

The Faculty of Science was established in 1991. The first batch graduated in 1995. Since its establishment, the Faculty of Science has been providing courses in Mathematics, Physics, Statistics, Chemistry and Nutrition for students of all majors at Philadelphia University (PU). Courses in computer Skills are now offered by the Department of Basic Sciences and mathematics. In an effort to keep pace with the latest developments of Biotechnology ,at the outset of the 21st century, in 2000-2001, the Department of Basic sciences was established . Mathematics major was introduced in 2003 .

### Academic Programs Available at the Faculty of Science

The Faculty of Science now houses the following Departments:

1. Department of Basic Sciences and mathematics : This department is responsible for offering/ teaching courses in Mathematics, Physics, Statistics, Nutrition, and Chemistry.

2. Department of Biotechnology and Genetic Engineering: The department offers a bachelor's degree in Biotechnology and Genetic Engineering. It was established to meet the rising demand for qualified and trained biotechnology . One of the main goals of the department is to provide necessary training for students to secure good career opportunities locally and regionally.

This is attainable by laying a good foundation in theory and practice in the basic sciences that include courses in Biology , Chemistry, Microbiology, Immunology, Computer Science, and other specialized fields such as Biotechnology, Biochemistry, Molecular Biology, Genetics, Animal, Plant tissue and others.

Additionally, graduates of this department possess the necessary skills and background that enable them to pursue their education at the graduate level in any of these fields. Specifically, students of this program are prepared to acquire knowledge and experience in:

A- Conducting technical procedures fundamental to biotechnology, such as DNA extraction, cloning, polymerase chain reactions (PCR), electrophoresis and blotting techniques, tissue culture, transfection techniques, and protein isolation and purification.

B- Conducting independent research in one of the key areas in biotechnology in their final year.

C- Scientific writing and oral presentations.

D- The use of computer technology to explore various genomes, protein sequences, and in statistaical analyses and graphic display.

E- The ethical issues concerning biotechnology.

### Fields of Specilization and Job

Graduates of the Department of Biotechnology and Genetic Engineering have the knowledge base, skills, and necessary training and experience to assume positions in various fields including:

- a- Research Centers
- b- Speciality Hospitals
- c- Agricultural Centers
- d- Ministry of Health
- e- Pharmaceutical Industry
- f- Forensic Medicine
- g- Environmental Protection Agencies
- h- Biotechnology Marketing
- i- Animal Husbandry

For Mathematics major the following are prospects for job opportunities :

- Ministry of Education
- Banks
- Insurance Companies .

### Curriculum Plan

Students become eligible for graduation after completing at least 132 credit hours. Students are required to consult their academic advisors before registering for any course. These courses include:

specialty courses, university requirements, specialty electives and faculty electives.

The academic year at PU consists of two semesters : Fall and Spring . Optional summer session is also offered to interested students. The official language of instruction in the Faculty of Science is English.



### Teaching And Training Facilities In The Faculty of Science

These facilities include:

1. PC Laboratories
2. LAN Laboratories
3. Workstation laboratories
4. UNIX Laboratories
5. Internet Laboratories
6. Genetic Engineering laboratories and other facilities which include:
  - a. Molecular Biology and Genetics Laboratory
  - b. Immunology and animal Cell Culture Laboratory
  - c. Plant Tissue Culture Laboratory
  - d.Greenhouse .
  - e. Animal House
  - f. Cold Room
  - g. Dark Room
  - h. Prep Laboratory
  - i. Microbiology Lab

### Learning And Training Facilities At PU

1. Electronic Library
2. Computer Center.
3. E-Learning Phoenix Training Center
4. UNESCO Computer Training Program (ICDL)
5. CISCO Computer Training Center
6. Microsoft Training Center

The computer laboratories are equipped with the latest computer technology (hardware and software) to meet the and teaching staff needs of students.