Jordan University of Science and Technology Faculty of Science and Arts Department of Biotechnology and Genetic Engineering Every Semester of each year

| Course Information | |
|--------------------|---------------------------|
| Course Title | General Biology Practical |
| Course Number | Bio 107 |
| Prerequisites | Bio 101 or 103 or co. |
| Course Website | |
| Instructor | Dr. Ziad Waheed Jaradat |
| Office Location | PH4 |
| Office Phone | 23495 |
| Office Hours | |
| E-mail | jaradatz@just.edu.jo |
| Teaching Assistant | |
| Course Description | |

The Microscope . Experiments to illustrate chemical and physical characreistics of macromolecules, the structure and composition of plant and animal cells.Respiration, division, and genetics. Study of plant and animal tissues. Discussion and comparing frog's anatomy to human anatomy.

| Text Book | |
|--------------|--|
| Title | A Laboratory Manual of General Biology |
| Author(s) | Laila Nimri and Ahmed El Bateiha |
| Publisher | |
| Year | 2004 |
| Edition | Second |
| Book Website | - |
| References | |

| Assessment Policy | | |
|-------------------|-------------------|--------|
| Assessment Type | Expected Due Date | Weight |
| First Exam | Nov 5 | 30% |
| Second Exam | | |
| Final Exam | Jan 15 | 40% |
| Assignments | | 30% |

| | Course Objectives | Weights |
|----|--|---------|
| 1. | The lab aims at introducing students to techniques necessary to understand cell structure and function and the enzyme action, histology of organs, how to use microscope and other techniques. | 50% |
| 2. | The lab also introduces the students to mitosis and meiosis and some aspects of human genetics. | 30% |

Teaching & Learning Methods

The laboratory instructor will give a brief talk 20-30 min on the background of the experiment and on the laboratory instruments. The instructor will then assign the students into groups of 2-3 to perform certain experiments under the supervision of the instructor.

| Learning Outcomes: Upon successful completion of this course, students will be able to | | |
|--|--|--------------------|
| Related Objective(s) | | Reference(s) pages |
| 1. | microscopy | 5-11 |
| 1. | Cell structure and function | 12-17 |
| 1. | Biomolecules of living things | 18-22 |
| 1. | Enzyme action, biomembranes and cellular respiration | 23-40 |
| 1. | Meiosis, mitosis and human genetics. | 41-63 |
| 2. | Animal Tissues, Histology of animal organs, , animal organization I and II, human systems and plant tissue and organs. | 64-141 |

Useful Resources

| Course Content | | |
|----------------|--------|----------------------------|
| Week | Topics | Chapter in Text (handouts) |
| | | |
| | | |

| Additional Notes | | |
|------------------|--|--|
| Assignments | Assignments will be given after every laboratory and will be handed in as reports. In addition, quizzes will be given every laboratory | |
| Exams | Times will be announced later | |
| Cheating | As per regulations of the Jordan University of Science and Technology | |
| Attendance | Laboratory attendance is mandatory. Student is allowed maximally 10% absentia of the total lab hours. | |
| | More than 20% absentia, student with an excuse will be drawn from the laboratory. Otherwise, student will be deprived from the Laboratory with zero mark assigned (FINAL GRADE 35) | |
| Workload | On average you should spent 6 hours /wk | |
| Graded Exams | - | |
| Participation | NA | |
| Laboratory | | |
| Projects | | |