**** The Islamia University of Bahawalpur

Abbasia Campus, Bahawalpur, Pakistan Ph: +92 - 62 - 9239114, Fax: +92 - 62 - 9250099 Email:qec@iub.edu.pk

**Tentative Course Plan**

**DEPARTMENT OF LIFE SCIENCES (ZOOLOGY)**

**Class: Semester- Session:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Instructor** | **Dr. Tahira Ruby** | **Email: tahira.ruby@iub.edu.pk** | |
| **Course Title** | **Animal Evolution** | **Program** | **BS-4 years** |
| **Course Number** | **LS-01405** | **Credit Hours** | **3(2+1)** |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Lecture** | | Monday,Tuesday,Thursday,Friday; 8:30-10:30am, 3:30-5:30pm, 2:30-3:30pm, 10:30-11:30am, 11:30-12:30pm, 2:30-3:30pm | | | |
| **Course Objective:**  The course imparts knowledge and concepts of evolution. The records also provide the information regarding the distribution of animals, preferred habitat, body systems and their classification. Historical aspects and future prospects about the modern concept of evolution will be discussed in detail.  **Course Outcomes:**   1. Detailed knowledge about the evolution of animals. 2. Knowledge about the adaptations and modern concepts. 3. Present status, Future prospects | | | | | |
| 1. The class will be conducted in a lecture and discussion environment, where the class teacher will lead discussion and students will be encouraged to participate and ask question at the end of session. The theory part will be supported by presentations and assignments in the field area accordingly. 2. Students will be expected to read assignments in advance and these will be tested through quizzes in class 3. The students will be taught theoretically with the help of audiovisual and conservative techniques 4. Students will be encouraged to deliver a seminar on the topic given to them 5. Teacher will be available for meeting class students immediately after each class | | | | | |
| **Resource Material** | | Ridley, M. 1993. Evolution. Blackwell Scientific Publications, USA.  Strickberger, M. W. 2000. Evolution. Jones & Barrett Publications, USA.  Taylor, D.J., N.P.Green and G.W.Stout. 1997. Biological Sciences, 3rd ed. Cambridge Publications, UK | | | |
| **Office Help Hours** | | All working days of the week | | | |
| **SEQUENCE OF TOPICS TO BE COVERED** | | | | | |
| Session # | Topics (outline of main topics and sub topics) | | Chapter # | Tutorial /Laboratory | |
| **1, 2 & 3** | The nature and origin of life | | Ch.7, (St)  Pp 127-135 |  | |
| **4, 5 & 6** | Evidences of evolution  (Molecular, Embryological, Paleontological); Variations | | Ch 3, Ch 22(St)  Pp 36-58,  Pp 571-573 |  | |
| **7, 8 & 9** | Theories to explain the diversity of life | | Ch.26, (T)  Pp 879-904 |  | |
| **10, 11 & 12** | Lamarkism, Darwanism | | Ch.26,  Pp 879-904 |  | |
| **13, 14 & 15** | Neo-Darwanism, Mutation | | Ch.26,  Pp 879-904 |  | |
| **16, 17 & 18** | Natural Selection,  Survival of the fittest | | Ch.26,  Pp 879-904 |  | |
| **19, 20 & 21** | Convergence, Divergence | | Ch, 11(St) |  | |
| **22, 23 & 24** | Role of isolation in evolution | | Ch, 24 (St) |  | |
| **25** | **Mid Term Exam** | | Course/Discussion  from session 1 to 14 | | |
| **26, 27 & 28** | Mimicry, Types of mimicry and Importance | | Ch. 22,  Pp 568-570 | |  |
| **29, 30 & 31** | Factors initiating evolutionary changes, Orthogenesis | | Ch.3,  Pp 53-57 | |  |
| **32, 33 & 34** | Genetic drift, Mutation and Selection pressure | | Ch.22, Ch 23,  Pp 576-578  Pp 587, | |  |
| **35, 36 & 37** | Immigration, Emigration | | - | |  |
| **38, 39 & 40** | Adaptations | | Ch 2 detailed account (St) | |  |
| **41, 42 & 43** | Fisher’s view, Zahavi’s concept | | Evolution (St) | |  |
| **44, 45, 46 & 47** | Recapitulation theory,  Modern concept about evolution | | Evolution (St) | |  |
| **48** | **Final Term Exam** | | Course/Discussion  from session 1- 29 | | |

**Student Evaluation criteria:**

|  |  |
| --- | --- |
| Attendance | 5% |
| Workshop / Assignments/Case study | 5% |
| Surprise Test/Sudden Test , Quizzes | 5% |
| Class Participation | 5% |
| Mid Term Paper | 30% |
| Final Term paper | 50% |
| **Total** | **100%** |

**Student Responsibilities**:

Students must attend class.  Failure to attend class may result in failure in the course.  Students must also arrive on time and remain in class for the entire period.  Cellular Phones and Beeper must be Turned off (Proper classroom decorum [behavior] adopts, Course outlines and calendars explain requirements and assignments, students are responsible for knowing what they say.  Students are also responsible for doing all assigned work on time. Excessive absences (more than 03) will result in “F Grade”. Students may prepare Sketchbook for taking notes and for references.

**Instructor/Tutor**

**Approved by:**

**Dean/ Chairman/ HOD/ Subject Specialist/ Program Coordinator**