Tecnológico de Monterrey



IFI

B.S. in Engineering Physics

Innovate with the strength of science and the power of engineering.

Why study this degree at Tec?

From your very first semester, you enter an ecosystem that blends physics, mathematics, and engineering to turn complex ideas into applied solutions. Here, you don't just learn technology—you understand the principles that make it possible.

- **Innovate in key areas such as clean energy, advanced materials, and optics.**
- **Explore the fundamental languages of science to create technology with real-world impact.**

Is this your path?

If you're passionate about mathematics, physics, and solving complex problems; if you're curious about how the universe works and want to use that knowledge to drive scientific or technological innovation...

IFI at Tec is your platform to make it happen!

Imagine this:

Conduct research at MIT, develop quantum technology, or create science-based energy solutions. Design materials for space exploration or lead R&D projects at companies like Schneider Electric or Blue Origin.

At Tec, that future starts today.



What makes this degree unique at Tec:

- Deep integration of physics, mathematics, computing, and applied engineering.
- Specializations in clean energy, advanced materials, artificial intelligence, and data science.
- Computational modeling and experimental validation as a core part of your training.
- Dual degrees with universities such as Essex and Rennes.
- Study stays at elite institutions like MIT, ETH Zurich, or Harvard.

You'll be part of something bigger:

- SACS and CACEI accreditation
- Dual degrees with Essex and Rennes
- Study stays at MIT, ETH Zurich, Harvard Medical School
- Check which campuses offer this program at tec.mx

Your career field, full of possibilities. Some options include:

You can grow in scientific research, device design, strategic consulting, semiconductors, data science, quantum technology, the energy sector, aerospace industry, financial analysis, or the development of emerging technologies.



The voices of those already making an impact:

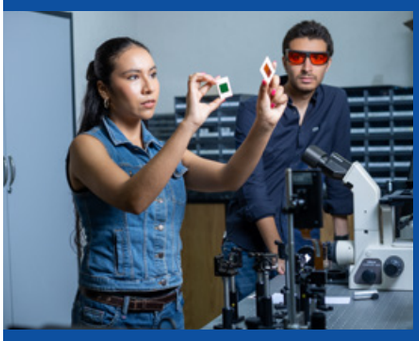
Carolina Bárcenas, Data Science and AI Executive at Airbnb.

Gustavo Cadena, creator of the cooling band used by Olympic athletes in Paris 2024.

Tatiana Benavides, manages international collaboration projects in science, technology, and education for the Swiss government.

Paulo Lozano, Director of MIT's Space Propulsion Laboratory.

A glimpse of how our community makes an impact with its talent.



Skills you will develop:

You'll solve problems using physics, mathematics, and engineering; design innovative prototypes and systems; build theoretical and computational models; and apply your knowledge with ethics, sustainability, and critical thinking.

Logic helps you understand the world. Here, you learn how to transform it.

Take the first step toward the engineering that unites science and technology.

Tecnológico de Monterrey

Curriculum
B.S. in Engineering Physics

1ST SEMESTER
- Elective Course Mathematics and Science
- Differential and Integral Calculus
- Biology and Sustainability
- Algorithmic Thinking
- Innovative Perspectives in Engineering
- The Laws of Motion and Conservation
- Tec Week: Induction to the Social Service
- Tec Week Elective I

2ND SEMESTER
- Elective Course Humanities and Fine Arts
- Multivariable Calculus
- Linear Algebra
- Chemistry Fundamentals
- Exploration Topic
- Statistics and Data Handling
- Fundamentals of Thermodynamics
- Foreign Language
- Tec Week Elective II
- Tec Week Elective III

3RD SEMESTRE
- Elective Course Social and Behavioral Sciences
- Mathematical Physics
- Differential Equations for Physics
- Electricity and Magnetism
- Applied Electrical Circuits
- Waves and Fluids
- Tec Week Elective IV
- Tec Week Elective V

4TH SEMESTRE
- Elective Course Leadership, Entrepreneurship and Innovation
- Electromagnetic Theory
- Classical Mechanics
- Computational Physics
- Electronic Devices
- Disciplinary Tec week
- Tec Week Elective VI

5TH SEMESTER
- Elective Course Ethics and Citizenship
- Optics
- Quantum Mechanics
- Fundamentals of Engineering Design
- Clean Energies and Electrical Networks
- Tec Week: Professional Life Planning
- Tec Week Elective VII

6TH SEMESTER
- Statistical Mechanics
- Applied Optics
- Condensed Matter
- Synthesis and Characterization of Materials
- Tec Week Elective VIII
- Tec Week Elective IX

7TH SEMESTER
TEC SEMESTER

You'll be able to customize your career through:
- Concentrations
- Internships
- International experience
- Elective training units

- Tec Week Elective X
- Tec Week Elective XI

8TH SEMESTER
- Elective Multidisciplinary Professional
- Engineering Project
- Tec Week: Strategies and Guides for the Final Degree Exam
- Tec Week Elective XII

You'll be able to customize your learning experience by choosing from the different available options.

*The curriculum may vary. Contact an admissions advisor or visit **tec.mx** for more information.

Your future in ENGINEERING PHYSICS starts here.

WHY NOT?

RVOE: DEC-520912

Want more info?

Scan this QR to know more about this program.
tec.mx/ifi