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

## *St. Ambrose University*
## *Industrial Engineering*

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**TRANSFER FACTS**

- Students following this degree plan will earn the Associate Degree in Science prior to transfer to SAU.
- 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 semester credits used to satisfy major requirements. A grade of "C" or better must be received in all MATH courses to be awarded credit.
- 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.
- 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.
- Students attending continuously but on a part-time basis are expected to complete the requirements within eight years.

**REQUIRED COURSES -** The following courses should be included within the AA/AS Degree.

**First Year - Black Hawk College Courses**

| Fall | Hrs. | Spring | Hrs. | Summer | Hrs. |
|---|---|---|---|---|---|
| ENG 101 Composition I | 3 | ENG 102 Composition II | 3 | SPEC 101 Prin. Speech Com. | 3 |
| CHEM 101 Gen. Chemistry I | 4 | MATH 225 Calculus II | 4 | Social Science | 3 |
| MATH 124 Calculus I | 4 | PHYS 201 General Physics | 5 | | |
| GE101 Engineering Graphics | 3 | Humanities | 3 | | |
| Social Science | 3 | Fine Arts | 3 | | |
| **Total=** | **17** | **Total=** | **18** | **Total=** | **6** |

**Second Year - Black Hawk College Courses**

| Fall | Hrs. | Spring | Hrs. | Summer | Hrs. |
|---|---|---|---|---|---|
| MATH 226 Calculus III | 5 | Humanities/Fine Arts | 3 | Life Science | 3 |
| PHYS 202 General Physics | 5 | GE 202 Analytical Mechanics Dynamics | 3 | Social Science | 3 |
| GE 201 Analytical Mechanics Statics | 3 | GE 205 Elem. Mechanics of Deformable Bodies | 3 | | |
| MATH 228 Prob. & Statistics | 3 | Nonwestern Studies | 3 | | |
| | | MATH 230 Linear Algebra | 3 | | |
| | | MATH 235 Differential Eq. | 3 | | |

| | | | | | |
|---|---|---|---|---|---|
| **Total=** | **16** | **Total=** | **18** | **Total=** | **6** |
| | | | | **Total BHC Program Hours = 81** | |

**Third Year – St. Ambrose University Courses**

| Fall | Hrs. | Spring | Hrs. | Summer | Hrs. |
|---|---|---|---|---|---|
| ENGR 105 – Intro to Engineering | 2 | ENGR 265 Engineering Economy | 3 | | |
| ENGR 111 Engineering Graphics | 1 | ENGR 270 Materials Science | 2 | | |
| IE 305 Industrial Engineering Methods | 2 | Theology/Philosophy 30 | 3 | | |
| IE 335 Quality Control and Reliability | 3 | IE 340 Ergonomics and Occupational Safety | 3 | | |
| Theology/Philosophy | 3 | IE 360 Introduction to Simulation | 3 | | |
| Information Literacy | 1 | KIN Elective | 1 | | |
| Major Elective | 3 | | | | |
| **Total=** | **15** | **Total=** | **15** | **Total=** | |

**Fourth Year – St. Ambrose University Courses**

| Fall | Hrs. | Spring | Hrs. | Summer | Hrs. |
|---|---|---|---|---|---|
| ENGR 296 Manufacturing Processes | 4 | IE 351 Industrial Engineering Design Laboratory | 3 | | |
| IE 350 Operations Planning | 3 | KIN 149 | 1 | | |
| IE 391 Operations Research Probability Models | 3 | IE 409 Operations Research | 3 | | |
| IE 403 Design Fundamentals | 3 | Elective (optional) | (3) | | |
| IE 415 Systems Integration and Design | 3 | IE 490 Industrial Engineering Senior Design | 3 | | |
| | | ENGR 450 Professional Experience | 1 | | |
| **Total=** | **16** | **Total=** | **11(14)** | **Total=** | |
| | | | **Total Program Hours BHC/SAU - 81/57=138** | | |

**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.**

Last Updated**:** 6/1/2012