

# IND HYDRAULICS- PNEUMATICS (419)

---

## **419-300. Fluid Power Maintenance. (2 Credits)**

Become familiar with common maintenance activities that are necessary for industrial and mobile systems controlled by hydraulics. Take an in-depth look at the principles of circuit evaluation and component operation, construction, maintenance, and testing.

Prerequisites: (612-110 with a minimum grade of C- or 612-115 with a minimum grade of C-)

See sections of this course (<http://www.wctc.edu/academics/programs-courses/course-search/course-search-listing.php?code=419&num=300>)

## **419-340. Facility Fluid Power. (1 Credit)**

Start by gaining knowledge of the physics behind fluid power systems, machinery and the transmission of hydraulic power. The mechanical components that comprise fluid power systems are studied in depth along with their maintenance. The course makes extensive use of hydraulic trainers in order to give "hands on" experience. The ultimate goal is to develop effective troubleshooting techniques. Safety is a major concern in performing work on hydraulic equipment and systems and this will be covered throughout the course in all its aspects.

See sections of this course (<http://www.wctc.edu/academics/programs-courses/course-search/course-search-listing.php?code=419&num=340>)

## **419-410. Basics of Fluid Power Training. (1.6 Credits)**

This introductory course will review the basic principles of fluid power and general rules on design concepts that influence the operation and maintenance of fluid power equipment.

See sections of this course (<http://www.wctc.edu/academics/programs-courses/course-search/course-search-listing.php?code=419&num=410>)

## **419-421. Elec/Pneu/Mech Troubleshooting. (2.4 Credits)**

Learn troubleshooting tactics for repair and maintenance of electrical, pneumatic, and mechanical systems.

See sections of this course (<http://www.wctc.edu/academics/programs-courses/course-search/course-search-listing.php?code=419&num=421>)

## **419-421A. Pneumatics. (0.4 Credits)**

Learn the basics of pneumatics including reviewing basic gas laws and principles, and covering topics such as valves, logic devices, cylinders, and air motors.

See sections of this course (<http://www.wctc.edu/academics/programs-courses/course-search/course-search-listing.php?code=419&num=421A>)

## **419-501. Apprentice Hydraulics. (1 Credit)**

Gain the knowledge of the uses and applications of hydraulics required in the apprentice trades.

See sections of this course (<http://www.wctc.edu/academics/programs-courses/course-search/course-search-listing.php?code=419&num=501>)

## **419-502. Pneumatics for Apprentices. (1 Credit)**

Gain the knowledge of the uses and applications of pneumatics required in the apprentice trades.

See sections of this course (<http://www.wctc.edu/academics/programs-courses/course-search/course-search-listing.php?code=419&num=502>)