

COURSE SYLLABUS

ABDR 2431 (4:2:4:)

Course Title: Structural Analysis and Damage Repair III

Automotive Collision Repair Program

Industrial Technology Department

Technical Education Division

Levelland Campus

SOUTH PLAINS COLLEGE

Fall 2018

SCANS COMPETENCIES

RESOURCES: Identifies, organizes, plans and allocates resources.

- C-1 **TIME**--Selects goal--relevant activities, ranks them, allocates time, and prepares and follows schedules.
- C-2 **MONEY**--Uses or prepares budgets, makes forecasts, keeps records, and makes adjustments to meet objectives
- C-3 **MATERIALS & FACILITIES**--Acquires, stores, allocates, and uses materials or space efficiently.
- C-4 **HUMAN RESOURCES**--Assesses skills and distributes work accordingly, evaluates performances and provides feedback.

INFORMATION--Acquires and Uses Information

- C-5 Acquires and evaluates information.
- C-6 Organizes and maintains information.
- C-7 Interprets and communicates information.
- C-8 Uses computers to Process information.

INTERPERSONAL--Works With Others

- C-9 Participates as members of a team and contributes to group effort.
- C-10 Teaches others new skills.
- C-11 Serves clients/customers--works to satisfy customer's expectations.
- C-12 Exercises leadership--communicates ideas to justify position, persuades and convinces others, responsibly challenges existing procedures and policies.
- C-13 Negotiates--Works toward agreements involving exchanges of resources resolves divergent interests.
- C-14 Works with Diversity--Works well with men and women from diverse backgrounds.

SYSTEMS--Understands Complex Interrelationships

- C-15 Understands Systems--Knows how social, organizational, and technological systems work and operates effectively with them
- C-16 Monitors and Correct Performance--Distinguishes trends, predicts impacts on system operations, diagnoses systems' performance and corrects malfunctions.
- C-17 Improves or Designs Systems--Suggests modifications to existing systems and develops new or alternative systems to improve performance.

TECHNOLOGY--Works with a variety of technologies

- C-18 Selects Technology--Chooses procedures, tools, or equipment including computers and related technologies.
- C-19 Applies Technology to Task--Understands overall intent and proper procedures for setup and operation of equipment.
- C-20 Maintains and Troubleshoots Equipment--Prevents, identifies, or solves problems with equipment, including computers and other technologies.

FOUNDATION SKILLS

BASIC SKILLS--Reads, writes, performs arithmetic and mathematical operations, listens and speaks

- F-1 Reading--locates, understands, and interprets written information in prose and in documents such as manuals, graphs, and schedules.
- F-2 Writing--Communicates thoughts, ideas, information and messages in writing, and creates documents such as letters, directions, manuals, reports, graphs, and flow charts.
- F-3 Arithmetic--Performs basic computations; uses basic numerical concepts such as whole numbers, etc.
- F-4 Mathematics--Approaches practical problems by choosing appropriately from a variety of mathematical techniques.
- F-5 Listening--Receives, attends to, interprets, and responds to verbal messages and other cues.
- F-6 Speaking--Organizes ideas and communicates orally.

THINKING SKILLS--Thinks creatively, makes decisions, solves problems, visualizes, and knows how to learn and reason

- F-7 Creative Thinking--Generates new ideas.

- F-8 Decision-Making--Specifies goals and constraints, generates alternatives, considers risks, and evaluates and chooses best alternative.
- F-9 Problem Solving--Recognizes problems and devises and implements plan of action.
- F-10 Seeing Things in the Mind's Eye--Organizes and processes symbols, pictures, graphs, objects, and other information.
- F-11 Knowing How to Learn--Uses efficient learning techniques to acquire and apply new knowledge and skills.
- F-12 Reasoning--Discovers a rule or principle underlying the relationship between two or more objects and applies it when solving a problem.

PERSONAL QUALITIES--Displays responsibility, self-esteem, sociability, self-management, integrity and honesty

- F-13 Responsibility--Exerts a high level of effort and preserves towards goal attainment.
- F-14 Self-Esteem--Believes in own self-worth and maintains a positive view of self.
- F-15 Sociability--Demonstrates understanding, friendliness, adaptability, empathy, and politeness in group settings.
- F-16 Self-Management--Assesses self accurately, sets personal goals, monitors progress, and exhibits self-control.
- F-17 Integrity/Honesty--Chooses ethical courses of action.

COURSE SYLLABUS

COURSE TITLE: ABDR 2431: STRUCTURAL ANALYSIS & DAMAGE REPAIR III

INSTUCTOR: Jimmie Wisian

OFFICE LOCATION: MT OFFICE #2

PHONE/E-MAIL: (806)716-2286 jwisian@southplainscollege.edu

OFFICE HOURS: By appointment

I. GENERAL COURSE INFORMATION

- A. 2431 Course Description: Laboratory experience in the application of theories of auto body repair to the repair and replacement of major body units.
- B. Course Goals/Objectives: The student will identify and describe the basic types of body/frame construction currently found in the automotive industry; identify and describe the individual components of both conventional and unitized construction in terms of similarities and differences of design and function; evaluate the nature and extent of damage through the proper selection and application of measuring and gauging equipment, sequencing techniques, and gauge reading procedures; and identify and differentiate between the used of basic types of machines and equipment available for making effective frame and underbody repairs.
- C. Course Competencies: Upon successful completion of this course, the student will be able to demonstrate knowledge of general shop safety, personal and equipment safety, including HAZMAT and Right to Know training; his/her ability to identify various types of collision damage and determine proper repair procedures.
1. Distinguish between body-over-frame and unibody vehicles.
 2. Explain how impact forces are transmitted though both frame and unibody construction vehicles.
 3. Describe how to visually determine the extent of impact damage.
 4. Determine damage by measurement of body dimensions.
 5. Analyze impact damage to mechanical components of the vehicle.
- D. Academic Integrity: It is the aim of the Faculty of South Plains College to foster a spirit of complete honesty and a high standard of integrity. The attempt of any student to present as his or her own any work which he or she has not honestly performed is regarded by the faculty and administration as a most serious offense and renders the offender liable to serious consequences, possibly suspension.
1. Cheating: Dishonesty of any kind of examinations or on written assignments, illegal possession of examinations, the use of unauthorized notes during an examination, obtaining information during an examination from the textbook or alteration of grade records, illegal entry or unauthorized presence in an office are examples of cheating.
 2. Plagiarism: Offering the work of another as one's own, without proper acknowledgment, is plagiarism; therefore, any student who fails to give credit for quotations or essentially identical expression of material taken from books, encyclopedias, magazines and other reference works, or from the themes, reports or other writings of a fellow student, is guilty of plagiarism.
- E. SCANS and Foundation Skills: Appropriate competencies and foundation skills set forth by the Secretary's Commission on Achieving Necessary Skills (SCANS) have been integrated into the ACR 161-264 Training program. Specifically, they are C1, C3, C5, C6, C7, C8, C9, C11, C14, C15, C16, C18, C19, C20, and F1-F17. References and methods are detailed in the SCANS document filed in the office of coordinator of the Automotive Collision Repair Program.

F. Verification of Workplace Competencies

II. SPECIFIC CORUSE/INSTRUCTOR REQUIREMENTS

A. TEXTBOOKS & OTHER MATERIALS

Workbook: Auto Body Repair Technology 5th edition James Duffy
Notebook: Must contain all required course text including handout material.
Hand tools: see attached/Required Tool List.
Safety Equip.: see attached/Required Safety Equipment

B. ATTENDANCE POLICY

1. Punctual and regular attendance is required. (PUNCTUAL)
2. No excused absences.
3. No made up absences.
4. After five absences, no made up absence
5. The student will be dropped from all ACR classes.
6. NO sandals, tank tops or shorts.
7. Cell phone needs to be on vibrate while in classroom.
8. No texting and no games while in classroom.
9. **Facial hair is to be mustache only.**

C. ASSIGNMENT POLICY

1. All required work must be turned in on time. Work turned in late will be assessed penalty point of 5 pts per day. After second day late assignment will count as a zero.
2. There will be no excused late assignments.
3. Chapter assignments will be given by the instructor. Questions at the end of the chapter will be graded on a percent basis.
4. Videos: Watch Video and Complete Appropriate Worksheets. Worksheets will be graded on a percent basis.

D. GRADING POLICY

1. Tests will be given by the instructor on all chapter assignments once that unit has been reviewed.
Prior notification of quizzes may or may not be given.
3. Final exams will be given to all students covering lectures and instruction for the entire semester.
4. Tutoring- Students who do not pass their first exam will be required to attend three hours of tutoring each week until they pass their next exam. This is a course requirement and will be reflected in the course grade.
Classroom (40% of final grade)
 - a. Results of daily or unit test, I_CAR tests and homework will be given a percent grade. (20% of final grade)
 - b. The final exam will be a percent grade. (20% of final grade)*Lab (60% of Final Grade) - Assesses on a basis of:*
 - a. Safety Procedures
 - b. Proper use of machine and had tools
 - c. Quality of workmanship, skill
 - d. **Attitude and cooperation**
 - e. Attendance
5. *Final Grade Computation*
 - a. 40% of final grade-classroom
 - b. 60% of final grade-lab
6. *Daily /Weekly*
 - a. Minimum grade required to remain in class is 70%.

b. A weekly lab grade will be given which includes safety, attitude and cooperation, attendance, proper use of tools, and quality of workmanship on projects.

E. SPECIAL REQUIREMENTS

1. Students must complete Personal & Equipment Safety Test and Right to Know worksheets 100% correctly before participating in lab activities.
2. The instructor will appoint a student foreman on a rotation basis.
3. All students will be responsible for the tool lock up and shop clean up.
4. Each student is required to have a locker and keep it clean and organized.
5. There will be a basic set of hand tools and safety equipment required for the course. A suggested tool list will be available to the students. (see attached)
6. Students must agree to the rules and regulations set forth by the program administrators. Signed copies of the rules and regulations form will be kept on file in the office of the program coordinator. Violations deemed harmful or negligent are grounds for immediate dismissal from the program. By signing, students agree to be dropped from class if violations occur.

III. COURSE OUTLINE

A. Topics

1. Orientation
2. Personal and Equipment Safety

B. Collision Damage Diagnosis

1. Impact Effects on a Vehicle
2. Visual Inspection of Collision Damage
3. Vehicle Body Measurements and Dimensions
4. Gauges and Measuring Systems
5. Universal Measuring Systems
6. Dedicated Bench and Fixture Systems

IV. Accommodations:

South Plains College strives to accommodate the individual needs of all students in order to enhance their opportunities for success in the context of a comprehensive community college setting. It is the policy of South Plains College to offer all educational and employment opportunities without regard to race, color, national origin, religion, gender, disability or age (SPC Equal Opportunity Policy—General Catalog). Any student who, because of a disability or other special consideration, may require special arrangements in order to meet course requirements should contact the instructor as soon as possible to make necessary accommodations. In addition, students may contact SPC special Services Office and/or Counseling Center for individualized assistance.

Campus Concealed Carry - Texas Senate Bill - 11 (Government Code 411.2031, et al.) authorizes the carrying of a concealed handgun in South Plains College buildings only by persons who have been issued and are in possession of a Texas License to Carry a Handgun. Qualified law enforcement officers or those who are otherwise authorized to carry a concealed handgun in the State of Texas are also permitted to do so. Pursuant to Penal Code (PC) 46.035 and South Plains College policy, license holders may not carry a concealed handgun in restricted locations. For a list of locations, please refer to the SPC policy at: (http://www.southplainscollege.edu/human_resources/policy_procedure/hhc.php) Pursuant to PC 46.035, the open carrying of handguns is prohibited on all South Plains College campuses. Report violations to the College Police Department at 806-716-2396 or