

Key:

Program Outcomes:

Graduates of the chemical engineering program at Michigan State University will have:

1. an ability to identify, formulate, and **solve engineering problems** that includes the following:
 - (a) an ability to **apply knowledge** of mathematics and science, chemical or biochemical sciences in particular, in chemical engineering;
 - (b) an ability to use the techniques, skills, and modern **engineering tools** necessary for chemical engineering practice
2. an ability to **design** a system, component, or process to meet desired needs
3. an ability to design and conduct **experiments**, as well as to analyze and interpret data
4. an ability to **communicate** effectively including both oral and written communication
5. an understanding of **professional and ethical responsibility**
6. an ability to function on **teams** with development of skills necessary for **multidisciplinary teams**
7. the broad education necessary to understand the impact of engineering solutions in a **global and societal context**
8. a recognition of the need for, and an ability to engage in **lifelong learning**
9. a knowledge of **contemporary issues**

AICHE Program Criteria

1. Curriculum

The curriculum must provide a thorough grounding in the basic sciences including chemistry, physics, and/or biology, with some content at an advanced level, as appropriate to the objectives of the program. The curriculum must include the engineering application of these basic sciences to the design, analysis, and control of chemical, physical, and/or biological processes, including the hazards associated with these processes.