Rowan Mechanical Engineering

Goals

The mechanical engineering program GOALS are to:

- Create well-rounded engineers who possess theoretical and practical skills, and understand the significance of humanities and social sciences.
- Produce graduates who have the necessary teamwork and leadership skills to excel in multidisciplinary team environments.
- Develop innovative and creative thinking with an understanding of entrepreneurship.
- Develop science, mathematics, analytical, computational, and experimental skills and apply them to formulate and solve engineering problems.
- Instill in students an appreciation of the impact of engineering solutions in a global and societal context, including the broad implications of professional ethics.
- Develop the flexibility to adapt to changing technology and an understanding of the need for continuous improvement and lifelong learning.

Mechanical Engineering Objectives

These six goals manifest as the following program EDUCATIONAL OBJECTIVES, which state: Rowan Mechanical Engineering graduates will possess:

1. an ability to apply knowledge of mathematics, science and engineering;
2. an ability to design and conduct experiments, as well as to analyze and interpret data;
3. an ability to design a system, component, or process to meet desired needs;
4. an ability to function in multidisciplinary teams;
5. an ability to identify, formulate and solve engineering problems;
6. an understanding of professional and ethical responsibility;
7. an ability to communicate effectively;
8. the broad education necessary to understand the impact of engineering solutions in a global and societal context;
9. a recognition of the need for and an ability to engage in life-long learning;
10. a knowledge of contemporary issues;
11. an ability to use the techniques, skills and modern engineering tools necessary for engineering practice;
12. knowledge of chemistry and calculus-based physics with depth in at least one;
13. an ability to apply advanced mathematics through multivariate calculus and differential equations;
14. a familiarity with statistics and linear algebra;
15. an ability to work professionally in both thermal and mechanical systems areas including the design and realization of such systems;
16. an ability to think creatively and innovatively;
17. a knowledge of entrepreneurial practices.

Ref: http://www.rowan.edu/colleges/engineering/programs/mechanical/about/goals.html
http://www.rowan.edu/colleges/engineering/programs/mechanical/about/objectives.html
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