



MISSION STATEMENT & STUDENT LEARNING OUTCOMES for Engineering

Review Year:

2026

Division:

Math & Sciences

Discipline/Program/Department:

Engineering

Contact

Person(s): Patty, Mark

Mission Statement

The Physical Science Department at Southwestern Illinois College recognizes the importance of a scientifically literate community. Our faculty is committed to assisting students, through learning and assessment, in both the understanding of the scientific principles and the development of fundamental analytical skills necessary to succeed in Baccalaureate or career programs.

Program/Discipline Curriculum Map

I = Introduce: Student is first exposed to the concept/idea and is requested to apply the concept in a limited scope.

E = Emphasize: Student applies concept(s) in varying/multiple situations of greater complexity than when initially introduced.

R = Reinforce: Student may be expected to understand the concept upon taking the course and utilizes the concept in conjunction with other concepts/ideas to solve problems.

PROGRAM/DISCIPLINE OUTCOMES	COURSE PREFIX AND NUMBER					
Graduates of this program/discipline shall be able to:	ENGR 103	ENGR 251	ENGR 263	ENGR 264	ENGR 271	ENGR 275
Identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.	R	I/E	R	R	R	R
Apply visual and spatial reasoning to identify, formulate, and solve engineering problems.	R	I/E	R	R	I/E	R
Utilize engineering design process to identify, formulate, and solve engineering problems.	I/E	I/E	R	I/E	I/E	R
Effectively participate and collaborate on an engineering team to determine goals, plan tasks, and meet project objectives.	R	I/E	R	R	I/E	I/E
Acquire and apply new knowledge as needed, using appropriate learning strategies.	R	I/E	R	R	R	R
Perform safely and productively in a laboratory setting.*						

Map Comments:

*These outcomes are the same for the entire Physical Science Department. All outcomes are addressed in totality across the various disciplines in the department.

Core Competency Map

CORE COMPETENCIES	COURSE PREFIX AND NUMBER					
Communication Skills	ENGR 103	ENGR 251	ENGR 263	ENGR 264	ENGR 271	ENGR 275
1. Computer Literacy						
2. Oral Communications	X	X	X	X	X	X
3. Writing						
Reasoning Skills						
4. Critical Thinking	X	X	X	X	X	X
5. Quantitative Literacy	X	X	X	X	X	X
Citizenship						
6. Personal Accountability						
7. Civic And Social Accountability						