

Mechanical Technology

Introduction

Mechanical Technology is the area of engineering that provides knowledge, skills and abilities for the study, analysis and application of methods of design, operation and maintenance of industrial machinery and equipment needed in the production of goods and services.

Mission

Contribute to the development of science and technology, through teaching, research and outreach; while educating professionals with analytical skills to implement the laws of physics and technological developments in the design, operation and maintenance of industrial equipment, putting them to the service of social environment, improving the quality of life.

Vision

The Mechanical Technology program will be a center for development and research in the fields of mechanics, manufacturing processes and application of materials; leader in the training of professional with skills and abilities, which create development processes and innovate.

Objectives

Assume research as a fundamental condition to consolidate as a program of academic excellence.

Link the program to actions in its environment that lead to regional development, while generating in turn a strong bond between the region and the University.

Perform an administrative modernization process which leads to scenarios of flexible, timely, efficient and participatory decisions.

Laboratories

The program has several laboratories that strengthen the education of technologists, including:

- Laboratory of machine tools, CNC.
- Laboratory of Mechatronics and models
- Laboratory of Internal Combustion Engines,
- Laboratory of Injection and Science of the Materials.
- Laboratory of Dimensional Metrology.

Professional Profile

The graduate will have knowledge:

- **Scientific:** particularly in basic training, basic professional training, social and humanistic education; vocational, mathematical, physical and spatial training
- **Technological:** specific (mechanical) in the areas of workshops and laboratories, Solids, Thermal and Fluids.
- **Social-Humanistic:** in terms of research, administration, recreation and interpersonal relationships.
- **Know-how** (skills)
- **Intellectual:** Analysis of operations, technical language comprehension, synthesis (generation of alternative designs) and applications.
- **Operational:** Mechanical assembly and maintenance, manufacturing processes, instrument calibration, personnel management, mechanical design, quality inspection of raw materials and machinery selection and operation.
- **Attitudinal:** Efficiency when involved in operations, with an ecological vision and understanding of the surrounding context and contributing to the maintenance of a climate of respect and understanding with his/her partners. Continued interest in maintaining a constant updating and improvement in his/her profession.

Occupational Profile

The mechanical technologist can work in the public sector, private sector and as an entrepreneur, working in the following fields:

- Mechanical Installation and Maintenance
- Assistance in manufacturing process
- Calibration of measuring instruments
- Managing staff and personnel
- Mechanical Design
- Quality inspection of raw materials and products
- Selection and control of thermal machines
- Inspection and Control

At the end of the career, it may be supplemented with the Specialization in Automotive Mechanics.

Fuente: <http://www2.utp.edu.co/english/academic-programs/195/mechanical-technology>