



Go Further

T50.1E

## Basic Electrics and Electronics

**Do you struggle and get stressed when diagnosing electrical circuits? If so then this course may be what you need. This course covers all of the basics that you need to get started!**

### Course Aim:

To introduce students to the practical elements, features and diagnostics of electrical and electronic systems used on Ford vehicles.

### Subject Matter Includes:

Principles of Electricity

Test Equipment:

- Digital multi-meter (DMM)
- IDS Tools
  - DMM
  - Oscilloscope
- Power probe

Using a DMM

Battery and Alternator Testing:

- Battery and alternator output measurement and testing
- Symptom Based Diagnostic
- Battery Monitoring System (BMS)

Practical Application of Ohms and Watts Laws

Series and Parallel Circuits

Volt Drop Testing

Vehicle Wiring Diagrams:

- Function System Connection (FSC)
- Transcable
- New KA

Methods of Current Control:

- Pulse Width Modulation (PWM)
- Voltage dividing
- Resistive wiring
- GEM output and protection

Self-Test:

- GEM
- Instrument Cluster

Practical Fault Diagnosis

**Note:** Dress code for this course is smart casual. Delegates participating in practical exercise will need to bring PPE. Refer to course joining instructions for further details. Please ensure that you bring your full driving license (both parts) with you and present to the admin team staff on arrival at the college.

### Target Audience:

- Service Technician

### Level:

Basic Level 1

### Course Duration:

2 day

### Cost:

£165 +VAT per day

### BOOK YOUR COURSE

1. Call the Ford College to check available dates and training location. Please inform the Ford College Team that you are a *Ford Blue Oval Club Member*
2. If you are new to Ford College Training, please complete an Enrolment Form
3. Ford College will contact you to confirm your course booking
4. Receive your booking confirmation and joining instructions
5. Attend your course

**CONTACT FORD COLLEGE**

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