

# HIGHER UNIVERSITY TECHNICIAN IN MECHANICS AUTOMOTIVE AREA GRADUATION PROFILE

## MISSION

Provide a quality education to train professionals of Higher Technical University level in Mechanics Automotive Area, with integral competences in the technical and the human; with leadership, communication and collaborative work skills, to manufacture mechanical elements using machine tools. Direct the technical support of automotive mechanical systems, as well as the diagnosis, repair of motor vehicles 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, considering the applicable regulations to meet the needs of the client.

Direct the technical support of automotive mechanical systems considering the diagnosis and repair for the optimal functioning of motor vehicles.

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. Design automotive mechanical elements by means of CAD-CAM software.
2. Manufacture mechanical elements by means of Computer Numerical Control (CNC) programming and conventional machines, under the applicable regulations in the technical, industrial and environmental safety.
3. Diagnose and repair the main electrical, electronic and mechanical systems that are part of the car according to the applicable regulations.
4. Direct their graduation attributes in the incubation of machining companies of mechanical elements and / or automotive service workshop and be a generator of jobs.

5. Maintain a permanent training that allows their updating in the technological advances of their field of work.
6. Participate in multidisciplinary groups in a collaborative manner, 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 automotive mechanical systems.
- Service workshop supervisor.
- Manager of the service workshop.
- Designer of numerical control programs.
- Quality control supervisor.
- Supervisor in dimensional metrology
- Supervisor in the installation and commissioning of machinery and equipment.
- Provider of professional services in the automotive area.
- Supervisor in the correction of automotive mechanical failures.
- Industrial safety coordinator.