Program Educational Objectives of the AAS in Mechanical Engineering Technology

In the Morrisville State College (MSC) 2009-2010 College Catalog, the MSC Associate in Applied Science in Mechanical Engineering Technology Program description is as follows:

“Mechanical Engineering Technology applies almost universally to industry and engineering technology. It is oriented to production and is concerned with such areas as quality control, plant layout, product and material testing, plant maintenance, inspection/testing as well as product design and manufacturing engineering technology. The curriculum emphasizes such courses as machine design, materials, manufacturing processes, and computer application along with general education courses. It is a laboratory oriented program that provides a wide selection of courses in CAD, machining, basic electricity, machine design and manufacturing processes. A hands-on equipment philosophy applies from drafting to machining to hydraulics. Theory and practical work are coordinated to give a thorough but broad understanding of the skills required by industry. The program, which is TAC of ABET accredited, prepares the student to enter manufacturing or allied industries as a draftsman, designer, engineering technician aide, laboratory technician, quality and production control technician or as a technician in plant operation. Most mechanical engineering technology graduates pursue a four-year degree in Mechanical Engineering Technology, Manufacturing Engineering Technology, or Computer-Integrated Manufacturing Technology.”

In keeping with the program description, the Morrisville State College A.A.S in Mechanical Engineering Technology Program has adopted the following Program Educational Objectives:

1- Graduates will be prepared for employment in a technical field, or for transfer to a bachelor degree academic program.

2- Graduates will have the knowledge and skills in one or more of the following areas:
   a) Technical Graphical Communication
   b) Mechanical Design
   c) Manufacturing Processes

3- Graduates will demonstrate problem solving ability in the areas of analysis, design, and manufacturing.

4- Graduates will demonstrate professional ethics and appreciation for diversity.
Program Outcomes of the AAS in Mechanical Engineering Technology

To achieve the stated Program Educational Objectives associated with the AAS in Mechanical Engineering Technology, graduates of the program must demonstrate the following program outcomes:

A. An appropriate mastery of the knowledge, techniques, skills and modern tools of their disciplines.

B. An ability to apply current knowledge and adapt to emerging applications of mathematics, science, engineering and technology.

C. An ability to conduct, analyze and interpret experiments and apply experimental results to improve processes.

D. An ability to apply creativity in the design of systems, components or processes appropriate to program objectives.

E. An ability to function effectively on teams.

F. An ability to identify, analyze and solve technical problems.

G. An ability to communicate effectively

H. Recognition of the need for, and an ability to engage in lifelong learning.

I. An ability to understand professional, ethical and social responsibilities.

J. A respect for diversity and knowledge of contemporary professional, societal and global issues.

K. A commitment to quality, timeliness, and continuous improvement.