

Designed to Ensure Integrity, Accuracy, and Repeatability of Test Results

Advanced Air & Hydronic Balancing Training & Certification

This course is NCI's most advanced air and hydronics balancing class. Participants may attend the course for educational purposes only or can choose to achieve certification by participating in and passing eight hours of written and practical examinations.

Experienced commercial balancers seeking advanced air and hydronics training will learn how to effectively diagnose and balance larger and more complex HVAC systems.

CLASS PREREQUISITES:

This is an advanced training program for trained and certified Air Balancers. To register, you must have a minimum of five years air balancing experience and an NCI Commercial Air Balancing Certification or equivalent.

It is also highly recommended that you take the following training and certification exams prior to attending this class:

- NCI Commercial System Performance Certification
- NCI Hydronic Testing, Adjusting and Balancing Certification.

LEARN THE PRINCIPLES OF QUALITY TESTING, ADJUSTING BALANCING, AND SYSTEM DIAGNOSTICS

We are committed to providing top quality training and continuing education opportunities that begin with an intensive five-day certification course.

This course is taught in our classrooms and in our air/hydronics lab where we review the principles of quality testing, balancing, adjusting, and system troubleshooting. We help you enhance your technical skills in air and hydronic testing and balancing.

You will also learn specific methodology and procedures unique to NCI that will help you diagnose system deficiencies and recommend solutions.

Written and field exams follow the training. Upon successful completion of all coursework and the exams, you will receive the NCI **Advanced Air & Hydronic Balancing Certification**.



The Highest Standard in Delivered System Performance

NCI has developed more than 60 practical testing and balancing procedures that certified professionals employ in the field. These practical standards ensure systems will be tested and balanced with integrity, accuracy, and most critically, repeatability of the test results.

Training, continuing education, certification, and field support are keys to the development of NCI-affiliated test and balance firms. This NCI advanced certification identifies affiliated firms and certified balancing professionals as qualified in professional methods and procedures for testing, adjusting, balancing, and commissioning commercial environmental systems.

Process for Obtaining NCI Certification

If you are interested in the NCI advanced certification, you must first meet basic pre-approval criteria. Complete and submit a preliminary application. If you qualify, NCI will extend an invitation to apply for certification.

The application for certification specifies what is required to earn NCI advanced certification. This includes:

- NCI Commercial Air Balancing Certification
- Five years of air balancing experience
- Agreement to maintain professional conduct and follow NCI procedural standards and industry best Testing, Adjusting, and Balancing (TAB) practices
- Agreement to have access to test instruments meeting NCI guidelines
- Commitment to maintain current certificates of instrument calibration
- Agreement to meet each project's specified instrument and calibration requirements.

What is NCI's Advanced Air and Hydronic Balancing Certification?

NCI established and maintains stringent standards for testing and balancing air and hydronic systems that must be met by those seeking to qualify for certification.

Engineers, contractors, building owners, and property managers can be assured every NCI-certified professional is required to complete a rigorous training program, and successfully pass a comprehensive examination process prior to receiving his or her credentials.

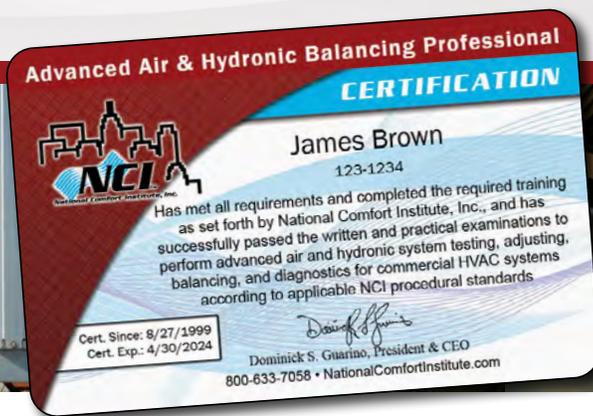
NCI's practical procedures provide a comprehensive and systematic guide to performing each of the components of a testing and balancing project. Combined with the "NCI Code of Professional Conduct", these procedures ensure consistency of performance and quality results that customers demand and deserve.

NCI Advanced Air and Hydronic Balancing Training and Certification

Our Advanced Air and Hydronics Balancing Course is NCI's most advanced balancing class offered. Successful students will receive certification enabling them to test, adjust, balance and issue reports on all sizes of commercial air and hydronic systems.

- Forty hours of training and testing are provided with twenty-seven individual training modules
- Air and hydronic balancing training includes testing, reporting, and procedural standards
- Approximately six hours of hands-on testing during training
- Eight hours of both written and practical hands-on exams for students desiring certification in air and hydronics balancing
- Training features a live, in-person instructor, a 400 plus page student manual and workbook, interactive visual presentation, written and hands-on exercises, and student feedback documentation.





NCI CERTIFICATION COURSE OUTLINE

Day 1:

- Welcome, course logistics and introduction
- NCI certifications - history and requirements
- NCI air procedural standards
- Estimating a balancing project
- Commercial duct air leakage testing
- Static pressure testing
- Duct traverses.

Day 2:

- Balancing system airflow
- Fan laws
- Fan and electrical testing
- Fan curves
- Fume hood testing
- Life safety - smoke evacuation and stairwells.

Day 3:

- Commercial kitchen balancing
- Economizer and outside balancing
- VAV balancing and reporting procedures
- Air changes per hour
- Temperature and system delivered Btu
- Air balancing and diagnostic report review.

Day 4:

- Hydronic systems overview
- Pump selection and sizing
- Pumps and pump curves
- Pump laws
- Measure hydronic flow
- Balance hydronic flow.

Day 5:

- ***Air balancing certification exam and field testing***
- ***Hydronic balancing certification exam and field testing.***

WHO SHOULD ATTEND?

This course is designed for HVAC professionals with NCI Commercial Air Balancing Certification and at least five years of air balancing experience. Balancing professionals and HVAC contractors would benefit most from this training and certification.

CERTIFICATION

Candidates must successfully complete training and pass two written and two practical exams. Among other skills, they must demonstrate the ability to use fan/pump laws, properly use applicable instrumentation, apply psychrometrics, and determine actual delivered Btu performance of equipment that they have tested.

They must also demonstrate the ability to identify system defects and deficiencies, and recommend possible remediation utilizing NCI methods and best practices.

Register now and discover the High-Performance HVAC™ Difference!

For more information, call 800-633-7058 or visit NationalComfortInstitute.com

**Advanced
Commercial Air
and Hydronic
Testing, Adjusting,
and Balancing
Training and
Certification**

Unparalleled
Procedures
and Results!



800-633-7058 | NationalComfortInstitute.com

AAHBBro0522

Who is NCI?

National Comfort Institute, Inc. (NCI) is the world leader in HVAC System Performance and Air Balancing training. We created the industry's best practices, processes, and forms and have been teaching them for decades.

What makes NCI's approach different? We show you how to thoroughly test and diagnose the system using practical, easy-to-follow methods so you'll know exactly what to do to provide your customers with optimum comfort and energy efficiency.

NCI coined the phrase "High-Performance HVAC™", a unique approach to managing a contracting business through accountability and measurable results. During the past two decades, NCI has trained and certified more than 30,000 HVAC industry professionals. For more information about NCI, please call 800-633-7058 or visit www.nationalcomfortinstitute.com.

Additional Educational Opportunities from NCI:

- Residential HVAC System Performance & Air Balancing • Hydronic Testing, Adjusting, & Balancing
- Commercial HVAC System Performance • Airflow Testing and Diagnostics Implementation
- Combustion Performance and CO Safety • Duct System Optimization • Commercial Air Balancing
- NCI Online University.



Scan the QR Code
to Learn More
and Register