



Columbus State Community College
Associate of Science (AS) Degree,
to Wright State University
Bachelor of Science (BS) Degree,
Major: Industrial & Systems Engineering,
General Concentration
Sample Graduation Plan



Freshman Year (CSCC)

Autumn Semester		Spring Semester	
ENGL 1100 Composition I**	(3)	MATH 1152 or 1172 (choose one)	(5)
MATH 1151 Calculus I**	(5)	PHYS 1251 Calculus-Based Physics II	(5)
PHYS 1250 Calculus-Based Physics I**	(5)	ENGR 1182 Fundamentals of Engineering II	(3)
ENGR 1181 Fundamentals of Engineering I	(3)	CSCI 1103 Intro to Programming Logic**	(3)
COLS 1100 First Year Experience	(1)		
	(17)		(16)

Sophomore Year (CSCC)

Autumn Semester		Spring Semester	
CSCI 2467 Java Programming I	(3)	Natural Science with Lab*	(4-5)
Intermediate Composition*	(3)	Literature/Cultures & Ideas/Visual & Perf. Arts*	(3)
PSY 1100 Intro to Psychology	(3)	MATH 2366 Discrete Math Structures	(4)
HIST 1111 or 1112 (choose one)	(3)	Social Science (not PSY)*	(3)
STAT 2470 Intro to Prob. & Stats. Engr. & Sci.	(4)		
	(16)		(14-15)

*Course options to fulfill this requirement are listed on the last 2 pages of this document. **A grade of C or higher is needed

Junior Year (Wright)

Autumn Semester		Spring Semester	
ISE 4150 Adv. Prob. & Stats. for Engineering	(3)	ISE 4330 Engineering in Occ. Safety and Health	(3)
EGR 3350 or ENG 2140 (choose one)	(3)	CS 3840 or 3540 (choose one)	(3)
ISE 4711 Operations Research I	(3)	ISE 4320 Human-Sys. Interaction & Usability Engr.	(3)
ISE 4850 Six Sigma for Engineers	(3)	ISE 4721 Operations Research II	(3)
MATH 2350 or 2530 (choose one)	(3)	ISE 4712 Simulation & Stochastic Models	(4)
	(15)		(16)

Senior Year (Wright)

Autumn Semester		Spring Semester	
ISE 4310 Ergonomics	(3)	ISE 4820 Supply Chain Analysis & Design	(3)
ISE 4400 Engineering Economy	(3)	ISE 4920 Industrial & Sys. Engineering Design II	(3)
ISE 4810 Production & Service Systems	(3)	ISE 4510 Computer Apps in ISE	(3)
ISE 4910 Industrial & Systems Engr. Design I	(3)	ISE 4300 Human Factors in Engineering	(3)
ME 2120 Statics	(3)		
	(15)		(12)

- **CSCC General Education Requirements:** Students should choose the General Education courses for the AS degree in consultation with their academic and faculty advisors
- **CSCC Degree Plan:** This Sample Graduation Plan was created using the general plan of study for the Columbus State Associate of Science degree. Students who are following a specific transfer pathway at Columbus State may utilize this plan for the purposes of transfer and degree planning but should note that additional course work may be necessary to complete a Columbus State transfer pathway beyond what is required for the Bachelor of Science, Industrial & Systems Engineering major at Wright State. Additional course work completed as part of a Columbus State's transfer pathway may be applied as electives or where appropriate, course work toward the major/minor at Wright State University.

- **Wright State General Education Requirements:** How a student completes these requirements will vary, depending

on how he or she chose to complete the General Education requirements at Columbus State. Any General Education requirements not completed at Columbus State will need to be completed at Wright State. Students should consult with an academic advisor in the department of the intended major to discuss optimal course selections for General Education effective choice of electives, and appropriate course selections in the major. Students can find more information about their academic advisor at Wright by contacting the Transfer Center at transfer@wright.edu.

- Wright State requires at least 120 semester credit hours to complete the Bachelor of Science degree, Industrial & Systems Engineering major and an overall GPA of 2.25 or higher.
- This degree is available on Wright State's Dayton campus or online (Junior and Senior years). For more details, please contact the ISE Academic Advising office at cecs-advisors@wright.edu or 937-775-5272.
- ****Industrial & Systems Engineering- Human & Systems Notes:** Students must complete MATH 1151, ENGL 1100, and PHYS 1250 with a grade of "C" or higher at CSCC for entry into the major at Wright State. Students must complete PHYS 1251; CSCI 1103, 2467 and 1145; ENGR 1181, 1182; and STAT 2470 at CSCC for the major and to progress to the required courses at Wright State. **Students should apply one semester prior to completing their CSCC degree to Wright State University (priority application deadlines: April 1 for Fall; October 15 for Spring; and February 1 for summer).** Students must have an overall GPA of 2.0 to apply as pre-industrial & systems engineering majors. Once accepted, students must earn a 2.25 overall GPA at Wright State to be fully admitted into the major.

Suggested Courses to Complete for Wright State's General Education Requirement and Requirements for the Associate of Science Degree at Columbus State

Intermediate Composition

For the AS degree, students must complete one course from ENGL 2367, 2467, 2567, 2667, or 2767. ENGL 2767 is recommended.

Historical Study

For the AS degree, students must complete one Historical Study course. Wright State requires completion of HIST 1111 or 1112.

Social Science

For the AS degree, two social science courses are required from two different departments listed on the AS plan of study. Wright State requires completion of PSY 1100, and the second course should be chosen from a department other than PSY.

Literature/Cultures & Ideas/Visual & Performing Arts

For the AS degree, students must complete one course from Literature/Cultures & Ideas/Visual and Performing Arts. Any course listed in these categories from the AS plan of study.

Natural Sciences

For the AS degree, at least two natural science courses with labs must be completed. Wright State requires PHYS 1250 and 1251 and an additional Natural Science with Lab course (OT-36 approved) for their major requirements. BIO 1113 or CHEM 1171 is recommended.