

Academic Year beginning with an odd number (2003-04)
Two-Year Assessment Schedule for Program Outcomes in CHE Courses
(Shading indicates outcome is to be assessed)

	<i>Chemical Engineering Courses</i>													
ChE Outcome	<i>201</i>	<i>301</i>	<i>311</i>	<i>312</i>	<i>316</i>	<i>321</i>	<i>422</i>	<i>431</i>	<i>432</i>	<i>433</i>	<i>434</i>	<i>472</i>	<i>473</i>	<i>481</i>
1. Eng. Problem-solving	S					S	S		F					
a) Math, science, eng knowledge	S						S	S	F		S			F
b) Eng. Tools	S					S					S			
2. Design								S	F		S			
3. Expt's & data					S									F
4. Comm. Skills		F			S									F
5. Prof. and ethical respons.					S						S			
6. Teams (x-disc.)					S									F
7. Global and societal contxt.											S			
8. Lifelong learning		F												
9. Contemp. Issues		F									S			

**Academic Year beginning with an even number (2002-03)
Two-Year Assessment Schedule for Program Outcomes in CHE Courses
(Shading indicates outcome is to be assessed)**

	<i>Chemical Engineering Courses</i>													
ChE Outcome	<i>201</i>	<i>301</i>	<i>311</i>	<i>312</i>	<i>316</i>	<i>321</i>	<i>422</i>	<i>431</i>	<i>432</i>	<i>433</i>	<i>434</i>	<i>472</i>	<i>473</i>	<i>481</i>
1. Eng. Problem-solving	F		F	S	S								S	
a) Math, science, eng knowledge	F		F	S			S	S		F			S	
b) Eng. Tools										F				
2. Design			F	S				S		F				
3. Expt's & data					S							F		F
4. Comm. Skills		F			S					F		F		
5. Prof. and ethical respons.		F												F
6. Teams (x-disc.)	F				S							F		
7. Global and societal contxt.		F								F				
8. Lifelong learning				S									S	
9. Contemp. Issues	F									F				

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**