9/12/2025	DATE	TEC	DIVISION
☑	REQUIRED COURSE	☐	NEW COURSE
☐	ELECTIVE COURSE	☑	REVISION

Lake Land College

Course Information Form

COURSE NUMBER:	AUT-080		TITLE: *(30 Characters Max)*		Auto Suspension & Steering						
SEM CR HRS:	3.0	Lecture:	2.0	Lab:	2.0	ICCB Lab:	2.0	ECH:	4.0		
Course Level:	☐ Gen Ed / IAI ☐ Baccalaureate /Non-IAI	☑ Career/Technical ☐ Dev Ed/ Not in Degree Audit		Clinical Practicum:	0.0	Work-based Learning:	0.0	WBL ECH:	0.0		
Course PCS & CIP:	12 - 47.0604		IAI Code:	N/A		Contact Hours (Minutes/Week)					
Repeatable (Y/N):	N	Pass/Fail (Y/N):	N	Variable Credit (Y/N):	N	Min:		Max:		16 Wks	200	8 Wks	400
Prerequisites:	AUT-048										
Corequisites:	None										
Catalog Description: (40 Word Limit)	This course is a study of vehicle suspension and steering systems, including their effect on handling, efficiency and tire life. As a student, you will successfully execute the alignment process, using a computerized vehicle alignment system.										

List the Major Course Segments (Units)	Contact Lecture Hours	Contact Lab Hours	Clinical Practicum	Work-based Learning
Basic overview, safety and special tools	2			
Basic suspension system	4	4		
Steering systems	4	4		
Driveline and wheel components and service	4	2		
Electronic suspension and steering systems and service	4	2		
Wheel alignment principles and procedures	8	16		
Suspension and steering troubleshooting	4	2		
ASE certification and career preparation	2	2		
TOTAL	32	32	0	0

EVALUATION							
QUIZZES	☑	EXAMS	☑	ORAL PRES	☐	PAPERS	☐
LAB WORK	☑	PROJECTS	☐	COMP FINAL	☑	OTHER	☐

COURSE MATERIALS		
TITLE:	Auto Suspension and Steering	
AUTHOR:	Johanson/Stockel	
PUBLISHER:	Goodheart-Willcox	
VOLUME/EDITION/URL:	5th edition	
COPYRIGHT DATE:	2021	

MAJOR COURSE SEGMENT	HOURS	LEARNING OUTCOMES
		The student will be able to:
Basic overview, safety and special tools	2	1. Identify and compare various suspension and steering system designs and tools while predicting safety concerns for repairing and/or modifying them.
Basic suspension system	8	1. Validate the structural integrity of various suspension system components. 2. Execute basic repair procedures for compromised suspension system components
Steering systems	8	1. Validate the structural integrity of various steering system components. 2. Execute basic repair procedures for compromised steering system components.

Driveline and wheel components and service	6	1. Validate the structural integrity of axles, wheels and tires. 2. Execute basic repair procedures for compromised driveline and wheel components.
Electronic suspension and steering systems and service	6	1. Test the sensors and actuators associated with the suspension and steering systems.
Wheel alignment principles and procedures	24	1. Align the suspension and steering of a vehicle, using computerized equipment.
Suspension and steering troubleshooting	6	1. Test drive a vehicle while detecting abnormal ride and handling characteristics. 2. Detect failed components or systems using the vehicles built-in diagnostics system. 3. Reprogram/relearn various vehicle sensors.
ASE certification and career preparation	4	1. Categorize the information and knowledge needed to become ASE certified in suspension and steering. 2. Update their resume with suspension and steering training/certification.
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Outcomes*	Outcome Title	At the successful completion of this course, students will be able to:
Course Outcome 1	Suspension Alignment	Measure the vehicle's suspension alignment and assess its effect on vehicle handling and efficiency.
Course Outcome 2	ASE 1 2 3 Susp Steer	Perform the ASE Education Foundation priority 1, 2 and 3 task for Suspension and Steering.
Course Outcome 3	ASE Cert Susp Steer	Obtain the ASE Education Foundation Student Certification for Suspension and Steering.
Primary Laker Learning Competency	Information & Technology Literacy: Students evaluate information effectively using the appropriate technological tools.	
Secondary Laker Learning Competency	Creative Thinking & Problem Solving: Students think creatively to solve problems.	

**Course and program outcomes will be used in the software for outcomes assessment and should include at least 1 primary and 1 secondary Laker Learning Competency. Limit to 3-5.*