

# Now Arriving on Track 1...

INTRODUCING



**EduTRAIN™**

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# Why *EduTRAIN*<sup>TM</sup>?



- ▶ The NMRA advances the worldwide scale model railroading community through **education** and standards as well as advocacy and fellowship

NMRA Charter Statement



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# How have we been doing?

- ▶ NMRA conventions at all levels include educational clinics
- ▶ Whatever is available
- ▶ Quality varies
- ▶ No complete curriculum of courses
- ▶ Good clinics (and clinicians) not always available
- ▶ Clinics tend to be aimed at more advanced modelers



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# How does *EduTRAIN* address?

- ▶ Develop a complete curriculum of clinics
  - ▶ Covering all aspects of the hobby
  - ▶ Introductory to advanced levels
- ▶ Clinics available for download
  - ▶ Through the new NMRA web site
  - ▶ Packaged so that local presenters can deliver
- ▶ Review and approval process
  - ▶ Ensure consistent content quality



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# Why?



- ▶ Help NMRA improve delivery of charter education objective
- ▶ Attract model railroaders to NMRA
- ▶ Provide complete curriculum
- ▶ Ensure consistent quality through application of proven training process
- ▶ Include process to help instructors/presenters improve their delivery
- ▶ Help model railroaders develop the skills necessary for AP and MMR modeling



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# Is this possible?

- ▶ Michiana Division conceived and developed the process
- ▶ Successfully used in 2013 MWR and NCR conventions
- ▶ Several candidate courses currently in review process





# Obsolescence?



- ▶ Does **EduTRAIN** make existing clinics obsolete?

# NO

- ▶ It will take time to build a complete curriculum
- ▶ Not all clinics will be **EduTRAIN** clinics\*
- ▶ **EduTRAIN** is a recommended practice, not a mandatory requirement
- ▶ But... if you have a good teaching clinic, we'd like to talk to you!

\* More on this, later



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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 Directory, 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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# Methodology



- ▶ Based on Systematic Approach to Training (SAT)
  - ▶ Used by Education, Business, Government and Military to teach basic knowledge and skills
- ▶ Seven step process
  - ▶ Perform a **task analysis**.
  - ▶ Perform a **needs analysis**.
  - ▶ Write **training objectives** based on the needs analysis.
  - ▶ Build a **course package** for conducting the courses.
  - ▶ Prepare **course materials list** needed to conduct the courses.
  - ▶ **Implement** the course.
  - ▶ **Evaluate** the results of the course.



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# How is an *EduTRAIN* clinic different?



- ▶ Teaches model railroading skills
  - ▶ How to design/build a particular layout
    - ▶ Versus a layout tour
  - ▶ How to create a layout design element based on a subject
    - ▶ Versus a travelogue
  - ▶ Modeling a particular class of locomotives
    - ▶ Versus a slide show on the differences in a particular class of locomotives
- ▶ ***EduTRAIN*** includes Clinics (presentations), Demos and Labs (make and take)



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# How is an *EduTRAIN* clinic different? (continued)



- ▶ More structured development
- ▶ Consistent quality
- ▶ Presented from the perspective of 'what the audience needs to learn' rather than 'this is what the presenter has done'.
  - ▶ Focus on audience needs rather than presenter's accomplishments



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# *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...



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# NMRA *EduTRAIN*<sup>™</sup> 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*<sup>™</sup> Example Continued



- ▶ Specific objectives could 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.



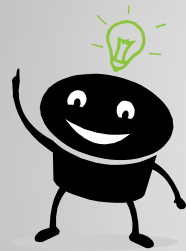
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# The NMRA *EduTRAIN*® Process

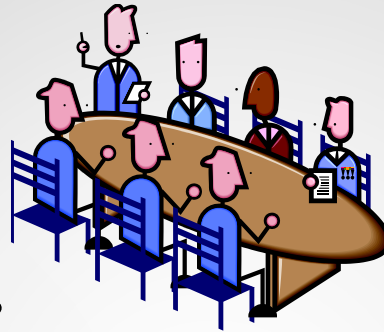
Modeler creates presentation or course outline and submits



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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# Creating an NMRA *EduTRAIN*<sup>TM</sup> Clinic

- ▶ Develop the clinic using the SAT method
- ▶ PowerPoint is the standard software
- ▶ Submit the clinic for review
- ▶ Include an “author” slide
  - ▶ Include acknowledgements/permissions for photos
  - ▶ Include Speaker notes for other clinicians
  - ▶ Include NMRA and ***EduTRAIN***<sup>TM</sup> logos
- ▶ Maintain the presentation
  - ▶ Make any corrections/updates as required
- ▶ Be aware that presentations may appear differently on different PCs
  - ▶ Different software levels or projectors, Mac vs PC



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# Submitting an *EduTRAIN* candidate



- ▶ Send candidate clinics on CD to

NMRA ***EduTRAIN***<sup>™</sup>  
12136 Tower Hill Road  
Sawyer, MI 49125  
[rm7blake@earthlink.net](mailto:rm7blake@earthlink.net)

Online repository to be available soon

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



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