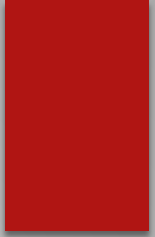




Creating an **EduTRAIN™** Clinic

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WHAT'S DIFFERENT ABOUT AN **EDUTRAIN CLINIC**



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V2.0
 Last Update 7/16/14



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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



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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



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EduTRAIN is about teaching

Sample Titles



EduTRAIN Candidates

- ▶ 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

Probably not
EduTRAIN Candidates,
but...



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Systematic Approach to Training (SAT)

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



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SAT



- ▶ 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.



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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)



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Preliminary Curriculum (1 of 2)



- ▶ **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**



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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.



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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.



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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.



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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



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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



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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.



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NMRA EduTRAIN™ Example

- ▶ 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



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NMRA *EduTRAIN*TM Example

(Cont)



- ▶ 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.



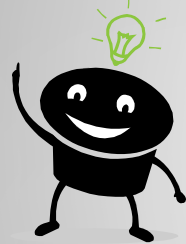
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The NMRA *EduTRAIN*® Process

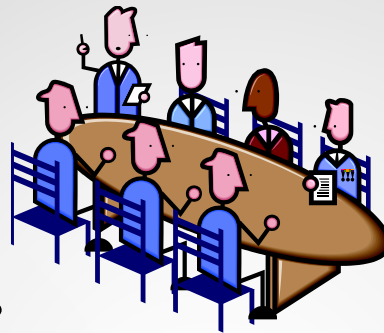
Modeler creates presentation or course outline and submits



The Author



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

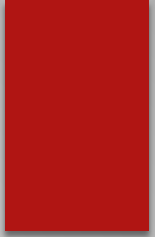


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Submitting an *EduTRAIN*TM Course Candidate



- ▶ Send candidate clinics on CD to

NMRA *EduTRAIN*TM
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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