Tel: (505) 387-7401

Navajo Technical University
PO Box 849, Crownpoint, NM 87313

Course Title: Drivetrain and Axles Course #: AUT 111-1

> Credit Hours: 4 Semester: Spring 2021 Cap:

Faculty: Steven KollasE-mail: Skollas@navajotech.eduOffice: Auto Tech OfficeOffice Phone: 505.387.7403(1045)Office Hours: Fridays 8:00-12:00Cell Phone: 505.220.1600

**Preferred Communication (Email** and/or text; will respond within 24 hours):

Modality: Face-to-Face

Class Location and Meeting Times: T/R 8:30-12:00

**Meeting Hours and Online Hours** 

Required Materials: All Students are required to have laptop/Tablet and internet access!

**Textbooks**: CDX Fundamentals of Automotive Technology 2<sup>nd</sup> ED (Digital version)

Tools: Leather Work Boots, Safety Eyewear, Automotive uniform shirt (long or short sleeve), notebook, pens, pencils

Lab Fee:

Mission, Vision, and Philosophy

Mission: Navajo Technical University honors Diné culture and language, while educating for the future.

*Vision:* Navajo Technical University provides an excellent educational experience in a supportive, culturally diverse environment, enabling all community members to grow intellectually, culturally, and economically.

*Philosophy:* Through the teachings of Nitsáhákees (thinking), Nahátá (planning), Íína (implementing), and Siihasin (reflection), students acquire quality education in diverse fields, while preserving cultural values and gaining economic opportunities

For every credit hour spent in class, a student is expected to spend two hours outside of class studying the course materials

Course Description: This course covers the operation and diagnosis of manual transmission/transaxle issues, clutch diagnosis, Transmission removal, and rear axle diagnosis and repair.

| Course Outcomes   | Course Assessments                                  |
|---|---|
| Explore a career in the Drivetrain and Axle Specialty             | Complete reading assignments, homework assignments, |
| Discuss ASE Manual Transmission and Axle Certification            | work book Assignment, online internet and classroom |
| Discuss use of Specialty Transmission and Axle Tools hand tools.  | examinations, and NATEF Task list projects.         |
| Discuss the use of Manual Transmission/ transaxle, and Drive Axle |   |
| system tools, and specialized equipment.                          |   |
| Discuss Automotive Shop Engine Transmission and Axle safety       |   |
| practices.  |   |
| Documentation of Automotive service repair orders and use of      |   |
| computer systems to achieve this.                                 |   |
| Discuss Manual Transmission/ Transaxle, and Drive Axle system     |   |
| function and operation.   |   |

Connections to Program Assessment (Course-Embedded Measures)

# **Course Activities**

| Week | Date      | Class Topics/Reading Due              | Assignments Due | Assessments     |
|------|-----------|---------------------------------------|-----------------|-----------------|
| 1    | Jan/17    | Martin Luther King Day                | Holiday         |                 |
|      | Jan 18    | Chapter 30                            |                 |                 |
|      | Jan/21    | Last day to add/drop w/o "W"          |                 |                 |
| 2    | Jan/24    | Continue chapter 30                   |                 | Chapter 30 quiz |
| 3    | Jan 31    | Chapter 31                            |                 |                 |
| 4    | Feb 7     | Continue Chapter 31                   |                 | Chapter 31 Quiz |
| 5    | Feb14     | Chapter 32                            |                 |                 |
|      | Feb 21    | President's Day                       | Holiday         |                 |
| 6    | Feb 22    | Continue Chapter 32                   |                 |                 |
|      | Feb 25    | <b>Spring Graduation Petition due</b> |                 |                 |
| 7    | Feb 28    | Chapter 33                            |                 | Chapter 32 Quiz |
| 8    | Mar 7-11  | Mid-terms                             |                 |                 |
| 9    | Mar 14-18 | Spring break                          |                 |                 |
| 10   | Mar 21    |                                       |                 |                 |
| 11   | Mar 28    | Continue Chapter 33                   |                 | Chapter 33 Quiz |
|      | Mar 31    | Last day to withdraw with "W"         |                 |                 |
| 12   | Apr 4     | Chapter 34                            |                 |                 |
| 13   | Apr 11    | Continue Chapter 34                   |                 | Chapter 34 Quiz |
| 14   | Apr 18    | Chapter 35                            |                 |                 |
| 15   | Apr 25    | Chapter 35 Continued                  |                 | Chapter 35 Quiz |
| 16   | May 2     | Finals review                         |                 |                 |
| 17   | May 9-12  | Finals                                |                 | <u> </u>        |
|      | May 13    | Grades due to the Registrar           |                 |                 |
|      | May 13    | Graduation                            |                 |                 |

# **Grading Plan**

Homework (Workbook) 20% Mid-term 15% Final Exam 15% Quizzes 25% Class Participation 25%

A = 100-90% B = 89-80% C = 79-70% D = 69-60% F = 59% or less

# **Grading Policy**

Students must do their own work. Cheating and plagiarism are strictly forbidden. Cheating includes (but is not limited to) plagiarism, submission of work that is not one's own, submission or use of falsified data, unauthorized access to exams or assignments, use of unauthorized material during an exam, or supplying or communicating unauthorized information for assignments or exams.

### Participation

Students are expected to attend and participate in all class activities. Points will be given to students who actively participate in class activities including guest speakers, field trips, laboratories, and all other classroom events.

# Cell phone and headphone use

Please turn cell phones off **before** coming to class. Cell phone courtesy is essential to quality classroom learning. Headphones must be removed before coming to class.

### **Attendance Policy**

Students are expected to attend all class sessions. A percentage of the student's grade will be based on class attendance and participation. Students are expected to attend and participate in all class activities- as listed above, as it is 25% of the grade. Absence from class, regardless of the reason, does not relieve the student of responsibility to complete all course work by required deadlines. Furthermore, it is the student's responsibility to obtain notes, handouts, and any other information covered when absent from class and to arrange to make up any in-class assignments or tests if permitted by the instructor. Incomplete or missing assignments will necessarily affect the student's grades. Instructors will report excessive and/or unexplained absences to the Counseling Department for investigation and potential intervention. Instructors may drop students from the class after three (3) absences unless prior arrangements are made with the instructor to make up work and the instructor deems any excuse acceptable.

### Study Time Outside of Class for Face-to-Face Courses

For every credit hour in class, a student is expected to spend two hours outside of class studying course materials.

# **Study Time for Hybrid or Blended Courses**

For a hybrid or blended course of one credit hour, a student is expected to spend three hours per week studying course materials.

#### **Study Time for Online Courses**

For an online course of one credit hour, a student is expected to spend four hours per week studying course materials.

### **Academic Integrity**

Integrity (honesty) is expected of every student in all academic work. The guiding principle of academic integrity is that a student's submitted work must be the student's own. Students who engage in academic dishonesty diminish their education and bring discredit to the University community. Avoid situations likely to compromise academic integrity such as: cheating, facilitating academic dishonesty, and plagiarism; modifying academic work to obtain additional credit in the same class unless approved in advance by the instructor, failure to observe rules of academic integrity established by the instructor. The use of another person's ideas or work claimed as your own without acknowledging the original source is known as plagiarism and is prohibited.

### Diné Philosophy of Education

The Diné Philosophy of Education (DPE) is incorporated into every class for students to become aware of and to understand the significance of the four Diné philosophical elements, including its affiliation with the four directions, four sacred mountains, the four set of thought processes and so forth: Nitsáhákees, Nahát'á, Íína and Siih Hasin which are essential and relevant to self-identity, respect and wisdom to achieve career goals successfully.

At NTU's Zuni Campus, the A:shiwi Philosophy of Education offers essential elements for helping students develop Indigenous and Western understandings. Yam de bena: dap haydoshna: akkya hon detsemak a:wannikwa da: hon de:tsemak a:ts'umme. *Our language and ceremonies allow our people to maintain strength and knowledge.* A:shiwi core values of hon i:yyułashik'yanna:wa (respect), hon delank'oha:willa:wa (kindness and empathy), hon i:yyayumoła:wa (honesty and trustworthiness), and hon kohoł lewuna:wediyahnan, wan hon kela i:tsemanna (think critically) are central to attaining strength and knowledge. They help learners develop positive self-identity, respect, kindness, and critical thinking skills to achieve life goals successfully.

## **Students with Disabilities**

Navajo Technical University is committed to serving all students in a non-discriminatory and accommodating manner. Any student who feels that she or he may need special accommodations should contact the Accommodations Office (<a href="http://www.navajotech.edu/student-services#accomodations-services">http://www.navajotech.edu/student-services#accomodations-services</a>) in accordance with the university's Disability Accommodations Policy (see <a href="http://www.navajotech.edu/images/about/policiesDocs/Disability Exhibit-A 6-26-2018.pdf">http://www.navajotech.edu/images/about/policiesDocs/Disability Exhibit-A 6-26-2018.pdf</a>).

### **Email Address**

Students are required to use NTU's email address for all communications with faculty and staff.

Final Exam Date: May 9th 2022