**Course Outline Template- 2nd semester- 1439/1440**

According to the 7th departmental board meeting conducted on Wednesday 5/4/1440 we enclosed the form that helps to unify the teaching module between both campuses

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| **Form A: Theoretical Course**  **Course Information** | | | | | |
| **Course Number: BCH340 Sections: To be added** | | | | | |
| Faculty Responsible for Developing This Course Outline | | | | | |
| **Male campus: 1/ Dr. Mohamed Elrobh 2/** | | | | | |
| **Female campus: 1/ Dr. Mona Alonazi 2/ Dr. Abir Alamro** | | | | | |
| **Course coordinator** | **Dr. Mohamed Elrobh** | | | **Email** | melrobh@ksu.edu.sa |
| **Course Type** | Core Course **🗸**  Compulsory **🗸**  Elective | | | | |
| **From Course specification (sent along with this email) review and rewrite if needed the following:** | | | | | |
| 1. **main purpose for this course** 2. Carbohydrate metabolism: digestion and absorption of carbohydrates, glycolysis, Citric acid cycle, Gluconeogenesis, glycogenesis, pentose phosphate shunt, defect in carbohydrate metabolism. 3. Lipid metabolism: digestion and absorption of lipids, lipogenesis and lipolysis, oxidation of fatty acids, biosynthesis of fatty acids, metabolism of triglycerides and phospholipids, defect in lipid metabolism. | | | | | |
| 1. **Course Learning Outcomes**   **1.**  **2.**  **3.** | | | | | |
| 1. **Course Assessment Methods:**  * **25% of exam questions must be provided from each staff involve in teaching** * Faculty member is required to announce 40 out of 60 of student degree before the official date of withdrawn courses which is on **14th of Rajab 1440/ 21-3-2019** | | | | | |
| **Assessment Method** | | **Description Weight** | **Weight** | | **Aligned Course Learning Outcomes** |
| Continuous Exam  Quiz  Final Exam | |  | 25%  5%  20% | | Identify the various metabolic pathways that occur inside the cell related to carbohydrate catabolism. |
| Continuous Exam  Quiz  Final Exam | |  | 25%  5%  20% | | Describe the overall process that underlie lipid catabolism and anabolism |
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| 1. **Topics to be Covered** | | |
| **Week** | **Topics** | **Reference** |
| **6-1-2019** | **Introduction to metabolism and bioenergetics** | **Lehninger 7th/ Chapter 13** |
| **13-1-2019** | **Digestion of Carbohydrates** | **Lehninger 7th/ Chapter 14** |
| **20-1-2019** | **Glycolysis + TCA** | **Lehninger 7th/ Chapter 14 & 16** |
| **27-1-2019** | **Electron Transport and oxidative phosphorylation** | **Lehninger 7th/ Chapter 19** |
| **3-2-2019** | **Pentose Phosphate Pathway** | **Lehninger 7th/ Chapter 14** |
| **10-2-2019** | **Gluconeogenesis** | **Lehninger 7th/ Chapter 14** |
| **17-2-2019** | **Glycogen Metabolism** | **Lehninger 7th/ Chapter 15** |
| **24-2-2019** | **Metabolism of disaccharides** | **Lehninger 7th/ Chapter 14** |
| **3-3-2019** | **Lipolysis** | **Lehninger 7th/ Chapter 17** |
| **10-3-2019** | **Lipogenesis/Ketogenesis** | **Lehninger 7th/ Chapter 17** |
| **17-3-2019** | **Biosynthesis of Fatty Acids** | **Lehninger 7th/ Chapter 17** |
| **21-3-2019** | **Last date to drop a course or withdraw from the semester** |  |
| **24-3-2019** | **Fatty Acid Oxidation** | **Lehninger 7th/ Chapter 21** |
| **31-3-2019** | **Biosynthesis of Triacylglycerols** | **Lehninger 7th/ Chapter 21** |
| **7-4-2019** | **Defects in lipid metabolism/Sphingolipids** | **Lehninger 7th/ Chapter 21** |

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| 1. **References:** | |
| **Lehninger Principles of Biochemistry Seventh Edition (latest edition)** | |
| 1. **Examination date** | 1. **Date of Reviewing examination results with students** |
| - 1st continuous exam | **30/5/1440** |
| - 2nd continuous exam | **12/7/1440** |
| **Approved on ­­­­­­­­by**  **Faculty ( male campus)** | **Approved on ­­­­­­­­by**  **Faculty ( female campus)** |
| Name Mohamed Elrobh  Signatures:  Date: | Name: Mona Alonazi & Abir Alamro  Signature  Date : |