Electricity Engineers' Association

PROFESSIONAL DEVELOPMENT

Introduction to Overhead Line Design Mathematics

PROSPECTUS

November 2022

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Introduction

The Introduction to Overhead Line Design Mathematics course was developed in response to feedback from those who participated in the Micro-Credential in Overhead Line Design who felt their mathematics knowledge needed refreshed before beginning the technical modules.

The course has been developed by Amy Richards with the support of Pat Berry (pblearning) and line designers.

The course is not a compulsory part of the Micro-Credential, but is recommended.

Who should participate?

The course has been designed to support entry into the micro-credential for those who either haven't studied math for quite some time, or who feel they need to refresh their basic algebra and trigonometry knowledge before beginning one of the micro-credential modules.

The course is suitable for technical engineers and electrical tradespeople who work as a line designer and are aware of gaps in their knowledge of the mathematics involved.

Participants will already have a basic understanding of electrical theory and NCEA Level 1 (or equivalent) mathematics skills.

Prices and Registration

Registration links and pricing information for all courses are located on the Professional Development pages on the EEA website.

The Course

A math course is not often considered a fun day out. For this reason we have contextualised the course to ensure that it focuses only on what you need to know to as a line designer. Through the course, you will be able to perform basic mathematic calculations, to interpret and use engineering formulae, and perform checks on engineering design calculations.

Theoretical knowledge and skills are shared through two stand-alone modules delivered in webinar workshops. Practice is undertaken as homework between workshops, and 'cheat-sheets' are provided as takeaways to help you in your job role. The two modules are:

- **Module 1 –** Algebraic equations (delivered in three 1.5hr workshops)
- **Module 2 –** Trigonometry (delivered in two 1.5hr workshops)

The Facilitator

Amy has a background in civil engineering. She has worked on broadband rollout projects in New Zealand and Australia, both in the field and in project management and data analysis roles. More recently Amy's work includes facilitation and training.

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