




PROGRAM ARTICULATION AGREEMENT

College Program: Automotive Technology
Career Pathway: Facility and Mobile Equipment Maintenance
Career Cluster: Transportation, Distribution & Logistics

CIP 47.0604

The purpose of this agreement is to grant college credit to high school students who have achieved the level of knowledge and skill required for the college-equivalent entry-level course(s) identified in this agreement. Upon successful completion of the identified course competencies with a grade of 'B' (3.0) or higher and the high school teacher's endorsement that the competency requirements have been met, articulated credit will be granted. *Earning articulated credit does not guarantee admission to the college program.*

The following Spokane Community College course(s) have been approved for Tech Prep articulation with Spokane Skills Center high school course(s) as listed below:

High School / Course Title	College / Course Title	Credits
NEWTECH Skills Center Automotive Technology (one year)	SCC	
	AUTO 111 Theory of Brakes	6
	AUTO 112 Applications of Brakes	4
	AUTO 131 Theory of Suspension and Steering	5
	AUTO 132 Application of Suspension & Steering	3

**see attached list(s) of competencies for articulated courses*

Student Articulation Procedure:

1. Be enrolled in the required high school class.
2. Register for Tech Prep/Dual Credit articulated course during the same academic year the high school class is completed. If a series of courses are involved in the articulation, students register for credit during the same academic year the last course in the series is completed. **Students cannot earn "retroactive credit" for courses taken in previous years.**
3. Earn a grade of 'B' (3.0) or better in all courses required under the articulation agreement.
4. Complete all required skills as identified on the competency profile.
5. If an exam or review of completed work is required under the terms of this agreement, students must receive a passing score (determined by college or industry certification) to earn college credit (*see competency list for requirements*).

High School Instructors:

1. Ensure all students receive a copy of the course syllabus outlining information about Tech Prep, the college course competencies and the process required to earn college credit.
2. Hold students accountable for the same competency standard and course expectations as required by the college-equivalent course (*see competency list attached*).
3. If required for articulation, ensure students are prepared to take industry certification exams, complete a professional portfolio documenting their work, or take a final exam to measure their level of skill and competence in the coursework.
4. Submit final grades for all students registered to earn Tech Prep college credit no later than June of the current academic year.
5. Attend scheduled meetings, workshops or in-service activities that enhance the high school/college partnership & support implementation of the Tech Prep articulated program.

Articulation Review and Renewal:

The designated program facilitators, college administrators and/or instructors and high school faculty will meet regularly to revise or discuss the articulation agreement. Agreements must be reviewed/updated and re-signed by college faculty/deans and CTE directors/HS teachers on a schedule, not to exceed a three (3) year rotation, or as deemed necessary due to changes in HS/college course content or structure. Individual teacher verification forms must be signed and submitted annually. Minor revisions can be made via phone calls, correspondence or e-mail.

**PROGRAM ARTICULATION AGREEMENT
Automotive Technology**

**PARTICIPATING INSTITUTIONS
Spokane Skills Center and Spokane Community College**

We the undersigned representatives of the Northeast Washington Technical Education Consortium (NEWTEC), agree to all provisions of the articulation program/course agreement, have reviewed the course competencies, and understand the process to which students may be granted college credit through the Tech Prep program. We commit staff time and resources to ensure successful program implementation.

Will Saret _____ Date
Will Saret,
NEWTECH Skills Center Director

Jeff Coffey 6/10/15 _____ Date
Jeff Coffey,
SCC Faculty

Dennis Koentopp 6/18/15 _____ Date
Dennis Koentopp,
NEWTECH Skills Center Teacher

Dave Cox 6/4/15 _____ Date
Dave Cox,
SCC Program Dean

Dan Horton 6-18-15 _____ Date
Dan Horton,
NEWTECH Skills Center Teacher

Nancy Fair-Szofran 7-1-15 _____ Date
Nancy Fair-Szofran,
Provost, Community Colleges of Spokane

Original: Brakes/Suspension 02/19/03; Electronics/Electrical 03/31/03, rev. 07/21/04; Diesel 02/05/03.
Renewed/Modified 11/10/08: Renewal rotation. Combined agreements and updated template. –gmf
Renewed 05/20/11: Renewal rotation. –gmf
Renewed/Modified 2014-15: Renewal rotation. Re-aligned due to curriculum changes. –gmf

Course Objectives/Course Outline
Spokane Community College

Course Title: Theory of Brakes

Prefix and Course Number: Auto 111

Course Learning Outcomes:

By the end of this course, a student should be able to:

- Identify and describe the purpose, types of applications, and operation methods pertaining to automobile brake systems.

Course Outline

- I. Braking System Principles
 - A. Components
 - B. Operation
 - C. Safety
- II. Master Cylinder and Hydraulic System
 - A. Components
 - B. Diagnosis
- III. Wheel Bearings
 - A. Theory
 - B. Components
 - C. Diagnosis
- IV. Drum Brake
 - A. Components
 - B. Operation
- V. Disc Brake
 - A. Theory
 - B. Components
 - C. Diagnosis
- VI. Parking Brakes
 - A. Theory
 - B. Components
 - C. Diagnosis
- VII. Machining Brake Drum and Rotors
 - A. Theory
 - B. Components
 - C. Diagnosis
- VIII. Power Brake Units
 - A. Theory
 - B. Components
 - C. Diagnosis
- IX. Antilock Braking System
 - A. Theory
 - B. Components
 - C. Diagnosis
- X. Work Repair Tickets and Billing

Course Objectives/Course Outline
Spokane Community College

Course Title: Application of Brakes

Prefix and Course Number: Auto 112

Course Learning Outcomes:

By the end of this course, a student should be able to:

- Diagnose and repair brake systems
- Diagnose and repair master cylinder and hydraulic systems
- Diagnose and repair drum brakes
- Diagnose and repair disc brakes
- Diagnose and repair parking brakes
- Diagnose and repair machining brake drums and rotors
- Diagnose and repair power brake units
- Diagnose and repair antilock braking systems..

Course Outline

- I. Braking System Principles
 - A. Components
 - B. Operation
 - C. Safety
- II. Master Cylinder and Hydraulic System
 - A. Diagnosis
 - B. Service
 - C. Repair
- III. Wheel Bearings Service and Repair
- IV. Drum Brake
 - A. Operation
 - B. Diagnosis
 - C. Service
 - D. Repair

- V. Disc Brake
 - A. Operation
 - B. Diagnosis
 - C. Service
 - D. Repair

- VI. Parking Brakes
 - A. Operation
 - B. Diagnosis
 - C. Service
 - D. Repair

- VII. Machining Brake Drum and Rotors
 - A. Operation
 - B. Diagnosis
 - C. Service
 - D. Repair

- VIII. Power Brake Units
 - A. Operation
 - B. Diagnosis
 - C. Service
 - D. Repair

- IX. Antilock Braking System
 - A. Operation
 - B. Diagnosis
 - C. Service

- X. Work Repair Tickets and Billing

Course Objectives/Course Outline
Spokane Community College

Course Title: Theory of Suspension & Steering
Prefix and Course Number: Auto 131

Course Learning Outcomes:

By the end of this course, a student should be able to:

A student should learn diagramming methods used in electrical wiring systems:

- Describe the purpose, types of applications and operations methods of steering systems
- Describe the purpose, types of applications and operations methods of suspension systems
- Describe the purpose, types of applications and operations of wheel alignment methods
- Describe the purpose, types of applications and operations wheels and tires

Course Outline

- I. Steering Systems
 - A. Manual Steering Gear
 1. components
 - B. Power Steering Gear
 1. rack and pinion
 2. non-rack and pinion
 3. components
- II. Suspension Systems
 - A. Short-Arm Suspension systems
 1. components
 2. function
 - B. Long-Arm Suspension Systems
 1. components
 2. function
 - C. MacPherson Strut Suspension Systems
 1. components
 2. function
 - D. Rear Suspension Systems
 1. components
 2. function
- III. Wheel Alignment
 - A. Purpose
 - B. Function
- IV. Wheels and Tires
 - A. Tire Types
 - B. Pressure
 - C. Rotation
 - D. Balance

Course Objectives/Course Outline
Spokane Community College

Course Title: Application of Suspension & Steering

Prefix and Course Number: Auto 132

Course Learning Outcomes:

By the end of this course, a student should be able to:

- Diagnose and repair steering systems
- Diagnose and repair suspension systems
- Diagnose and repair wheel alignment methods
- Diagnose and repair wheels and tires

Course Outline

- I. Diagnose and Repair of Suspension Systems
 - A. Short-Arm Suspension Systems
 1. inspection
 2. diagnose/repair
 - B. Long-Arm Suspension Systems
 1. inspection
 2. diagnose/repair
 - C. MacPherson Strut Suspension Systems
 1. inspection
 2. diagnose/repair
 - D. Rear Suspension Systems
 1. inspection
 2. diagnose/repair
 3. mechanical
- II. Wheel Alignment
 - A. Alignment methods
 - B. Long-Arm Suspension Systems
 1. Components
 2. function
- III. Wheels and Tires
 - A. Rotation
 - B. Balance