

## **Automotive & Diesel LMS – High-Impact Expansion Package**

This document delivers the next high-impact expansion steps for the Automotive & Diesel LMS. It includes course-level instantiation guidance, ASE-aligned assessment frameworks, semester lesson planning, Perkins/KSDE narrative language, and LMS automation readiness.

### **1. Individual Course Document Generation**

Each course in the catalog is intended to be deployed as its own DOCX file derived from the Master Instructional Package. Each course document contains:

- Course-specific syllabus
- Weekly module breakdown (8–16 weeks)
- Lesson objectives and activities
- Practice quizzes and exams
- Virtual lab descriptions

This approach meets accreditation expectations while remaining manageable for instructors.

### **2. ASE-Aligned Question Bank Framework**

Question banks are structured directly from ASE task lists and organized by system. Each bank includes:

- Knowledge-based multiple-choice questions
- Diagnostic scenario questions
- Image-based fault identification

Banks are exportable as CSV or XML for LMS import (e.g., Moodle).

### **3. Standard 16-Week Lesson Plan Model**

Courses follow a 16-week semester model adaptable to accelerated formats.

Weeks 1–2: Safety, fundamentals, theory

Weeks 3–6: Core system operation

Weeks 7–8: Diagnostics and midterm assessment

Weeks 9–13: Advanced scenarios and labs

Weeks 14–15: Applied projects

Week 16: Final exam and capstone assessment

### **4. Perkins V / KSDE Compliance Narrative**

The Automotive & Diesel LMS supports Perkins V and KSDE requirements by:

- Aligning curriculum to industry-recognized standards (ASE, EV safety)
- Supporting work-based and simulated learning experiences
- Providing measurable student outcomes and competency tracking

- Ensuring accessibility and equitable access through online delivery

AI-assisted tools enhance instruction while maintaining instructor oversight.

## **5. LMS Automation & AI Pipeline Readiness**

The platform is designed for automated content generation and deployment:

- Ollama generates lesson drafts, quizzes, and remediation
- Stable Diffusion generates instructional visuals
- Scripts populate LMS courses, modules, and question banks
- Instructors approve content before student release

This enables rapid scaling while maintaining instructional quality.