Introduction

Kathmandu University (KU) was established in November 1991, as an autonomous, not-for-profit, non-government, public institution managed through private initiative. The university is committed to develop leaders in professional areas through high quality education.

KU offers programs mostly in technical and professional areas. Most of the programs run at KU are first to be introduced in the country. This time also the university is launching a new undergraduate program in Applied Physics and Applied Mathematics for the first time in Nepal and among very few in SAARC countries.

Physics and Mathematics, endowed with a long and venerable history, continue to be dynamic disciplines with a wealth of new problems to tackle. These subjects continue to occupy central roles in the study of Natural Sciences, various technical courses, engineering and industrial applications. Data are integral part of any research or investigative process and Statistics gives us tools to analyze these data and extract useful information from it. So realizing the importance of these subjects Kathmandu University, School of Science offers a four years undergraduate program in Applied Physics and Applied Mathematics. It is a degree which prepares a student for either direct employment after graduation, or in the pursuit of an advanced degree.

A graduate of this program will be most adaptable individual in applied physics and applied mathematics. This program offers a variety of options to fit individual interests and career preferences.

The B.Sc. requirements are composed of a core, which all physics/mathematics students must take, and a set of technical and other electives chosen in different possible options depending on the interests of the students. The total required credit hours for a major degree is 150.

Objectives

- Production of qualified academic resource persons with strong background of Physics and Mathematics required for pursuing higher studies
- Conduction and promotion of research and development (R & D) activities by interdepartmental collaboration at colleges and universities.
- Establishment of collaborative relationship with national and foreign institutions of similar functions for mutual benefit by the exchange of students and sharing of knowledge and technology for the benefit of humankind.
- Production of globally acceptable competent graduates.

Features of the Program

This program in KU has the following special features.

- Four year program compatible with international standards
- A practically-based (laboratory and field visits) professional training combining Mathematics, Statistics and Physics
- Good foundation for those wishing to pursue further study and research
- A firm foundation of practical scientific methodology and computational skill along with professional competence as demanded by employers.

Duration

The total duration of the program is eight semesters. Each year consists of two semesters. The academic year usually starts in August and continues till May. The classes are generally held from 9.00 a.m. to 4.00 p.m Sunday through Friday. There is a study-break of at least one week before the semester examinations in each semester.

Teaching Methodology

The classes are designed with the philosophy of learner centeredness where the teacher act as facilitators and the focus is given to students’ learning activities. All the teachers will keep each of their students’ progress profiles. There are tutorial classes which will include group work, discussion, problem solving and other text based practices. Assignments, Practical and Consultations are integral parts of this program. The concerned teacher will give assignments to all students every week and students must do the assignments in the stipulated time. For various activities, the concerned teachers will decide whether to form mixed ability classes or diagnostic classes. It could also incorporate other activities like seminars, talks, role-plays, presentations and discussions as per the requirements of the subjects.

Specialization

Students will have to choose their specialization either in applied physics or in applied mathematics.

Computer Lab

Separate advanced Computer lab is available for students of this program.
Cost of the Program
Total cost for four years is Rs 3,20,000.00
In addition, students will have to pay for the followings:
  a. Dining at the university cafeteria.
  b. Accommodation and food for those staying in the university hostel.
All students will be insured for primary medical care at KUTH, Dhulikhel hospital. The insurance premium charge will be Rs. 600 per year.

Scholarships and Financial Aid
The University also provides a few loan scholarship and financial aid for some academically bright but economically weak students.

Library
Students will have access to well facilitated library with sufficient books. However, a minimum number of texts books must be possessed by students themselves.

Possible Employment Sectors
- Non Governmental Organizations (NGO)/ International Non Governmental Organizations (INGO)
- Banking / finance/Insurance sectors
- Government organizations
- Academic Institutes
- Industries

Eligibility for Admission
The candidates must have passed I. Sc. (or 10 + 2 or equivalent) with minimum of 50 % marks in aggregate and 50 % in PCM or Physics, Mathematics & Computer Science.