

# NC3 FESTO: Fundamentals of Fluid Power - Hydraulics

**Aligned Programs of Study:** Mechatronics

## Description

National Coalition of Certification Centers (NC3) certifications are available to students who successfully complete the NC3 curriculum through a certified school, taught by an NC3-certified trainer. NC3 develops a standardized and comprehensive curriculum that covers multi-disciplines in conjunction with its industry partners, incorporating extensive hands-on learning for students. The curriculum is set up in a module format, and as students complete a module, they complete an end-of-module exam online. The end-of-module exams test for a high level of competency in a specific discipline. NC3 awards certificates of completion to the student and all certificates can be printed and kept in a portfolio or to accompany resumes.

This hydraulic training course is designed to familiarize students with the construction and operation of hydraulic components. Investigating the construction and operation of a range of hydraulic equipment, this hydraulic training course covers the fundamental principles of hydraulics as well as the individual components. Valves controlling pressure, flow rate, sequence, and direction of flow are included and practical exercises are used to demonstrate their operation, based on standard symbol circuits. Maintenance and a systematic approach to fault finding are also covered.

## Certification Information

Test Owner

National Coalition of Certification Centers (NC3)

4940 88<sup>th</sup> Avenue

Kenosha, WI 53114

Phone: (262) 914-1515

Testing Sites

End-of-module exams are given online and can be taken at the certified center. Offsite testing can be arranged by an instructor if determined to be necessary. Testing information can be located at <http://www.nc3certs.com>.

Registration Procedures

1. Schools should begin by registering any instructors considered for TTT at one of the sites available. More information can be viewed at <http://www.nc3.net>. Please note, all multimeter training can be done online and does not require the instructor to attend TTT events.
2. For NC3 guidelines and requirements, schools should contact [lisa.marshall@nc3.net](mailto:lisa.marshall@nc3.net)
3. Once a school has fulfilled the required list of training aids and tooling for a certification package, the school will have the option to enroll for full NC3 membership if desired. This option is available on a school-by-school basis and at the school system and statewide levels.
4. NC3 will monitor and evaluate certification usage on a yearly and month-to-month basis. Instructors will be required to recertify based on the curriculum or technological changes.
5. As students complete modules, the instructor can print and present students with a stackable credential. NC3 will offer complete digital back up for all certificates and testing completed.
6. Contact [lisa.marshall@nc3.net](mailto:lisa.marshall@nc3.net) for more guidelines and program information.

**Preparing to offer the certification**

Required Instructor Qualifications

Fundamentals of Fluid Power - Hydraulics requires the instructor to attend a train the trainer (TTT) event at one of the multiple locations across the country. Once the instructor has completed course work and passed testing, they will be ready to instruct and certify students.

Exam Details

Testing is free for students, but the school must have the tools and certified teacher to administer the certification testing.

Materials and Resources

More information is available online at <https://www.nc3.net/>. More detailed information is at <http://www.nc3certs.com>. Curriculum and testing can all be located under the “Instructor” tab. All testing can be accessed under this tab. All equipment and tooling needed for learning and testing come complete with all certification packages.

**Vendors with Data Sharing MOU with TDOE**

Vendor	Contact Information
National Coalition of Certification Centers (NC3)	<a href="https://www.nc3.net/">https://www.nc3.net/</a>