

HIGHER UNIVERSITY TECHNICIAN IN MECHANICS AREA MOLDS AND DIES GRADUATION PROFILE

MISSION

Provide a quality education to train professionals of Higher Technical University level in Mechanics Area Molds and Dies with integral competences in the technical and the human with leadership communication and collaborative work skills to manufacture mechanical elements using machines – tools. Innovate the design, manufacture and functionality of molds and dies based on requirements of the client and / or technological or social entrepreneurship, with a high sense of social responsibility and committed to their professional and labor development.

VISION

To be the best educational option with recognized prestige for the integral formation of its students in the technical and human aspects; with a high level of relevance; with perspective of their environment and with the ability to respond according to the new skills that human resources require to face the technological and market changes of 4.0 Industry. Assume the commitment to the labor integration of the graduates, sustainability and social responsibility.

GRADUATION PROFILE BY COMPETENCES

GRADUATION ATTRIBUTES

Manufacture mechanical elements using machine tools and considering the applicable regulations to meet the needs of the client.

Innovate the design, manufacture and functionality of molds and dies, based on customer requirements, materials, drawings, modeling and simulation techniques, CAD/CAM software, machining and assembly, production processes, machine tuning, CNC programming, adjustments and validation of operation, maintenance programs and applicable regulations, to raise the profitability and technological development of organizations, strengthening its national and international projection.

Basic Sciences. Raise and solve problems based on the principles and theories of physics, chemistry and mathematics, through the scientific method to support decision-making in the scientific and technological fields.

Oral and Written Expression. Communicate feelings, thoughts, knowledge, experiences, ideas, reflections and opinions, in a clear and detailed way, on concrete and abstract topics in their professional and sociocultural context, according to level B2, independent user, of the European Framework of Reference, to base and propose improvements in organizations and contribute responsibly to sociocultural development.

Management. Act with proactive values and attitudes of excellence in their personal, social and organizational development, in harmony with their environment to develop their personal, social and organizational potential.

English. Communicate feelings, thoughts, knowledge, experiences, ideas, reflections, opinions, through simple and commonly used expressions, in a productive and receptive way in the English language according to level A2, basic user, of the European Framework of Reference to contribute to the performance of their functions in their work, social and personal environment.

EDUCATIONAL OBJECTIVES

1. Develop manufacturing strategies for molds and dies in private companies to ensure quality and functionality with the help of CAD/CAM/CAE software.
2. Implement processes of repair, assembly and disassembly of molds and dies to maintain their functionality.

3. Collaborate in the development of changes in the design of molds and dies according to the norms and standards required by the client.
4. Evaluate materials, tools and machinery according to the developed project in order to meet the requirements and needs of the client.
5. Participate in multidisciplinary groups for permanent training and technological entrepreneurship projects, applying communication skills, leadership that contribute to the continuous improvement of the organization.

▶ PERFORMANCE SCENARIOS

- National and international companies.
- Large, medium, small and micro enterprises.
- Public and private companies engaged in the production and marketing of goods or services.
- Their own consulting company in their professional field.

▶ PROFESSIONAL OCCUPATIONS

- Modeler of industrial mechanical systems.
- Supervisor of manufacturing processes.
- Designer of numerical control programs.
- Quality control supervisor
- Dimensional metrology supervisor.
- Supervisor of mold and die design.
- Tooling installer.
- Supervisor of injection molds.
- Supervisor in the installation of machinery and equipment.
- Specialist in auxiliary energy systems.
- Provider of professional services in the industrial area.
- Supervisor in the correction of mechanical failures.
- Industrial safety coordinator.