

An entry-level graduate with an Associate of Applied Science Degree in Manufacturing Engineering Technology from Sinclair Community College will be able to:

Learning Outcomes	Related Courses
1. Apply scientific and mathematical skills required for occupational needs.	
2. Demonstrate the principles of computer applications in technology.	
3. Utilize appropriate technical communication skills (written, verbal, drawing, and teamwork).	
4. Use sound business practices in relation to people management.	
5. Apply technical engineering skills appropriate to program requirements..	
6. Demonstrate applied and analytical techniques in the areas of machining, plastics, and automation.	
7. Apply analytical techniques in the area of production management.	
8. Analyze engineering problems and make appropriate decisions.	

III. Assessment Method(s): A measurable indicator of success in attaining the stated learning outcome(s). The methodology should be both reliable and valid. Please describe in detail.

a. **Formative Assessment Method(s) and Description:** a measurable indicator of student in-progress success in attaining the stated learning outcome(s).

b. **Summative Assessment Method(s) and Description:** a measurable indicator of end-of-program success in attaining the stated program learning outcomes(s).

IV. **Results:** A description of the actual results of overall student performance gathered from the summative assessment(s). (see III.b.)

V. **Analysis/Actions:** From analysis of your summative assessment results, do you plan to or have you made any adjustments to your program learning outcomes, methodologies, curriculum, etc.? If yes, describe. If no, explain.

VI. **General Education:** Are you using any tool(s) to assess any of the three primary general education outcomes* (communication, thinking, values/citizenship)? If so, describe.

Written and oral communication skills are stressed, but the department is not using the checklists for assessment in these areas. The ABET accreditation process impacts the general education requirements.

a. Where within the major do you assess written communication? Describe the assessment method(s) used. Describe assessment results if available.

Written communication skills are stressed, but the department is not using the checklist for assessment in this area.

b. Where within the major do you assess oral communication? Describe the assessment method(s) used. Describe assessment results if available.

Oral communication skills are stressed, but the department is not using the checklist for assessment in this area.

c. Where within the major do you assess thinking? Thinking might include inventing new problems, seeing relationships and/or implications, respecting other approaches, demonstrating clarity and/or integrity, or recognizing assumptions. Describe the assessment method(s) used. Describe assessment results if available.

Projects required in the technical courses emphasize the use of problem solving skills. This reinforces critical thinking throughout the curriculum.

Teamwork modules are used to simulate the factory floor. These teams develop and practice team problem solving skills.

d. Where within the major do you assess values/citizenship/community? These activities might include behaviors, perspective, awareness, responsibility, teamwork, ethical/professional standards, service learning or community participation. Describe the assessment method(s) used. Describe assessment results if available.

The department assists students to learn professional behaviors such as being on time, meeting deadlines, and coming prepared. These are tied to course

assessment. Course content also addresses the ethics, responsibility and liability of modes of failure. The department is exploring the feasibility of establishing student chapters of the Society of Manufacturing Engineers and the Society of Plastics Engineers.

- * Note: The oral communication checklist and the written communication checklist developed by the General Education Committee were adopted for college-wide use during the 1997-98 academic year by Academic Council. Thinking Guidelines developed by the General Education Committee are being piloted by faculty during the 1998-99 academic year.