



**Ganpat  
University**

॥ विद्यया समाजोत्कर्षः ॥

**Mehsana Urban  
Institute of Sciences**

## DEPARTMENT OF PHYSICS

### About Institute

Mehsana Urban Institute of Sciences was founded in 2006 with a view to meeting the educational needs of the youth to prepare them for their professional studies in numerous areas of pure and applied sciences by providing them with ample sophisticated learning opportunities.

MUIS has all the facilities that go into making a tailor-made and wholesome learning experience for science students and enthusiasts. To name just a few, the institute possesses various state-of-the-art laboratories with latest equipment, revamped class rooms and seminar rooms with OHP and multimedia projectors, modern computer systems with uninterrupted high-speed internet facility, and a rich library that gives a wealth of information to students with a staggering 8,000+ books at its disposal.

The institute is constituent college of Ganpat University and approved by Department of Higher Education, Government of Gujarat and University Grants Commission, New Delhi. The Institute has adopted choice Based Credit System (C.B.C.S) and curriculum is designed as per UGC guidelines. MUIS boasts of a stellar placement ratio year after year. Students of this institute are regularly placed with reputable employers across the nation in almost all the areas of pure and applied Sciences. The Institute got the national level recognition in the form of Flagship Award – The Most Upcoming Institute. This award has been given by Confederation Education Excellence (CEE) during the 5th Conclave on Excellence in Education with the theme “Education 2025: Students First”, New Delhi on 22nd April 2017. Mehsana Urban Institute of Sciences has been selected as Biotechnology Capacity Building Cell (BTCBC) in North Gujarat Region by GSBTM, Government of Gujarat in August 2018.

### About Department

The Department of Physics welcomes students seeking to familiarize themselves with the fundamentals of Physics, as well as those who intend to pursue professional careers in the field. Physics department was established in 2013 with introduction of five year dual degree integrated course for Physics. In 2015 a two year post graduate course was started with specialization in Condensed Matter Physics and Electronics. Department also offers the M. Phil. and Ph. D. program. The activities range from, conducting intra and inter-college competitions, like National Science Day, Birth Anniversary Celebration of eminent Physicists like Dr. Vikram Sarabhai and Dr. A. P. J. Kalam, Oral and Poster presentation competitions, to guiding student research projects. The department ensures students imbibe a research culture. In addition to visiting research centers and undertaking student research projects, students are guided on how to write a research article and present research papers at various competitions. Workshops are even conducted on the applications and use of software to learn various characterization techniques of materials. The department has seven spacious Physics laboratories equipped with the required instruments and other amenities. The Department believes in maintaining high standards and discipline in offering the course that meet their guidelines for success in Physics, Science, and associated professional areas.

### Faculty Profile

Department has young and highly enthused faculties with good academic experience as well as research publication. Department has 08 faculty members and 04 research associate and lab assistants. The faculty members have total 38 years teaching experience with 4.5 years average experience. Faculty members have 25+ research articles published in various reputed publications like Springer, Wiley, Elsevier, American Institute of Physics, World Scientific, AGE.

## Laboratory Facility:

- General Physics Lab
- Optics Lab
- Electronics Lab
- Electricity-Magnetism and Nuclear Physics Lab
- Material Science Research Lab
- High Temperature muffle furnace
- Hydraulic Press
- Weighing Machine
- Interferometer
- Cathode Ray Oscilloscope

## Courses Offered

- B.Sc. Physics
- M.Sc. Physics (Condensed Matter Physics)
- M.Sc. Physics (Electronic)
- M. Phil. Physics
- Ph.D. Physics

## Interdisciplinary Courses

- Material Science Technology
- Astrophysics and Cosmology
- Solar Energy Materials and Devices
- Nano-Sciences and Technology
- Computational Physics
- Instrumentation skills
- Integration of Physics and Biology

## Scope of Physics

Physics graduates can find a career in the following sectors –

- UGC CSR Laboratories
- Industries
- Research Institute like IPR, PRL, DRDO, ISRO etc.
- Scientific Officer
- Technical assistant
- Health sector
- X-ray technician
- Lab Supervisor
- Programming developer
- Research assistant/Associate
- IT Sectors
- Government Jobs like – Banking, ONGC, IOCL, BPCL, PCB, SSC, Railways etc.

## Research Expertise

- Theoretical Condensed Matter Physics
- Density Functional Theory (DFT)
- Experimental Condensed Matter Physics
- Solar cell
- Electronic devices
- Optics & Spectroscopy
- Radiowave propagation and atmospheric effect
- Nanomaterials and nanotechnology
- Material Science Ferrites

## Salient Features

- Rigorous teaching
- Strong emphasis on research activities
- Seminar/Project work presentation by students
- Strict adherence to the academic calendar
- Qualified Faculty
- Well-Equipped labs/Research laboratory, Project Based Learning
- Value added course, Hands on Training
- Industrial Visits/Placements
- ICT enabled classroom.
- Bus facility for all students.
- Free hostel for SC/ST Student.
- International Conference.
- MOOC certified course conducted in each department.
- Career counseling by guest speakers, senior corporate personnel
- Tie-up arrangements with Industries & Corporate of repute for Campus
- Career Skill Development syllabus has been included in the Academic Curriculum
- Research Citations, Publications in International Journals with good impact factor
- Competitive exam/Crash Course Preparation (NET/GATE/GSET)
- Excellent Placements by recruiters
- Ultra-Modern Computer Laboratories & Wi-Fi Access
- Library with access to online course
- Faculty with Rich Industrial and teaching Experiences
- Sophisticated Analytical Instruments and Industry Exposure in Campus



## Eligibility Criteria

Program	Duration	Eligibility
B.Sc. Physics	3 years	10+2 Science
B.Sc. + M.Sc. Physics (Dual degree Integrated)	3+2 years	10+2 Science
M.Sc. Physics	2 years	Bachelor degree (UG)
M.Phil. Physics	1 year	M.Sc. Physics (Min. 55%)
Ph. D	-	M.Sc. Physics (Min. 55%)

## Contact Us

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