Admission Requirements

To be admitted, prospective students of Master of Science in physics program must:

- have 16 years of schooling with undergraduate level major in Physics.
- hold a certified Bachelor's degree in Physics or relevant from a recognized university with minimum of 50% marks in aggregate or CGPA 2.0 or equivalent.
- pass the screening process which will be conducted by the department.
- have an English proficiency of intermediate level or higher, and
- provide updated CV and cover letter requesting the entry to the Master of Science in Physics program.

Admission

Admission is based on the academic promise of applicants as indicated by their academic records, score on screening process and personal interview.

The M. Sc. programs have an annual admission policy with students admitted in the fall semester. Application forms are available at the office of the Head of Department, Department of Physics, School of Science, Dhulikhel, Kavre, or online at the School of Science website.

Evaluation

Evaluation is based on continuous assessment. Students are evaluated through class participation, assignments, practical and project works, term papers, end-semester examination and defense of dissertation. At the end of each semester, students are awarded letter grades as per following grading system.

Grade	A	A^-	B^+	B	B^-	C^+	C	F
Grade point	4.0	3.7	3.3	3.0	2.7	2.3	2.0	0

In order to complete M. Sc. degree, students are required to maintain a minimum of 3.0 Cumulative Grade Point Average (CGPA). No student is allowed to graduate with 'F' in any particular course. The maximum time allowed to complete the course is five-year from the date of admission into the program.

For detail information, please contact

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KATHMANDU UNIVERSITY

"Quality Education for Leadership"

M.Sc. in PHYSICS

Introduction

Department of Physics at the School of Science is one of the five Departments under the School offering both fundamental and applied programs. Our focus has been on both technical and professional level courses with proven quality through a consistent track record of graduate job placement as well as admission into post graduate studies abroad. We had introduced graduate level programs in Physics with M. Phil. in 1997 and Ph. D. in 2006, and Undergraduate Applied Physics in 2009.

As we have good numbers of students who have completed undergraduate level programs in Physics and seeking higher level education in the country, Department of Physics introduced M. Sc. program in Physics effective from March 2019. This program is designed to give students an up-to-date knowledge of recent trends in Physics. The curriculum has been so designed as to impart skills to the students in the domains of theoretical, experimental and applied physics. The main objective of the program is to produce human resource with skill in teaching and potential in research. The department maintains close association with the other departments under School of Science & School of Engineering providing excellent opportunities for interdisciplinary study and research. Low student to teacher ratio provides close interaction between students and faculty that facilitates responsiveness to the needs of each student.

Career Opportunity

Our M. Sc. graduates are prepared to start their career in various specialities of applied physics such as biophysics, plasma physics, astrophysics, medical physics, material science, areas such as optical or nuclear engineering, computer science, meteorology, photonics and nano materials. Additionally, this program will also open the door to research positions in industrial or in the Governmental sectors, and for teaching positions at higher levels.

Current Status

The department has now ten well qualified faculties who have been trained in teaching as well as research. Among them four faculties have Ph. D. and two with M. Phil. (Ph. D. in progress) with their specialization in different areas of Physics. Our laboratories offer facilities for general, advanced and specialized experiments in Physics. The general laboratory is designed for undergraduate students of Applied Science and engineering programs and the advanced laboratory is designed for students of Applied Physics. The specialized laboratory was established in 2005 which consists of research facilities in low temperature non-thermal plasma.

Course Structure

The course structure of the M. Sc. in Physics program is designed to be completed by full-time students in two academic years providing both theoretical and practical knowledge in various disciplines related to Physics. Some of the elective courses will be offered by international experts as per availability.

Year/Semester	Course outline (4-semester) M.Sc. in Physics						Total
I/I	PHYS 501 Mathematical Physics I [3]	PHYS 502 Classical Mechanics & Relativity [3]	PHYS 503 Quantum Mechanics I [3]	PHYS 504 Electro-Magnetic Theory [3]	PHYS 511 Renewable Energy [3]	PHYS 541 General Physics Lab [1]	16
I/II	PHYS 505 Mathematical Physics II [3]	PHYS 506 Statistical Mechanics [3]	PHYS 507 Quantum Mechanics II [3]	PHYS 508 Solid State Physics I [3]	PHYS 512 Biophysics [3]	PHYS 542 Electronics Lab [1]	16
II/I	PHYS 601 Solid State Physics II [3]	PHYS 602 Atomic & Molecular Physics [3]	PHYS 603 Optics & Photonics [3]	PHYS 611 Plasma Physics [3]	PHYS 612 Research Methodology [3]	PHYS 641 Advanced Physics Lab [1]	16
II/II	PHYS 63* [3]	PHYS 699 Thesis [9]					12
						Total	60

Course code	PHYS 63* Elective Subjects
PHYS 631	Physics of Nanomaterials
PHYS 632	Astrophysics / Particle Physics
PHYS 633	Medical Physics
PHYS 634	High Performance Computing
PHYS 635	Physics of PV Materials & System
PHYS 636	Instrumentation
PHYS 637	Computational Physics