COURSE NUMBER
FHWA-NHI-380100

COURSE TITLE
Using Interactive Highway Safety Design Model (IHSDM)

How do you perform design policy checks, evaluate the safety performance, and assess the economic impacts of existing or proposed roads and design alternatives? IHSDM automates these tasks and more to help you make data-driven decisions throughout all stages of the project development process.

Learn how to use the latest IHSDM software tools to evaluate highway designs, compare alternatives, and inform investment decisions. You'll start with web-based, guided training to learn the basics of IHSDM at your own pace. Then, you'll shift to live, virtual instructor-led training to apply IHSDM modules and synthesize IHSDM output to make real-world decisions. The training will empower you to make quantitative, data-driven highway design decisions to improve safety and operations.

IHSDM is a suite of software analysis tools for evaluating the safety and operational effects of geometric design decisions. Through this blended, interactive, web-based IHSDM training course, participants will have the opportunity to use the actual IHSDM software tools to evaluate and analyze real highway designs. The new format consists of a blend of web-based (self-paced) training, virtual instructor-led training, and independent work. Upon completion of the course, participants will be able to quantify and compare the safety and operational performance of their design decisions beyond a simple check against design standards.

OUTCOMES

Upon completion of the course, participants will be able to:

• Explain the purpose of each of the IHSDM modules and related tools.
• Identify the installation process, required inputs, upload sequence, and data entry methods for the Crash Prediction Module (CPM) and Economic Analysis (EA) Tool.
• Calibrate CPM output to reflect local conditions.
• Apply the Crash Prediction Module (CPM) output to evaluate the safety of non-freeway segment, intersection, freeway, and interchange designs.
• Apply the IHSDM CPM output in the Economic Analysis (EA) Tool to perform benefit-cost analysis.
• Describe the key capabilities and appropriate uses of the other IHSDM tools.
• Use IHSDM output to make real-world decisions.

TARGET AUDIENCE

This course is designed for new and experienced personnel working on highway design projects who will be directly interacting with IHSDM software tools or applying the results. The IHSDM course benefits highway design project managers, planners, designers, safety engineers, and other personnel responsible for reviewing highway operations and safety. This course will also benefit university professors and students who use IHSDM for their courses and projects. Learners will generate quantitative information from IHSDM to help make, justify, and defend geometric design decisions throughout the highway design process.

TRAINING LEVEL: Intermediate

FEE: 2022: $75 Per Person; 2023: N/A

LENGTH: 14 HOURS (CEU: 1.4 UNITS)

CLASS SIZE: MINIMUM: 10; MAXIMUM: 40

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