**Course Description**

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| **Course Title** | | **General and Organic Chemistry** | **Course Code** | BHS110 |
| **Program** | | **Therapeutic nutrition and dietetic** | **Level** | 1st |
| **Credit Hours** | | 3 | **Pre-requisites** |  |
| **Course Description:** | | | | |
| This course provides a student with the basic principles and concepts of chemistry and prepare him/her for more advanced courses in chemistry and other related courses via topics within containing matter and energy, atomic theory, periodic table with organic structures compounds, name culture, synthesis, reaction mechanism of compounds. The students will complete practical course to acquire practical skills. The teaching strategies will include lectures, tutorials, practical sessions, interactive discussions problem solving. The students will be evaluated through practical exam, written exam and report. | | | | |
| **Topics Covered:** | | | | |
| **Theoretical Aspects** | | | | |
|  | Introduction to the course. | | | |
|  | Atom, molecule and ion. | | | |
|  | Stoichiometry, calculation with chemical formula and equations. | | | |
|  | Periodic properties of the elements. | | | |
|  | Mid-Term Exam. | | | |
|  | Introduction. | | | |
|  | Alkanes and cycloalkanes. | | | |
|  | Alkene and alkyne. | | | |
|  | Alkyl halide and alcohols. | | | |
|  | Aldehyde, Ketone and Caboxylic acid. | | | |
|  | Final Exam. | | | |
| **Practical Aspects** | | | | |
|  | Lab. safety | | | |
|  | Laboratory Equipment and uses | | | |
|  | Identification of carbonate and bicarbonate | | | |
|  | Identification of chloride and Iodide | | | |
|  | Identification of sulphate and borate | | | |
|  | Scheme for identification of unknown salts | | | |
|  | Identification of Alcohols | | | |
|  | Identification of Aldehydes and Ketons | | | |
|  | Identification of Carboxylic Acid (Liquid) | | | |
|  | Scheme of Liquid | | | |
|  | Final Exam | | | |
| **Course Learning Outcomes:** | | | | |
| After completing this course, students would be able to: | | | | |
|  | Know the nature of matter and its properties. | | | |
|  | Classify elements according to their electronic structure and understand how that affecting periodic properties. | | | |
|  | Summarize the naming, synthesis of organic compound. | | | |
|  | Discriminate types of chemical reactions. | | | |
|  | Using stoichiometry concept to solve the problems related to chemical calculations. | | | |
|  | Handle chemicals in their various forms in a safe manner. | | | |
|  | Conduct experiments and analyze results. | | | |
|  | Work effectively as a part of team in order to fulfill a certain project. | | | |
| **Textbooks:** | | | | |
| 1 | Brwon, Lemay, and Bursten, (2002), CHEMISTRY, Ninth Edition,the Central Science,  Prentice Hall Inc. U.S.A. | | | |
| 2 | Morrison and Boyed, 2011, Organic Chemistry, Pearson, India. | | | |
| **Course Assessment:** | | | | |
| **No.** | **Assessment Tasks** | | **Mark** | |
|  | Report | | 5 | |
|  | Midterm Exam | | 15 | |
|  | Practical Exam | | 30 | |
|  | Final Exam | | 50 | |
| **Total** | | | **100** | |