

**University: Benha**

**Faculty of Science**

**Course Specifications:**

Programme(s) on which the course is given: **Biology**

**Major or Minor element of programs:** Major

**Department offering the program:** Biology

**Department offering the course:** Zoology

**Academic year / Level:** 2<sup>nd</sup> year/ 1<sup>st</sup> term

**Date of specification approval:** 2008

**A- Basic Information**

**Title:** Chordata and genetics

**Code:** 241 Z

**Credit Hours:**

**Lecture:** 3 hrs/week

**Tutorial:**

**Practical:** 4 hrs/W

**Total:** 7 hrs/week

**B- Professional Information**

**1. Overall Aims of Course: At end of this course the students able to:**

- To understand basis of genetics.
- To understand the phylogeny of the chordates.

**2. Intended Learning Outcomes of Course (ILOs)**

**a- Knowledge and Understanding:** To make graduate able to:

- a1- Understand some basis of inheritance
- a2- Know cell structure(nucleus)
- a3- Understand the members of phylum chordate.
- a4- Makes comparison between the chordates on the basis of physiology and anatomy.

**b- Intellectual Skills:** To make graduate able to:

- b1- Know the basis of inheritance.
- b2- Specify the members of phylum chordate

**c- Professional and Practical Skills:** To make student able to:

- c1- dissect the chordate **animals.**

**C2- Solve the problem**

**d- General and Transferable Skills:** To make student able to:

- d1- Use the computer
- d2- Communicate with topics and internet
- d3- Community linked thinking

### 3. Contents

Topics	No. of hours	Lecture	Tutorial/Practical
Cell division and Crossing over	3	3	-
Laws of Mendel	9	9	-
Non-mendelian inheritance	3	3	-
General characters and classification of chordates, Amphioxus	7	3	4
General characters of vertebrate, petromyzon	7	3	4
Dog fish	11	3	8
Nile bolti	11	3	8
General characters of tetrapoda, lizard	11	3	8
pigeon	11	3	8
rabbit	11	3	8
Total	84	36	48

### 4. Teaching and Learning Methods

- 4.1- over head projector.
- 4.2- microscopic examination.
- 4.3- Animals dissection.

### 5. Student Assessment Methods

- 5.1 Discussions to assess applying and evaluating the information
- 5.2 Quiz to assess the acquired profession skills
- 5.3 Mid term exam to assess understanding **intellectual** skills
- 5.4 End of term exam to assess understanding **intellectual** skills

### 2-Assessment Schedule

Assessment : Discussions	Week 1-12
Assessment : Quiz	Week 3
Assessment : Mid term	Week 7
Assessment Final exam	Week 14
Assessment 4: Final exam	Week 14

### Weighting of Assessments

Mid-Term Examination	10%
Final-term Examination	48%
Oral Examination.	15%
Practical Examination	25%
Semester Work	2 %
Other types of assessment	%

Total

100%

Any formative only assessments

**6. List of References:**

6.1- **Course Notes:** Introduction to genetics - Chordata

6.2- **Essential Books (Text Books):**

Color Atlas of Genetics, 2<sup>nd</sup> ed. 2001; Georg Thieme Verlag publishing Co. (Passarge, E.)

- Chordate structure and function, 2<sup>nd</sup> Ed. 1977; Macmillan publishing Co., Inc. (Kluge, A. G.)

6.3- **Recommended Books:** Advanced genetics.

Color Atlas of Genetics, 2<sup>nd</sup> ed. 2001; Georg Thieme Verlag publishing Co. (Passarge, E.)

- Chordate structure and function, 2<sup>nd</sup> Ed. 1977; Macmillan publishing Co., Inc. (Kluge, A. G.)

6.4- **Periodicals, Web Sites ... etc:** [www.google.com](http://www.google.com), [www.gigapedia.org](http://www.gigapedia.org)

**7. Facilities Required for Teaching and Learning**

- Purchasing chordate's slides, high magnification student's microscopes, projectors, data show, and books.

**Course Coordinators:** Prof. Dr. / Mohamed N. M. Mosaad and Prof. Dr. / Mohamed E.M. Zowil

**Head of Department:** Prof. Dr. \ M. N. Seddek

**Date:** / /