

Locomotive Electrical Certificate

This 12 hour locomotive-Electrical Vocational Certificate program is designated to introduce the student to the basic electrical theory and concepts related to locomotive electrical systems, including the operations, maintenance, and troubleshooting of EMD Low Horsepower locomotive electrical systems. Also, it includes the basic operation, maintenance, repair requirements and trouble shooting of EMD diesel engines and support systems, and the GE Dash 8/9 locomotive systems.

For information visit the National Academy of Railroad Sciences (<http://railroadtraining.com>)

(Major Code 4370; State CIP Code 49.0299)

Required Courses

RRTM 142	Locomotive Electricity*	3
RRTM 143	Low Horsepower Electrical*	3
RRTM 144	EMD Basic Electrical*	3
RRTM 145	GE Dash 8/9 Electrical Systems*	3
Total Hours		12

Total Program Hours: 12

Courses

RRTM 130 Freight Car Yard Inspection* (3 Hours)

Prerequisites: Approval of the railroad training administrator and the JCCC department approval

This course is the first of a series of three for freight car training. It is designed to introduce the student to the safe inspection, testing, and repairing of freight cars in a repair track environment in accordance with Federal Railroad Administration (FRA), Association of American Railroads (AAR), and BNSF Railway procedures and policies. 32 hrs. lecture, 8 hrs. instructional lab/total.

RRTM 131 Freight Car Repair Track Inspector* (3 Hours)

Prerequisites: RRTM 130 and approval of the railroad training administrator and JCCC department approval

This course is the second of a series of three for freight car training. It is designed to introduce the student to the safe inspection, testing, and repairing of freight cars in a repair track environment in accordance with Federal Railroad Administration (FRA), Association of American Railroads (AAR), and BNSF Railway procedures and policies. 32 hrs. lecture, 8 hrs. instructional lab/total.

RRTM 135 Basic EMD Mechanical* (3 Hours)

Prerequisites: Approval of the railroad training administrator and JCCC department approval

This is the first in a series of four courses in Locomotive Mechanics. This course is designed to introduce the student to the basic operation, maintenance, repair requirements and trouble shooting for EMD diesel engines and support systems. 40 hrs. integrated lecture lab/total.

RRTM 136 Basic GE Mechanical* (3 Hours)

Prerequisites: Approval of the railroad training administrator and the JCCC department approval

This is the second in a series of four courses in Locomotive Mechanics. This course is designed to introduce the student to the basic operation, maintenance, repair requirements and trouble shooting for GE diesel engines and support systems. 40 hrs. integrated lecture lab/total.

RRTM 137 Locomotive Air Brake* (3 Hours)

Prerequisites: Approval of the railroad training administrator and the JCCC department approval

This course is the third in a series of four courses in Locomotive Mechanics. It is designed to provide the student an introduction to the operation, testing, maintenance, and troubleshooting for 26L and 30 ACDW locomotive air brake systems. This course also emphasizes FRA air brake requirements applicable to locomotives. 40 hrs. integrated lecture lab/total.

RRTM 138 Locomotive FRA* (3 Hours)

Prerequisites: Approval of the railroad training administrator and the JCCC department approval

This course is the fourth in a series of four courses in Locomotive Mechanics. This course is designed to introduce the student to the Federal Railway Administration and Department of Transportation Code of Federal Regulations Title 49, Parts 209, 218, 229, 231, and 232. 40 hrs. integrated lecture lab/total.

RRTM 142 Locomotive Electricity* (3 Hours)

Prerequisites: Approval of the railroad training administrator and the JCCC department approval

This is the first in a series of four courses in Locomotive Electrical. This course is designed to introduce the student to the basic electrical theory and concepts related to locomotive electrical systems. 40 hrs. integrated lecture lab/total.

RRTM 143 Low Horsepower Electrical* (3 Hours)

Prerequisites: Approval of the railroad training administrator and the JCCC program assistant dean

This is the second in a series of four courses in locomotive electrical. This course is designed to introduce the student to the operation, maintenance, and troubleshooting of EMD Low Horsepower locomotive electrical systems. 40 hrs. integrated lecture lab/total.

RRTM 144 EMD Basic Electrical* (3 Hours)

Prerequisites: Approval of the railroad training administrator and the JCCC department approval

This is the third in a series of four courses in Locomotive Electrical, this course is designed to introduce the student to the basic operation, maintenance, repair requirements and trouble shooting of EMD diesel engines and support systems. 40 hrs. integrated lecture lab/total.

RRTM 145 GE Dash 8/9 Electrical Systems* (3 Hours)

Prerequisites: Approval of the railroad training administrator and the JCCC department approval

This is the last in a series of four courses in Locomotive Electrical. This course is designed to introduce the student to the basic operation, maintenance, repair requirements and trouble shooting of GE Dash 8/9 locomotive systems. 40 hrs. integrated lecture lab/total.

RRTM 152 Freight Car Air Brakes, Basic* (2 Hours)

Prerequisites: Approval of the railroad training administrator and the JCCC department approval

This course is designed to provide the student with a basic working knowledge of Freight Car Air Brake Equipment as well as a firm understanding of both Association of American Railroads (AAR) and Federal Railroad Administration (FRA) rules and requirements with emphasis on safe work practices. 40 hrs. integrated lecture lab/total.