DATE OF LAST REVIEW: 02/11/2013
CIP CODE: 47.0604
SEMESTER: Departmental Syllabus
COURSE TITLE: Basic Automotive Care
COURSE NUMBER: AUTT0106
CREDIT HOURS: 2
INSTRUCTOR: Departmental Syllabus
OFFICE LOCATION: Departmental Syllabus
OFFICE HOURS: Departmental Syllabus
TELEPHONE: Departmental Syllabus
EMAIL: KCKCC issued email accounts are the official means for electronically communicating with our students.

PREREQUISITE(S): None

REQUIRED TEXT AND MATERIALS:
Please see bookstore for current textbook(s) and other required material.

COURSE DESCRIPTION:
In this course, the student will cover the basics of all eight areas of ASE. The student will perform inspection of cars in brakes, steering and suspension, electrical, transmission, and engine performance. Students will diagnose and determine basic maintenance that needs to be addressed for the customer to prevent failures in the future.

METHOD OF INSTRUCTION:
A variety of instructional methods may be used depending on content area. These include but are not limited to: lecture, multimedia, cooperative/collaborative learning, labs and demonstrations, projects and presentations, speeches, debates, and panels, conferencing, performances, and learning experiences outside the classroom. Methodology will be selected to best meet student needs.
COURSE OUTLINE:
All students must comply with personal and environmental safety practices associated with clothing; eye protection; hand tools; power equipment; proper ventilation; and the handling, storage, and disposal of chemicals/materials in accordance with local, state, and federal safety and environmental regulations.

I. Basic supplies
   A. Tools and Supplies.
   B. Buyer's Guide to Parts and Supplies.

II. Fundamental skills
   A. Basic tool usage
   B. Fasteners.
   C. Chemicals

III. Safety
   A. Shop safety
   B. Equipment safety
   C. Chemical safety
   D. Emergency scenarios in the lab
   E. Personal Protection Equipment
   F. Lab work safety checks

IV. Vehicle Maintenance
   A. Fuels
   B. Fluid level checks
   C. Air pressure
   D. Safety inspection check sheets
   E. Lubricants
   F. Wiper service

V. The cooling system
   A. Antifreeze
   B. Testing
   C. Hoses
   D. Thermostat
   E. Leaks

VI. Electrical system
   A. Battery care
   B. Battery cable
   C. Starting and charging
   D. Light bulbs
   E. Fuses
   F. Flashers

VII. Tune-Up
   A. Basic ignition
   B. Spark plugs
   C. Wires
   D. Dielectrics
   E. Air filter
F. Fuel filter

VIII. The Engine
   A. Belts
   B. Hoses
   C. Leaks

IX. Steering and suspension systems
   A. Basic steering and suspension
   B. Lubrication
   C. Shock test
   D. Alignment basics
   E. Tire ware

X. Wheels and tires
   A. Basic tire and wheels
   B. Tire pressure
   C. Tire service
   D. Tire pressure monitors

XI. Brake care
   A. Brake basics
   B. Home brake repair
   C. Squeaks

XII. Transmission and drive line care
   A. Basic transmission
   B. Fluid service checks

XIII. Heating and air conditioning
   A. Basic servicing

XIV. Emergency service
   A. Road side service
   B. Towing
   C. Emergency improvising
   D. Scenarios

XV. Dealing with automotive services
   A. Finding a good shop
   B. Dealing with auto repair shops
   C. Knowing when you need a professional
   D. Service contracts

XVI. Caring for the finish of your car
   A. Body products
   B. Cleaning your car
   C. Cleaning your interior

EXPECTED LEARNER OUTCOMES:

A. The student will be able to identify basic supplies
B. The student will be able to explain fundamental skills
C. The student will be able to explain safety
D. The student will be able to review vehicle maintenance
E. The student will be able to review the cooling system
F. The student will be able to review the electrical system
G. The student will be able to describe a tune-up
H. The student will be able to describe engine basics
I. The student will be able to review steering and suspension systems
J. The student will be able to explain wheels and tire service
K. The student will be able to review brake care
L. The student will be able to review basic transmission and drive line service
M. The student will be able to explain basic heating and air conditioning maintenance
N. The student will be able to review emergency service precautions
O. The student will be able to explain how to Deal with automotive shops
P. The student will be able to review how to care for the finish of their car

COURSE COMPETENCIES:

The student will be able to identify basic supplies
1. Become aware of what basic tools and supplies are available
2. Learn about the methods of buying parts and supplies

The student will be able to explain fundamental skills
3. Practice basic tool usage
4. Learn the different types of fasteners
5. Learn the types of chemicals used to service autos

The student will be able to explain safety
6. Show how to use equipment safely
7. Explain how to use chemicals safely
8. Practice emergency scenarios for lab emergencies
9. Understand how to use PPE’s (Personal Protection Equipment)
10. Know what the instructor requires for a lab work safety check

The student will be able to review vehicle maintenance
11. Know the types of fuels used in autos
12. Learn how to check fluid levels
13. Check air pressure in the tires using proper method
14. Utilize a safety inspection check sheet
15. Learn the proper application of common auto lubricants
16. Show how to replace window wipers

The student will be able to review the cooling system
17. Learn about antifreeze
18. Test antifreeze levels, condition and freezing point
19. Check coolant hoses for condition
20. Understand thermostat operation
21. Know how to spot leaks

The student will be able to review the electrical system
22. Understand how to care for a battery
23. Understand how to clean a battery cable
24. Learn fundamental starting and charging system operation
25. Know how to service common light bulbs
26. Know how to test and replace a fuse
27. Know basic flasher operation
   The student will be able to describe a tune-up
28. Understand fundamental ignition operation
29. Know how to service spark plugs
30. Know how to service wires
31. Learn the use of dielectrics in electrical service
32. Understand how to test and replace air filter
33. Understand basic fuel filter service
   The student will be able to describe engine basics
34. Know when belts need service
35. Know how to spot a bad coolant hose
36. Learn how to detect leaks and identify what the leak is
   The student will be able to review steering and suspension systems
37. Understand the fundamental operation of steering and suspension
38. Know how to lubricate steering and suspension parts
39. Understand how to test a shock or strut
40. Understand the fundamentals of alignment
41. Understand the basic causes of tire wear
   The student will be able to explain wheels and tire service
42. Understand basic tire and wheel service
43. Know how to properly adjust tire pressure
44. Have knowledge about how tire pressure monitors work
   The student will be able to review brake care
45. Understand fundamental brake operation
46. Know what service can be done at home and what should not
47. Understand the basic cause of a squeak
   The student will be able to review basic transmission and drive line service
48. Understand basic operation of a transmission
49. Know how to perform common fluid checks
The student will be able to explain basic heating and air conditioning maintenance
50. Know how to clean a condenser and replace cabin filter
   The student will be able to review emergency service precautions
51. Know how to be ready for road side service
52. Understand how to deal with getting a tow when needed
53. Understand how to improvise some repairs for Emergency situations
54. Discuss dangerous scenarios and how to be prepared
   The student will be able to explain how to Deal with automotive shops
55. Know how to find a good shop
56. Learn how to deal with auto repair shops
57. Know when you need a professional
58. Understand if service contracts good for you
   The student will be able to review how to care for the finish of their car
59. Know basic types of body products
60. Understand methods to properly clean up your auto
61. Know how to clean the interior of your car
ASSESSMENT OF LEARNER OUTCOMES:
Assessment methods may include, but are not limited to, the following: Homework, Assignments, Quizzes, Class Participation, Chapter Tests, and Final Exam. The grading scale and the process for calculating the course grades are to be determined by the individual instructors. This information will be included in each instructor’s syllabus.

SPECIAL NOTES:
This syllabus is subject to change at the discretion of the instructor. Material included is intended to provide an outline of the course and rules that the instructor will adhere to in evaluating the student’s progress. However, this syllabus is not intended to be a legal contract. Questions regarding the syllabus are welcome any time.

Kansas City Kansas Community College is committed to an appreciation of diversity with respect for the differences among the diverse groups comprising our students, faculty, and staff that is free of bigotry and discrimination. Kansas City Kansas Community College is committed to providing a multicultural education and environment that reflects and respects diversity and that seeks to increase understanding.

Kansas City Kansas Community College offers equal educational opportunity to all students as well as serving as an equal opportunity employer for all personnel. Various laws, including Title IX of the Educational Amendments of 1972, require the college’s policy on non-discrimination be administered without regard to race, color, age, sex, religion, national origin, physical handicap, or veteran status and that such policy be made known.

Kansas City Kansas Community College complies with the Americans with Disabilities Act. If you need accommodations due to a documented disability, please contact the Director of the Academic Resource Center in Room 3354 or call (913) 288-7670 V/TDD.