

# AUTOMATION ACADEMY

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## Course Title: GEM 80 400/500 Update Course

The GEM 80 400/500 course has been designed to familiarise Electricians, Technicians and Maintenance Engineers with the extra features of the final GEM 80 systems to be produced, the GEM 80 400 and 500 series along with AGP V4 Windows software. If you are familiar with previous GEM 80 systems then this course will guide you through the new and extra features and benefits that the GEM 80 400 and 500 series controllers have over their predecessors. We have 6 sets of GEM 80 400's and 500's and AGP V4 software to ensure that each student gets the full hands on experience with these systems.

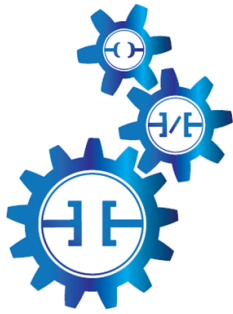
Where possible, application specific exercises, actual drawings and plant programs will be used to allow the students to gain the greatest possible benefit from the course.

## Course Objectives:

- ☒ To introduce students to the extra operations and facilities of GEM 80 400 and 500 systems.
- ☒ To understand the operation of the alphanumeric display.
- ☒ To understand the operation of the key switch and mode operation selector switch.
- ☒ To understand the 400 and 500 series Ethernet communications option for programming and inter processor communications.
- ☒ To understand the GEM 80 serial communication changes and FIP communications.
- ☒ To understand how to utilise AGP to allow the extra features of these two controllers to be accessed.
- ☒ To understand battery and flash memory operation in the GEM 80 500 series controllers.

## Course Content:

An overview of the GEM 80 400 hardware updates, indicators and key switch.  
An overview of the GEM 80 500 hardware updates, indicators and mode switch.  
Fault codes and the 400/500 series alphanumeric display.  
Downloading and running the user program to the GEM 80 500 flash memory using AGP.  
Ethernet programming connections to GEM 80 400 and 500 controllers using AGP.  
The GEM 80 P tables storing the Ethernet IP address and port configuration.  
Inter processor Ethernet communications, using the GEM 80 Ethernet special functions.  
Inter processor FIP communications, using the FIP special functions.  
Programming and understanding GEM 80 400 and 500 series extra standard instructions.



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Programming and understanding GEM 80 400 and 500 series extra special functions.

## **Customised training included in the course cost.**

As part of this training course we will include custom application exercises for your own plant and processes, this value added option creates immediate payback for students on plant. It will have the benefit of the students becoming familiar with key areas of your PLC project(s) during the training course. This option does require the supply of your plant drawing and program listings at least 2 weeks prior to the course start date.

Course Duration: 2 Days

Documentation: GEM 80 400/500 Training Manual.

Equipment per student: GEM 80 400/500 controller

AGPV4 Programming laptop

Plant simulator

Web link: [GEM 80 400/500 Update Course](#)