**Course Specifications**

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| **University** | Beni suef |
| **Faculty** | Pharmacy |
| **Dept.** | Organic Chemistry |

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| **1-Course Info.** | **Course Name:** Organic chemistry I. |
| **Code No.** PC102 | **Academic year/ Level:** first level, first semester |
| **Credit hours:** Lecture (2) hour + Practical (1) hour | |

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| **2-Overall Aim of the Course** | This course aims to:  1- Ensure that students have necessary knowledge, understanding and skills to apply the nomenclature & basic chemistry of aliphatic organic compounds. | |
| **3-Intended Learning Outcomes of the course (ILOs)**  **By the end of this course, the student should able to:** | | |
| **a. Knowledge and understanding** | | **a1. Identify** the Principles of aliphatic organic chemistry.  **a2.** **Explain** the Physical and chemical properties of aliphatic organic compounds used in preparation of medicines including inactive and active ingredients.  **a3.** **Report** the Principles of synthesis and mechanisms of aliphatic organic reactions. |
| **b. Intellectual Skills** | | **b1.** **Use** the proper pharmaceutical terms, abbreviations and symbols in chemistry practice.  **b2.** **Handle** chemicals and pharmaceutical preparations safely.  **b3. Identify** aliphatic compounds from different origins. |
| **c. Professional and Practical Skills** | | **c1.** **Select** the appropriate methods of synthesis, purification, identification of aliphatic substances from different origins. |
| **d. General and Transferable Skills** | | **d1. Communicate** clearly by verbal and written means and communicate with other colleagues**.**  **d2. Work** effectively in a team.  **d3.** **Adopt** safety guidelines.  **d4. Demonstrate** creativity and time management abilities.  **d5. Implement** writing and presentation skills**.**  **d6. Demonstrate** critical thinking, problem-solving and decision-making abilities. |
| **4-Course Contents** | | |  |  |  |  | | --- | --- | --- | --- | | **Topics** | **No. of Hours** | **Lecture** | **Tutorial /Practical** | | Introduction | **2** | **1** | **2** | | Aliphatic hydrocarbons | **8** | **4** | **2** | | Halogenated hydrocarbons | **2** | **1** | **2** | | Alcohols , Ethers | **2** | **1** | **4** | | Aliphatic carbonyl compounds | **4** | **2** | **4** | | Aliphatic amines | **2** | **1** | **2** | | Aliphatic carboxylic compounds | **4** | **2** | **2** | | Practical exam |  | **-** | **2** | | **Total** | **24** | **12** | **22** | |
| **5- Teaching and learning Strategies** | | 5.1. Lectures.  5.2. Practical sessions.  5.3. Discussion sessions.  5.4. Class activity  5.5. Take home assignments and exercises  5.6. Problem solving and working in groups |
| **6- Teaching and learning Methods** | | Computer-aided data show, microphone, overhead  Projector, whiteboard, markers. |
| **7- Student Assessment Methods** | |  |
| **a-Methods** | | 7.1. Exercise and quizes to assess knowledge and understanding of the course.  7.2. Practical exams to assess ability for identification of unknown organic compound.  7.3. Written exam to assess applications of basic information and ability to solve problems.  7.4. Oral exam to assess verbal presentation of the basic knowledge and solve questions. |
| **b- Assessment Schedule** | | Assessment 1: Quizes……………… ….. week 6 &week 12  Assessment 2: Practical Exam………………… week 11  Assessment 3: Final written exam………… .week 14-16\*  Assessment 4: Final oral exam……………… ..week 14-16  \* According to exams time table. |
| **c- Weighting of Assessment Marks** | | |  |  | | --- | --- | | **Type of Assessment** | **Weight (%)** | | Semester work  Sheet exam | 10% | | Practical exam | 25% | | Final written exam | 50% | | Final oral exam | 15% | | **Total** | **100%** | |
| **8-List of References** | |  |
| **a.Notes** | | 8a.1. Course Notes "Theoretical and Practical Notes by the department teaching staff, supplied by the department secretaries". |
| **b.Mandatory Books** | | 8b.1. G. Solomon's & C. Fryle; Organic Chemistry; 8th Edition, John Wiley & Sons, Inc., (2004).  8b.2. Fundamentals of Organic Chemistry. John MucMurry and Eric Simanek 1st edition (2007). |
| **c.Suggested Books** | | 8c.1   Brown, Foote & Iverson; Organic Chemistry; 4th Edition, Thomson Brooke-Cole, 2005.  8c. 2 [A text-book of chemistry: intended for the use of pharmaceutical](http://books.google.com.eg/books?id=mcTQAAAAMAAJ&q=books+in+aliphatic+hydrocarbons&dq=books+in+aliphatic+hydrocarbons&hl=ar&ei=qf6yTNHTIMmdOrDxqIwH&sa=X&oi=book_result&ct=result&resnum=1&ved=0CCgQ6AEwAA) [Samuel Philip Sadtler](http://www.google.com.eg/search?hl=ar&safe=active&tbo=1&tbs=bks:1&q=inauthor:%22Samuel+Philip+Sadtler%22&sa=X&ei=qf6yTNHTIMmdOrDxqIwH&ved=0CCkQ9Ag), [Virgil Coblentz](http://www.google.com.eg/search?hl=ar&safe=active&tbo=1&tbs=bks:1&q=inauthor:%22Virgil+Coblentz%22&sa=X&ei=qf6yTNHTIMmdOrDxqIwH&ved=0CCoQ9Ag), [Jeannot Hostmann](http://www.google.com.eg/search?hl=ar&safe=active&tbo=1&tbs=bks:1&q=inauthor:%22Jeannot+Hostmann%22&sa=X&ei=qf6yTNHTIMmdOrDxqIwH&ved=0CCsQ9Ag) - 1918  8c.3. [Halogenated hydrocarbons: solubility-miscibility with water](http://books.google.com.eg/books?id=Ic0gv2OzoVYC&pg=PR7&dq=books+in+halogenated+hydrocarbone&hl=ar&ei=SP-yTL3iEomdOoaq1YQG&sa=X&oi=book_result&ct=result&resnum=1&ved=0CCcQ6AEwAA)[Ari L. Horvath](http://www.google.com.eg/search?hl=ar&safe=active&tbo=1&tbs=bks:1&q=inauthor:%22Ari+L.+Horvath%22&sa=X&ei=SP-yTL3iEomdOoaq1YQG&ved=0CCgQ9Ag) - 1982  8c.4. [The chemistry of carbonyl compounds](http://books.google.com.eg/books?id=k8KwAAAAIAAJ&q=books+in+carbonyl+compounds&dq=books+in+carbonyl+compounds&hl=ar&ei=wv-yTO-uKMLtOYj16cEF&sa=X&oi=book_result&ct=result&resnum=1&ved=0CCUQ6AEwAA)[Carl David Gutsche](http://www.google.com.eg/search?hl=ar&safe=active&tbo=1&tbs=bks:1&q=inauthor:%22Carl+David+Gutsche%22&sa=X&ei=wv-yTO-uKMLtOYj16cEF&ved=0CCYQ9Ag) - 1967  8c.5. [Alcohols: Vana Tallinn, Cicutoxin, Chloroxylenol, Prolinol, Books, LLC - 2010 ...](http://books.google.com.eg/books?id=Zh7VbwAACAAJ&dq=books+in+alcohols&hl=ar&ei=GgCzTIS7DJCaOvGn4IQG&sa=X&oi=book_result&ct=result&resnum=1&ved=0CCYQ6AEwAA)  8c.6. [Straight-Chain Alcohols: Ethanol](http://books.google.com.eg/books?id=UOlNSwAACAAJ&dq=books+in+alcohols&hl=ar&ei=GgCzTIS7DJCaOvGn4IQG&sa=X&oi=book_result&ct=result&resnum=2&ved=0CCkQ6AEwAQ)[Books, LLC](http://www.google.com.eg/search?hl=ar&safe=active&tbo=1&tbs=bks:1&q=inauthor:%22Books,+LLC%22&sa=X&ei=GgCzTIS7DJCaOvGn4IQG&ved=0CCoQ9Ag) - 2010  8c.7. aliphatic amines and related compounds: an assessment of [David BarringerClayson](http://www.google.com.eg/search?hl=ar&safe=active&tbo=1&tbs=bks:1&q=inauthor:%22David+Barringer+Clayson%22&sa=X&ei=0gCzTJ6QKM7tOevt0MsG&ved=0CEMQ9Ag), [Assembly of Life Sciences (U.S.).](http://www.google.com.eg/search?hl=ar&safe=active&tbo=1&tbs=bks:1&q=inauthor:%22Assembly+of+Life+Sciences+(U.S.).+Committee+on+Amines%22&sa=X&ei=0gCzTJ6QKM7tOevt0MsG&ved=0CEQQ9Ag)  8c.8.Vogel; Practical Organic Chemistry. |
| **d.Journals** | | **---** |

**Course Coordinators: Dr. Rania Badawy**

**Head of department:**

**Date:** 28/9/2015