UDLAP®

Licenciatura in Mechatronics Engineering

Program Curriculum 2006

Program Educational Objectives

The objectives for the Mechatronics Engineering program at Fundacion Universidad de las Americas Puebla (UDLAP) focus mainly on preparing engineers capable of entering and developing successfully in the workplace or on pursuing graduate studies not only in Mexico but also in foreign companies and institutions in areas related to discipline. During the initial years of their careers, UDLAP's Mechatronics Engineering graduates will:

- Demonstrate technical proficiency in the theoretical and practical knowledge of the discipline.
- Become effective communicators, team members, decision makers and leaders.
- Understand the global impact of the profession and recognize the social responsibility of Mechatronics Engineers.
- Recognize the relevance of life-long learning and commit to professional development.

Student Outcomes

The Student Outcomes for the UDLAP's Mechatronics Engineering Program are the following:

a) An ability to apply knowledge of mathematics, science, and engineering

b) An ability to design and conduct experiments, as well as to analyze and interpret data

c) An ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability

d) An ability to function on multidisciplinary teams

e) An ability to identify, formulate, and solve engineering problems

f) An understanding of professional and ethical responsibility

g) An ability to communicate effectively

h) The broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context

i) A recognition of the need for, and an ability to engage in life-long learning

j) A knowledge of contemporary issues

k) An ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.