

ESM Course Schedule & Module Description

Day One
Introduction
Theory & Hardware
The topics in this section focus on the features and functions of Waukesha Engine Control Systems, in particular, Engine System Manager (ESM)
<ul style="list-style-type: none"> • At the conclusion of this section, you should be able to: <ul style="list-style-type: none"> ○ Define Control Systems ○ Identify the key components of the system ○ Understand system functionality ○ Know system upgrades
Control Software
The topics in this section describe the features and functions of Control System Software.
<ul style="list-style-type: none"> • At the conclusion of this section you will have learned: <ul style="list-style-type: none"> ○ The Installation, Operation and Use of ESP Software for ESM ○ The Human Machine Interface (HMI) Onboard Software for ESM2

Day Two
Homework Review
Fuel Control
<ul style="list-style-type: none"> • At the conclusion of this section, you will be familiar with: <ul style="list-style-type: none"> ○ The evolution of ESM fuel control systems (2000-2007) ○ The specific versions (Application) of fuel control systems, as they apply to the individual engine families ○ System functions and operations of these systems

Day Three
Homework Review
Packaging and Power Supply & Wiring
The topics contained within this section focus on issues associated with electronic control equipment.
<ul style="list-style-type: none"> • At the conclusion of this section, you should be familiar with: <ul style="list-style-type: none"> ○ Known problems with power supplies

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<ul style="list-style-type: none"> ▪ Ripple ▪ Grounding ▪ Wire sizes <ul style="list-style-type: none"> ○ Diodes
Packaging and Installation
<ul style="list-style-type: none"> • At the conclusion of this section, you should be familiar with Packaging: <ul style="list-style-type: none"> ○ Systems ○ Comparison ○ Installation ○ Connections to driven equipment ○ Configuration
E-help / Fault Diagnosis
The topics contained within this section describe the features and functions of e-Help
<ul style="list-style-type: none"> • At the conclusion of this section, you should be familiar with: <ul style="list-style-type: none"> ○ Fault Assessment ○ E-Help operation and use

Day Four
Homework Review
E-help / Fault Diagnosis (continued)
Troubleshooting
The topics contained within this section address typical troubleshooting strategies.
<ul style="list-style-type: none"> • At the conclusion of this section, you should be able to troubleshoot: <ul style="list-style-type: none"> ○ Why the engine won't start ○ Why the engine will not run ○ Causes for performance issues ○ Tools and support
Simulator Demonstration

Day Five (noon completion)
Review
Exam Intro
Exam
Exam Review
Awards / Farewells