Overview
The AutoCAD® Electrical Essentials with IEC Standards training course covers the indispensable core topics for working with the AutoCAD® Electrical software. Students learn how to use many of the powerful electrical drawing creation tools in the AutoCAD Electrical software. Students create schematic drawings (ladder logic and point to point), panel drawings, and PLC-I/O circuits using automated commands for symbol insertion, component tagging, wire numbering, and drawing modification. In addition, students are introduced to methods of customizing AutoCAD Electrical symbols, circuits, and databases. Other topics covered include titleblock linking, reporting tools, templates, and project files.

Prerequisites
• Computer Literate and working knowledge of Microsoft Windows proficiency.
• Proficient in AutoCAD or have attended the AutoCAD Essentials course.

Software
• Autodesk AutoCAD

What’s Included?
• Course Notes & Stationery*
• Computer and software for the duration of course*
• Coffee, Tea & Delicious Lunch*
• WiFi Access*
• Autodesk Certified Instructor
• Internationally recognized Autodesk Authorized Training Certificate

* Pertains to in-class training only
** In-class training typically occurs over a 3 day period; customised training may differ

Course Content

SESSION 1 - INTRODUCTION TO AUTOCAD ELECTRICAL
• What is AutoCAD Electrical?
• Drawing Files
• Electrical Components and Wires
• Design Methodologies

SESSION 2 - PROJECT FILES
• Project Manager Interface
• Accessing Project Files
• Opening a Drawing
• Creating a Drawing

Course content continues
Course Content

SESSION 3 - SCHEMATICS I – SINGLE WIRES / COMPONENTS
- Referencing
- Ladders
- Insert wires
- Add rungs
- Wire setup
- Wire numbers
- Source & destination signal arrows
- Insert component
- Parent/child components

SESSION 4 - SCHEMATICS II – MULTIWIRE AND CIRCUITS
- Dashed link lines
- 3-Phase Ladders
- Multiple wire bus
- 3-Phase components
- 3-Phase wire numbering
- Cable markers
- Fan in/out
- Insert saved circuits
- Save circuits to icon menu
- WBlock circuits
- Copy circuit
- Move circuit
- Circuit clipboard
- Circuit builder

SESSION 5 - EDITING COMMANDS
- Edit component
- Updating drawings
- Scoot
- Move component
- Copy component
- Align
- Delete component
- Surfer command
- Copy catalog assignment
- Copy installation / location code values
- Attribute editing commands

SESSION 6 - PANEL DRAWINGS
- Insert footprint (Icon Menu/Schematic List/Panel List)
- Edit footprint
- Assign item numbers
- Add balloons

SESSION 7 - TERMINALS
- Insert terminal symbol
- Multiple level terminals
- Multiple insert component command
- Insert jumpers
- Terminal strip editor
- DIN rail command

SESSION 8 - PLC SYMBOLS
- Insert PLC (Parametric / Full Units)
- Insert individual PLC I/O Points
- PIC based tagging
- Spreadsheet PLC I/O utility

SESSION 9 - POINT-TO-POINT WIRING DRAWINGS
- Insert connectors
- Edit connectors
- Insert splices
- Insert multiple wires
- Bend wires

SESSION 10 - SYMBOL CREATION
- Schematic symbols
- Naming convention
- Icon menu wizard
- AutoCAD Electrical databases
- Project database
- Catalog Database
- Footprint lookup database
- PLC Database
- Pin list database

SESSION 11: TITLE BLOCKS
- Update titleblocks
- Titleblock setup

SESSION 12 - REPORTING TOOLS
- Create reports
- Save to external file
- Put on drawing
- Configure report templates
- Running automatic reports
- Electrical audit

SESSION 13 - SETTINGS AND TEMPLATES
- Project properties
- Drawing properties
- Panel drawing configuration
- Template files
- Sharing symbol libraries and databases

SESSION 14 - DRAWING UPDATE TOOLS
- Project-Wide Update/Retag
- Project-Wide utilities
- Plot project
- Export to spreadsheet
- Update from spreadsheet
- Copy project
- Swap/update block
- Mark drawings
- Verify drawings
# Course Registration Form

Please complete, sign and return together with proof of payment to mgfxsales@mgfx.co.za or fax 086 694 9404

## Student Details

<table>
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<tr>
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<th>Cell No</th>
<th>Email address</th>
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## Course Attending

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<td>Course Duration 3 Days</td>
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## Invoicing Details

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### Micrographics SA (Pty) Ltd

Bank Details

| ABSA Newton Park | Branch: 632005 | Account: 4093 847 926 | Reference: invoice number |

## Terms & Conditions:

1. Above Pricing Excludes VAT.
2. Students are to be at the training venue by 08h00 in preparation for a 08h30 start time.
3. Bookings can only be considered confirmation on receipt of payment.
4. Bookings may be changed up to three weeks in advance of the course. A fee of 20% will be levied to cover charges.
5. For full day courses, we will supply you with the relevant training material. A desktop computer to use for the training (where applicable) tea/coffee and a full lunch for full day InClass training hosted at the training center only. Catering is not included for OnSite training and laptop is available for hire at an additional cost if required.
6. Cancellation or rescheduling requests must be in writing and reach us at least 5 [five] working days prior to the course commencement date. Full course fees may be retained for no shows or requests within 5 working days prior to commencement.
7. Although we go to great lengths to ensure that all training proceeds as scheduled, we reserve the right to cancel or postpone dates if we require to do so and undertake to inform clients in writing and telephonically of these changes.
8. We suggest clients wait until a week prior to course commencement that a course has been confirmed to go ahead as scheduled before booking flight and accommodation. We are NOT responsible for cost associated with cancellation of classes such as flight and accommodation for clients.
9. Full training fees will apply if the above condition is not complied with.

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Signed & Accepted

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