Course Code *WS210*
3 Units
30 Hours

# EMPEROR'S COLLEGE
# MTOM COURSE SYLLABUS
# BIOCHEMISTRY

***Downie, Patrick***
*Spring 2018*

COURSE DESCRIPTION

This course examines biochemical reactions in living systems, investigating functional groups, essential compounds, and metabolic pathways in eukaryotic cells. Biochemistry is foundational to understanding the chemical dynamics of physiology, nutrition, pharmacology and herbology.

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LEARNING OBJECTIVES

The student will come to understand the organization and interaction of functional groups in biochemical reactions and will be able to understand the flow of metabolic pathways.

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COURSE PREREQUISITIES

Chemistry

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REQUIRED TEXTS

Ferrier, D. R. (2014). ***Biochemistry***. Philadelphia: Wolters Kluwer Health/Lippincott Williams & Wilkins. (Lippincott's Illustrated Reviews) 6th Ed. ISBN□13: 978□1451175622

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RECOMMENDED TEXTS

Lieberman, Michael. ***Marks' Basic Medical Biochemistry: a clinical approach*** 4th Edition 2013 Lippincott Williams & Wilkins, Baltimore, MD ISBN-13: 978-1608315727

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COURSE REQUIREMENTS

Out-of-Class Work
To successfully complete the program, students need to plan studying a minimum of 2 hours out-of-class for each academic in-class hour; and half an hour out-of-class for each hour of clinical training.

Module 1 exam = 50%
Module 2 exam = 50%

GRADING SCALE: 100-90% A, 89-80% B, 79-70% C, 69% and below F

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SPECIAL NOTES

No texting or phone use permitted in class.

Professionalism and Full and Prompt Attendance: To pass any course (separate from academic performance) all students must meet requirements for professionalism in coursework. Professionalism includes full and prompt attendance: students who miss more than 2 class meetings in a 10-week course or 1 class meeting in a 7-week course will earn an F in that course. Additionally, students who arrive more than 15 minutes to class or leave class before it ends will be given ½ absence towards attendance. NOTE: Students who leave and return to class late from a break or leave during the class (especially if this is repeated) or who disrupt the class in other ways may earn an F in that class and/or be referred to the Academic Dean for professionalism.

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CLASS ONE (The syllabus is subject to change at the discretion of the instructor.)

Enzymes, Carbohydrates I
Assignment: Lippincott's Illustrated Reviews pp. 53-68, 69-172

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CLASS TWO
Carbohydrates II
Assignment: Lippincott's Illustrated Reviews pp. 69-172

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CLASS THREE
Carbohydrates III
Assignment: Lippincott's Illustrated Reviews pp. 69-172

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CLASS FOUR
Proteins I
Assignment: Lippincott's Illustrated Reviews pp. 1-68, 245-257, 441-434

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CLASS FIVE
Proteins II
Assignment: Lippincott's Illustrated Reviews pp. 1-68, 245-257, 441-434

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CLASS SIX
**Module 1 Exam**

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CLASS SEVEN
Lipids I
Assignment: Lippincott's Illustrated Reviews pp. 173-244

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CLASS EIGHT
Lipids II
Assignment: Lippincott's Illustrated Reviews pp. 173-244

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CLASS NINE
Nucleic Acids I
Assignment: Lippincott's Illustrated Reviews pp. 291-306

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CLASS TEN
Nucleic Acids II
Assignment: Lippincott's Illustrated Reviews pp. 291-306, 395-430

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CLASS ELEVEN
**Module 2 Exam**

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REFERENCE MATERIAL
Will be provided as necessary

Please contact Dr. Downie with questions at docdownie.emperors@gmail.com
Check for Course notes, materials and Course Manual links at EmperorsWesternScience.wordpress.com

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***Downie, Patrick***
*Spring 2018*

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Please check with instructor during class to get updated contact info.
312.569.0747
docdownie.emperors@gmail.com

Dr. Downie graduated from National College of Chiropractic in Lombard, Illinois in 1996 and pursued additional clinical training in orthopedics and neurology. He was Co-Director of a NIH CAM research grant at Rush University College of Nursing, practiced as a staff Chiropractor at Northwestern Medicine's Center for Integrative Medicine, and served as both a professor and Bioscience Department Chair at Pacific College of Oriental Medicine, in Chicago for over a decade. Dr. Downie is an active member of the American Association of Anatomists. Please contact Dr. Downie with questions at docdownie.emperors@gmail.com or text 312.569.0747