M. Sc. Physics

learnwise

Welcome to Learnwise!

Hi!

We are thrilled that you have decided to join us.
At Learnwise, we believe that everyone has a right to live a life of dignity and quality. We strive to provide quality learning solutions to anyone who wishes to pursue higher education regardless of their previous academic track record. If you're looking for an environment that not only supports education but also helps you gear towards your career goals, you are at the right place!

With our emphasis on job-readiness training and up-skilling, we not only help you get a degree but also provide you with unparalleled exposure into the field and help you acquire field-relevant skill-sets. Through-out your journey with us, our qualified Academic Mentors and dedicated Career Coaches ensure that all your individual learning and career needs are taken care of. When we promise you personalized interventions, we mean nothing short of expert companionship and scaffolding that anyone could ask for.

We look forward to serving you!

Warm regards,
Muhammed A.
Founder, Learnwise

About us

We are a team of passionate individuals educated from premier institutes across India, who feel grateful for the educational and career opportunities we've got and earnestly wish to create a platform that opens up such possibilities to anyone, regardless of their socio-cultural backgrounds and previous academic track records!

Learnwise is an Online Platform for Higher Education, that provides personalized learning support for pursuing UG and PG degrees from reputed universities through a consistent Mentorship program, all through a mobile application. Alongside learning, the program also takes care of the individuals' career needs through individually tailored Career Coaching, Job-Readiness Training and industry relevant add-on Up-Skilling programs.

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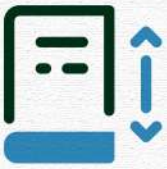
About IGNOU

For the present program, we have chosen IGNOU (Indira Gandhi National Open University) as the Institute we enroll our students with for obtaining their degrees. Along with registration with our learning program, the student enrolls with IGNOU as anyone would normally do. The difference here being that Learnwise will be supporting the student's learning whilst pursuing their degree from IGNOU.

The Indira Gandhi National Open University is the world's largest University imparting education through open and distance mode. Established in 1985, IGNOU is an internationally awarded Central University which aims to provide quality higher education opportunities to all segments of the society. It is a University that constantly strives to raise the standards of distance education and actively researches best practices in open education. Currently, it has 21 schools of studies, 67 regional centers, 3500 study centres, 12 overseas study centers, and offers 200+ programs, ranging from certificate courses, diplomas, bachelors, masters to doctoral programs.

The Learnwise Edge

Recorded Live Lectures



Value Added Notes

Objective Tests

Topic-wise Assignments

Exampedia

Live Doubt-Clearing Sessions

Regular Mentorship & Assistance

Performance Tracking & Personalized Interventions

Provisions to Connect with Batchmates

Career Assessment & Guidance Service

Upskilling Programs

Job-Readiness Training

M. Sc. Physics

Affiliated to: IGNOU

Program Code: MSCPH

Minimum age: No bar

Maximum age: No bar

Eligibility: Graduate with a Major or Honors in Mathematics OR Graduate with a B.A./B.Sc. Degree with Mathematics as one of the three main subjects with equal weightage

Course Duration: Minimum 2 years, Maximum 4 years

Session starts: January & July of every year

The M. Sc. (Physic) programme housed in the School of Sciences has been designed by eminent physicists and teachers from across the country. The courses of this programme strive to cover all the core concepts in different areas of physics. It offers an exciting opportunity to people who are interested in physics and would like to pursue a career in teaching or research and development in physics and allied areas.

This Master's Degree Programme has been designed with a semester approach in mind. The first year courses are aimed at theoretical knowledge and practical skills development in core computers science subjects. The second year is more focused on advanced courses providing conceptual framework and the project work.

Objectives of the Programme

This programme has the following broad objectives:

- to impart high quality higher education in physics;
- to equip the learners with core knowledge in physics and provide adequate
- analytical and laboratory training for pursuing higher education or a career in physics research and development;
- to prepare students for higher studies in interdisciplinary areas;
- to provide a focused insight into currently relevant branches of physics research through well designed elective courses;
- to foster academic integrity and professional ethics.

M.Sc. Physics Program Structure

Studies in this 2 year programme are divided into 4 semesters (2 semesters per year).To successfully complete this programme, you will have to earn 72 credits over a period of 2 to 4 years depending on
your convenience. These 72 credits comprise

1. Core Courses 60 credits

2. Elective Courses 12 credits

Total 72 credits

The details of these courses are given in Sec.5. After successfully completing the programme you will be awarded the degree of M.Sc. (Physics).

Core Courses

The core courses are offered in all four semesters of the programme. They deal with the fundamental concepts in different branches in physics and the related analytical techniques, which will help you to apply these concepts to new areas in physics and solve problems. The detailed syllabi of these
courses are given in Sec. 5.

Elective Courses

Three elective courses are being offered in three currently relevant branches of physics research. An attempt is made to update you with the developments in these areas and expose you to the interdisciplinary nature of current research in science.

The semester-wise details of the courses of M.Sc (Physics) programme is as follows: (The Laboratory courses are marked with a *)

FIRST SEMESTER

Course Code	Course Title	Type of Course	Credits
MPH-001	Mathematical Methods in Physics	Theory (Core)	4 Credits
MPH-002	Classical Mechanics I	Theory (Core)	2 Credits
MPH-003	Electromagnetic Theory	Theory (Core)	2 Credits
MPH-004	Quantum Mechanics I	Theory (Core)	4 Credits
MPH-005	Electronics	Theory (Core)	4 Credits

SECOND SEMESTER

Course Code	Course Title	Type of Course	Credits
MPH-006	Classical Mechanics II	Theory (Core)	4 Credits
MPH-007	Classical Electrodynamics	Theory (Core)	4 Credits
MPH-008	Quantum Mechanics II	Theory (Core)	4 Credits
MPHL-009	General Physics Laboratory*	Laboratory (Core)	4 Credits
MPHL-010	Electronics Laboratory*	Laboratory (Core)	4 Credits

***These Laboratory Courses (MPHL 009 and MPHL 010) will be conducted over the period of Semesters 1 and 2 and the Study Centres will prepare the schedule accordingly.**

THIRD SEMESTER**

Course Code	Course Title	Type of Course	Credits
MPH-011	Statistical Mechanics	Theory (Core)	4 Credits
MPH-012	Condensed Matter Physics	Theory (Core)	4 Credits
MPH-013	Optics	Theory (Core)	2 Credits
MPH-014	Computational Physics	Theory (Core)	2 Credits
MPHL-015	Computational Physics : Laboratory	Laboratory (Core)	4 Credits
MPHE-025 MPHE-026	**Elective Course (Any ONE**)** i) Materials Science ii) Elements of Reactor Physics	Theory (Elective)	4 Credits

****Only one course out of MPHE-025 and MPHE-026 is to be opted in Semester 3. Elective course opted in Semester 3 cannot be opted again in Semester 4.**

FOURTH SEMESTER$$

Course Code	Course Title	Type of Course	Credits
MPH-016	Atomic and Molecular Physics	Theory (Core)	4 Credits
MPH-017	Nuclear and Particle Physics	Theory (Core)	4 Credits
MPHE-025 MPHE-026 MPHE-027	**Elective Courses (Any TWO$$)** i) Materials Science ii) Elements of Reactor Physics iii) Nanoscience	Theory (Elective)	4 Credits + 4 Credits

$$ Only two courses out of MPHE-025, MPHE-026 and MPHE-027 are to be opted in Semester 4, without repetition.

Learn. Up-Skill. Flourish.

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