Course specification

University/Academy: Damanhour University

Faculty/Institute: Science

Department: Chemistry

1. course Data:		
Course code: Chem. 409	Course title: Organic Chemistry 5	**Academic year/level:** 2010-2011 Third year /1st term
Specialization: Special Chemistry	No. of instructional units: lecture 2hrs/week tutorial 2hrs/week practical 4 hrs/week	

2. course Aim	By the end of this course, students should be able to: • Understand the chemistry of Alkaloids (nomenclature, classification, Preparation and reactions). • Realize the principles of Terpenes ,steroids and photochemistry
3. Intended learning outcome	
a) Knowledge and understanding	By the end of this course, students should be able to: A1:define the principles of Isolation purification. General properties. General methods of structure determination. Classification and. Specific examples for Alkaloids Terpenes , steroids and photochemistry.
b) Intellectual skills	By the end of this course, students should be able to: B1:analyse Vitamin D, Bile acids, Steroid sex hormones, Flavones, anthocyanins, and prophyrins and Organic photochemistry
c) Professional skills	By the end of the course, student will be able to:

	C1: prepare Simple organic preparations C2: Use the spectroscopic techniques in the identification of organic compounds by IR, UV, ^{1}H-NMR, ^{13}C-NMR and mass spectra.
d) General skills	D1: IT and web search engines for collecting information. D2: Work effectively in a team, and independently on solving organic chemistry problems. D3: Exchange ideas, principles and information by oral, written and visual means. D4: Communicate effectively with his lecturer and colleagues.
4. course content	**Alkaloids:** Definition. Isolation and purification. General properties. General methods of structure determination of **Alkaloids**. Classification. Specific example from each group of **Alkaloids** . **Terpenoids (Terpenes):** Introduction. Monoterpenoids. Acyclic monoterpenoids. Acyclic sesquiterpenoids. Monocyclic sesquiterpenoids. Bicyclic sesquiterpenoids. Acyclic diterpenoids. Bicyclic diterpenoids. **Steroids:** Zoosterols. Phytosterols. Vitamin D. Bile acids. Steroid sex hormones. Flavones, anthocyanins, and prophyrins. Organic photochemistry
5. Teaching and learning methods	5.1. Lectures and seminars using data show and board. 5.2. Laboratory work and assignment. 5.3. Problem classes and group tutorial. 5.4. Reports and discussion groups
6. teaching and learning methods for	--------

students with special needs	
7. Student Assessment	7.1. Mid term exam. 7.2. Practical exam. 7.3. Problems. 7.4. Assignments. 7.5 Written exam.
a) Procedures used:	----------
b) Schedule:	Assessment 1: Practical — Week: 4-13 Assessment 2: Mid term — Week: 9 Assessment 3: Final practical — Week: 15 Assessment 4: Final written — Week: 1
c) Weighing of Assessment:	Mid-Term Examination: 15 Final-Term Examination: 100 Practical Examination: 25 Semester Work: 10 Other types of assessment 0 Total 150
8. List of Textbooks and References:	8.1. Course Notes 8.2. Essential Books (Text Books). • Organic Chemistry, 4 th Eddition by Robert Wlorrison and Robert Boyd, Allyn and Bacon, Ir.c., Boston, London, Sydney, Toronto, 1983. • Organic Chemistry, 6 th Eddition by I. L. Finar,

	Longmann Group Limited, volume I and I11975. • Fundamentals of Organic chemistry, 5 th Edition by Solomon, 1991. • Fundamentals of spectroscopic methods,2 th Edition ,1985. 8.3 Recommended books. 8.4 Periodical and website
a) Course Notes	Course notes provided by the staff member of Math department, to be handed at the beginning of the semester.
b) Required Books (Textbooks)	**-None**
c) Recommended Books	**--------None--**
d) Periodicals, web sites,…,etc	**None**

Course Instructor:

1- Prof.Dr Adel Zaki Nasr

2- Dr.Mohamed Abd Ellatif Zein

Head of Department: Dr. Medhat A. Shaker

Date: -----/-----/----