State University of New York at Binghamton
Thomas J. Watson College of Engineering and Applied Science
BS in Industrial and Systems Engineering: Four-Year Program

Application Code: 1367
If undecided use: 0229

FALL 2023

ENGINEERING DESIGN DIVISION
(The freshman year is common to all engineering majors)

Fall	**Spring**
Math 224/225 Calculus I (M) (4)	Math 226/227 Calculus II (Calc I) (4)
CHEM 111 Chemical Principles (4)	PHYS 131 General
EDD 103 Engineering Communications I (2)	
EDD 111 Intro to Engineering Design (2)	
General Education Elective (G, D, A, N, H) (4)	
Body/Wellness (Y, S, B) (1)	

Total Credits 17

Industrial and Systems Engineering (ISE)

We live in a complex society, but in the Systems Science and Industrial Engineering Department, we are doing our best to make it less complicated. We study complex systems and look for simplifying solutions. We work across all environments and fields of study including manufacturing, management, service industries, healthcare systems, and others. So, our time could be spent at a hospital developing ways to decrease wait times in emergency rooms, or you might find us in a manufacturing facility working on quality assurance issues or consulting at amusement parks, and beyond.

We have structured our BS ISE program so students will accomplish the following within a few years of graduation:

1. designing, developing, and managing both deterministic and nondeterministic complex processes and systems involving people, information, equipment, and financial and material assets, with special emphasis on using probabilistic methods, design of experiments, and simulation.
2. joining and contributing to industrial, government, and service organizations, and to operate effectively with a high level of professional and ethical standards.
3. independent learning, acquiring professional certifications and/or advanced degrees in reputable graduate schools in manufacturing, service, and enterprise systems.
4. communicating and contributing effectively in a diverse team environment.