**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.
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| 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* Faculty member is required to announce 40 out of 60 of student degree before the official date of withdrawn courses which is on **14th of Rajab 1440/ 21-3-2019**
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| **Assessment Method**  | **Description Weight**  | **Weight**  | **Aligned Course Learning Outcomes**  |
| Continuous ExamQuizFinal Exam |  | 25%5%20% | Identify the various metabolic pathways that occur inside the cell related to carbohydrate catabolism. |
| Continuous ExamQuizFinal Exam |  | 25%5%20% | Describe the overall process that underlie lipid catabolism and anabolism |
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| 1. **Topics to be Covered**
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| **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:**
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| **Lehninger Principles of Biochemistry Seventh Edition (latest edition)** |
| 1. **Examination date**
 | 1. **Date of Reviewing examination results with students**
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| - 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 ElrobhSignatures:Date: | Name: Mona Alonazi & Abir AlamroSignatureDate : |