



MCI Academy

Training for Advancing Technology

www.MCIAcademy.com



Welcome to MCI Academy

Welcome to MCI Academy, Motor Coach Industries' comprehensive educational program to help customers develop personnel to maintain and repair motor coaches to the highest of standards.

As North America's leading builder of motor coaches, MCI understands that finding skilled technicians has become increasingly difficult. Technical school graduates most often choose the trucking industry, and those who do arrive at charter and tour companies typically have little motor coach knowledge. Training usually falls to the hiring company.

MCI can help. Properly trained personnel represent a superior return on investment, contributing to increased coach availability with faster repair times, fewer road failures and reduced expenditures on unnecessary parts.

MCI Academy is the result of our history and expertise at training. In 2007, MCI established the National Training Center at our parts distribution center in Louisville, Kentucky, where we host the popular, hands-on Technical Tune-Up training events. In 2008, we launched our award-winning webinar series led by expert MCI trainers and OEM representatives.

In February 2015, MCI debuted an online, anytime training program called the Learning Management System (LMS). Today, LMS has more than 5,700 registered users and a growing library of more than 450 courses dedicated to major coach components and systems.

MCI Academy combines all of these training platforms, plus others. With training opportunities including Systems Qualifications, students can progress through the program, ultimately getting an MCI Level 1 Certificate. Technicians can additionally earn diplomas in specialties related to critical coach systems such as HVAC and Electrical. In June of 2017, MCI Academy was awarded CASE accreditation by ATMC, which is an affiliate of ASE for its training program.

Please review this brochure and see all the new training opportunities available to you to enhance your operations and your technicians' skills. For class schedule and registration information, please visit www.MCIAcademy.com.

Sincerely,

Scott Crawford
Manager, Technical Training



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Mission Statement

MCI Academy is committed to providing the highest quality training available in the motor coach industry for all levels of technicians using online courses, classroom sessions, written tests and practical skills demonstration. This training will equip professionals with the knowledge and skills to properly maintain, diagnose and repair systems found on MCI coaches to maximize on-road time, passenger safety and operator profitability.



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Continuing Automotive Service Education (CASE) consists of educational activities, offered by accredited institutions and organizations, which maintain, develop, or increase the knowledge, skills, and professional performance that an automotive service technician uses to serve clients, the public, and the automotive industry. CASE consists of that body of knowledge and skills generally recognized and accepted as within the curriculum of accredited programs of automotive service technology, as well as new knowledge required to service emerging automotive technologies.

The ASE Automotive Training Manager's Council (ATMC) offer a voluntary peer review based accreditation program for institutions and organizations that provide continuing automotive service education. ATMC seek to improve the quality of continuing automotive education and help automotive technicians identify appropriate training sources and activities by evaluating and accrediting providers of continuing automotive service education against CASE Standards.

The CASE Accreditation Program addresses the training provider's process of developing and delivering training as opposed to prescribing specific program content. Elements of organization, structure and methodology which the industry agrees contribute significantly to the development and delivery of high quality automotive service education have been identified and incorporated into the CASE Standards.

The Boards of Directors of both the National Institute for Automotive Service Excellence (ASE) are responsible for the Continuing Automotive Service Education (CASE) program. ASE grants accreditation to training providers that comply with the CASE evaluation procedure and meet established CASE standards.

Only 46 training programs in the United States have earned accreditation to date. MCI Academy is the only coach or bus manufacturer who has earned this recognition.



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Registration

To enroll in MCI Academy, all students must have an account created in the Learning Management System (LMS). Once the student has an account, they are free to take any course offered in the LMS Course Catalog.

To request an account for the LMS or to enroll in the any of the Technician Development programs, visit www.mciacademy.com. For the LMS, go to the LMS section of the website and click on LMS Account Request, fill out the form and email to the address at the top of the form. Once the account or accounts are created, the User ID and Password will be email to you with basic navigation instructions.

For the Technician Development programs, click on the Schedule to determine which class you would like to attend. Click on Register in the upper right corner of the website and fill out the on line registration form and submit if seats are available. Once registration form(s) are received, a letter will be emailed to you confirming your seat and provide information necessary for the trip to Louisville including hotel information.



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Learning Management System

The Learning Management System (LMS) is the base system for all training programs available at MCI Academy. The LMS creates an account and a transcript for each student and documents all training activity. LMS requires the student to take a quiz at the end of each course, passing with an 80% (or 90% on the Meritor courses). The student may retake the quiz as many times as necessary to pass. When passed, LMS automatically updates the student's transcript and issues a personalized Certificate of Completion. A completed course may be repeated as a refresher course without the quiz.

The LMS also has a reporting feature that allows the company's management to track training activity. Reports can be customized in any format that is useful for a manager's needs.

Accounts are grouped by companies, and their students are placed into these groups. Active students must be employed by an MCI customer. If a student leaves the company, the student's account will be disabled but not deleted. The account can be reactivated should the student return or become employed by another operator of MCI coaches. If you would like an account to the LMS, please visit

www.mciacademy.com and download the Account Creation Template and send it to training@mcicoach.com.



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LMS Course Catalog

The LMS Course Catalog will allow the student to take individual courses as needed. The LMS Course Catalog is divided into sub catalogs that encompass various topic categories and systems. To find a course, locate the catalog that contains the topic, and then find the course in that sub catalog. To enroll in the course, simply click on the “Enroll” link under the apple, and the course will appear on your course list located on “My Account” tab.

There are catalogs for:

- MCI Technician Courses and Programs
- Motor Coach Operators
- General Shop Safety
- Parts Management
- Fleet Management
- Cummins Engines
- Detroit Engines
- Allison Transmissions



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Programs

System Qualifications

System Qualifications have been created to develop personnel to a high level of competence on the major systems on an MCI motor coach. To earn a System Qualification, the student must complete a combination of online courses and instructor-led training held at the National Training Center in Louisville, Kentucky. The Louisville training will require students to attend classroom training, pass post-tests and demonstrate their knowledge by performing practical tests.

Technician Level Certificates

Certificates programs have been created to develop personnel to different skill levels. To earn certificates, students will need to complete designated System Qualifications. There are four levels of certificates available: MCI Level 3 Technician, MCI Level 2 Technician, MCI Level 1 Technician and MCI Master Technician.

Specialist Diplomas

Diploma programs consist of intense, in-depth training on heating, ventilation and air-conditioning (HVAC) and electrical systems. The Diploma programs are multiple week training courses, designed to take technicians with little experience and advance them to an advanced level.

Master MCI Technician

If a technician earns all three Certificates and both Diplomas, they will receive the designation as a Master MCI Technician.

Motorcoach Technician Apprenticeship Program

The full program is 5 years in length consisting of LMS courses, completion of all of the MCI Academy programs in Louisville and On the Job Training (OJT). Experienced technicians can receive credit for the OJT hours but will still have to complete the MCI Academy programs.

The Apprentice will be officially registered with the USDOL and the company must commit to pay increases as they progress through the program as well as commit to sending the Apprentice to Louisville for training.

Continuing Education

Continuing Education programs are designed to sharpen the knowledge and skills of maintenance staff on common systems, and introduce new systems and procedures.

On-Site Training

MCI can bring the training to your shop and on your coaches. Scheduled training must be at least three days in length and in any combination of topics. Course cost covers all expenses related to the training class including all travel expenses and training materials. Maximum recommended class size is 10 students.



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System Qualification

System Qualification develops a technician's knowledge and skill level on a specific system found on MCI motorcoaches.

Each System Qualification has required steps a technician must complete to successfully earn the designation. These steps are:

- Complete designated courses in the LMS Course Catalog
- Attend Instructor-led training at the National Training Center in Louisville, KY
- Successfully pass a hands-on skills assessment
- Successfully pass a post test with a score of 80%.

System Qualification Categories

Preventive Maintenance

Tires and Wheels

Basic Steering Systems

Basic Suspension Systems

Air Systems

SmarTire TPMS Systems

Basic Electrical Systems

Drum Brake Systems

Disc Brake Systems

Wheel Ends Systems

Anti-Lock Brake Systems

Advanced Steering Systems

Proheat Auxiliary Systems

Advanced Suspension Systems

HVAC Systems

Advanced Electrical



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Technician Level Certificate Program

The Certificate Program offers a special designation for three different levels of technician based on skills accumulated through completed training. Each level builds on the previous level with MCI Level 3 Technician being the starting level.

Each level requires completion of designated System Qualifications to earn a certificate.



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MCI Level 3 Technician

5 days

Prerequisite Courses* (QM PRE) LMS Only

Consists of several lessons on basic information a technician should know. This course must be completed first to unlock the ability to start the Preventive Maintenance and Tires and Wheels Qualifications.

Preventive Maintenance (QM 3.1) LMS Only

All courses for this qualification are LMS Courses. There will not be a practical test requirement.

Tires and Wheels (QM 3.2) LMS Only

All courses for this qualification are LMS Courses. There will not be a practical test requirement.

MCI Air Systems (QM 3.3)

Courses for this qualification are a combination of LMS Courses, training and testing in Louisville, Kentucky, covering basic Air Systems on MCI coaches.

MCI Steering Systems (QM 3.4)

Courses for this qualification are a combination of LMS courses, training and testing in Louisville, Kentucky, covering basic Steering Systems on MCI coaches.

MCI Suspension Systems (QM 3.5)

Courses for this qualification are a combination of LMS courses, training and testing in Louisville, Kentucky, covering basic Suspension Systems on MCI coaches.

Tire Pressure Monitoring Systems (QM 3.6)

Courses for this qualification are a combination of LMS courses, training and testing in Louisville, Kentucky, covering the SmarTire tire pressure monitoring systems on MCI coaches.



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MCI Level 2 Technician

Two separate 5 day sessions

Tech 2A

MCI Drum Brake Systems (QM 2.1)

Courses for this qualification are a combination of LMS courses, training and testing in Louisville, Kentucky, covering Drum Brake Systems on MCI coaches.

MCI Disc Brake Systems (QM 2.2)

Courses for this qualification are a combination of LMS courses, training and testing in Louisville, Kentucky, covering Disc Brake Systems on MCI coaches.

MCI Wheel End Systems (QM 2.3)

Courses for this qualification are a combination of LMS courses, training and testing in Louisville, Kentucky, covering Wheel End Systems on MCI coaches.

MCI Basic Electrical Systems (QM 2.4)

Courses for this qualification are a combination of LMS courses, training and testing in Louisville, Kentucky, covering Basic Electrical Systems such as charging, starting and lighting systems.

Tech 2B

MCI Advanced Steering Systems (QM 2.5)

Courses for this qualification will be a combination of LMS courses, training and testing in Louisville, Kentucky, covering advanced steering systems such as ESC, ESP and RAS.

MCI Advanced Suspension Systems (QM 2.6)

Courses for this Qualification are a combination of LMS courses, training and testing in Louisville Kentucky and will cover Advanced Suspension Systems such ECAS and MDSS systems on MCI coaches.

Anti-Lock and Stability Control Systems (QM 2.7)

Courses for this qualification will be a combination of LMS courses, training and testing in Louisville, Kentucky, and will cover Anti-Lock brake systems on MCI coaches.

MCI Auxiliary Heating Systems (QM 2.8)

Courses for this qualification are a combination of LMS courses, training and testing in Louisville, Kentucky, covering auxiliary heating systems found on MCI coaches.



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MCI Level 1 Technician

Two separate 5 day sessions

Tech 1A

MCI Vansco Multiplex Systems (QM 1.1)

Courses for this Qualification will be a combination of LMS Courses, training and testing in Louisville, Kentucky, and will cover Vansco Multiplex Systems on MCI coaches.

MCI Dinex I/O Multiplex Systems (QM 1.2)

Courses for this Qualification are a combination of LMS Courses, training and testing in Louisville, Kentucky, covering Dinex I/O T1, T and G4 Multiplex Systems on MCI coaches.

MCI ACTIA Multiplex Systems (QM 1.3)

Courses for this Qualification are a combination of LMS Courses, training and testing in Louisville, Kentucky, covering ACTIA Multiplex Systems on MCI coaches.

Tech 1B

MCI HVAC Systems (QM 1.4)

Courses for this Qualification are a combination of LMS courses, training and testing in Louisville, Kentucky, and will cover HVAC Systems on MCI coaches.

MCI Master Technician

MCI Master Technician

A technician will earn an MCI Master Technician Certificate after they completed the MCI Technician Level 3, Technician Level 2, Technician Level 1, MCI Electrical Specialist and MCI HVAC Specialist programs. A technician can bypass the Technician Level 1 classes if they are striving to earn the Master designation since will cover the same material and much more in the two Specialist programs..



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Motorcoach Technician Apprenticeship Program

The full program is 5 years in length consisting of LMS courses, completion of all of the MCI Academy programs in Louisville and On the Job Training (OJT). Experienced technicians can receive credit for the OJT hours but will still have to complete the MCI Academy programs.

The Apprentice will be officially registered with the USDOL and the company must commit to pay increases as they progress through the program as well as commit to sending the Apprentice to Louisville for training.



Summary of Credentials to be Earned

- (16) System Qualifications
- (3) Technician Level Certificates
- Commercial Driver's License
- (2) Specialist Diplomas
- EPA 608 and 609 certifications
- Master MCI Technician certificate
- Motorcoach Technician Journeyworker certificate



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For more information please visit www.mciacademy.com

Training Plan Overview

Year 1 – On Line training, On the Job training and 1 week of classroom training in Louisville

- Safety and Environmental Courses – 40 hours
- Bus Math and Business Writing
- Proper Shop Practices
- Preventive Maintenance Qualification
- Tires and Wheels Qualification
- Air Systems Qualification
- Basic Suspension Systems Qualification
- Basic Steering Systems Qualification
- Tire Pressure Monitoring Systems Qualification
- Earns Technician Level 3 Certificate

Year 2 – On line training, On the Job training and 1 week of classroom training in Louisville Plus CDL

- Safety Courses – 40 hours
- Drum Brake Systems Qualification
- Disc Brake Systems Qualification
- Wheel End Systems Qualification
- Basic Electrical Systems Qualification
- Wheel Chair Lifts
- Transmissions
- Commercial Driver License with P Endorsement

Year 3 – On line training, On the Job training and 1 week of classroom training in Louisville

- Safety Courses – 40 hours
- Advanced Steering Systems Qualification
- Advanced Suspension Systems Qualification
- Auxiliary Heating Systems Qualification
- Antilock Brake Systems (ABS) Qualification
- Diesel Engine LMS courses
- Earns Technician Level 2 Certificate

Year 4 – On Line training, On the Job training and 4 weeks of classroom training in Louisville

- Safety Courses – 40 hours
- Electrical 101 – Basic Theory and Basic Circuits
- Electrical 201 – Charging, Starting Systems and Advanced Circuits
- Electrical 301 – Multiplex Systems
- Electrical 401 – Multiplex Systems
- Earns MCI Electrical Specialist Diploma

Year 5 – On line training , On the Job training and 4 weeks of classroom training in Louisville

- Safety Courses – 40 hours
- HVAC 101 – Basic Theory and EPA 608 and 609 Certification
- HVAC 201 – Major Components Teardown
- HVAC 301 – Service Procedures
- HVAC 401 – Electronics and Troubleshooting
- Earns MCI HVAC Specialist Diploma
- Earns MCI Technician Level 1 Certificate
- Earns MCI Master Technician Certificate



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Diploma Programs

Diploma programs are designed to develop students with little to no experience and take them to an advanced level of skill. The training programs are multiple week sessions spread out over several months to allow the student to absorb the information learned in class and have the opportunity to apply the learning in an actual fleet environment.

MCI HVAC Specialist Diploma

The MCI HVAC Diploma is achieved by completing all required prerequisite LMS courses and attending all four sessions held at the National Training Center in Louisville, Kentucky. Each session will be separated by several weeks for students to complete any assigned homework and apply the new skills learned at their home shop.

HVAC 101 (3.5 days)

This course covers basic refrigerant theory, components and operating principles. Federal regulatory requirements will be explained in great detail, and all students will be given the EPA 608 and 609 certification testing. EPA certification must be earned by the completion of the program.

HVAC 201 (4.5 days)

This course covers operations of the various systems on MCI coaches. Instruction includes disassembly and reassembly of all major components such as MCI compressors, Carrier compressors, evaporator motors, condenser motors and control valves.

HVAC 301 (4.5 days)

This course is focused on all aspects of servicing the MCI HVAC system. Students learn how to use manifold gauges, micron gauges, evacuate and recharge refrigerant, pressure test systems, perform leak detection tests, repair leaks, replace components without evacuating the entire system, and properly check superheat. Instruction includes the proper use and maintenance of service tools.

HVAC 401 (4.5 days)

This course covers all aspects of troubleshooting the electronic controls on the MCI HVAC system. Instructors will demonstrate testing procedures and use of proper tools. Students will be required to troubleshoot various problems planted in a coach to show their comprehension. Students will also learn to solder joints using low temperature solder.



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MCI Electrical Specialist Diploma

The MCI Electrical Diploma is achieved by completing all required prerequisite LMS courses and attending all four sessions held at the National Training Center in Louisville, Kentucky. Each session will be separated by several weeks for the student to complete any assigned homework and apply the new skills learned at their home shop.

ELECT 101 (4.5 days)

This course covers basic electrical theory and principles, electrical wiring, harness and connector repairs, operating principles, basic components, and basic electric circuit diagnostics. Battery testing and diagnostics will also be discussed.

ELECT 201 (4.5 days)

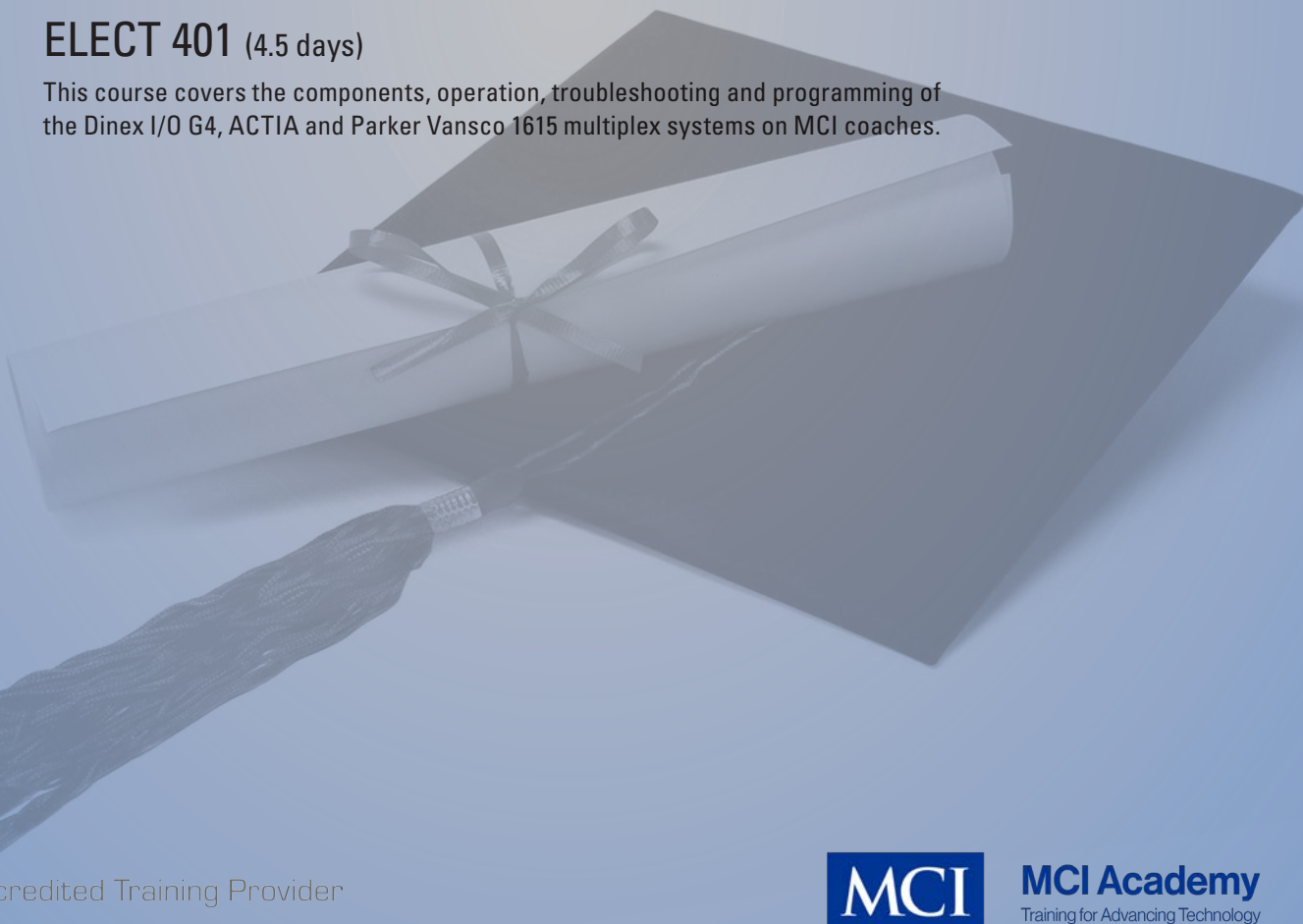
This Course covers various electrical systems such as Charging systems and components, Starting systems and components, and various testing procedures, basic schematics and tools.

ELECT 301 (4.5 days)

This course covers basic multiplex components, operation, Gate Logic, CAN line diagnostics, troubleshooting and programming of the Vansco 2820, Dinex I/O T1, T2 multiplex systems on MCI coaches.

ELECT 401 (4.5 days)

This course covers the components, operation, troubleshooting and programming of the Dinex I/O G4, ACTIA and Parker Vansco 1615 multiplex systems on MCI coaches.



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Continuing Education Program

Webinars

Webinars are periodically scheduled to cover new systems and procedures on MCI coaches. Webinar topics, scheduled dates and registration are available at www.mcicoach.com/training. Webinars are held on Wednesdays at 2 p.m. CST and last 1 hour to 1 ½ hours, depending on the number of questions. The Webinar format allows students to ask questions during the presentation.

Technical Tune-Up Seminars

Technical Tune-Ups are held regionally or at the National Training Center in Louisville, Kentucky. The sessions cover multiple topics over two to three days, and are designed to provide more in-depth training on systems and procedures than Webinars. Technical Tune-Ups are for the experienced technician needing to hone their knowledge and skills on current and new systems.



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