

Mechanical Engineering Technology

Program Educational Objectives

Graduates of the Mechanical Engineering Technology Program will be able to:

- I.** solve technical problems typical of those encountered in mechanical engineering technology careers using creativity, current technology, and the principles of mathematics and applied science
- II.** perform, and evaluate laboratory experiments, interpret and report on the results, and make recommendations for improvements
- III.** work and communicate effectively in a diverse multi-disciplinary team in an industrial and academic setting
- IV.** understand modern quality principles, professional issues, and the need to pursue lifelong learning

Documented on Pg 87 of College Catalog, and at the following link:

<http://lakelandcc.edu/ACADEMIC/ENGINEER/met/>

Program Outcomes

Graduates of the Mechanical Engineering Technology Program will be able to demonstrate:

Program Outcome 1: the ability to use principles of mathematics and applied science, and modern engineering techniques, skills and computer-based tools to perform technical calculations and solve technical problems commonly encountered in mechanical engineering technology careers. Encompasses **(a, b, f)** of the TAC/ABET Criteria 3 Program Outcomes.

Program Outcome 2: the ability to function competently in a laboratory environment, making measurements, safely operating technical equipment, critically analyzing and interpreting experimental results, and properly reporting on experimental results, including their potential for improvement. Encompasses **(a, b, c, g)** of the TAC/ABET Criteria 3 Program Outcomes.

Program Outcome 3: the ability to identify, formulate and apply creativity in the design of a system, component, or process to meet desired needs within realistic constraints such as economic, safety, manufacturability, scheduling, and quality. Encompasses **(d)** of the TAC/ABET Criteria 3 Program Outcomes.

Program Outcome 4: the ability to communicate and function effectively, ethically and professionally with members of multi-disciplinary teams from a variety of backgrounds. Encompasses **(e, g, i, j)** of the TAC/ABET Criteria 3 Program Outcomes.

Program Outcome 5: the ability to identify, analyze, formulate and solve technical engineering problems by applying modern tools, including scientific calculators,

computers, and appropriate software. Encompasses (a, b, f) of the TAC/ABET Criteria 3 Program Outcomes.

Program Outcome 6: the recognition of the need for lifelong learning and continuous improvement. Encompasses (h, k) of the TAC/ABET Criteria 3 Program Outcomes.

Program Outcomes documented at <http://lakelandcc.edu/ACADEMIC/ENGINEER/met/>

The Continuous Improvement Process is illustrated in *Figure 4-1*, on *Page 18*. Embedded in this process are both assessment and evaluation of Program Educational Objectives and Program Outcomes. The process is documented on the College website: <http://lakelandcc.edu/academic/engineer/> and on the College Network: <S:\Engineering Technology\Mechanical\Assessment>