

CRN	Meeting Day(s)	Meeting Time	Site	Building	Room
13420	MTWR	12 PM to 3:30PM	BOE	400	406

Course Syllabus Non-Structural Analysis and Damage Repair III

INSTRUCTOR INFORMATION

Instructor Name: Alvie D Smith (Donnie)

Instructor Contact Information:

E-mail: asmith73@butlercc.edu

Office Location: 404

Office hours: Monday thru Thursday 7:30AM – 8:00 AM / 11:20PM – 12:00PM / 3:30:00 – 4:00 PM

Telephone Number: 316-323-6849

COURSE INFORMATION

Course Description

AB 232. Non-Structural Analysis and Damage Repair III. 3 hours credit. Prerequisites: AB 122 with a C or better. This course will enable the student to analyze whether to replace non-stationary glass and repair and/or replace welded and non-structural components while applying safety practices.

Course Relevance

The principles learned in this course will allow the student to perform the essential tasks of analyzing, preparing, and performing damage repair and adjustments of non-structural parts. These tasks are essential to those aspiring to work in the auto body repair profession. This course and subsequent courses will be taught according to NATEF (National Automotive Technicians Education Foundation)/ASE (Automotive Service Excellence) standards.

Required Materials

I-CAR CD Ext. 02

Online Assignments – 3M Adhesive Training

Learning Outcomes

The intention is for the student to be able to

1. Analyze whether to replace or repair non-structural auto body components
2. Remove and replace outer panels
3. Remove and replace door skins
4. Remove and replace movable glass
5. Remove and replace interior parts
6. Apply personal and environmental safety practices

Learning PACT Statement: Butler prepares students to be principled, productive individuals who are responsible, involved lifelong learners. To accomplish this goal Butler has established a Learning PACT for the skills that learners need during their career and has integrated PACT skill-building activities and assessments through a variety of program coursework, extra curricular activities, and other learning opportunities.

The BCCC Learning PACT consists of:

- P** = Personal Development Skills
- A** = Analytical Thinking Skills
- C** = Communication Skills
- T** = Technological Skills

The Learning PACT Skills are vital for any adult to function successfully in the ever changing world of the 21st century. Butler expects learners to be full partners in the learning process and as such to assume primary responsibility for their own choices.

Primary Learning PACT Skills that will be DEVELOPED and/or documented in this course

Through the student's involvement in this course, he/she will develop his/her ability in the following primary PACT skill areas:

1. Field-Related Technology
 - Through "in shop" exercises, the student will be able to prepare and repair outer body panels

Secondary skills (developed but not documented):

- Health Management
- Reading

Major Summative Assessment Task(s)

These learning outcomes and the primary Learning PACT skills will be demonstrated by

1. Completing a designated project that demonstrates the ability to recognize and utilize the correct techniques and equipment to repair non-structural panels while following all safety practices.

Student Engagement Expectation

Butler Community College expects students to be engaged in the learning process. Engaged students are motivated, prepared for class, interact inside and outside of class with other students and faculty, and take responsibility for their own learning.

CLASS INFORMATION

Methods of Grading and Evaluation:

The student will be evaluated on the basis of his/her performance on the following:

Students will be graded on weekly written assignments and weekly testing.

- 1) **Lab Participation- 60% of total grade: Students will earn up to 16 points a day during lab**
See Class/Lab Rubric for Details

- 2) **Written Assignments- 40% of total grade**
 - Written or Computer Assignments 10 Points**
 - Quiz 20 Points**
 - Final Exam 40 Points**

Grading Scale		
90-100%		A
80-89%		B
70-79%		C
60-69%		D
59%-below		F

Class Schedule:

Week	Date	Learning Activities
1	8/22/11	I-CAR EXT 02 (1) Modules 1,2,&3/ Online Assignments 3M Adhesive Training
2	8/29/11	I-CAR EXT 02 (1) Modules 4&5 Quiz
3	9/4	I-CAR GLA1(1) Modules 1,2,3 Quiz
4	9/11	I-CAR GLA1(1) Modules 4&5 Quiz
5	9/23	Computer Assignments Review and Final Exam

The schedule and procedures in this course are subject to change in the event of extenuating circumstances.

AB 232 - NON-STRUCT III**I-CAR EXT02 (1) – Welded and Adhesively Welded Panels****I. STRUCTURAL ANALYSIS AND DAMAGE REPAIR****B. Unibody Inspection, Measurement, and Repair**

- 10. Straighten and align roof rails/headers and roof panels. HP-G
- 13. Straighten and align quarter panels, wheelhouse assemblies, and rear body sections (including rails and suspension/powertrain mounting points). HP-G

II. NON-STRUCTURAL ANALYSIS AND DAMAGE REPAIR (BODY COMPONENTS)**A. Preparation**

- 06. Protect panels, glass, and parts adjacent to repair area. HP-I
- 08. Remove corrosion protection, undercoatings, sealers, and other protective coatings necessary to perform repairs. HP-I
- 09. Inspect, remove, and replace repairable plastics and other components that are recommended for off-vehicle repair. HP-I

B. Outer Body Panel Repairs, Replacements, and Adjustments

- 02. Inspect, remove, and replace bolted, bonded, and welded steel panel or panel assemblies. HP-I
- 06. Inspect, remove, replace, and align doors, tailgates, hatches, lift gates, latches, hinges, and related hardware. HP-I
- 07. Inspect, remove, replace, and align bumper bars, covers, reinforcement, guards, isolators, and mounting hardware. HP-I
- 08. Inspect, remove, replace, and align front fenders, headers, and other panels. HP-I
- 12. Replace door skins. HP-G

E. Metal Welding and Cutting

- 01. Identify weldable and non-weldable materials used in collision repair. HP-I
- 02. Weld and cut high-strength steel and other steels. HP-I
- 04. Determine the correct GMAW (MIG) welder type, electrode, wire type, diameter, and gas to be used in a specific welding situation. HP-I
- 09. Protect adjacent panels, glass, vehicle interior, etc. from welding and cutting operations. HP-I
- 12. Determine the joint type (butt weld with backing, lap, etc.) for weld being made. HP-I

13. Determine the type of weld (continuous, butt weld with backing, plug, etc.) for each specific welding operation. HP-I
19. Identify different methods of attaching non-structural components (squeeze type resistant spot welds (STRSW), riveting, non-structural adhesive, silicon bronze, etc.). HP-G

F. Plastics And Adhesives

03. Replace or repair rigid, semi-rigid, and flexible plastic panels. HP-G
04. Remove or repair damaged areas from rigid exterior composite panels. HPG
05. Replace bonded rigid exterior composite body panels; straighten or align panel supports. HP-G

AB 232 - NON-STRUCT III

CAR GLA01(1) – Movable Glass

II. NON-STRUCTURAL ANALYSIS AND DAMAGE REPAIR (BODY COMPONENTS)

D. Moveable Glass and Hardware

01. Inspect, adjust, repair, or replace window regulators, run channels, glass, power mechanisms, and related controls. HP-I
03. Inspect, repair or replace, and adjust removable, manually or power operated roof panel and hinges, latches, guides, handles, retainer, and controls of sunroofs. HP-G

III. MECHANICAL AND ELECTRICAL COMPONENTS

B. Electrical

17. Check operation of power side and tailgate window; determine needed repairs. HP-I
21. Inspect, remove, and replace components of electrical sunroof and convertible top. HP -G

INSTITUTIONAL POLICIES

Attendance: Students are expected to attend all scheduled class and examination meetings. Students are also expected to maintain satisfactory progress in each of the classes in which they are enrolled. Thus, whenever absences become excessive and, in the instructor's opinion, minimum course objectives cannot be met due to absences, the student may, at the discretion of the instructor, be withdrawn from the course. If a student is withdrawn by the instructor for excessive absences, a grade of "WT" (withdrawn by teacher) will be recorded on his/her permanent record. Instructors are responsible for clearly stating their attendance policy and administrative drop policy in the course syllabus, and it is the student's responsibility to be aware of those policies.

Procedural Clarifications:

1. Students should not miss class for any reason other than a college activity or an emergency, as determined by the instructor (i.e., death in the family, health).
2. Student absences for approved college activities will not accrue as excessive absences.
3. Students will be allowed to make up work missed as a result of college approved activities.
4. Students will make up work before the absence for the approved college activity or within one week after returning to class. Students will check with each instructor prior to the absence to arrange for make-up times.
5. Activity sponsors will publish a timely list of students who will be absent because of an approved college activity.

Academic Honesty: Effective learning may involve differences of opinion and views between the student and faculty. Students are responsible, however, for learning the content of course of study outlined by the instructor, regardless of how the student feels privately. This attainment for content must be reached in an honest and forthright manner. Students who compromise the integrity of the academic process are subject to disciplinary action on the part of the college.

Students who have been accused of violating a standard of honesty may protect themselves with a series of appeal processes and are assured of due process and procedure. A student may appeal faculty and administration decisions concerning academic honesty. The first step is with the Division Dean, who, if necessary, may inform the student of further steps in the procedure. These can include appeals to the Vice President for Student Services and College President if the student deems this necessary.

Violations Include:

1. Cheating, in any form, whether in formal examinations or elsewhere.
2. Plagiarism, using the work of others as ones own without assigning proper credit to the source.
3. Misrepresentation of any work done in the classroom or in preparation for a class.
4. Alteration of any documents pertaining to academic records.
5. Disruptive behavior in a course of study or abusiveness toward faculty or fellow students.

Students violating such standards must accept the consequences which may include a failing grade, suspension or dismissal from the class or college.

Incompletes: If a student who has been making a passing grade cannot complete the work in a course due to illness (or other sufficient reason), an instructor, at his/her discretion, may enter an "I" temporarily on the student's record at the end of the term when the final grade roster is submitted. It is the student's responsibility to initiate the verbal or written contract with the instructor. The "I" will change to an "F" if the work is not completed within the first 6 weeks of the following semester (excluding summer), unless an extension of time is granted by the agreement of the appropriate dean and the instructor of the course. The student is entirely responsible for completing the work which will remove the "I."

Special Needs Statement: Anyone needing information concerning special needs should contact your instructor after class or the Special Needs Coordinator, at 322-3321 or 733-3321.

INSTRUCTOR POLICIES

Attendance: Expected daily. The expectations of the Auto Body program are the same as those of the industry. Excessive tardiness or absenteeism will not be tolerated. Tardiness or absenteeism will be factored into the individuals lab score for that day. Excused absences are at the discretion of the instructor(s).

Late/Make-up Assignments: Only absences considered to be an emergency are eligible for make-up. Missed class notes from lecture, etc. are the responsibility of the student. Lab activities missed will result in a loss of lab points for that day.

Drop: Students exhibiting poor attendance or behavior that is detrimental to the program or inhibits the progress of other students may be dropped from the program. If a student wishes to withdraw from the course, he/she needs to talk to the instructor before doing so. The instructor may withdraw the student;

however, this is the student's responsibility. The last date for withdrawal is as posted in the current semester's College Catalog.

Methods of Evaluation: exams, shop exercises, class participation and discussion, group work, outside assignments, and other methods of evaluation at the discretion of the instructor.

Plagiarism/Cheating Policy: If plagiarism and/or cheating occur, a zero will be given for that exam or assignment, with possible withdrawal from the course.

Exams: If an exam is not taken at the scheduled time and arrangements for a make-up (at the discretion of the instructor(s)) have not been made, the grade for that exam will be a zero.

Outside noise: Students are not allowed to play music, wear any type of electronically devise (headphones, MP3 players,) or talk on cell phones in classroom or lab at anytime.

Breaks: The instructor will inform the class when breaks are to be taken. We will take breaks "as a class". Everyone will break at the same time.

Attire: Proper clothing attire in lab facilities will be required and enforced. No shorts or "frayed" jeans Safety glasses at all times while in the shop

CLASSROOM & LAB POLICES

Students may be in the during the time period in which they are enrolled or have instructor's approval and supervision.

An instructor must be present at all times while students are working in the lab.

Project cars must be approved by instructor, and every student working on a personal vehicle or project vehicle must have shop ticket. Owner of vehicle must sign shop ticket.

Project cars will be allowed in the lab facilities up to 2 semesters. After two consecutive semesters, cars must be removed to free available space for other students.

Day time student lab fees will be \$25 per class.

Students missing 3 consecutive class periods will be dropped from the class and have 2 days to remove their vehicle. After two days the vehicle will be removed at owners' expense. Unauthorized/Unattended vehicle will be removed at the owners' expense.

Proper clothing attire in lab facilities will be required. Students must wear safety glasses at all times while in the shop. If student does not have safety glasses on while in shop, student could be sent home. School uniforms will be worn while in the shop.

DEPARTMENTAL POLICIES

The Auto Body Technology program at Butler County functions as a repair facility under the direction of the instructor. Lab activities are scheduled relative to the course of study and must be approved by the instructor. Repair activities will be accepted from students, faculty and staff at the institution. All activities

are scheduled through the instructor and must have a written repair order. Lab policies will be distributed at the beginning at each semester