

**Railroad 101
Introduction to Railroad Operations**

Syllabus

KEP LLC's Railroad 101 course provides a general description of railroad operations from the time a loaded car is pulled from a shipping point until it is placed at destination.

The course breaks the rail movement into several parts. For each part, the course describes the major events and the potential problems that can be experienced during each event. Railroad 101 also covers the data flow from bill of lading to freight bill. Finally, the course provides an overview of the tactical and strategic aspects of managing rail service from a rail customer perspective.

Generally the course applies to carload operations and is designed for industry professionals who are new to rail transportation and others interested in the nuts and bolts of rail operations.

The course takes about two hours including time for questions and discussion.

Course Outline

1. Introduction

2. Data

- 2.1. Bills of lading
- 2.2. Waybills
- 2.3. Freight bills
- 2.4. Flow of data through the rail movement

3. Origin and Destination Terminals

- 3.1. Key track and railcar parts
- 3.2. Plant switching/classification
- 3.3. Local service
- 3.4. Local terminal operations

4. Network Operations

- 4.1. Railroad operations management structure
- 4.2. Road trains and main line operations
- 4.3. Train blocking
- 4.4. Train scheduling
- 4.5. Intermediate classification yards

5. Interchanges

- 5.1. Local interchange
- 5.2. Run through service

6. Rail Service Management

- 6.1. Brief overview of Precision Scheduled Railroading
- 6.2. Rail transit variability
- 6.3. Tracking, tracing and tactical rail shipment management
- 6.4. Metrics, management reporting and strategic management of rail service

7. Summary and Final Questions

Instructor

John Schmitter, President – KEP LLC

John is the President and founder of transportation consulting firm KEP LLC. John works with industrial companies, energy producers and transportation companies on transportation issues including transportation strategy, transportation rate and contract negotiations, rail cost analysis, rail operations, railcar acquisition, leasing, maintenance and management, intermodal transportation, technology acquisition and regulatory issues. He has 38 years of experience in transportation operations, marketing and sales.

Prior to starting KEP, John was Vice President of Business Development at DTE Rail Services, a railcar repair, software and services company. He was Managing Director of Metals & Ores at Southern Pacific Railroad and has held marketing and sales positions in the intermodal and LTL trucking industries. John began his career as a trainmaster for Conrail. John has a MBA from Penn State University and a BS in Business from Northeastern University.