**Central Academy Engines/Drive Train**

**COURSE SYLLABUS**

| Course Information | (blank) |
| --- | --- |
| Course Name: Engine /Drive Train |  |
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| Instructor Information | blank |
| --- | --- |
| Instructor: Doug Mayhew |  |
| Office Location: CATA Room 819 |  |
| Office Days / Hours: Monday-Friday 8:AM-4:00 PM |  |
| E-Mail: doug.mayhew@ucps.k12.nc.us |  |
| Phone:704-5788265 |  |

| Supervisor Information | blank |
| --- | --- |
| Name: Roger Pressley |  |
| Roger.pressley@ucps.k12.nc.us |  |
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**COURSE DESCRIPTION**

*This course builds on previous courses. ALL areas of engines transmissions differentials drive shafts and axles will be covered.*

**PREREQUISITE/COREQUISITE COURSES / SKILLS**

Intro, Level 1, Level 2

**REQUIRED TEXTBOOK(S)**

**CDX manuals will be furnished**

**OTHER REQUIRED MATERIALS AND SUPPLIES**

**Safety glasses.**

**STUDENT LEARNING OUTCOMES**

Upon completion of this course, you should be able to:

1. Diagnose engine problems
2. Diagnose manual transmissions
3. Diagnose automatic transmissions
4. Diagnose and repair drive shafts and axles
5. Understand computer diagnosis and fault codes
6. Pass state final exam.

**CORE SKILL AND/OR PROGRAM OUTCOMES**

*Students will be equipped for technical school or to go into the work field.*

**METHODS OF EVALUATION**

**Class 25%**

**Test and Quizzes 25%**

**Lab 50%**

| 10-Point Grading Scale |  |
| --- | --- |
| A = 90 – 100 |  |
| B = 80 – 89 |  |
| C = 70 – 79 |  |
| D = 60 – 69 |  |
| F = Below 60 |  |

**ACADEMIC INTEGRITY**

If upon investigation your instructor determines that you committed an academic integrity violation, you will be held accountable as stated below:

The instructor will notify you in writing of the details of the academic integrity violation, which may include a formal warning, a reduced grade on an assignment, or a reduced grade in the course.

## COURSE SCHEDULE

(Note: This schedule is tentative and subject to change.)

| **Week** | **Assignment** | **Due Date** |
| --- | --- | --- |
| **1** | Safety and Orientation Safety Test |  |
| **2** | Review Previous Classes |  |
| **3** | Engine Designs and Classifications |  |
| **4** | Advanced engine Diagnosis |  |
| **5** | Advanced Engine Repair |  |
| **6** | Manual Transmissions and Clutches Diagnosis and Repair |  |
| **7** | Automatic Transmission Diagnosis and Repair |  |
| **8** | Differential Design and Operation |  |
| **9** | Differential diagnosis and repair |  |
| **10** | Front wheel drive vehicles |  |
| **11** | Drive shafts and universal joints |  |
| **12** | CV axle diagnosis and repair |  |
| **13** | Understanding fault codes |  |
| **14** | Various fuel systems |  |
| **15** | Engine sub systems |  |
| **16** | Lubrication systems |  |

17. Review all subjects

18. Review and final exam

NOTE: All topics listed in outline will be accompanied by daily classwork and test or quiz.