



AAS Operations Technician to BS Industrial Mgmt & Applied Engineering

Courses taken at JJC

Year One, First Semester

EEAS 101 Basic Wiring and Circuit Design
 ENG 101 Rhetoric
 MATH 138*** Pre-Calculus 1***
 OET 101 Intro to Industrial Plant

Year One, Second Semester

PHYS 103 Technical Physics
 GEN ED GEN ED Group II: Social and Behavioral Sciences**
 EEAS 111 Industrial Controls I
 IMT 101 Industrial Maintenance Fundamentals
 OET 291 Operations Career Development

Summer Semester

Internship OET Internship

Year Two, Third Semester

EEAS 113 Industrial Controls II
 IMT 111 Mechanical Power Transmission
 IMT 121 Rotating Equipment
 EEAS 115 Electrical/Electronics Troubleshooting

Year Two, Fourth Semester

EEAS 221 Industrial Circuits Basic Programmable Logic Controllers
 EEAS 215 Process Control & Instrumentation
 IMT 112 Rotating Equipment
 MFG 101 Precision Machine Tool Technology I

Total JJC Credits: 63*

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SIU Advisor: Dr. Julie Dunston
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Courses taken at SIU

Elective Social Science**
 Elective Humanities**
 Elective Life Science**
 Elective Fine Arts**
 Elective Multicultural**
 PHYS 203/253 College Physics/Lab
 IMAE 110 Geom Dimensioning & Tolerancing
 IMAE 208 Fundamentals of Mfg Processes
 IMAE 305 Industrial Safety
 IMAE 307 or Applied Calculus for Technology or
 MATH 140 Short course in Calculus
 IMAE 340 or Introduction to Supervision or
 PSYC 323 Organizational Psychology
 CMST 101 Intro to Oral Communication
 IMAE 376 Supply Chain Operations & Logistics
 IMAE 390 Cost Estimating
 IMAE 392 Facilities Planning & Workplace Design
 IMAE 442 Fundamentals of Leadership
 IMAE 445 Computer Integrated Manufacturing
 IMAE 450 Project Management
 IMAE 465 Lean Manufacturing
 IMAE 470A Six Sigma Green Belt I
 IMAE 470B Six Sigma Green Belt II
 IMAE 476 Supply Chain Design & Strategy
 IMAE Elective 300/400 level IMAE course**

Total SIU Credits: 70*

Total Degree Credits: 133*

Hour Requirements: Each student must complete at least 120 semester hours of credit. Each student must have at least 42 hours in courses that number 300 or above from a four-year institution. Residence Requirements: Each student must complete the residence requirement by taking the last year, which is defined as 30 uninterrupted semester hours, or a total of 90 semester hours at SIU Carbondale. Grade Point Average Requirements: Each student must have a C average for all work taken at SIU Carbondale. Some academic programs may require a higher graduating major GPA.





*This transfer guide is a sample curriculum. Additional courses may be required based on placement test scores. Please work with your faculty advisor or success coach prior to course registration.

**Courses are to be chosen in consultation with an academic advisor.

***For students seeking only an AAS, only Algebra, MATH 119 is required. Students desiring to transfer should select a pre-calculus math class sequence. See program advisor for details.

About SIU's Program:

The Industrial Management and Applied Engineering major has as its objective the training of qualified personnel who can develop and direct the production and distribution of products and services. The major is designed to prepare management-oriented technical professionals in the economic-enterprise system. The Industrial Management and Applied Engineering curriculum is flexible enough to provide the means whereby graduates of two-year occupational programs may obtain a Bachelor of Science degree. A graduate of a two-year industrially-oriented occupational program, such as aviation, construction, drafting, data processing, electronics, machine tool, mechanical, and mining may have an appropriate preparation to pursue a Bachelor of Science degree with a major in Industrial Management and Applied Engineering.

About JJC's Program:

Operations Technicians maintain and repair equipment and other industrial machinery, such as conveying systems, production machinery, and packaging equipment. Technicians install, dismantle, repair, reassemble, and move machinery in manufacturing facilities and power plants. Many jobs require a background check, and workers are subject to drug and alcohol screenings. Earning Potential: \$45,000-\$75,000 Job outlook: Employment of industrial machinery mechanics and maintenance workers is projected to grow 17 percent from 2012 to 2022, faster than the average for all occupations. The need to keep increasingly sophisticated machinery functioning and efficient will drive demand for these workers. Job prospects for qualified applicants should be very good. (Source: U.S. Department of Labor)

Questions:

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Student Advising Center
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