

Practical Maths for Electrical Installation Students & Apprentices

Start Here – Lecturer Guide

Purpose of This Guide

This short guide is designed to help you begin delivering the course immediately, without needing to review every file in the bundle.

The materials provided are fully structured to support teaching, learning, and assessment across Level 2 and Level 3 Electrical Installation programmes.

You do **not** need to adapt or redesign anything to begin delivery.

What This Course Solves

Maths is one of the most common barriers for electrical learners — not due to ability, but due to lack of relevance and confidence.

This course:

- Links maths directly to electrical applications
 - Breaks down key concepts into manageable steps
 - Reinforces learning through structured practice
 - Supports both classroom delivery and independent study
 - Reduces planning time for lecturers
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What You Have Been Given

This is a complete, ready-to-deliver package:

- **Course Textbook (PDF)**
Core teaching content with worked examples and explanations

- **PowerPoint Slides (Editable + PDF)**
Structured lesson delivery for each unit
 - **Worksheets (with Answer Sheets)**
Practice tasks aligned to each lesson
 - **Teacher Notes**
Guidance on delivery, explanations, and key teaching points
 - **Lesson Plans**
Pre-built 3-hour session structures
 - **Course Guide / Scheme of Work**
Overview of delivery across the full course
 - **Assessment Pack (Questions + Answers)**
End-of-unit and final assessment materials
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How to Deliver a Lesson (Simple Model)

Each unit is designed to run as a **3-hour taught session**.

Step 1 – Introduce the Topic (PowerPoint)

- Use the slides to explain key concepts
 - Relate examples to real electrical scenarios
 - Encourage questions early
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Step 2 – Guided Examples (PowerPoint + Teacher Notes)

- Work through examples step-by-step
 - Use the teacher notes to support explanations
 - Check understanding as you go
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Step 3 – Learner Practice (Worksheets)

- Learners complete structured questions
 - Start with basic questions and build up
 - Provide support where needed
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Step 4 – Review and Feedback

- Go through answers as a group
 - Address common mistakes
 - Reinforce key methods
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Step 5 – Consolidation

- Summarise key points from the lesson
 - Link learning back to electrical applications
 - Identify learners who may need additional support
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Suggested Delivery Approach

- Deliver **one unit per session (approx. 3 hours)**
 - Encourage learners to show full working
 - Use questioning regularly to check understanding
 - Do not rush — confidence is more important than pace
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Differentiation

To support mixed-ability groups:

- **Stronger learners**
 - Move ahead to more complex questions
 - Support peers where appropriate
 - **Developing learners**
 - Focus on core questions first
 - Provide additional guidance using worked examples
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Assessment

- Use worksheet performance for ongoing assessment
- Use the final assessment pack to measure overall understanding
- Focus on method as well as final answers

Key Teaching Principles

- Keep explanations clear and practical
 - Always link maths to real electrical tasks
 - Reinforce correct methods consistently
 - Build learner confidence step-by-step
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Important Notes

- All materials are designed to work together — avoid skipping components
 - PowerPoint slides should be used alongside worksheets, not instead of them
 - Teacher notes provide essential guidance — refer to them during delivery
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Getting Started (Quick Setup)

To begin your first lesson:

1. Open **Unit 1 PowerPoint slides**
2. Review **Teacher Notes for Unit 1**
3. Print or distribute **Unit 1 Worksheets**
4. Have **Answer Sheet** ready for review
5. Follow the **Lesson Plan structure**

You are now ready to deliver.

Final Note

This course is designed to reduce your workload while improving learner outcomes.

Use it as intended, keep delivery consistent, and focus on building learner confidence in applying maths to real electrical situations.
