

HIGHER NITEC IN RAPID TRANSIT ENGINEERING

Core Modules

Rapid Transit Rails and Engineering Fundamentals

On completion of the module, students should be able to perform the maintenance of rail tracks and rail engineering components in accordance with railway industry standards and workplace safety regulations.

Rapid Transit Electrical System

On completion of the module, students should be able to explain the principles, operations, applications and to perform maintenance of electrical circuits, motor control system and rapid transit electrical power distribution system in accordance with the relevant codes of practice and railway industry standards and regulations.

Rapid Transit Electronic Systems

On completion of the module, students should be able to explain the principles, operation, applications and to perform maintenance of electronics components, logic circuits, electro-mechanical devices, operational amplifiers, power rectification, oscillators, pulse width modulation circuits, rotary encoders, sensors and transducers in accordance with the railway industry standards and regulations.

Rapid Transit Operations and Rolling Stock

On completion of the module, students should be able to explain the operation of the rail network in Singapore and perform maintenance of rolling stock equipment in accordance with the railway industry standards and regulations.

Rapid Transit Signalling Systems

On completion of the module, students should be able to explain the principles, operation and to perform maintenance of rapid transit signaling devices, circuits and systems in accordance with railway industry standards and regulations.

Rapid Transit Communications Systems

On completion of the module, students should be able to explain the principles, operation and also perform and/or supervise the maintenance of rapid transit communication devices, circuits and systems in accordance with railway industry standards and regulations.

Rapid Transit Integrated Supervisory Control System

On completion of the module, students should be able to explain the principles, operation and perform and/or supervise the inspection and maintenance of rapid transit supervisory control and station equipment in accordance with railway industry standards and regulations.

Industry Attachment

On completion of the module, students should be able to apply the skills and knowledge acquired to take on a range of job scope at the company.