



**Department of .....Food Technology**

**College of ...Agriculture**

**University of .....Salahaddin**

**Subject: ...Waste Management (Elective)**

**Course Outline– *Fourth year-2<sup>nd</sup> semester***

**Lecturer's name Assist.Prof.Dr. Safea Sabir Taha (PhD)**

**Dr.Khanazad Azez(PhD)**

**Academic Year: 2017/2018**

## Course Book

<b>1. Course name</b>	Waste Management
<b>2. Lecturer in charge</b>	Assist.Prof. Dr. Safea Sabir Taha
<b>3. Department/ College</b>	Food Technology/ Agriculture
<b>4. Contact</b>	<b>e-mail: Safea.Taha@su.edu.krd</b> <b>Tel: (optional)</b>
<b>5. Time (in hours) per week</b>	<b>Theory: 2</b>
<b>6. Office hours</b>	<b>Availability of the lecturer to the student during the week 6</b>
<b>7. Course code</b>	
<b>8. Teacher's academic profile</b>	<p><b>PROFESSIONAL EXPERIENCES</b></p> <p>* 1- B. Sc. In Biochemistry science/science college – Univer.of Baghdad in 1975</p> <p>2- M. Sc. In Organic Chemistry science/science college – Univer. of Salahhadin in 2001</p> <p><b>Thesis title</b> (<i>Synthesis and Spectroscopic Studies of some Coumarin -3-Carboxylic Acid Compounds by Ultrasonic Promoted Knoevenagel Reaction</i>)</p> <p>3- Ph. D. In Petroleum Chemistry science /scientific educational college– Univer. of Salahadin in 2007</p> <p><b>Thesis title</b> (<i>Evaluation of Crude Oil and its Products of Tawke Well in Zakho-Kurdistan Region and Gasoline Octane Number Improvement by Some Additives</i>)</p> <p><b>Undergraduate Students</b></p> <p>1. Organic Chemistry    2. Biochemistry</p> <p>3. Physical Chemistry    4. Inorganic chemistry</p> <p>5. Analytic chemistry</p>

### **Postgraduate Students**

1. Food Physics 2. Food pigments 3. Biopolymer

### **Sciential degrees**

1- Scientific Researcher

2- Assistant Lecturer 2003-2007

3- Lecturer 2007-2012

4- Assistant Professor 2012 till now

### **Scientific and Office works**

There isn't any office work

### **Supervised and Researches**

\* Published more than 5 scientific researches in several scientific Journals

\* Supervised on 1 master thesis and 1 Diploma Thesis in industrial chemistry.

\*Contributed as a member or supervisor for 7 examination committee for discussion master and three Ph.D. thesis.

\* Supervised on more than 18 research projects at the end stage of undergraduate student.

### **The Conferences Contrib**

1. The first international scientific conference of Cihan University – Erbil, May, 20-21, 2014.

2. The 5<sup>th</sup> international scientific conference of Eshik university – Erbil April 13-14, 2014

3. 2<sup>nd</sup> Scientific conference of garmian university 6,7 -2015

	<p><b><u>Periods</u></b></p> <p>1-Preperation period for assistant Lab., M.Sc. students &amp; M.Sc. teachers chemists deals with the chemical Safety &amp; security in Agriculture College for all Depts in Salahadin Univer. 15/9/2012 for two weeks..</p> <p>2- Preperation period for assistant Lab., M.Sc. students &amp; M.Sc. teachers chemists deals with the <b>chemical Safety &amp; security</b> in Agriculture College for all Depts in Salahadin Univer/Hawler. 15/9/2014 for two weeks.</p> <p><b><u>Committees</u></b></p> <p>1- Contributed as a member of elevation scientific degree committee in college of Agriculture departs/Univer. of Salahadin- Hawler to determine scientific grade in no.352 at10/11/2014.</p> <p>2- Contributed as a member of elevation scientific degree committee in college of Agriculture departs/Univer. of Salahadin- Hawler to determine scientific grade in no.4452 at 14/12/2015. .</p> <p>3-Head of chemical consolidation committee in college of Agriculture departs./Univer. of Salahadin-Hawler since 2013.</p> <p>4-Member of scientific committee depart. of Food Technolog/college of Agriculture/Univer. of Salahadin-Hawler from 2009-2014.</p> <p>5. Member of Higher Education committee depart. Of Food Technolog / college of Agriculture/Univer. of Salahadin- Hawler since 2009.</p>
<b>9. Keywords</b>	This course is a natural continuation of a course in organic chemistry, but the material is

more focused. The basic goal is to establish a connection between different families of organic compounds through their activities inequalities and feasible region. Some topics are hydrocarbon compounds like alkanes ,alkenes, & alkynes, besides to the cycloalkane & aromatic compounds,with their preparation & chemical reactions, also some knowledge about alcohol, ketone, aldehydes & carboxylic acids .

**10.**

The more general objective of this course is to continue providing a deeper understanding and working knowledge of organic chemistry, while in the process strengthening analytical skills increasing student's ability to communicate organic compounds structurally and orally, making them comfortable with reading and understanding different organic compounds on their own and continuing to develop their appreciation for abstract organic chemistry.

**11. Course objective:**

The topics listed in the syllabi will be covered in the lectures. The students will be asked to study all topics in the lectures at home. To get the best of the course it is suggested that the students attend classes as much as possible. Lectures note, are for supporting not for submitting the reading material try as much as possible to participate in classroom preparing the assignments given in the course.

**12. Student's obligation:**

Students role is very crucial in this course. They need to spend some time in solving and understanding the main concepts.

**13. Forms of teaching**

We will use datashow & the board in this course. The board is an old fashioned method of teaching the chemical structure of organic compounds, and followed in most of well known universities.

<p><b>14. Assessment scheme</b></p> <p>1. Two tests (2 x 3%). 2% for active participation and attendance. for 20% of the term mark the annual striving in 25% theory .</p> <p>2. Final examination 60%.</p> <p>3. If the student couldn't secure a minimum of 50% for the term and final examination to pass the course, they are given a chance to repeat the final examination in September.</p>	
<p><b>15. Student learning outcome:</b></p> <p>The students will learn some concepts in this new field of organics. It will be useful once the pursue a postgraduate degree</p>	
<p><b>16. Course Reading List and References:</b></p> <ul style="list-style-type: none"> <li>• Morrison and Boyd, Organic Chemistry, 4th. Allyn and Bacon, Inc. (1984).</li> <li>• R.O. Norman, Principles of Organic synthesis, Methuen &amp; Co Ltd and Science Paperbacks 1972.</li> <li>• Francis A. Carey, Organic Chemistry Sixth Ed. (2006)</li> </ul>	
<p><b>17. The Topics:</b></p> <p>In this section the lecturer shall write titles of all topics he/she is going to give during the term. This also includes a brief description of the objectives of each topic, date and time of the lecture</p> <p>Each term should include not less than 16 weeks</p>	<p><b>Lecturer's name</b></p> <p>Dr. Safea Sabir Taha</p>
<p><b>18. Practical Topics (If there is any)</b></p> <p>In this section The lecturer shall write titles of all practical topics he/she is going to give during the term. This also includes a brief description of the objectives of each topic, date and time of the lecture</p>	
<p><b>19. Examinations:</b></p> <p>The exams will be a combination of solving problems and explaining certain ideas of the course</p> <ul style="list-style-type: none"> <li>• Quizzes 5%.</li> <li>• Examinations will be given, 20%.</li> <li>• Final exam 60%.</li> </ul>	
<p><b>20. Extra notes:</b> None</p>	
<p><b>21. Peer review</b> پيداچوونه</p>	

## Syllabus of Waste Management

No.	Title of the subject
<b>Week 1</b>	General definition of wastes with examples , European Union(EU) Definition , Schematic illustration of the EU legal definition of wastes , Basel Convention of definition , Disposal means
<b>Week 2</b>	United Nation Statistic Division (U.N.S.D) , The ways which generate wastes , Kinds of wastes according to the waste phases , Classification of wastes according to their properties , Classification of wastes according to their effects on human health and the environment ,
<b>Week 3</b>	Classification of wastes according to their origin and type with the indication of their sources , Impacts of wastes if not managed wisely , Impacts of wastes on countries , Impacts of wastes on air ,
<b>Week 4</b>	Sources of human exposures to the wastes , Points of contact to the wastes , Waste hierarchy , Minimizing Solid Wastes , Categories of waste disposal , Useful options of waste management ,
<b>Week 5</b>	Impacts of waste on health , Effects of waste on animal and aquatic life , Impacts of waste on environment
<b>Week 6</b>	What should be done for waste management , Employee education , Sound waste management system , Residents organization
<b>Week 7</b>	Examination + discussion
<b>Week 8</b>	
<b>Week 9</b>	
<b>Week 10</b>	
<b>Week 11</b>	
<b>Week 12</b>	
<b>Week 13</b>	

<b>Week 14</b>	
<b>Week 15</b>	