

Fall 2011 Shourt Line College of DCC DCC 301 Class Schedule and Directions



Advanced DCC

Schedule: Three (3) day seminar, Thursday thru Saturday September 15 - 17, 2011

Day 1:

Start: 9:00AM

- Introductions
- DCC Basics Brief Review
- Analog vs. DCC wiring
- DiMAX, MTS and DCC
 - Manufacturers Product Comparisons
 - Individual **hands-on** operation w/ Massoth & PIKO systems.
 - LGB MTS I, II and III, DiMAX & DCC compatibility

Morning Break: 10:30AM to 10:45AM

- DCC Review of major manufacturers
- LGB/Marklin, Massoth, PIKO, Uhlenbrock, Zimo, Digitrax, Phoenix, SPROG, NCE & others
- Systems, decoders, programmers & sound systems

Lunch Break: 12:30PM to 1:30PM

- Q&A
- Advanced analog and DCC
 - Layout design, decoder and system options, wiring and installation, configuration, operation and programming
 - Circuit Theory and Applications
- Conversions, Maintenance and Repair
 - Individual **hands-on** programming, installation, wiring, lubrication & repair

Afternoon Break: 3:00PM to 3:15PM

- Individual Activities **Hands-on**
 - Individual DCC Train Competitions **Hands-on**
 - Individual Loco Conversions **Hands-on**
 - Team Train Operation Practice **Hands-on**
 - Basic Soldering, Adhesives & Machine tool Practice **Hands-on**

End: 5:00PM

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Day 2:

Start: 9:00AM

- Q&A
- Advanced Decoder Best Practice
 - Manufacturers Product Comparisons
 - SPROG II Universal Decoder Programmer – Demo
 - Sound Reed Switch Installation
 - Axle Sound Sync Options
 - Hall Effect Switches
 - Power buffers
 - Stop on DC Operations and Demo
 - LGB MTS I, II and III, DiMAX & DCC demonstration & compatibility Decoders
- Decoders & Sound Boards
 - Motor Block Conversions
 - Sound Decoders & Speakers
 - Sound System Demonstrations

Morning Break: 10:30AM to 10:45AM

- Advanced Lighting **hands-on**
 - Advanced Lighting Circuit Design and Applications
 - Loco, car and layout lighting, design, installation, wiring, DCC control and dimming
 - Voltage regulators, current regulators and PWM (pulse width modulation) circuits for lighting & motor control.
- Boosters
 - Manufacturers Product Comparisons
 - Breaking, Reverse Loop & other Modules
 - Individual **hands-on** operation

Lunch Break: 12:30PM to 1:30PM

- Q&A
- Advanced Automation
- Train automation via central station and PC programs
- Feedback control, track contacts and loco magnets
- **Hands-on** exercise and demonstrations

Afternoon Break: 3:00PM to 3:15PM

- Individual Activities **Hands-on**
 - LED Lighting and wiring **Hands-on**
 - Individual DCC Train Competition Practice **Hands-on**
 - Team Train Operation Practice **Hands-on**
 - Team Loco Train Competition Practice **Hands-on**
 - Individual Loco Conversions **Hands-on**
 - Soldering, Adhesives & Machine Practice **Hands-on**

End: 5:00PM

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Day 3:

Start: 9:00AM

- Q&A
- Train automation via central station and PC programs
- Advanced circuits
 - SUSI, DiMAX, Loconet, MTS buses
 - Buffers; battery and capacitor types
 - **Hands-on** exercise and demonstrations
 - Battery Operated DCC
 - Switch motors
 - Mfg. reviews, demonstrations, **hands-on** exercises
 - RC servo
 - Applications; Uncouplers, catenary automation, animation
 - **Hands-on** exercise and demonstrations
- Advanced loco maintenance, repair and testing.

Morning Break: 10:30AM to 10:45AM

- Individual & Team Activities
 - Individual & Team DCC Train Competition Practice
 - Complete Individual Loco Conversions
- Advanced DCC & sound system conversion techniques to original manufacturers specifications
- Advanced Skills **Hands-on**
 - **Hands-on** instruction and best practice for machining, soldering, spot welding, gluing and electronic test equipment use.

Lunch Break: 12:30PM to 1:30PM

- Individual Activities **Hands-on**
- Competition
 - Individual Train Operation **Hands-on**
 - Team Train Operation **Hands-on**

Afternoon Break: 3:00PM to 3:15PM

- Celebration
- Awards
 - Individual & Team Train Operation
 - Special Awards
- Dinner
 - Return Feedback Cards
 - Hand out discount coupons
 - Wrap-up

End: 5:00PM

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Registration:

[Registration Form](#): All class reservations are offered on a first come first serve basis – advanced registrations required for all classes. [Click here for registration form](#)

Individual DCC Loco Conversions: Attendees may wish to ship their locos in advance to the Shourt Line, 12121 Shetland Lane, Los Angeles, CA 90049. If machine work is desired by the Shourt Line please allow 10 working days prior to the seminar to ensure your loco is ready. Please order any decoders and conversion hardware 10 days prior to the conference; please contact the Shourt Line for help in ordering parts required for your locos conversion. Time is scheduled each day for attendees to perform a DCC conversion on their own loco.

Date: Three (3) day seminar, Thursday thru Saturday September 15 - 17, 2011

Sign in Time: 8:45AM to 9:00 AM Thursday

Seminar Dinner: A special dinner will be provided on the last day of the seminar after the prizes have been awarded to attendees.

Class Location: [Ambrose Hotel](#) 1255 20th St., Santa Monica, CA 90404 Ph 310.315.1556 (corner of 20th St. and Arizona Ave)

Seminar Parking: Secure self serve underground hotel parking is complementary for all conference attendees.

Hotels: (click on each link below to view on-line)

[Ambrose Hotel](#): ♥♥♥♥ 1255 20th St., Santa Monica, CA 90404 – (310) 315-1555

Attendees are encouraged to stay at the Ambrose Hotel where the class is held. Eight (8) rooms have been reserved at the Ambrose hotel for attendees. Hotel amenities include Complimentary Organic Continental Breakfast, Complimentary Wi-Fi Access, free London Cab service to local entertainment, dining and shopping and much more. Please contact the Hotel at 310.315.1555 to make your reservations and ask for the DCC Seminar 20% discount rate of \$190 + tax/night. The Ambrose is one of the best hotels in west Los Angeles.

[Comfort Inn Hotel](#): ♥♥ 2815 Santa Monica Blvd., Santa Monica, CA, US, 90404 (310) 828-5517. The hotel is 1 mile from the Class room at the Ambrose Hotel. Attendees may use code number 2271 for our group rates for the Eight (8) rooms reserved for the seminar. Please contact the Hotel at (310) 828-5517 for reservations starting at \$109.65 + tax/night & about 1 mile from the class at the Ambrose.

[Best Western Gateway Hotel](#): ♥♥ 1920 Santa Monica Blvd., Santa Monica, CA 90404 (310) 829-9100 with limited room availability but only a few blocks from the class at the Ambrose.

[PriceLine.com](#) View on-line prices or Pick the type of hotel you want or name your price to save 50% off rates provided you are willing to drive several miles and are willing to accept the hotel they give you.

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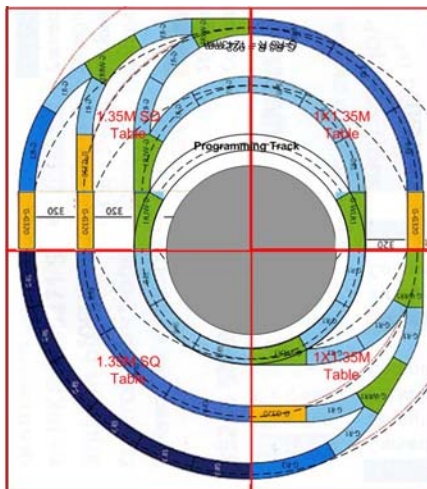
Advanced DCC

Maps and Directions: (click on each link below to view on-line)



- [Class Location Map](#) (Ambrose Hotel, 1255 20th St., Santa Monica, CA 90404 (310) 315-1555)
- [Drive map from LAX 10 miles \(Los Angeles International Airport\) to the Class](#) (10.1 mile drive w/o freeway)

By the end of this class you should be proficient in all aspects of Advanced DCC model railroad wiring, conversion, operation and programming.



Shourt Line's R1, R2, R3 demo layout

And should also:

- Understand the advanced features of DCC equipment
- Understand all DCC equipment, track & decoder wiring
- Be able to do advanced conversions from analog to DCC
- Be able to do all advanced automatic functions
- Be able to do advanced wiring & programming
- Be able to configure all loco and central station functions
- Be able to choose the right system for any layout requirements
- Become proficient at multi-train operations, switch routes, consisting and loco configuration.
- Become proficient in loco maintenance, repair and conversion
- Have gained advanced skills and techniques for model railroading.