

**BACHELOR OF SCIENCE IN INTEGRATIVE STUDIES  
MATH AND ENGINEERING FOCUS AREAS (Industrial Bioprocess)**

with minor in fermentation science++ - optional

This guide provides only a suggested course of study and should be used in consultation with an advisor and the SIUE Undergraduate Catalog, available online at [www.siu.edu/registrar](http://www.siu.edu/registrar).

Fall Semester		Spring Semester	
Year 1		Year 1	
ENG 101 English Composition I	3	ENG 102 English Composition II*	3
ACS 101 Public Speaking or ACS 103 Interpersonal Comm	3	MATH 152 Calculus II	5
RA 101/PHIL 213	3	PHYS 151/151L (BPS, EL)	5
MATH 150 (QR)	5	BIOL 140 Human Biology (BLS)	3
	14		16
Year 2		Year 2	
MATH 250 Calculus III	4	MATH 305 Differential Equations	3
CE 240 Statics	3	CE 242 Mechanics of Solids	3
CHEM 131/135 or 121a/125a or 120a/124a++	4-5	ECE 210 Circuits	3
Breadth Fine & Performing Arts (BFPA)	3	CHEM 120b/124b++ General Org & Biol Chem II w lab	4
	15	ELECTIVE	2
			15
Year 3		Year 3	
IE 370 Manufacturing Processes	3	STAT 380 Statistics for Applications (BICS)	3
Interdisciplinary Studies (IS) course	3	IE 345, 470 OR 476*	3
BIOL 250 Bacteriology++	3	CHEM 481/482++ or 3xx-4xx Level Program	4
Breadth Humanities (BHUM)	3	Breadth Social Science (BSS)	3
CHEM 396++ or Elective	2	US Cultures (EUSC)	3
	14		16
Year 4		Year 4	
INTG 300 Foundations of Integrative Studies	3	INTG 499 Integrative Studies Senior Project	3
IE 345, 470 or 476*	3	Leadership Course+	3
CHEM 482/483++ or 3xx-4xx Level Program	3	CHEM 484/485++ or 3xx-4xx Level Program	4
3xx-4xx Level Program Elective or Minor	3	Global Cultures (EGC)	3
3xx-4xx Level Program Elective or Minor	3	Elective	3
	15		15

**Declaration:**

Declaration into this major requires an academic plan created in consultation with the Integrative Studies advisor and an application submitted to the Integrative Studies Program Director.

The University requires students earning a Bachelor of Science (BS) degree to complete at least eight (8) courses in the sciences (life, physical, or social) (\*), including, as a part of those eight (8) courses, two (2) courses designated as labs (EL).

Students must complete 60 hours at the 200 level or above and 40 hours at the 300 level or above.

\*IE 476 has a prerequisite of CS145; IE 470 has a prerequisite of IE 365.

+Select one of the following courses: PSYC 320 Introduction to Industrial/Organizational Psychology, PSYC 365 Group Dynamics and Individual Behavior, PSYC 474 Organizational Psychology, SOC 338 Industry and Society