Manufacturing Engineering Program Outcomes

3a) Students will attain *an ability to apply knowledge of mathematics, science, and engineering* (includes proficiency in materials)

3b) Students will attain *an ability to design and conduct experiments, as well as to analyze and interpret data* (includes manufacturing laboratory or facility experience, the ability to measure manufacturing process variables and develop technical inferences about the process)

3c) Students will attain *an ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability* (includes proficiency in manufacturing processes, the ability to design manufacturing processes that result in products that meet specific material and other requirements; proficiency in process, assembly and product engineering, the ability to design products and the equipment, tooling, and environment necessary for their manufacture; and proficiency in manufacturing systems design, the ability to analyze, synthesize, and control manufacturing operations using statistical methods)

3d) Students will attain *an ability to function on multi-disciplinary teams*

3e) Students will attain *an ability to identify, formulate, and solve engineering problems*

3f) Students will attain *an understanding of professional and ethical responsibility*

3g) Students will attain *an ability to communicate effectively*

3h) Students will attain *the broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context* (includes manufacturing competitiveness, the ability to create competitive advantage through manufacturing planning, strategy, quality, and control)

3i) Students will attain *a recognition of the need for and an ability to engage in lifelong learning*

3j) Students will attain *a knowledge of contemporary issues*

3k) Students will attain *an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice*