Railroad Operations - Conductor Option, AAS

Conductors are responsible for supervising over-the-road operation of freight trains and are in demand throughout the railroad industry. They may choose career paths leading to locomotive engineer service or railroad management. The final phase of this program consists of six weeks of full-time training provided in cooperation with the National Academy of Railroad Sciences on the campus of JCCC.

(Major Code 2810; State CIP Code 49.0208)

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

Associate of Applied Science Degree

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

Technical Electives (see below)		2
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		**17**

^ 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

RRTC 123	Introduction to Conductor Service*	4
RRTC 175	Conductor Mechanical Operation*	2
RRTC 261	Conductor Service*	2
RRTC 263	General Code of Operating Rules*	4
RRTC 267	Conductor Field Application*	4
Total Hours		**16**

Technical Electives

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
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
ENGR 180	Engineering Land Surveying I*	3
GEOS 140	Physical Geography	3
GEOS 141	Physical Geography Lab*	2
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