



March 24, 2023

Franklin County CTC
2463 Loop Road
Chambersburg, PA 17202

To Whom It May Concern:

We have recently received the completed Automotive and Diesel Articulation Agreement between Franklin County CTC and the University of Northwestern Ohio.

Congratulations! This agreement has been officially approved and is good for 5 years from the date our Provost signed it.

We have enclosed a copy for your records. If you have any questions or concerns regarding this agreement, please do not hesitate to contact my office.

Sincerely,

A handwritten signature in black ink, appearing to read "Amy L. Miller".

Amy L. Miller
Director of New Student Services
& Enrollment Processing
UNIVERSITY OF NORTHWESTERN OHIO
PH: 419-998-3121
EMAIL: algasser@unoh.edu

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288704

UNOH UNIVERSITY OF NORTHWESTERN OHIO

Articulation Agreement

between

College of Applied Technologies

and

Institution: Franklin County CTC

Address: 2463 Leo Rd
Chambersburg PA 17262

Phone: 717-263-9833

The University of Northwestern Ohio believes that many high schools and career centers have extensive course work in technical areas that give students a solid foundation for college study. Students who have these technical skills may be granted college credit for their proficiencies.

A partnership agreement between the university and the high schools and career centers is appropriate to recognize and reward those graduates who have acquired the skills for proficiency credit in specific introductory classes. The university will grant advanced placement to high school graduates who fulfill course requirements agreed to in this document.

The advantages to advanced placement:

- There will be no expense to the student
- It will reduce the total tuition expense, book fees, and housing costs for your college program
- It may reduce the time necessary for completion of the program.

The decision on advanced placement will be determined by the following University of Northwestern Ohio authorized personnel: Provost / Vice President for Academic Affairs and the College Registrar.

The total number of credits to be awarded to a student may vary and will be decided on an individual basis. Awarded credit will be reflected on the students' transcript after completion of the first term.

To take advantage of this agreement, the student should:

- Contact the Admission Office at the University of Northwestern Ohio for a formal admissions application to the university (419)998-3120.
- Pick up the Articulation Application from your UNOH Admissions Representative or your high school counselor. You can also call the University to have the application form mailed or e-mailed to you at (419) 998-3120.

- The form should be taken to the high school where it should be completed and approved by the student's instructor and administrator. The student will also be required to sign the form stating the he or she has had the necessary training and has met the attached learning outcomes.
- After it is approved by the student's instructor and counselor, and signed by the student, the school's chief administrator should sign the form and mail it to the Admissions Office at the University of Northwestern Ohio.

After the materials are reviewed by University personnel, the student will be notified if advanced credit has been awarded. Awarded credit will be reflected on the students' transcript after completion of the first term.

COURSES AND CREDITS FOR ADVANCED PLACEMENT

AU126 Suspension and Steering (6 credits)

- Student must have 2 years of high school in an automotive or diesel training program, with a grade of "B" or higher each year, and the school must have ASE EDUCATION FOUNDATION/NATEF or higher accreditation.
- Schools with ASE EDUCATION FOUNDATION/NATEF, MLR level of accreditation or schools that are not ASE EDUCATION FOUNDATION/NATEF accredited, will have the opportunity to articulate with UNOH if the attached list of learning outcomes for AU 126, Steering and Suspension are met.

AU127 Hydraulic Brake Systems (6 credits)

- Student must have 2 years of high school in an automotive or diesel training program, with a grade of "B" or higher each year, and the school must have ASE EDUCATION FOUNDATION/NATEF or higher accreditation.
- Schools with ASE EDUCATION FOUNDATION/NATEF, MLR level of accreditation or schools that are not ASE EDUCATION FOUNDATION/NATEF accredited, will have the opportunity to articulate with UNOH if the attached lists of learning outcomes for AU 127, Hydraulic Brake Systems are met.

CATALOG DESCRIPTIONS OF COURSES LISTED

AU126 SUSPENSION AND STEERING

The fundamentals of the chassis, including basic and power steering systems, variable effort power steering systems, suspension systems both basic and computer controlled, geometric centerline alignment, thrust line alignment and total four-wheel alignment provide the focus of this course. Proper procedures in diagnosis of components along with basic frame and body measuring for correct locations are covered. Also covered is the diagnosis of vehicle vibrations and tire pressure monitor systems. Lab work includes steering and suspension repair, tire balancing and alignment on computerized alignment equipment, and computerized wheel balancing, utilizing training aids and live vehicles.

AU127 HYDRAULIC BRAKE SYSTEMS

The fundamental principles of hydraulics pertaining to the automotive and medium duty truck brake systems are presented. Students will study the theory of operation and advanced study of component principles. Students will use standard skills to diagnose and repair hydraulic systems, drum and disc brake systems, power assist units and anti-lock brake systems. Lab work includes demonstration, on-car practice to provide a working knowledge of diagnosis and repair of the hydraulic systems, drum and disc brake systems, power assist units and associated systems. Included will be coverage of wheel bearings, parking brakes, related electrical circuits and use of on-car brake lathes.

- ASE EDUCATION FOUNDATION/NATEF or higher accredited programs must attach a copy of their accreditation to process this agreement. ASE EDUCATION FOUNDATION/NATEF Maintenance & Light Repair and non-ASE EDUCATION FOUNDATION/NATEF programs see the next page.
- All Articulation Agreements will be revaluated every five years, to assure all students are getting, and have the necessary information to have credit granted to them.
- All schools desiring to articulate classes with the University of Northwestern Ohio must be ASE EDUCATION FOUNDATION/NATEF or higher accredited, or meet the learning outcomes @ for each class that articulation is desired. If your institution's accreditation has temporarily lapsed due to ASE EDUCATION FOUNDATION/NATEF's inability to evaluate in a timely fashion, please attach documentation that an evaluation will be conducted.
- If an educational deficiency pattern is detected with a specific high school or career center, said school will have the opportunity to work with UNOH to remedy the concern.

ASE EDUCATION FOUNDATION/NATEF Maintenance & Light Repair and non-ASE EDUCATION FOUNDATION/NATEF programs, initial the learning outcomes your program meets:

Automotive:

 X AU126 Suspension & Steering

 X AU127 Hydraulic Brake Systems

Diesel:

 X AU126 Suspension & Steering

 X AU127 Hydraulic Brake Systems

We, the undersigned representatives of the cooperating university and high school/career centers, agree that a student completing career and technical education training in select automotive or diesel technology may be eligible for advanced placement credit. Guidelines for acceptance of the credit are covered in this document.

University of Northwestern Ohio
Institution

Dean Zoller
Vice President for Academic
Affairs Provost

3.23.23
Date

Agreement is active for five years

Franklin County CTC
Institution

Terry Miller
Superintendent/Director

2/27/23
Date

Return agreement to:

The University of Northwestern Ohio
Attention: Admissions
1441 N. Cable Rd., Lima, OH 45805

University of Northwestern Ohio, 1441 N. Cable Rd., Lima, OH 45805
Office Phone: 419-998-3120 Fax: 419-998-3139



UNOH Learning Outcomes AU-126

Learning outcomes do not apply to ASE EDUCATION FOUNDATION/NATEF or Master accredited schools.

Students are required to meet the following learning outcomes to receive articulation credit for AU-126, Steering and Suspension at the University of Northwestern Ohio.

General: Suspension and Steering Systems

1. Research applicable vehicle and service information, vehicle service history, service precautions, and technical service bulletins.
2. Identify and interpret suspension and steering system concerns; determine necessary action.

Steering Systems Diagnosis and Repair

1. Disable and enable supplemental restraint system (SRS).
2. Inspect rack and pinion steering gear inner tie rod ends (sockets) and bellows boots; replace as needed.
3. Determine proper power steering fluid type; inspect fluid level and condition.
4. Flush, fill, and bleed power steering system.
5. Inspect for power steering fluid leakage; determine necessary action.
6. Remove, inspect, replace, and adjust power steering pump drive belt.
7. Inspect and replace power steering hoses and fittings.
8. Inspect and replace pitman arm, relay (center link/intermediate) rod, idler arm and mountings, and steering linkage damper.
9. Inspect, replace, and adjust tie rod ends (sockets), tie rod sleeves, and clamps.
10. Identify hybrid vehicle power steering system electrical circuits and safety precautions.
11. Inspect electric power-assisted steering.

*University of Northwestern Ohio, 1441 N. Cable Rd., Lima, OH 45805
Office Phone: 419-998-3120 Fax: 419-998-3139*