INDUSTRIAL ENGINEERING AND MANAGEMENT

ACCREDITATION

This Engineering has the accreditation of CACEI (Consejo de Acreditación de la Enseñanza de la Ingeniería, A. C.).

Accredited by the Engineering Accreditation Commission of ABET, under the commision's General Criteria and Program Criteria for Industrial, Engineering Management and Similarly Named Engineering Programs.
https://www.abet.org/

ABET accreditation for this program is only valid in North Campus.

STUDENT OUTCOMES

1. An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics
2. An ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors
3. An ability to communicate effectively with a range of audiences
4. An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts
5. An ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives
6. An ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions
7. An ability to acquire and apply new knowledge as needed, using appropriate learning strategies

KNOWLEDGE AREAS

• Basic Sciences
• Logistics - Designs and operates a supply chain. Defines its distribution to ensure end-customer satisfaction while guaranteeing its economic feasibility.
• Optimization - Identifies, models, solves, validates, and interprets deterministic and stochastic problems to make informed decisions.
• Manufacturing and Quality - Applies acquired knowledge of materials, their properties, and their processing to determine raw material and product specifications, evaluate their quality, and select appropriate equipment and processes to produce goods that meet customer requirements. This includes integrating systems that increase productivity levels while maintaining safety, hygiene, and occupational health standards to safeguard the well-being of people and facilities.
• Finance - Develops proposals for generating wealth for an organization, utilizing knowledge of economic engineering and project management, and optimizing resources with integrity.
• Business Environment - Guides staff development toward organizational goals through teamwork, exercising proactive leadership for the benefit of the group, the organization, and society.
• Data Mining - Performs statistical analysis of information to ensure the sustainability and growth of organizations and to use this data to innovate processes, products, and/or services.

PROGRAM EDUCATIONAL OBJECTIVES

Within a few years our graduates will be able to:

1. Become leaders committed to truth, and social welfare, who will conduct themselves in an ethical, efficient and teamwork/oriented manner.
2. Promote professionals with a solid and forward-looking understanding of how to design, analyze, operate, and continuously improve systems that integrate people, technology, and resources.
3. Qualify Industrial Engineers capable of driving strategic growth, making informed decisions to anticipate, evaluate, and enhance productivity and competitiveness within organizations.
4. Empower professionals who identify and solve challenges with curiosity and creativity, applying analytical, experimental, and computational skills to generate meaningful solutions.
5. Nurture Industrial Engineers with strong leadership and management skills, capable of addressing organizational and business challenges with confidence and vision.
6. Shape adaptable and responsible professionals, ready to thrive in a changing world, aware of their profession's challenges and opportunities, and able to communicate ideas and results clearly.

GRADUATE PROFILE

As an Industrial Engineer you will:
• Design, implement, manage, control and optimize production and service systems.
• Undertake and/or get involved in projects that help solve economic, environmental, social and industrial problems, through strategic planning, financial analysis, supply chains, data mining and quality systems.
• Promote the economic, personal and social development of organizations from a multidisciplinary approach to satisfy the needs of society.

ENROLLMENT STATISTICS

Industrial Engineering	Number of new incoming students	Number of graduates	Number of active students
2024-2025	64	36	221
2023-2024	46	48	210
2022-2023	52	53	248
2021-2022	54	62	273
2020-2021	67	66	308
2019- 2020	69	70	289
2018- 2019	80	65	288
2017-2018	73	65	281
2016-2017	74	60	293
2015-2016	86	58	307
2014-2015	89	62	295