

**Career-Technical Credit Transfer (CT)²
Industrial Power Technology Career-Technical Assurance Guide (CTAG)
February 27, 2017**

The following course, indicated by the Career-Technical Articulation Number (CTAN), is eligible for postsecondary credit and transfer among Ohio's public secondary career-technical institutions and state institutions of higher education. The SCTAI alignment document with ODE competencies and postsecondary learning outcomes is available on the ODHE website at <https://www.ohiohighered.org/transfer/ct2/ctags>.

| CTAIE001 - Hydraulics and Pneumatics Systems | Credits: 2 Semester Hours |
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| <p>Advising Notes: In order to access postsecondary college credit for this CTAN, the student must:</p> <ul style="list-style-type: none"> • Matriculate to an institution of higher education with an approved or comparable program within 3 years of graduating from an approved career-technical education institution. • Successfully complete <u>ODE secondary course Hydraulics and Pneumatics (010225)</u> and earn a qualifying score of 61 or higher on the corresponding end-of-course examination. | <p>Secondary institutions must have pathway approval from the Ohio Department of Education. Certificate of Affirmation assurances are now incorporated into the CTE-26 application process.</p> |

This CTAN identifies the learning outcomes that are equivalent or common in introductory technical courses. In order for students to receive credit under this agreement, the career-technical programs and the state institutions of higher education must document that their course/program content matches the learning outcomes in the CTANs.

Requirements and Credit Conditions:

1. The receiving institution must have a comparable program, major, or course that has been approved through submission to the Ohio Department of Higher Education (CT)² approval process for the CTAN listed in this document.
2. Credits apply to courses in the specified technical area at Ohio's public institutions of higher education, if the institution offers courses in the specific technical area. In the absence of an equivalent course, and when the institution offers the technical program, the receiving institution will guarantee to grant and apply an equivalent credit value of the Career-Technical Articulation Number (CTAN) toward the technical requirements of the specific degree/certificate program.
3. The applicant must provide proof to the receiving institution that they successfully completed a course that has been approved through the (CT)² approval process and that they earned a qualifying score on the end-of-course examination.
4. A career-technical student seeking credit under the terms of this CTAG must matriculate to an institution of higher education with an approved or comparable program within 3 years of graduating from an approved career-technical education institution.
5. A career-technical student who meets all eligibility criteria will receive the credit hour value for the comparable course(s) as offered at the receiving state institution of higher education.
6. The admission requirements of individual institutions and/or programs are unaffected by the implementation of (CT)² outcomes.
7. The transfer of credit, through this CTAG, will not exempt a student from the residency requirements at the receiving institution.

General Course Description: This course focuses on skills and technologies essential for students to learn physical principles of hydraulics. They will diagnose problems, test system components, properly maintain hydraulic circuits and diagnose and test problem areas in hydraulics systems of agricultural and industrial power equipment.

Credits: 2 Semester Hours

Learning Outcomes:

1. * Understand and identify the dangers associated with fluids under high pressure and follow all safety practices
2. * Describe the principles of power hydraulics
3. * Identify and explain the function of each component of a hydraulic system
4. * Use hydraulic schematics to analyze diagnose, test, and troubleshoot
5. * Develop a preventative maintenance program for a hydraulic system

**Industrial Power Technology Panel Participants
2013-2016**

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| Michael Fisch | Kent State University | SCTAI Panel Lead Expert |
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| Bernard Goedde | Owens Technical College | SCTAI Panel |
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| Paul Lee | ATI, The Ohio State University | Item Writer |
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