Course specification

University/Academy: Damanhour University

Faculty/Institute: Science

Department: Chemistry

1. course Data:		
Course code: Chem. 408	**Course title:** Organic Chemistry 6	**Academic year/level:** 2010-2011 fourth year /2nd term
Specialization: Special Chemistry	No. of instructional units: lecture 2hrs/week tutorial 1hrs/week practical 4 hrs/week	

2. course Aim	By the end of this course, students should be able to: • Identify Chemotherapy: Introduction. Sulfonamides. Antimalarials. Arsenical drugs. Selected examples of antibiotics. • Discuss the Petroleum chemistry. • Report the Color, chemical structure, Nomenclature, Classification and Synthesis of different types of dyes. • Underline the types of fibers and their properties. • Practice the Detergents and its action in applied chemistry.
3. Intended learning outcome	
a) Knowledge and understanding	By the end of this course, students should be able to: A1: Define the chemotherapy and select examples of antibiotics. A2:mention the principles of petroleum chemistry. A3: Describe the types ,properties and actions of Dyes,

	Fibers and Detergents.
b) Intellectual skills	By the end of this course, students should be able to: B1: Conclude the action of antibiotics. B2**:** evaluate the principles of petroleum chemistry B3**:** interpret the applications of Dyes, Fibers and Detergents in life chemistry.
c) Professional skills	By the end of the course, student will be able to: C1: prepare Simple organic compounds. C2: examine some quantitative organic analysis C3: perform some Applications for Drugs, Dyes,and Detergents
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	Chemotherapy: Introduction. Sulfonamides. Antimalarials. Arsenical drugs. Selected examples of antibiotics (penicillins, cephalosporin C, streptomycin, patulin, chloramphenicol, macrolide antibiotics). Petroleum chemistry: Hydrocarbon and non-hydrocarbon constituents of crude oil. Refining of petroleum. Thermal and catalytic cracking and reforming. Up-grading octane number. Petrochemical processes of industrial interest. Dyes: Color and chemical structure. Nomenclature. Classification. Synthesis of different types of dyes. Pigments. Fibers: National fibers, animal, vegetable. regenerated fibers, synthetic fibers. polyamides, polyesters, acrylic, polyolefins. Elastomeric fibers, high temperature fibers, carbon fibers. Detergents: The detergency process, saponification processes,

	synthetic surfactants, ethoxylation reaction, fabric washing products, fabric softening products, dish washing liquids. Organic photochemistry. Organometallics in organic sythesis Polysaccharides.
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: 16
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:	6.1. Course Notes 6.2. 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. • Petroleum chemistry , 3th Edition by M.M.El Aimary, center of petroleum researchs.1990. • Herper's illustrated Biochemistry,27 th Edition by Murray, Granner and Rodwell, 2006. 6.3 Recommended books. 6.4 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: **Head of Department:** Dr. Medhat A. Shaker

1- Prof.Dr Adel Zaki Nasr

2- Dr.Mohamed Abd Ellatif Zein

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