

Railroad Operations - General Option, AAS

JCCC's associate's degree program in railroad operations can prepare you for an exciting and well-paying career. The more than 500 companies that make up the U.S. railroad industry provide the country's freight and passenger transportation service on a network of some 300,000 route-miles of track. Railroads employ a substantial workforce to service, maintain and manage this extensive transportation network.

In general, this option is designed to provide the student with general knowledge and skills for entry-level employment in the railroad industry. The student is introduced to the history of railroading and the various railroad crafts. Railroad operations, safety, environment and quality also are covered. The student will choose from a list of business and technical electives in order to provide a basis for possible employment and further post-employment training.

(Major Code 2800; State CIP Code 49.0208)

- Railroad Science (<http://www.jccc.edu/academics/transportation/railroad>)

First Semester

CPCA 105	Introduction to Personal Computers: Windows	1
CPCA 108	Word Processing I: MS Word*	1
CPCA 110	Spreadsheets I: MS Excel*	1
ENGL 121	Composition I*	3
MATH 130	Technical Mathematics I* (or higher)	3
PHIL 124	Logic and Critical Thinking	3
RRT 120	History of Railroading	3
Total Hours		15

Second Semester

ENGL 123	Technical Writing I*	3
MATH 131	Technical Mathematics II* (or higher)	3
PHYS 133	Applied Physics*	5
RRT 121	Railroad Technical Careers	3
Health and/or Physical Education Elective ^		1
Total Hours		15

^ See all AAS general education electives (<http://catalog.jccc.edu/degreerequirements/associate-applied-science>)

Third Semester

BUS 121	Introduction to Business	3
ECON 132	Survey of Economics	3
or ECON 230	Economics I	
PHIL 138	Business Ethics	1
RRT 150	Railroad Operations	3
RRT 165	Railroad Safety, Quality and Environment	3
SPD 125	Personal Communication	3
Total Hours		16

Fourth Semester

Business/Related Electives (see below)	6
Technical/Related Electives (see below)	12
Total Hours	18

Business/Related Electives

ACCT 121	Accounting I	3
BUS 123	Personal Finance	3
BUS 140	Principles of Supervision	3

BUS 141	Principles of Management	3
BUS 225	Human Relations	3
BUS 243	Human Resource Management	3
BUS 261	Business Law I*	3
MKT 230	Marketing	3
BOT 101	Computerized Keyboarding	1

Technical/Related Electives

AUTO 165	Automotive Engine Repair*	4
CET 105	Construction Methods	3
CET 129	Construction Management	3
DRAF 123	Interpreting Machine Drawings*	2
ELEC 120	Introduction to Electronics	3
AET 110	Industrial Maintenance*	3
AET 120	Industrial Fluid Power*	3
AET 140	Actuator and Sensor Systems*	3
AET 160	Programmable Logic Controllers I*	3
AET 240	Industrial Robotics*	3
AET 260	Programmable Logic Controllers II*	3
ENGR 180	Engineering Land Surveying I*	3
INDT 125	Industrial Safety/OSHA 30	3
MFAB 152	Manufacturing Materials and Processes	3
MFAB 133	Gas Metal Arc Welding (GMAW) I*	3
MFAB 240	Metallurgy	2

Total Program Hours: 64