Tecnológico de Monterrey

IQ

B.S. in Chemical Engineering

Transform matter. Transform the world.

Why study this degree at Tec?

Chemical Engineering is key to addressing challenges such as the energy transition, sustainable production, and the development of new materials. From your very first semester, you'll be trained to design, operate, and innovate industrial processes that transform raw materials into solutions for everyday life. You'll learn through real-world projects, emerging technologies, and a global perspective to create positive impact in both industry and the environment.

Is this your path?

If you're passionate about science, technology, and creativity, and you want to contribute to a sustainable future with real solutions...

IQ at Tec is your platform to make it happen!



Imagine this:

Turning waste into clean energy. Designing processes to create accessible medicines. Optimizing a chemical plant to make it safer and more efficient.

At Tec, that future starts today.



What makes this degree unique at Tec:

- National and international accreditation that supports your academic training.
- Professional internships with an international focus through KOSPIE–DAAD at the Deutscher Akademischer Austauschdienst.
- Concentrations such as Development of New Chemical and Biotechnological Products, Decarbonization and Clean Energy, Advanced Materials, and Operational Excellence for Industry.
- Global stays and challenges with institutions like Carnegie Mellon, KU Leuven, the National University of Singapore, and more.

You'll be part of something bigger

101 - 150 worldwide in Chemical Engineering (QS by Subject 2026)

Dual degree programs with leading institutions such as DHIK, Essex, and Queensland

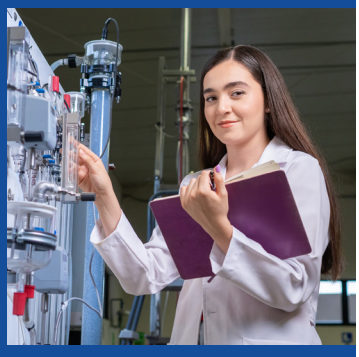
International study experiences at more than 20 top universities

Global recognition from AIChE and competitions such as Chem-E-Car

Check which campuses offer this program at tec.mx

Your career field offers countless paths. Some of them include:

Pharmaceutical, food, petrochemical, cement, metallurgical, textile, energy, plastics, and advanced materials industries, as well as consulting, entrepreneurship, research, and public sector organizations.





Skills you will develop:

- Design end-to-end processes under circular economy principles.
- Solve complex problems by applying chemistry, physics, and mathematics.
- Communicate solutions clearly and ethically.
- Make data-driven decisions.
- Lead projects with sustainable impact.

The voices of those already making an impact

- **Ariel Delgado** - Participant in the Lindau Nobel Laureate Meeting in Chemistry.
- **Daniela Sánchez** - President of FETEC and Tec UN Women Ambassador.
- **Diego Arvizu** - AIChE award recipient in the United States

A glimpse of how our community creates real impact.

Your ideas already transform matter. Here, you learn how to transform the world.

Take the first step toward engineering that makes an impact.

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Curriculum
B.S. in Chemical Engineering

SEMESTER 1
- 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

SEMESTER 2
- 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

SEMESTER 3
- Elective Course Social and Behavioral Sciences
- Mass and Energy Balances
- Fundamentals of Organic Compounds
- Organic Synthesis
- Fundamentals of Differential Equations
- Numerical Analysis in Process Engineering
- Chemical Processes Thermodynamics
- Tec Week Elective IV
- Tec Week Elective V

SEMESTER 4
- Elective Course Leadership, Entrepreneurship and Innovation
- Fundamentals of Momentum and Heat
- Data Analytics for Process Engineering
- Fluids and Heat Technologies
- Phase Equilibria
- Chemical Equilibrium
- Chemical Kinetics
- Disciplinary Tec week
- Tec Week Elective VI

SEMESTER 5
- Elective Course Ethics and Citizenship
- Separation Processes
- Chemical Reaction Engineering
- Transport Phenomena
- Project Management
- Unit Processes Laboratory
- Process Modeling and Dynamics
- Tec Week: Professional Life Planning
- Tec Week Elective VII

SEMESTER 6
- Sustainable Process Optimization
- Chemical Process Design
- Chemical Process Control
- Process Intensification
- Applied Engineering Economics
- Instrumentation Lab
- Sustainable Process Analysis
- Tec Week Elective VIII
- Tec Week Elective IX

SEMESTER 7
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

SEMESTER 8
- Elective Multidisciplinary Professional
- Chemical Engineering Capstone 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.

Want more info?

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

Your future in CHEMICAL ENGINEERING starts here.

WHY NOT?

RVOE: DEC-520912