Instructor: Mr. ChrisYetzke

# Suspension, Steering and Automatic Transmission

CIP Code:47.0604 Kent Career/Technical Center 2019/2020

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# Description of the Content:

This course will be an 18-week experience into automotive technology. We will begin by learning basic skills needed in any shop environment and then move forward with a major concentration on automotive Suspension and Steering Systems and a minor emphasis on Automatic Transmissions. This class will also explore career options and preparation that can be applied to any workplace.

#### **Course NATEF Standards:**

The KC/TC follows the State of Michigan Standards and the National Automotive Technology Education Foundation Standards, which are in alignment with each other. The standards and approximate time spent on each are listed below:

Suspension and Steering:

- 1. General (3 weeks) [Segment 12]
- 2. Tires and Wheels (2 weeks) [Segment 4]
- 3. TPMS and Tire Service (2 weeks) [Segment 4]
- Front Suspension System Principles (2 weeks) [Segment 4]
- 5. Rear Suspension System Principles (2 weeks)
- 6. Wheel Alignment (3weeks) [Segment 4]

#### Attendance and Late-Work:

You are expected to be here every day, but if you are absent or late, you are required to call or email me as soon as you can. There is opportunity for late work to be submitted and students may retake both hands on and written assessments. Make-up work and tests may be completed anytime within the 3 days following your return.

# Course Recourses:

Textbook, Automotive Technology Principles, Diagnosis, and Service. Fifth Edition. Copyright 2016 Online: Mitchell ProDemand for service instructions and information – prodemand.com

Moodle for testing and course materials

- PowerSchool for checking grades and attendance
- thetechcenter.org is used for you to access all other needed links and information

# Articulated Credit:

This course articulates to Ferris State University, Grand Rapids Community College and several other technical schools. Earning articulated credit is based on individual student performance, earning a grade of "B" or higher, and college expectations. Articulation is not an assured part of passing the KCTC course. Students who miss more than two days a week in a work based learning assignment will not receive articulated credit.

AutomaticTransmission: 1. Transmission/Transaxle Principles and Diagnosis (1 week) [Segment 2]

# Embedded Core Credit:

This course offers the opportunity to earn credit towards your home school requirements for core classes such as math or science. Speaking with your counselors at both your homeschool and here at KCTC can make sure that you qualify for those credits.

## **Returning Students:**

Students interested in returning for a second year of automotive training must maintain a "C" average in both semesters of their first year. Allowance may be made for extenuating circumstances through an appeals form submitted to the automotive instructors. The appeals process will last no longer than 5 school days.

Second year students that have completed the two-year program will take an overall NATEF assessment. The test used is the ASE Student Certification test. This test is not the full ASE test and <u>does not</u> result in ASE Automotive Technician Certification.

#### **Remediation and Retesting Policy:**

A student who does not receive a passing grade (below 60%) on a test has the option to retake that particular test. The student must inform the instructor that he/she wants to retake the test. The student must retake the test within the next 5 school days.

### Student Organizations:

Students will have the opportunity to participate in several student organizations and our apprenticeship program. Students will need an instructor's recommendation to participate.

#### How a grade is earned:

KCTC supports grading practices that are consistent, accurate, meaningful and supportive of learning.

KCTC grades are reported in two ways – Semester grades (A, B, C, D, E) and a year-end Certificate identifying a proficiency level for each course standard.

KCTC issues grades on a quarterly (9 week) basis. This quarter grade is composed of 70% Technical skills and 30% Career and Employability skills.

The semester grade is determined by combining the two quarterly grades and the semester industry evaluation. Each quarter counts for 45% of the grade and the industry evaluation counts for 10% of the grade. When viewing grades on PowerSchool, it is always important to look at the S1 or S2 grade as the overall in-progress grade for the course.

Technical skill grades are issued on assignments and assessments which represent a total number of points earned. This total number determines a percentage of points earned and a letter grade is assigned accordingly. Assignments and assessments in this type of grading are categorized as either formative or summative. Formative work guides learning. Summative work measures how well something has been learned. Summative work is weighted more than formative work. Students may earn the opportunity to redo or retake summative assignments and assessments. These retakes must be completed by the end of each quarter.

Students will be issued Career and Employability summative scores at least twice per quarter to provide feedback on the skills of Responsibility, Initiative, Respect, Safety, and Professionalism. Students will also earn scores in Career Planning. The combination of these scores will determine the Career and Employability skills grade.

Pre and Post Testing – at times, students will be asked to complete pre-instruction assessments to aid the teacher in designing learning. These pre-assessments will be scored, but they will not affect the student grade. It is important for a student to make their best attempt on a pre-instruction assessment to help the teacher design appropriate instruction. After instruction, the student will complete a post-instruction assessment to determine how well they learned the skill. This will be scored and this will affect the student grade.

Additionally, scores are issued to students to reflect the proficiency level they have achieved on particular Industry Standards. The Standards scoring scale: 0 - Not attempted or Minimal Knowledge, 1 - Beginning Proficiency, 2 - Developing Proficiency, <math>3 - Proficient (meets industry standard), and 4 - Advanced Proficient. Students will also be issued a quarterly Standards score (0 - 4) in the Career and Employability skill areas of

Teamwork, Problem Solving, Personal Management, and Career Planning. At the end of each year, students will be issued a Standards score (0 - 4) in the area of career writing proficiency. These scores are reported on the year-end Certificate which is used by employers to assess industry skill levels.

1st Q	uarter 45% of overall Grade			
	Lab Tasks (Hands-on Assessments)		30%	
	Tests (Summative Assessments)		30%	
	Quizzes and Homework		10%	
	Career and Employability		30%	
2nd	2nd Quarter 45% of overall Grade			
	Lab Tasks (Hands Assessments)		30%	
	Tests (Summative Assessments)		30%	
	Quizzes		10%	
	Career and Employability		30%	
Fina	al Hands-on Evaluation 10% of over	rall Grade		
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1 <sup>st</sup> C	Quarter	45%		
2 <sup>nd</sup> Quarter		45%		
Fina	al Hands-on Evaluation	10%		
Sen	nester Grade	100%		

Grading Scale:

100-94%	А	74-76	C	
90-93	A-	70-73	C-	
87-89	B+	67-69	D+	
84-86	В	64-66	D	
80-83	B-	60-63	D-	
77-79	C+	59 or less	E	

Four Point Scale:

4	100	Advanced
3	80	Proficient
2	70	Developing
1	60	Beginning
0	0	Minimal knowledge / No Attempt

Embedded Core Credit:

English (ELA)	0.5 Credit
Mathematics	1.0 Credit
Science	0.5 Credit