

WORK-STUDY DIPLOMA IN LAND TRANSPORT ENGINEERING (RAIL)

S/N	Module
1.	Workplace Safety & Health On completion of the module, trainees should be able to implement relevant workplace safety and health regulations and carry out risk assessment and inspection.
2.	Technical Communication On completion of the module, trainees should be able to effectively communicate and document technical specifications and requirements with stakeholders (both internal and external) in both verbal and written forms.
3.	Engineering Materials On completion of the module, trainees should be able to perform various non-destructive testing (NDT) methods to detect defects and carry out analysis on the NDT results.
4.	DC & AC Circuits On completion of the module, trainees should be able to analyze, connect and troubleshoot DC and AC circuits.
5.	Sensors & Actuators On completion of the module, trainees should be able to install and inspect sensors and actuators, as well as perform circuit troubleshooting.
6.	Electrical Machines On completion of the module, trainees should be able to install and maintain electrical motors and drive systems.
7.	Workshop Operations On completion of the module, trainees should be able to plan corrective, preventive and predictive maintenance activities that ensure equipment and systems are fully functional and in optimal operating condition.
8.	Data Analytics for Predictive Maintenance On completion of the module, trainees should be able to perform data cleaning, transformation and analysis for predictive maintenance.

9. **Rolling Stock System[^]**
On completion of the module, trainees should be able to perform the maintenance and inspection of train air-

11.	Track Electrification[^] On completion of the module, trainees should be able to perform the maintenance and inspection of third rail and current collection systems for trains.
12.	Permanent Way System[^] On completion of the module, trainees should be able to perform the maintenance and inspection of permanent way parts and tracks systems for rapid transit network.
13.	Company Project On completion of the module, trainees should have applied their acquired competencies in an authentic project that would value-add to the company.
14.	On-the-Job Training On completion of the module, trainees should be able to apply the skills and knowledge acquired at ITE College and workplace to take on the full job scope, including supervisory function where appropriate, at the company.

* Modules for Vehicle Specialization

[^] Modules for Rail Specialization