Creating an EduTRAIN™ Clinic

What’s different about an EDUTRAIN CLINIC
What is EduTRAIN?

- **EduTRAIN** is a new offering from the NMRA for use by Regions and Divisions.
- Designed to improve model railroaders’ skills.
- Through a full curriculum of consistent, high quality clinics, demos and labs.
- Available for local re-use.
- From NMRA as a Recommended Practice - Not mandatory.
- Does **NOT** replace existing clinics.
What’s Different?

- **Not New:**
  - Teaching model railroading skills is not new

- **New:**
  - Methodology (Systematic Approach to Training)
  - Full curriculum
  - Consistent, high quality
  - Available to Regions and Divisions as needed
  - Perspective of teaching from what audience needs to learn rather than what the author did
EduTRAIN is about teaching
Sample Titles

- Upgrading Rolling Stock
- Installing DCC Decoders
- Understanding Basic Electricity & Wiring
- Detailing Industrial Buildings
- Track Planning
- Trackwork Techniques for Reliable Operation
- Operations Made Easy
- Building Accurate Freight Cars
- Tank Cars 101
- Modeling Urban Areas
- Modeling Quincy, IL
- Railfanning Quincy, IL
- The History of N Scale
- Symbol Freights on the XYZ Route

EduTRAIN Candidates

Probably not EduTRAIN Candidates, but...
Systematic Approach to Training (SAT)

- A teaching methodology that has been used successfully by Education, Business, Government and Military for many years.
Seven step process

1. Perform a task analysis.
2. Perform a needs analysis.
3. Write training objectives based on the needs analysis.
4. Build a course package for conducting the courses.
5. Prepare course materials list needed to conduct the courses.
6. Implement the course.
7. Evaluate the results of the course.
1. Task Analysis

- What tasks do model railroaders need to perform in order to build and operate their scale model railroad?
- This is called the **Task & Activity List (T&AL)**.
  - The complete T&AL becomes the curriculum and is the **EduTRAIN** curriculum.
  - Individual tasks are broken down into clinic sized modules (approximately 45 minutes)
Introduction to Model Railroading

Model Building
- “Shake the box” to Advanced kits, Kitbashing and Scratchbuilding
- Rolling Stock and Structures

Using Useful Tools Safely

Layout Planning and Construction
- Developing a concept, layout design, room construction and aesthetics
- Modular Layouts (Freemo, Ntrak, et al.)

Basic Electricity, Wiring and Soldering

Track Laying – Best practices for reliable operation and realistic appearance

Improving Realism
- Different Techniques for Scenery, Backdrops and Weathering

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Preliminary Curriculum (2 of 2)

- **Maintenance** – Best practices to keep trains running well and improving RTR models
- **Advanced Electronics**
  - DCC, Decoders, Detection and Signaling, Useful Circuits and Electronics, Power on Board (DeadRail)
- **Operations**
  - Car and Train Movements, Yard Ops, Signaling, Dispatching, JMRI
  - Operating methodologies – TT/TO, CTC, DTC, Track Warrants, et.al.
- **Prototype Operations**
  - Modeling various industries and customer operations realistically
- **Research** – Sources for Information Internet, Historical Societies, NMRA library, Town Directories, Phone Books, Sanborn Maps, Reference/Historical Books, etc.
- **Photography** – Prototype (safely and legally) and Model
- **How to Develop and Present a Clinic**
2. Needs Analysis

- What skills or knowledge are required for the modeler to perform the task?
- Audience is all model railroaders, from novice to advanced.
- Needs can be prioritized.
- When approved, the prioritized Needs Analysis can guide clinic development.
3. Training Objectives

- Build a list of **training objectives** from the Needs Analysis.
- Objectives are linked to an item on the T&AL.
- All course objectives are “controlled” and associated (linked) with the Course Package.
4. Course Package

- The lesson plan is the heart of any course package.
  - The lesson plan is a course outline laid out in a logical sequence for presentation and includes suggestions and recommendations for the presenter.

- PowerPoint will be used for presentations.
  - Provides an outline to assure consistency for different presenters.
  - Speaker notes on each slide guide the presenter

- A list of all materials that will be needed to conduct the course.
  - This is particularly important if the course is a demonstration or a hands-on workshop.

- Contact information for the course author(s).

- Downloadable from the NMRA website by authorized persons.
5. Prepare Course Materials

- Course presentations should be built in PowerPoint.
  - Presentation effects may not work consistently among different software levels, different projectors and different platforms (MAC vs PC)
- Any text materials need to be in PDF format.
- Note: The best presenters use this process automatically
6. Implement the Courses

- Download the course
- Present the courses at various NMRA functions (national, regional, divisional and local).
- Presenter may be NMRA or Guest
  - Should review material and qualify to present
- Audiences may be NMRA or Prospective
- Fees are at the discretion of the host
- Demos and Labs (Make and Take) may have associated costs
7. Evaluate the results

- **EduTRAIN** is designed to help all model railroaders regardless of whether they pursue AP.

- However, the AP is designed to evaluate a modeler’s accomplishment and even an MMR may seek to improve their skills in some areas.
Potential course on Detailing Freight Cars

Title is primary Course Objective

Course Description

**Detailing Model Freight Cars Clinic Description**

This clinic is for modelers who are already familiar with model freight car basics such as assembly of typical "shake-the-box" kits. They will learn how to take their model freight cars to the next level by learning the accompanying clinic objectives (above). Required tools and materials include:

- Hobby knife w/#11 blade and a curved blade
- Pin vise or Dremel-type drill
- CA cement or equivalent
- Assorted hobby screwdrivers
- Decals or dry transfers
- Paints
- Paint brushes
- Cotton swabs
- Small diagonal cutters
- Tweezers
- Weathering chalks or paints
Specific objectives include:

- Basic
  - Identify the common details found on most freight cars.
  - Identify the common ways to attach detail securely so that it will withstand normal operations.
  - Identify railroad specific detail.
  - Demonstrate how to change out and upgrade couplers.
  - Verify coupler height and workability.
  - Verify that trucks roll well and track properly.
  - Demonstrate how to perform paint touchup.
  - Apply weathering.

- Advanced
  - Demonstrate how to carve molded on detail from a model freight car.
  - Demonstrate how to drill holes for installing detail.
  - Demonstrate how to remove factory lettering without damaging the painted surface.
The NMRA EduTRAIN® Process

Modeler creates presentation or course outline and submits

Feedback and modification (if necessary)

Regional Curriculum Committee member reviews

Approval - New course is added to curriculum

Regions or Divisions download and use

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Specific Requirements

- A slide with the author’s name
  - Include any acknowledgments and picture credits
  - Authors retain ownership and all rights to the clinic materials
- Authors will be asked to:
  - Keep clinics current and correct any errors or omissions
  - Affirm they have permissions to use all photos
- Authors can earn AP credit for authoring and
  - Presenters can earn AP credit for presenting

- Speaker Notes
- On course approval, include the EduTRAIN logo for branding and copyright purposes
Submitting an EduTRAIN™ Course Candidate

- Send candidate clinics on CD to
  
  NMRA EduTRAIN™
  12136 Tower Hill Road
  Sawyer, MI 49125
  rm7blake@earthlink.net
  Online repository available soon

- Authors retain ownership of the presentation and receive AP author credit
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