purdue University; from p. 336–346. In: *Fruits of warm climates*, JF Morton, Miami, FL. Retrieved 23 May 2015.
 - Heywood, VH; Brummitt, RK; Culham, A; Seberg, O (2007). *Flowering plant families of the world*. Firefly Books.

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- Thomas KD, Ajani B. Antisickling agent in an extract of unripe pawpaw fruit (*Carica papaya*) Transactions of the Royal Society of Tropical Medicine and Hygiene. 1987;81(3):510–511.
- Gansäuer, Andreas; Justicia, José; Fan, Chun-An; Worgull, Dennis; Piestert, Frederik (2007). "Reductive C—C bond formation after epoxide opening via electron transfer". In Krische, Michael J. Metal Catalyzed Reductive C—C Bond Formation: A Departure from Preformed Organometallic Reagents. Topics in Current Chemistry. 279. Springer Science & Business Media. pp. 25–52. doi:10.1007/128_2007_130. ISBN 978-3-540-72879-5.
- Cooper, Raymond; Deakin, Jeffrey John (2016). "Africa's gift to the world". Botanical Miracles: Chemistry of Plants That Changed the World. CRC Press. pp. 46–51. ISBN 978-1-4987-0430-4.
- Keglevich, Péter; Hazai, Laszlo; Kalaus, György; Szántay, Csaba (2012). "Modifications on the basic skeletons of vinblastine and vincristine". Molecules. 17: 5893–5914. doi:10.3390/molecules17055893. PMID 22609781
- Raviña, Enrique (2011). "Vinca alkaloids". The evolution of drug discovery: From traditional medicines to modern drugs. John Wiley & Sons. pp. 157–159. ISBN 978-3-527-32669-3.
- Alali, F. Q., Liu, X.-X., and McLaughlin, J. L. (1999). Annonaceous acetogenins: recent progress. J. Nat. Prod. 62, 504–540. doi: 10.1021/np980406d
- Artanti, A. N., Astirin, O. P., and Prayitno, A. (2016). Cytotoxic activity of non polar fraction from *Annona muricata* L. leaves on Hela and Raji Cell Lines. J. Pharm. Sci. Clin. Res. 1, 112–118. doi: 10.20961/jpscr.v1i2.1944
- Legendre L, Barnetche T, Mazereeuw-Hautier J, Meyer N, Murrell D, Paul C. Risk of lymphoma in patients with atopic dermatitis and the role of topical treatment: A systematic review and meta-analysis. J Am Acad Dermatol. 2015;72(6):992-1002.
- Clarke JH. A Dictionary of Practical Materia Medica. 2nd ed. London: Homeopathic Publishing company; 1902. p. 1437–1442.
- Ghassabian A, Bongers-Schokking JJ, de Rijke YB, et al. Maternal thyroid autoimmunity during pregnancy and the risk of attention deficit/ hyperactivity problems in children; The generation R study. Thyroid. 2012;22(2):178–186
- Priya DM, Akhtar N, Ahmad J. Prevalence of hypothyroidism in Infertile women and evaluation of response of treatment for hypothyroidism on Infertility. Indian J Endocr Metab. 2015;19:504–506.
- Barbič, Matej; Schmidt, Thomas J.; Jürgenliemk, Guido (June 2012). "Novel Phenyl-1-benzoxepinols from Butcher's Broom (*Ruscus rhizoma*)". Chemistry & Biodiversity. 9 (6): 1077–1083. doi:10.1002/cbdv.201100158. ISSN 1612-1872.
- Bloodroot. Review of Natural Products. Facts & Comparisons [database online]. St. Louis, MO: Wolters Kluwer Health Inc; October 2010.
- Breast Cancer Care 2018. Registered charity: England and Wales 1017658, Scotland SC038104.

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- Jakobsson, Hugo; Farmaki, Katerina; Sakinis, Augustinas; Ehn, Olof; Johannsson, Gudmundur; Ragnarsson, Oskar (2018-05-15). "Adrenal venous sampling: the learning curve of a single interventionalist with 282 consecutive procedures". Diagnostic and Interventional Radiology. doi:10.5152/dir.2018.17397. ISSN 1305-3612.
- Herrmann, Josef M.; Untergehrer, Monika; Jürgenliemk, Guido; Heilmann, Jörg; König, Burkhard (2014-04-08). "Synthesis of Phenyl-1-benzoxepinols Isolated from Butcher's Broom and Analogous Benzoxepines". European Journal of Organic Chemistry. 2014 (15): 3170–3181. doi:10.1002/ejoc.201400004. ISSN 1434-193X.
- Kotepui, M. (2016, March 16). Diet and risk of breast cancer. Contemporary Oncology (Pozn), 20(1), 13-19.
- Ledesma, N. (2015 July). Nutrition & breast cancer.
- Vanscheidt W, Jost V, Wolna P, et al. Efficacy and safety of a Butcher's broom preparation (Ruscus aculeatus L. extract) compared to placebo in patients suffering from chronic venous insufficiency. Arzneimittelforschung. 2002;52(4):243-250.
- <https://onlinelibrary.wiley.com/doi/full/10.1111/j.1365-2516.2010.02370.x>
- www.qxmd.com/calculate/
- <https://www.medicinenet.com/script/main/art.asp?articlekey=4870>
- <https://www.healthline.com/health/best-diet-plan-for-anemia#takeaway>
- <https://www.healthline.com/nutrition/10-proven-benefits-of-cinnamon#section10>
- <https://herbpathy.com/Uses-and-Benefits-of-Sweet-Clover-Cid2553>
- https://en.wikipedia.org/wiki/Moringa_oleifera
- <https://www.healthline.com/nutrition/6-benefits-of-moringa-oleifera#section2>
- <https://www.webmd.com/cancer/features/eating-treatment>
- <https://www.webmd.com/cancer/cancer-diet>
- Healthy lifestyle for breast cancer survivors. (2016, August 2).
- <https://www.cdc.gov/>

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.