

# Short Courses

## *Electrical Principles and Skills*

<b>Course Duration</b>	4 days (1 x 4 day week)
<b>Course Objectives</b>	This course provides essential underpinning knowledge and practical exercises to aid the understanding of electrical principles.
<b>Course Content</b>	<ul style="list-style-type: none"><li>• Introduction to the Electricity at Work Regulations</li><li>• Isolation and Safe Working Practices</li><li>• Electron theory/conductors and insulators</li><li>• Basic A.C./D.C. principles, conventional current flow and polarity</li><li>• Main effects and use of current flow</li><li>• Electrical terms and units</li><li>• Use of basic electrical formulae</li><li>• Resistive circuits – series / parallel connection</li><li>• Current and voltage laws</li><li>• Types and use of common test equipment for current, voltage, resistance, insulation.</li><li>• Generation principles, A.C. waveform, frequency, R.M.S.</li><li>• Distribution systems, use of transformers, voltage levels, reference to earth</li><li>• Transformers – principles, common types, interconnection</li><li>• Rectification – diodes, bridge rectifiers</li><li>• Introduction to capacitors / inductors and effects</li><li>• Over current protective devices and earthing.</li></ul>
<b>Who should attend?</b>	Personnel who require an insight and essential underpinning knowledge of electrical principles. OR The course may be taken as a separate course at the commencement of further electrical/mechanical courses.
<b>Venue</b>	EAGIT Training Centre - <b>Unit 20</b>
<b>Course Dates</b>	To be advised
<b>Examination Dates</b>	N/A
<b>Costs</b>	£595 + VAT
<b>Course Certificate</b>	This course carries an EAGIT issued certificate of attendance.
<b>Course Requirements</b>	A calculator. Delegates may use their own test instruments e.g. multimeters.