

College of Applied Sciences
Program Goals and Student Learning Outcomes
As of 07/21/2006

Department: Kimmel School of Construction Management and Engineering Technology
Program: B.S. Engineering Technology

Program Goals:

1. Provide students the opportunity and environment to acquire an educational background necessary to pursue professional careers in ET fields and/or to continue their education toward an advanced degree in the field.
2. Provide graduates with comprehensive backgrounds in mathematics, physical and social sciences, liberal arts, and human values with in-depth knowledge of the fundamentals of engineering science and ET subjects that perpetuate life-long learning.
3. Provide graduates with the tools to pursue successful and long careers in the profession that places ethical conduct as paramount.
4. Prepare graduates who can effectively communicate their thoughts and ideas with the understanding of the impact of ET graduates on global, societal, and environmental issues.
5. Provide graduates with state-of-the-art computer skills suitable for a career in ET fields.

Student Learning Outcomes:

1. Use current technical information related to manufacturing operations to identify, analyze and solve technical problems associated with plans, materials, personnel and equipment.
2. Assume entry-level positions in system development, and implementation for manufacturing (senior design project).
3. Apply technologies of materials, manufacturing processes, production operations, maintenance, quality, industrial organization and management to solve manufacturing problems.
4. Demonstrate an appropriate mastery of the knowledge, techniques, skills, and modern tools of their disciplines.
5. Apply current knowledge and adapt to emerging applications of mathematics, science, engineering and technology.
6. Conduct, analyze and interpret experiment and apply experimental results to improve processes.
7. Apply creativity in the design of systems, components or processes involved with manufacturing systems.
8. Function effectively on teams.
9. Communicate effectively, orally and in written form, technical information and to discuss this information with peers and others;
10. Recognize the need for, and an ability to engage in lifelong learning.
11. Understand professional, ethical and social responsibilities.
12. Respect diversity and a knowledge of contemporary professional, societal and global issues.
13. Commit to quality, timeliness and continuous improvement,
14. Utilize statistics and physics in support of manufacturing solutions.