

1. Title	Implement risk management for railway electrical and mechanical engineering projects
2. Code	EMRAPM501A
3. Range	In managing railway electrical and mechanical engineering projects, apply risk assessment and management knowledge and techniques to assess the risks and formulate control and management plans for engineering projects.
4. Level	5
5. Credits	9
6. Competency	<p style="text-align: center;"><u>Performance Requirements</u></p> <p>6.1 Principles and techniques of risk management for railway electrical and mechanical engineering projects</p> <ul style="list-style-type: none"> ◆ Be familiar with railway electrical and mechanical engineering projects and operational environment ◆ Master the knowledge and techniques of project risk assessment ◆ Know how to quantify and prioritize risks and hazards ◆ Master knowledge and techniques of monitoring and controlling risks ◆ Master knowledge and techniques of drafting contingency plans ◆ Know how to implement the contingency plans for projects <p>6.2 Methods and procedures of risk management for railway electrical and mechanical engineering projects</p> <ul style="list-style-type: none"> ◆ Capable to perform risk management for a railway electrical and mechanical engineering project and compile a risk management report including the following: <ul style="list-style-type: none"> • Crisis and crisis identification • Assessment of the impact of hazards • Risk estimation and assessment • Methods of reducing and eliminating risks • Conclusions and recommendations • Identification of signs and triggers of hazards • Use project flow chart to calculate the cause and effect relationship of hazards ◆ Capable to monitor and control the risks of a railway electrical and mechanical engineering project, including: <ul style="list-style-type: none"> • Monitoring the hazard alarm • Making choices of solutions • Quantifying the impact of hazards ◆ Capable to draft contingency plans for engineering projects in Railway E&M branch; Analyse and review the outcomes; assess the need of change of the engineering projects

7. Assessment Criteria	<p>The integrated outcome requirement of this unit of competency is:</p> <ul style="list-style-type: none"> (i) Capable to perform risk assessment and compile a report for the railway electrical and mechanical engineering project effectively; (ii) Capable to draft a plan for monitoring and controlling project risks; and (iii) Capable to draft a contingency plan for the project.
8. Remarks	<p>The credit value of this unit of competency is set on the presumption that the person already possesses basic risk assessment competency and knowledge of railway electrical and mechanical works.</p>