SCHOOL OF STUDIES IN PHYSICS

Programmes Offered:

B.Sc. (Honors) (Eight Semester / Four years with multi-entry and multi-exit scheme)
M.Sc. (Four Semesters / Two years)
M.Sc. (Two semesters / One year)
Ph.D. (Doctor of Philosophy in Physics)

Profile of the Department:

Founded in 1972, the Department of Physics began with an intake of just 10 students and a single specialization in Electronics. Over the years, it has significantly expanded, now admitting 40 students annually and offering three specialized tracks: (i) Integrated Electronics, (ii) Materials Science, and (iii) Computer Applications in Physics.

The department's programs are designed to prepare students for careers in teaching and research in the evolving and interdisciplinary fields of Physics. The curriculum blends a solid theoretical foundation with practical applications, emphasizing both the emerging areas of the discipline and their real-world applications in research and technology.

Starting in the 2025–26 academic session, the department will introduce a B.Sc. (Hons./Research) in Physics, a four-year (eight-semester) multi-entry, multi-exit degree program. This initiative is designed to provide students with comprehensive academic training and early exposure to the research environment, setting them up for success in postgraduate studies and future careers. The department has recently launched a one-year M.Sc. program, comprising two semesters, designed for students who have completed a four-year (eight-semester) undergraduate degree in Physics.

The department has also implemented a Ph.D. program in Physics, which started in the 1973 academic session.

Contact Person:

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Teaching Faculty:

- Dinesh C. Gupta (Professor & Head)

B.Sc. (Honours/Research) Physics: (Eight Semesters / Four years)

The B.Sc. in Physics (Honors/Research) program, designed with multi-entry and multi-exit options, aims to provide students with a comprehensive understanding of core physics principles and methodologies. By integrating theoretical study with practical experimentation, the program cultivates strong analytical and problem-solving abilities, which are crucial for scientific exploration.

The curriculum spans key areas such as classical mechanics, electromagnetism, quantum mechanics, and thermodynamics, equipping students for advanced academic pursuits or careers across research, education, and technology sectors. Additionally, the program places a strong emphasis on developing critical thinking, effective communication, and the ability to articulate complex scientific concepts. Graduates will be prepared not only to contribute to the advancement of physics but also to tackle real-world challenges using scientific insights.

Available Seats: B.Sc. Open = 20
Eligibility: 10+2 with Physics and Mathematics with 50% marks.
Mode of Selection: Based on the Index of merit in the qualifying examination.
Fess Structure: I semester Rs. 14420, II & IV semester Rs. 10100, III/V/VII semester Rs. 11160 VI/VIII semester Rs. 9600.

M.Sc. Physics: (Four Semesters/Two years)
M.Sc. Physics (One year/Two semesters) for students with eight semesters/four years B.Sc. (Hon./Research)

The M.Sc. in Physics program aims to equip students with a deep understanding of theoretical and experimental physics principles, fostering critical thinking and problem-solving skills. Through comprehensive coursework and practical training, students will develop expertise in various branches of physics, preparing them for careers in research, academia, or industry. The program also emphasizes the application of physics concepts to address real-world challenges, encouraging innovation and interdisciplinary collaboration. The students will emerge with a strong foundation in physics. They will be ready to contribute to the advancements in science and technology.

Available Seats: M.Sc. Open = 40
Eligibility: B.Sc. in Physics/Electronics and Mathematics with 50% marks
Mode of Selection: Based on the Index based on the merit in the qualifying examination
Fess Structure: I Semester- Rs. 10220, II/IV Semester- Rs. 5900, III Semester- Rs. 6960

Ph.D. Physics

The Ph.D. in Physics is designed to cultivate deep expertise in both theoretical and experimental physics, fostering a spirit of innovation and scholarly inquiry. Students will engage in advanced coursework, conduct independent research, and work closely with faculty mentors to develop a nuanced understanding of fundamental concepts and the latest advancements in the field.

The program promotes interdisciplinary exploration, encouraging students to investigate the connections between physics and other scientific domains. Through the dissemination of their original research via publications and presentations, students will contribute to the global scientific community. Ultimately, the Ph.D. program equips graduates for leadership roles in academia, industry, and research institutions, where they will drive pioneering discoveries and shape the future of physics.

Eligibility: M.Sc. in Physics/Electronics with 55% marks
Mode of Selection: Based on the NET score
Contact Person: Dr. D.C. Gupta (Professor & Head)