Aptella
ACADEMY

# TRAINING COURSES

Aptella
AUTOMATION +
POSITIONING TECH

# Aptella Academy

## Maximise the benefits and empower your people

In today's competitive labour market, investing in your workforce and upskilling your employees is a vital part of attracting and retaining top talent. With the know-how and competence to use technology effectively, training gives you faster return on investment, greater productivity and less downtime.

Our range of Campus training courses is designed to offer practical, hands-on learning for beginners and proficient users alike. From updates on the latest software workflows, to preventative maintenance for machine control systems, we have courses to suit all applications and job functions.

Need a bespoke option where we tailor a course to your needs? No problem, get in touch to discuss your ideas with our team and we'll be happy to help.

## Academy Training Courses

Our expert trainers are here to help you get productive immediately. Enable your team to take control of your projects by empowering your people with the know-how to use technology to their best advantage.

Our training is application specific and tailored to your industry, providing the perfect foundations to tackle any task or project.

We believe in learning by doing, with Academy courses that balance theory with practical, hands-on training that is relevant to real-world scenarios and applications.

- On-site training courses
- Classroom learning at Aptella offices
- Classroom learning at customer offices
- eLearning on-demand courses
- Academy Accreditation for successful course completion

# Survey & Set Out

## Construction Set-Out

This short practical course covers the set-up and operation of your Topcon set out equipment and Topcon Field software. Attendees will cover settings and requirements for job creation, positioning your set out equipment on site, common layout features, as well as as-built features.

**Book a course online today!**

**Course Delivery Method:**
Face-to-Face Learning

**Course Duration:**
4 - 6 hours
(Morning Tea & Lunch Provided)

**Target Audience:**

- Concreters
- Plumbers
- Builders
- Construction Supervisors/ Foremen
- Site Champions
- Building Contractors
- Designers
- Survey Technicians

**The Course Objectives include:**

- Connecting to the LN-150 / GT Robotic with Topcon Field
- Remote Control Basics and LN-150 / GT Robotic Functionality
- Importing data
- Setup and Orientation using Occupy Points
- Setup and Orientation using Reference Points
- Layout Points
- Offer hands-on experience through practical exercises

## Basic GPS Rover Operator

This introductory course is designed for all users of Topcon GPS equipment on the construction site and will take those with little or no experience and make them competent operators. Participants will learn how to setup their equipment, import/export data, localize on a jobsite, check cut/fills to a surface, and measure point data.

Part of the day is set aside for practical field exercises where we cover fundamental, day-to-day tasks such as site set-up, surveying and staking out. These exercises throughout the day are to reinforce the effective use of GPS rovers', whilst ensuring participant learning.





**Course Delivery Method:**
Face-to-Face Learning

**Course Duration:**
6 - 8 hours
(Morning Tea & Lunch Provided)

**Target Audience:**

- Grade Checkers
- Field Technicians
- Supervisors/Formen
- Surveyors
- Site Champions
- Technical Specialists

**The Course Objectives include:**

- Pocket-3D Interface
- Data File Management
- Configuring Pocket-3D to be used with GNSS hardware & Total Stations
- Jobsite Localization
- Surveying with Pocket-3D
- Staking out with Pocket-3D
- Offer hands-on experience through practical exercises



## Advanced GPS Rover Operator

This advanced course is for those who have mastered the basics of Pocket3D operation and will turn competent operators into expert users, earning the greatest benefits from the equipment.

A large part of the day will focus on data management, using office software to enquire, verify and convert design data for a project so that it is optimised for use on the site. Advanced Pocket3D functions will also be covered such as volume calculation, as-built reporting, advanced site set-up and road design stakeout.

Through a comprehensive exploration of advanced features, customization options, troubleshooting techniques, and data management strategies, participants will be equipped to streamline their workflows, improve productivity, and achieve accurate and efficient data collection and stakeout tasks

**Book a course online today!**

**Course Delivery Method:**
Face-to-Face Learning

**Course Duration:**
6 - 8 hours
(Morning Tea & Lunch Provided)

**Target Audience:**

- Surveyors
- Civil Engineers
- Project Managers
- Site Champions
- Technical Specialists
- Experienced Pocket 3D Users

**The course objectives include:**

- Pocket3D Files
- 3D Office Software
- Road Design
- As-built Reporting
- Advanced Coordinate Systems
- Pocket3D Road Stakeout
- Pocket3D Volumes
- Offer hands-on experience through practical exercises

## Total Station Operation

The Total Station Operation training course is designed to equip participants with the essential skills and knowledge required to effectively operate total station instruments for surveying and measurement tasks. The course focuses on understanding the principles of total station operation, mastering instrument setup and calibration, performing accurate measurements, and utilising data for surveying and construction applications.

**Book a course online today!**

**Course Delivery Method:**

Face-to-Face Learning

**Course Duration:**

4 - 6 Hours
(Morning Tea Provided)

**Target Audience:**

- Surveyors
- Survey Assistants/Technicians
- Civil Engineers
- Site Champions

**The course objectives include:**

- Gain a solid understanding of the fundamental principles of total station operation and its significance in surveying and measurement.
- Learn the step-by-step process of setting up and calibrating a total station instrument for precise measurements.
- Angle and Distance Measurements – reflectorless/prism-based methods
- hands-on training to ensure participants gain practical experience in operating total station instruments

# Topcon Software Courses

## Topcon Office Courses

### Introduction to Topcon Office

Introductory level course for new or existing users, the course covers general software introduction, configurations, and settings, import options, DTM creation and plotting.

**The course objectives include:**

- Becoming familiar with the Topcon Office interface and menu structure
- Customising the user setup
- Importing and export data in Topcon Office
- Creating and editing a Digital Terrain Model (DTM)
- Using various visualisation tools (3D and Plotting Tools)

### Survey Procedures and Computations

The Survey course is designed for existing users who have acquired a good knowledge of survey graphics, data entry, triangulation, contouring, and survey plotting procedures within Topcon Office through the attendance of the Introduction Module. This course will enable the user to fully utilise volumes, subdivision designs and other advance options.

**The Course Objectives include:**

- Become familiar with Advanced Survey coding
- Using all the Adjustment Routines
- Computing Volumes using different methods
- Exploring different methods to manage data import and export
- Creating a Structure and Platform design for set out
- Creating Subdivisions using advanced line options and subdivision options

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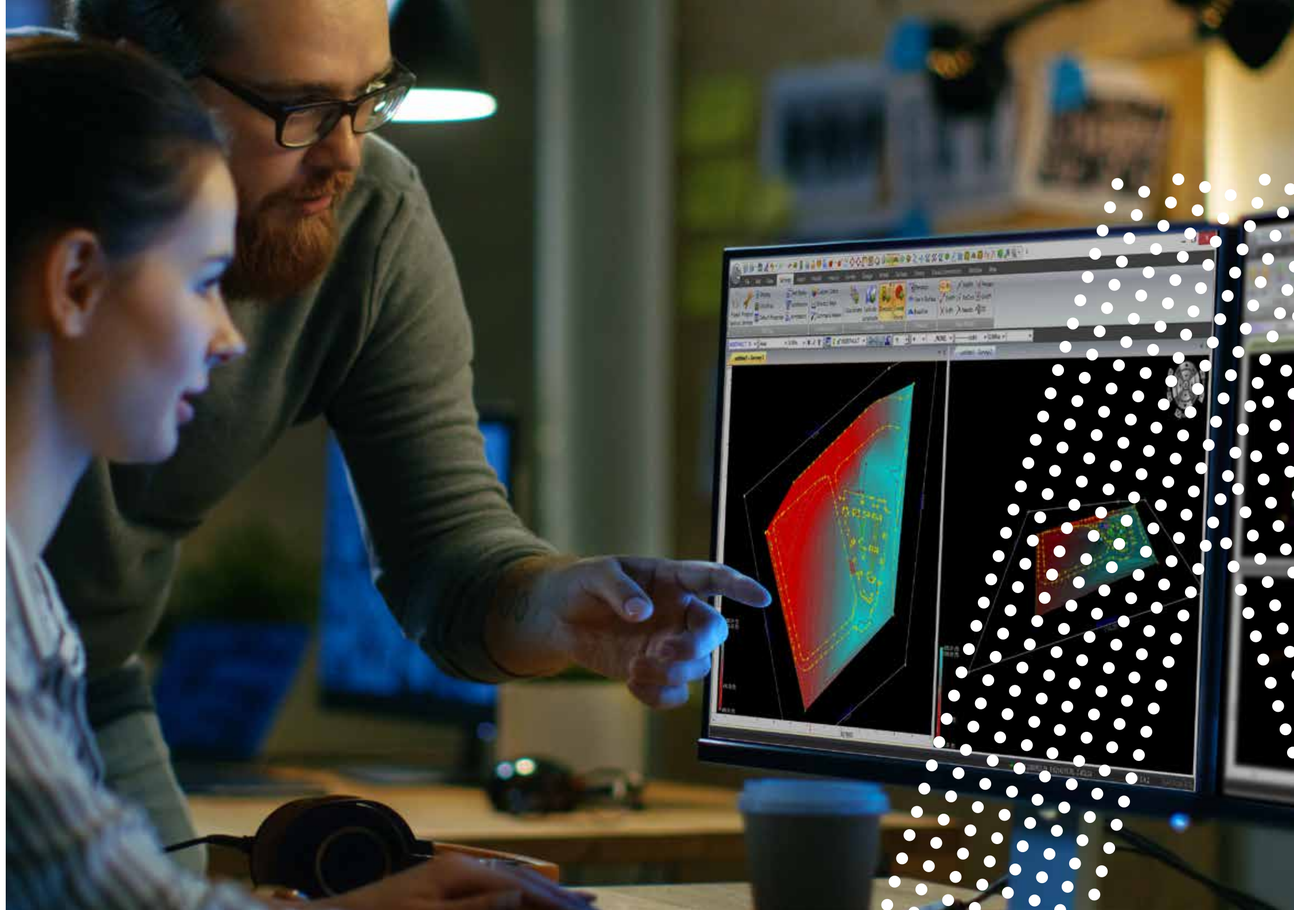


## Introduction to Road Design

The course expands on the knowledge gained in the Introduction module and provides a start to finish basic road design including all the elements: alignment creation, data extraction, design surface options, plotting and transfer to survey for construction. Participants should have completed an Introduction to Topcon Office previously.

### The Course Objectives include:

- Extracting information for Road design
- Becoming familiar with the road's module interface and option
- Designing a profile and its associated options
- Creating a design surface including templates, batters, super and subgrade
- Updating the new design information for export to machines for construction

## Advanced Road Design

Advanced Roads is designed for users who are competent with the standard Topcon Office Road design functions and who require a better understanding of more complex tasks which can be achieved within Topcon Office.

### The Course Objectives include:

- Becoming familiar with advanced road design options
- Being able to complete a road reconstruction project
- Being able to complete a road resheeting project
- Becoming familiar with intersection design options (kerb returns, roundabout, cul-de-sac)
- Being able to complete an intersection design



### Course Delivery Method:

Face-to-Face Learning

### Course Duration:

4-6 hours
(Morning Tea & Lunch Provided)

### Target Audience:

- Surveyors
- Civil Engineers
- CAD technicians
- Technical Specialists
- Project Designers
- Project Managers



## Drafting in Topcon Office

The Topcon Office Drafting Training Course provides participants with a comprehensive understanding of how to effectively use Topcon Office Drafting Options for various drafting tasks. Whether you are new to Topcon Office or seeking to enhance your drafting skills, this course is designed to empower you with the knowledge and techniques needed to create professional drafts and drawings efficiently.

### Course Delivery Method:

Face-to-Face Learning

### Course Duration:

4 - 6 hours
(Morning Tea & Lunch Provided)

### Target Audience:

- Draftsmen
- Project Designers
- Civil Engineers
- Architects
- CAD Technicians
- Surveyors

### The Course Objectives include:

- Becoming familiar with the Topcon Office Drafting Options
- Creating a company title block file
- Discovering all Plot Window Options
- Adding features to a plan
- Use annotation, text options and produce a plot

## Digital Plan Lodgement ePlan

The Digital Plan Lodgement ePlan (Topcon Office) training course provides participants with comprehensive knowledge and hands-on experience in utilizing the ePlan module within Topcon Office software for digital plan lodgement. The course covers essential concepts, tools, and workflows required to effectively manage and submit digital plans for approval and review processes.

### Course Delivery Method:

Face-to-Face Learning

### Course Duration:

4 - 6 hours
(Morning Tea & Lunch Provided)

### Target Audience:

- Draftsmen
- Surveyors
- Local Government Asset Managers
- Utility Company Asset Managers
- GIS Specialists

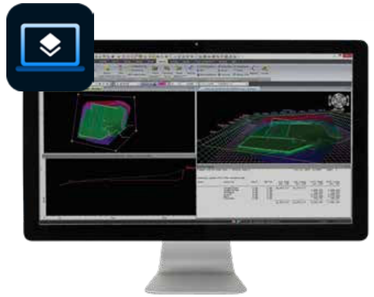
### The Course Objectives include:

- Entering in subdivisions
- Perfecting layer control to benefit the submissions process
- Adding in the correct attributes to align with the local government schema
- Creating and editing an XML file to submit to the Local Lands Department



## Introduction to ADAC Manager

This course provides the ability to empower the learner in understanding the requirements and best practice for producing ADAC XML files from the Topcon Office software using ADAC manager. By increasing the knowledge around the speed of the ADAC manager, the amount of hours required to produce an ADAC XML file will be reduced.



**Book a course online today!**

### Course Delivery Method:

Face-to-Face Learning

### Course Duration:

4 - 6 hours
(Morning Tea & Lunch Provided)

### Target Audience:

- Draftsmen
- Surveyors
- Local Government Asset Managers
- Utility Company Asset Managers
- GIS Specialists

### The Course Objectives include:

- Basic understanding of the ADAC specification.
- Becoming familiar with the ADAC manager interface.
- Basic understanding of project, cadastre, sewerage, stormwater, transport, and water ADAC features.
- Ability to export an ADAC XML file.
- Ability to validate an ADAC XML file.

# Topcon Field Courses

## Basic Surveying with Topcon Field

This introductory course is designed to take entry level users with little or no experience and have them become competent users of Topcon Field software. The day will concentrate on basic, daily survey tasks such as data management, equipment set-up, software configuration and customisation, feature surveys and set out.

By completing the Basic Surveying with Topcon Field training course, participants will gain the necessary knowledge and skills to perform basic surveying tasks using Topcon Field software.

### Course Delivery Method:

Face-to-Face Learning

### Course Duration:

6 - 8 houirs
(Morning Tea & Lunch Provided)

### Target Audience:

- Surveyors
- Field Technicians
- Survey Assistants
- Site Champions
- Civil Engineers

### The Course Objectives include:

- Becoming familiar with the Topcon Field Interface and Customisation
- Creating jobs and configurations for the hardware
- Importing/exporting basic field data
- Viewing options for data verification
- Surveying with Topcon Field
- Offer hands-on experience through practical exercises



## Engineering Survey and Setout

Designed for users who have mastered the basics of Topcon Field operation. This more advanced course will help you become expert Topcon Field users and get the greatest benefits from your technology. This course will focus on road design and set-out routines, advanced feature and attribute surveying, as-built reporting, volume calculation and diagnostics and trouble shooting.

Through hands-on exercises, field applications, and collaborative problem-solving activities, participants will gain practical experience and be prepared to confidently undertake engineering surveying and setout tasks using Topcon Field.

Book a course online today!

### Course Delivery Method:

Face-to-Face Learning

### Course Duration:

6 - 8 hours
(Morning Tea & Lunch Provided)

### Target Audience:

- Surveyors
- Civil Engineers
- Site Champions
- Technical Specialists

### The Course Objectives include:

- Becoming familiar with the Topcon Field Interface and Customisation
- Creating jobs and configurations for the hardware
- Importing/exporting basic field data
- Viewing options for data verification
- Surveying with Topcon Field
- Offer hands-on experience through practical exercises

# Topcon Tools Courses

## Survey Data Processing and Adjustment

This powerful product provides a single post-processing environment for all Topcon's field data formats. Tools will accept and process digital level, total station, RTK, static and GIS GPS+ data.

Users are led through exercises that familiarise them in the acquisition, processing, and adjustment of these various data types.

Book a course online today!

**Course Delivery Method:**

Face-to-Face Learning

**Course Duration:**

4 - 6 hours
(Morning Tea & Lunch Provided)

**Target Audience:**

- Land Surveyors
- Project Designers
- Civil Engineers
- CAD technicians
- Draftsmen

**The Course Objectives include:**

- Become familiar with the Topcon Tools interface and menu structure
- Become familiar with the Topcon raw GNSS data types
- Import raw GNSS data to Topcon Tools
- Verify data in Topcon Tools
- Learn the processing and adjustment tools in Topcon Tools
- Visualise Topcon Tools data in different ways
- Utilise Topcon Tools reporting functions

# Machine Control Courses

## 3D Machine Operators

This course is designed for operators of machine control systems; however, benefits can also be had by those managing and supporting machine control systems on the construction site including foremen, site supervisors, survey assistants, project managers and technical specialists.


**Course Delivery Method:**
Face-to-Face Learning

**Course Duration:**
6 - 8 hours
(Morning Tea & Lunch Provided)

**Target Audience:**
- Field Technicians
- Machine Operators
- Site Foremans/Supervisors
- Survey Assistants
- Project Managers
- Technical Specialists

**The Course Objectives include:**
- Understanding GNSS fundamentals
- 2D Machine control
- Machine set-up and wear and tear
- 3DMC interface
- 3DMC basic and advanced operation
- Offer hands-on experience through practical exercises

## mmGPS Training

The mmGPS training course is designed to provide participants with a comprehensive understanding of mmGPS technology and its applications in the construction and surveying industries. The course covers the fundamental principles, functionalities, and practical implementation of mmGPS systems.


**Course Delivery Method:**
Face-to-Face Learning

**Course Duration:**
6 - 8 hours
(Morning Tea & Lunch Provided)

**Target Audience:**
- Machine Operators
- Site Foremans/Supervisors
- Site Survey Team Members
- Project Managers
- Technical Specialists
- Civil Engineers
- Site Champions
- Field Technicians

**The Course Objectives include:**
- Understand the basic concepts and principles of mmGPS technology
- Understanding of the components, capabilities, and tolerances of mmGPS systems
- mmGPS Setup and Calibration
- Enhance participants' knowledge of best practices and techniques for maximising the efficiency and productivity of mmGPS technology
- Offer hands-on experience through practical exercises

# MC-Mobile Operator Training (Pocket - 3D/3DMC)

MC-Mobile equips you with everything necessary to perform layout and in-field design, enabling you to build your projects and verify results efficiently. During this training session, our instructors will provide hands-on demonstrations, guiding you through the setup, configuration, and operation of the MC-Mobile system.

**Book a course online today!**

## Course Delivery Method:

Face-to-Face Learning

## Course Duration:

6 - 8 hours
(Morning Tea & Lunch Provided)

## Target Audience:

- Concreters
- Plumbers
- Builders
- Landscapers
- Owner Operators
- Specialised Utility Contractors
- Construction Supervisors/ Foremen
- Machine Operators
- Field Technicians

## The Course Objectives include:

- Understand the fundamental principles of MC-Mobile technology and its advantages.
- Learn how to effectively utilise MC-Mobile for layout and in-field design tasks.
- Master the operation of the NEW Pocket 3D & 3DMC v15 interface to perform various functions.
- Acquire skills to optimize resource management and streamline job processes using MC-Mobile.
- Offer hands-on experience through practical exercises

## Total Station Machine Control (LPS)

This course focuses on understanding the principles of total station machine control, setting up and calibrating the system, and maximizing productivity in machine-guided construction operations.

**Course Delivery Method:**

Face-to-Face Learning

**Course Duration:**

6 - 8 hours
(Morning Tea & Lunch Provided)

**Target Audience:**

- Surveyors
- Machine Operators
- Site Foremans/ Supervisors
- Site Champions
- Project Managers
- Technical Specialists

**The Course Objectives include:**

- Familiarise participants with the principles and concepts of the Local Positioning System (LPS) technology
- Learn how to set up, calibrate and verify the total station machine control system for optimal performance
- Develop proficiency in utilising high precision machine control operations to improve efficiency and accuracy
- Explore data management techniques and quality control processes in using the total station machine control system
- Acquire practical experience through hands-on exercises and field applications to reinforce learning objectives.



## 3D Data Management

The 3D Data Management (3D Office) training course is designed to provide participants with comprehensive training on effectively managing and processing 3D data using the 3D Office software. This course focuses on enhancing participants' skills in importing, analysing, editing, and exporting 3D data for surveying, construction, and design applications.

Whether you are new to 3D data management or seeking to enhance your existing skills, this course will equip you with the knowledge and practical expertise needed to effectively utilise the 3D Office software.

Book a course online today!

**Course Delivery Method:**

Face-to-Face Learning

**Course Duration:**

6 - 8 hours
(Morning Tea & Lunch Provided)

**Target Audience:**

- Surveyors
- Designers
- Civil Engineers
- Foremans/Supervisors
- Technical Specialists

**The Course Objectives include:**

- Proficient navigation of the software
- Becoming familiar with the different design data in Topcon format
- Importing design data
- Creating and editing design data
- Viewing design data information
- Verifying design data
- Exporting design data

# Preventative Maintenance Training Package

Get proactive about managing your machine control technology and earthmoving equipment to reduce downtime and increase productivity.

Our course is carefully designed to empower all stakeholders with essential, practical knowledge and hands-on skills that enhance equipment utilization and efficiency. This training is fully customizable to address your unique operational requirements, ensuring your team gains the expertise needed to meet and exceed your desired outcomes.

## Included in the Training Package

**Machine Inspection Checklists**
Comprehensive checklists to guide regular equipment inspections.

**Spare Parts Kits**
Essential parts to support effective system maintenance.

**Training Material**
Access to training materials and resources for continuous learning and reference.

**Book a course online today!**

### Reduce Downtime

Preventative maintenance training helps you identify potential problems before they occur, allowing for repairs to be made proactively with daily, weekly & monthly inspections. This will enable operators and key service personnel to have confidence in the system knowing it will work first time, every time. Ultimately, the training will help reduce equipment downtime, saving unnecessary delays and associated costs.

### Better Performance

Regular preventative maintenance will help machine control systems operate at peak performance, which can improve productivity and efficiency. Learn about the importance of machine wear components and how this has a flow on effect for the machine control system.

### Increased Equipment Lifespan

Preventative maintenance will extend the lifespan of equipment, reducing the need for costly replacements or repairs.

### Improved Safety

Properly maintained equipment is less likely to cause accidents, reducing the risk of incidents and protecting your people. Preventative maintenance training explores how to identify potential safety hazards and how to address them before they escalate.

**Course Delivery Method:**
Face-to-Face Learning

**Location:**
Aptella offices or training can be arranged offsite

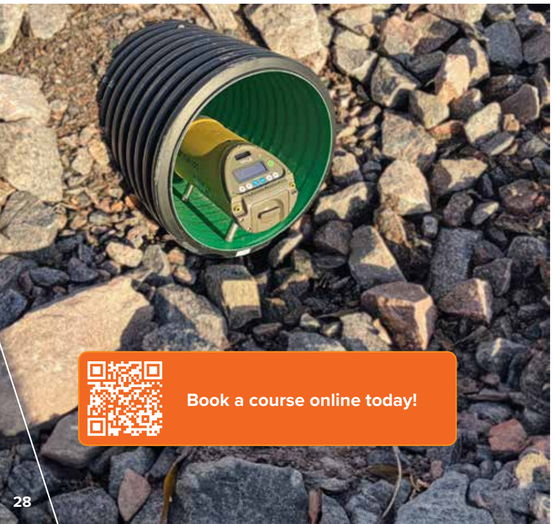
**Target Audience:**
- Service & Maintenance Personnel
- Plant Mechanics
- Operators
- Site Champions
- Foremans/Supervisors
- Technical Specialists
- Technology Asset Managers
- Site Survey Team Members

**The Course Objectives include:**
- Learn how to easily conduct regular machine inspections.
- Use inspection checklists to spot and address potential issues.
- Availability of appropriate spare parts for specific machine components.
- Gain hands-on experience with spare parts to reinforce practical skills.
- Build confidence in preventative maintenance tasks and system calibration through guided practice.

# Laser Level Courses

## Laser Safety Officer Training

The course is designed to ensure persons using laser emitting equipment in the building, construction, mining, and surveying industries have an understanding that lasers are safe to use when used in the manner for which they were intended. The course covers the fundamentals of laser safety, regulatory requirements, hazard assessment, and practical implementation of laser safety protocols



Book a course online today!

**Course Delivery Method:**
Face-to-Face Learning

**Course Duration:**
4 - 6 hours
(Morning Tea & Lunch Provided)

**Target Audience:**

- Plumbers
- Concreters
- Carpenters
- Builders
- Site Foremans/ Supervisors
- Surveyors
- Labourer/General Hand
- Machine Operators
- Mining Supervisors
- Safety Managers

**The Course Objectives include:**

- Introduction to Lasers
- Lasers – Hazards & Classifications
- Safety Rules and Precautions
- Responsibilities of LSO and Operator
- Laser safety requirements
- Management of a Safety Program
- Understanding that lasers are safe (when used as intended)


## Laser and Level Operation

This course provides participants with a comprehensive understanding of laser and level technology and its applications in the construction and surveying industries. The course outlines the theory of levelling, checking and adjustments of levels, and a discussion on methods necessary to achieve accurate levelling. Practical exercises will be conducted after the classroom training to give participants experience with the use of a laser and level.

**Book a course online today!**

### Course Delivery Method:

Face-to-Face Learning

### Course Duration:

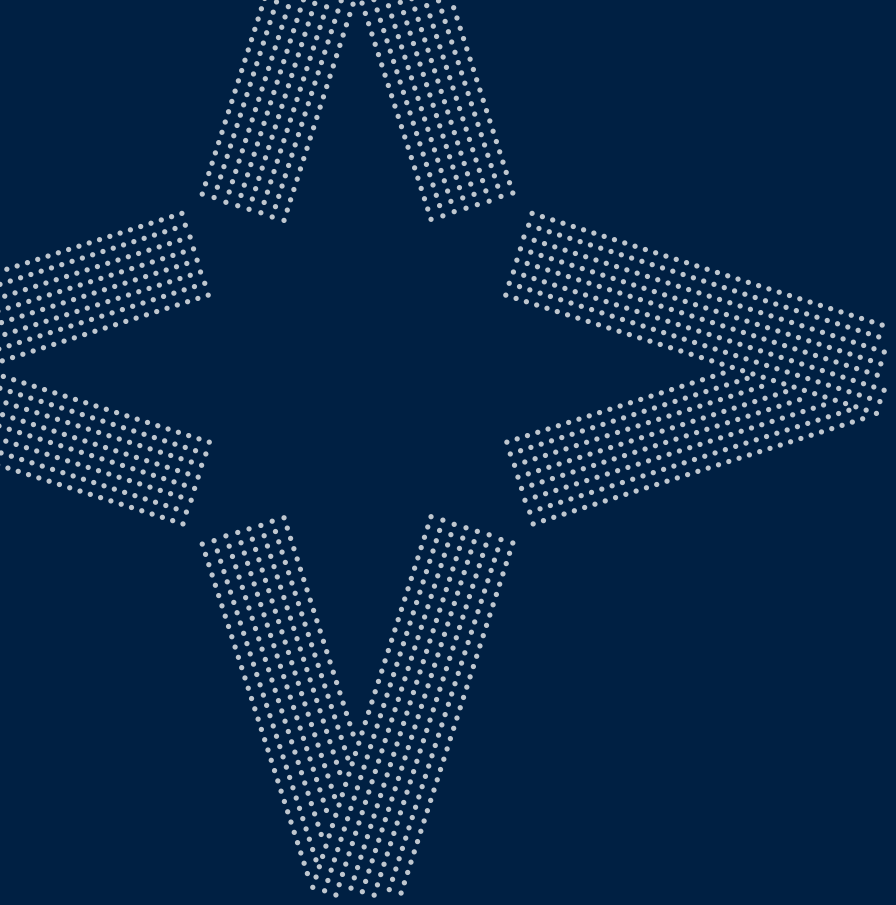
4 - 6 hours
(Morning Tea & Lunch Provided)

### Target Audience:

- Plumbers
- Concreters
- Carpenters
- Builders
- Site Foremans/Supervisors
- Surveyors
- Labourer/General Hand
- Machine Operators

### The Course Objectives include:

- Familiarise participants with the principles and concepts of the Local Positioning System (LPS) technology
- Learn how to set up, calibrate and verify the total station machine control system for optimal performance
- Develop proficiency in utilising high precision machine control operations to improve efficiency and accuracy
- Explore data management techniques and quality control processes in using the total station machine control system
- Acquire practical experience through hands-on exercises and field applications to reinforce learning objectives.



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