

# UGEE Syllabus, Tentative weightage , Exam pattern & All you want to know-

## A Step Towards your goal- IIIT Hyderabad

Note- data are collected from internet, students , might vary & are subject to changes

### About UGEE

The UGEE mode is for admission to dual degree programmes. Graduates of the dual degree programmes earn two degrees: B.Tech and Master of Science by Research. The Masters degree requires completion of a research thesis. The programme prepares students for research-oriented jobs and higher studies. The duration of the programme is 5-years..

Programme abbreviation (Number of Seats)	Bachelor of Technology (B.Tech)	Master of Science by Research
<b>ECD</b> (20) ▶	Electronics and Communication Engineering	Electronics and Communication Engineering
<b>CSD</b> (30) ▶	Computer Science and Engineering	Computer Science and Engineering
<b>CLD</b> (15) ▶	Computer Science	Computational Linguistics
<b>CND</b> (15) ▶	Computer Science	Computational Natural Sciences
<b>CHD</b> (15) ▶	Computer Science	Computing and Human Sciences
<b>CGD</b> (15) ▶	Computer Science	Geospatial Technology

### Am I eligible?

Passed 12th class or equivalent with Maths, Physics and Chemistry by June 2025. Candidates who have passed 12th or equivalent in 2021 or earlier are not eligible to apply.

## **Exam**

Applicants in this mode need to appear for a computer-based undergraduate entrance examination (UGEE) conducted by IIT Hyderabad. This exam will be for three hours and has two sections:

- a) SUPR – Subject Proficiency test for 60 minutes.
- b) REAP – Research Aptitude test for 120 minutes.

**Shortlisting:** Applicants will be filtered based on the SUPR score, and then ranked on REAP score in order to shortlist for the interview. There will be negative marking of 25% in both the sections.

**Date of the examination: 19th April 2025, 09:00 AM to 12:00 PM**

The exam will be held in multiple centres across many cities ([List of Centers](#))

## **Interview**

Candidates shortlisted from this exam will have to clear an interview to gain admission. The decision on final offer of admission is solely based on the interview performance and the decision of the interview committee is final.

**Date of interviews: To be announced, expected in early June.**

## **Diversity**

IITH values diversity among its student population and strives to increase the same. As a continuation of other successful initiatives started in recent years, the Institute will target for having at least 25% women among the candidates shortlisted for interviews for admission this year through the UGEE mode. In addition, the application fee for women applicants has been reduced to Rs. 1500. The fee for all other applicants is Rs. 3000.

## **What do I need to do to apply?**

You need to register online and fill an application form to appear for the exam by the announced deadline.

**Application Fee (Non-refundable):** INR 3,000/- for male applicants, INR 1,500/- for female applicants .

[Applications are open.](#)

## **Financial Assistance**

IIT Hyderabad provides a safe and supportive environment to enable students to realize their full potential. Financial assistance will be available in the form of repayable loan.

For more details, please [Click here](#).

## **How do I prepare for UGEE?**

The syllabi for SUPR and REAP are based on 11<sup>th</sup> and 12<sup>th</sup> level of Physics, Maths, Chemistry (CBSE and most state syllabi).

However, REAP will have an emphasis on testing critical and creative thinking abilities of an applicant.

Sample questions are available for [SUPR](#) and for [REAP](#).

[MOCK TEST](#)

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**[-Top engineering Exam – Click](#)**

**[-College Review Video – Click](#)**

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**[-Free App For Exam- Click](#)**

# UGEE – Supr syllabus

## Section A: Physics

Unit 1: Physics and Measurement

Unit 2: Kinematics

Unit 3: Laws of Motion

Unit 4: Work, Energy and Power

Unit 5: Rotational Motion

Unit 6: Gravitation

Unit 7: Properties of Solids and Liquids

Unit 8: Thermodynamics

Unit 9: Kinetic Theory of Gases

Unit 10: Oscillations and Waves

Unit 11: Electrostatics

Unit 12: Current Electricity

Unit 13: Magnetic Effects of Current and Magnetism

Unit 14: Electromagnetic Induction and Alternating Currents

Unit 15: Electromagnetic Waves

Unit 16: Optics

Unit 17: Dual Nature of Matter and Radiation

Unit 18: Atoms and Nuclei

Unit 19: Electronic Devices

Unit 20: Communication Systems

**PHY & MATHS IS ASKED MUCH MORE THAN CHEMISTRY IN UGEE**

**LAST YEAR SOME LENGTHY QUESTIONS WERE PROVIDED**

# Section B: Maths

Unit 1: Sets, Relations, and Functions

Unit 2: Complex Numbers and Quadratic Equations

Unit 3: Matrices and Determinants

Unit 4: Permutations and Combinations

Unit 5: Mathematical Induction

Unit 6: Binomial Theorem

Unit 7: Sequence and Series

Unit 8: Limit, Continuity and Differentiability

Unit 9: Integral Calculus

Unit 10: Differential Equations

Unit 11: Coordinate Geometry

Unit 12: 3D Geometry

Unit 13: Vector Algebra

Unit 14: Statistics and Probability

Unit 15: Trigonometry

Unit 16: Mathematical Reasoning

# Section C: Chemistry

Unit 1: Mole Concept

Unit 2: Atomic Structure

Unit 3: Thermodynamics

Unit 4: Electrochemistry

Unit 5: Chemical Kinetics

Unit 6: Chemical Equilibrium

Unit 7: States of Matter

Unit 8: Other (Physical Chemistry)

Unit 9: Biomolecules and Polymers

Unit 10: Named Reactions

Unit 11: POC (Practical Chemistry)

Unit 12: GOC (General Organic Chemistry)

Unit 13: Other (Organic Chemistry)

Unit 14: Chemical Bonding

Unit 15: Question Based on correct Order

Unit 16: Block Chemistry (Less Weightage)

Unit 17: Other (Inorganic Chemistry)

# ADARSH BARNWAL

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# UGEE – REAP Syallbus

## Section A: Arithmetic and Basic PCM

- 1: Time & Work
- 2: Graphical Questions of PCM
- 3: Simple and Compound Interest
- 4: Train Problems
- 5: Big Passage Que based on PCM & SUPR section
- 6: Case Study based Questions

## Section B: Algebra & Geometry

- 1: Surds, Indices & Logarithms
- 2: Progressions & Series
- 3: Permutations & Combinations
- 4: Probability
- 5: Tracing Curves
- 6: No. of Solutions

## Section C: Reasoning & Data Interpretation

- 1: Coding and Decoding
- 2: Cubes and Dice
- 3: Direction Sense Test
- 4: Miscellaneous Puzzles
- 5: Logical Venn Diagram
- 6: Analytical Reasoning
- 7: Data Sufficiency
- 8: Linguistics
- 9: Finding the missing term