

M.E. Program Educational Outcomes (ME PO's: a-s):

Upon establishment of the Program Educational Objectives and examining the requirements of Criterion 3, the following set of Program Education Outcomes was generated by the Mechanical Engineering Assessment Team. These Program Outcomes were shared with the constituents of the program. Processes, mechanisms, and performance metrics were established for these outcomes. The following constitute a list of ME's Program Outcomes:

EC2000 Required Outcomes (a-k)

- 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.
- d. An ability to function on multi-disciplinary 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 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.

Additional M.E. Program Educational Outcomes (l-s)

- l. An ability to work professionally in both thermal and mechanical systems areas including the design and realization of such systems.
- m. A competence in the use of computational mathematics tools and systems analysis tools germane to the world of engineering.
- n. A competence in experimental design, automatic data acquisition, data analysis, data reduction, and data presentation, both orally and in the written form.
- o. A competence in the use of computer graphics for design communication and visualization.
- p. A knowledge of chemistry and calculus based physics with a depth in at least one of them.
- q. An ability to manage engineering projects including the analysis of economic factors and their impact on the design.
- r. An ability to understand the dynamics of people both in a singular and group setting.
- s. A competence in the analysis of inter-disciplinary mechanical/electrical/hydraulic systems.