



Course specification

University/Academy: Damanhour

Faculty/Institute: Science

Department :Zoology

1. course Data:

Course code: Zool 401	Course title: Comparative animal physiology.	Academic year:2010/2011 level: Fourth year /, first term.
Specialization: Special zoology	No. of instructional units: lecture <input type="text" value="3hr"/> practical <input type="text" value="4hr"/>	

2. course Aim

a-Explaining and apply the basic methods used in physiology

b-Defining the physiological concepts

c-Explaining the principles of physiology such as: Nutrition and absorption of food, Metabolism, Respiration, Body fluids and their circulation, Excretion and osmotic & ionic regulation , types & properties of the heart, the movement in the animal kingdom, nervous & hormonal coordination and reproduction in the animal kingdom.

This course is designed also to:

d-providing practical training for students in modern laboratory techniques, methods, instrumentation and analysis

e-Developing in students the ability to apply



	their physiological knowledge and skills to solve the theoretical and practical problems in physiology
3. Intended learning outcome	
a) Knowledge and understanding	A1-list some technical methods used in physiology A2- illustrate physiological instrumentation and data analysis A3- describe the basic mechanisms and biochemical transformation occurring in the animal and human bodies A4- mention the basic definitions commonly used in physiology A5- summarize the laws governing the response of living matter to the effect of its environment
b) Intellectual skills	B1- Analyze thinking as related to the physiological aspects in animals and human B2-Discuss and apply the essential facts, concepts, principles and theories relating to the physiological problems.
c) Professional skills	C1-use instruments of physiology C2- prepare and implement simple practical programs to calculate some physiological parameters and different analysis techniques C3- elicit literature searches to find information on a specific topic.



d) General skills	D1: Communicate with each other for covering both written and oral tasks. D2: Exchange skills, relating to the ability to interact with other people and to engage in team working.
4. course content	Food requirements of animals. Metabolism: <ul style="list-style-type: none">▪ Metabolism of carbohydrates▪ Metabolism of Proteins. Metabolism of Fats. Respiration The blood: Properties of the human blood – Constituents – Functions – Coagulation – Agglutination & blood groups Physiology of excretion Physiology of the heart (types, properties, human E.C.G.) Physiology of the movement (Amoeboid – Ciliary – Flagellar & muscular movement) Physiology of coordination: <ul style="list-style-type: none">▪ Nervous coordination. Hormonal coordination Reproduction: Mechanisms of reproduction in animal kingdom.
5. Teaching and learning methods	1- Lectures. 2- Practical. 3- Seminar. 4-Research assignment



<p>6. teaching and learning methods for students with special needs</p>	<p>-----</p>																		
<p>7. Student Assessment</p>																			
<p>a) Procedures used:</p>	<p>a.1- Final term examination to assess complete understanding of the class topics a.2-Mid - term examination to follow up the students understanding a.3- Class activities (reports, discussions, seminars, practical ... etc) to assess the student intellectual, professional ,practical, general and transferable skills.</p>																		
<p>b) Schedule:</p>	<p>Assessment 1: Practical Examination Week 14 Assessment 2: Final-Term Examination Week16</p>																		
<p>c) Weighing of Assessment:</p>	<table border="0"> <tr> <td>Mid-Term Examination:</td> <td>(15)</td> <td>10 %</td> </tr> <tr> <td>Final-Term Examination:</td> <td>(150)</td> <td>66.6 %</td> </tr> <tr> <td>Practical Examination:</td> <td>(25)</td> <td>16.8 %</td> </tr> <tr> <td>Semester Work:</td> <td>(10)</td> <td>6.6 %</td> </tr> <tr> <td colspan="3"><hr/></td> </tr> <tr> <td>total</td> <td>(200)</td> <td>100%</td> </tr> </table>	Mid-Term Examination:	(15)	10 %	Final-Term Examination:	(150)	66.6 %	Practical Examination:	(25)	16.8 %	Semester Work:	(10)	6.6 %	<hr/>			total	(200)	100%
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<p>8. List of Textbooks and References:</p>	<p>-----</p>																		
<p>a) Course Notes</p>	<p>Lectures notes were prepared and handed out to</p>																		



	the students.
b) Required Books (Textbooks)	Wilson, J.A., Principles of Animal physiology , Macmillan Pub. Co. Inc., New York, 1972. Library. Hoar, W.S., General & Comparative physiology . (3 rd ed.) , Prentice-Hall, Inc., Englewood Cliffs, New Jersey, 1983. library.
c) Recommended Books	Nielsen ,K.S., Animal physiology :adaptation & environment.(low price ed.) , Cambridge Univ.Press, 1995. library. Bullock , J., Boyle, J. and Wang, M.B., Physiology . (3 rd ed.) , Mass Pub. Co., Egypt. (Middle East ed.), 1995. . library.
d) Periodicals, web sites, ..., etc	www. Science direct .com http. // www. Wikipedia.com http. // www .result.com

Course Instructor: Prof . Karoline Kamel Abdel Aziz

Head of Department: Prof . Karoline Kamel Abdel Aziz

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