



**Transfer Planning Guide
A.S. Degree**

**St. Ambrose University
B.S. Industrial Engineering**

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TRANSFER FACTS

- This guide is designed for students who wish to earn an Associate in Science (AS) degree at Black Hawk College prior to transfer to St. Ambrose University to complete the Bachelor of Science in Industrial Engineering degree.
- Students are strongly advised to complete the AS prior to transfer. Students who transfer before completing the AS will have their courses evaluated on a “course-by-course” basis. See SAU’s General Education requirements.
- The St. Ambrose Industrial Engineering Program is accredited by the Engineering Accreditation Commission of the Accreditation Board of Engineering and Technology (ABET). The course requirements, quality of instruction and the control of the curriculum meet or exceed nationally established requirements.
- To graduate with a B.S. in Industrial Engineering, SAU requires a minimum GPA of 2.50 for all credits used to satisfy major requirements. A grade of “C” or better must be received in all courses to be awarded credit. The degree is 120 credits minimum.
- Dual degree option: students may pursue a five-year degree plan resulting in Bachelor of Science degrees in Industrial and Mechanical Engineering.
- Engineering Seminars (ENGR 201, 301 and 401) are required for all engineering majors and should be taken by the time a student has completed approximately 50, 75, and 100 percent, respectively, of the engineering course requirements.
- Courses transferred to SAU at or above the 300 level will not apply toward the upper division requirement for graduation.
- A maximum of 64 community college credits will be applied toward the semester hours required for SAU graduation; however, some hours beyond the limit accepted may be used to meet degree requirements or course prerequisites. The SAU Registrar has the final authority for accepting credit for transfer.

REQUIRED COURSES - The following courses should be included within the AS degree.

First Year - Black Hawk College Courses

Notes	Fall	Hrs.	Notes	Spring	Hrs.
	ENG 101 Composition I	3		ENG 102 Composition II	3
	CHEM 101 Gen. Chemistry I	4		MATH 225 Calculus II	4
	MATH 124 Calculus I	4		PHYS 201 Mechanics and Thermal Physics	5
	GE101 Engineering Graphics	3	1,2	IAI Humanities (PHIL 101 or PHIL 103 recommended)	3
1,3	IAI Social & Behavioral Science	3		IAI Life Science	3
	Total =	17		Total =	18

Notes	Summer	Hrs.
	SPEC 101 Prin. Speech Com	3
	Total =	3

Second Year - Black Hawk College Courses

Notes	Fall	Hrs.	Notes	Spring	Hrs.
	MATH 226 Calculus III	5		MATH 230 Linear Algebra	3
	MATH 228 Prob. & Statistics	3		MATH 235 Differential Equations	3
	PHYS 202 Electricity and Magnetism	5		GE 202 Analytical Mechanics Dynamics	3
	GE 201 Analytical Mechanics Statics	3		GE 205 Elem. Mechanics of Deformable Bodies	3
			1,3	IAI Social & Behavioral Science	3
			1	IAI Fine Arts	3
	Total =	16		Total =	18
				Total BHC Hours = 72	

Third Year – St. Ambrose University Courses

Fall	Hrs.	Spring	Hrs.
ENGR 296 Manufacturing Processes	3	ENGR 265 Engineering Economy	3
IE 305 Industrial Engineering Methods	3	ENGR 251 Engineering Design Lab	3
IE 335 Quality Control and Reliability	3	Theology/Philosophy 300+	3
Major Elective	3	IE 340 Ergonomics and Occupational Safety	3
* <i>Foreign Language</i>	(3)	IE 360 Introduction to Simulation	3
ENGR 201 Engineering Service Seminar	0	* <i>Foreign Language</i>	(3)
Theology/Philosophy	3	ENGR 301 Engineering Participation Seminar	0
Total=	15 (18)	Total=	15 (18)

Fourth Year – St. Ambrose University Courses

Fall	Hrs.	Spring	Hrs.
IE 350 Operations Planning	3	ENGR 270 Material Science	3
IE 391 Operations Research Probability Models	3	KIN 149	1
IE 403 Design Fundamentals	3	IE 409 Operations Research	3
IE 415 Systems Integration and Design	3	IE 490 Industrial Engineering Senior Design	3
** <i>KIN Activity</i>	1	Elective (optional)	(3)
** <i>Information Literacy</i>	1	ENGR 450 Professional Experience	1
		ENGR 401 Engineering Exit Survey	0
Total=	14	Total=	11(14)
		Total Program Hours BHC + SAU: 72 + 56 = 128	

* Three years of one foreign language in high school may also fulfill SAU's foreign language graduation requirement.

**KIN Activity and Information Literacy may be waived for students who have earned an AS degree.

NOTES:

- BHC requires one non-western studies course to meet graduation requirements. See an advisor or the college catalog for designated non-western courses available in the Humanities, Fine Arts, or the Social and Behavioral Science areas.
- Students are encouraged to complete PHIL 101, Introduction to Philosophy, or PHIL 103, Ethics, prior to transfer to meet the prerequisite for an upper level philosophy or theology course at SAU.
- Choose courses from two different Social and Behavioral Science disciplines.

This guide is not intended to be a contract with SAU. The information on this guide is subject to change; students are advised to contact SAU to keep informed of changes. Final responsibility for verifying all transfer information lies with the student.

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