



Bachelor in Industrial Engineering

Short Description:

The Bachelor of Industrial Engineering (Ind Eng) has been designed to prepare students for a successful career in the industry and the information technology.

Industrial Engineering is concerned with the design, improvement and installation of integrated system of men, materials and equipment. It draws upon specialized knowledge and skills in the mathematical, physical sciences together with the principles and methods of engineering analysis and design to specify, predict and evaluate the results to be obtained from the integrated system mentioned above. Industrial engineering has provided a systematic approach to streamline and improve productivity and efficiency in the business world.

Target Skills:

- IE's provide a method by which businesses can analyze their processes and try to make improvements to them. Staying focused on optimization - doing more with less - which helps to reduce waste in society.
- IE's can practice engineering successfully either as employees or through self-employment,
- IE's have the required background to pursue post-graduate studies in engineering and related fields
- IE's have the potential to gain leadership positions in all sectors of the profession.
- IE's make the work environment safer, faster, easier, and more rewarding.

Where Do Industrial Engineers Work?

- Manufacturing firms and service industries hire a significant number of IE's.
- Today, more and more businesses hire IE's in areas like sales and marketing, finance, information systems, and personnel.
- Other industries employing IE's are hospitals, airlines, banks, railroads, and social services.

Some of the typical Career Opportunities:

- Entrepreneurship,
- Management Engineer in Health Related Areas
- Ergonomist
- Operations Analyst for the Airline Industry
- Quality Engineer
- Public Services and Utilities

FIRST YEAR

SECOND YEAR

FIRST SEMESTER

- Academic Reading & Writing I
- Introduction to Economics
- Calculus I
- Computer Applications

Electives

- Introduction to Psychology
- Research Methods
- History of Economics

SECOND SEMESTER

- Computer Science Fundamentals
- Introduction to Statistics
- Linear Algebra
- Computer Communications and Networks
- Academic Reading & Writing II

THIRD SEMESTER

- Fundamentals of Programming I
- Fundamentals of Physics
- Ethics
- Engineering Fundamentals
- Calculus II

FORTH SEMESTER

- Fundamentals of Programming II
- Mechanics for Engineering
- Engineering Chemistry
- Calculus III
- Materials Science

THIRD YEAR

FIFTH SEMESTER

- Digital Logic
- Manufacturing Processing
- Facilities Design
- Work Analysis and Design
- Production and Inventory Systems

SIXTH SEMESTER

- Project Management
- Electric Circuits

Electives, one of:

- Algorithms and Web-based Systems
- Thermofluids
- Quality Assurance

Electives, one of:

- Computer Aided Manufacturing
- Modelling and Simulation
- Globalization and Technological Development

Internship: 3 Credit
Thesis : 3 Credits

**Each course is 3 Credits (6 ECTS)*

