

**STATE UNIVERSITY OF NEW YORK
COLLEGE OF TECHNOLOGY
CANTON, NEW YORK**



MASTER SYLLABUS

**COURSE NUMBER – COURSE NAME
AUTO 111 – AUTOMOTIVE SERVICE LABORATORY**

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Canino School of Engineering Technology

Department: Automotive Technology Program

Semester/Year: Fall 2018

- A. **TITLE:** Automotive Service Laboratory
- B. **COURSE NUMBER:** Auto 111
- C. **CREDIT HOURS:** (Hours of Lecture, Laboratory, Recitation, Tutorial, Activity)

Credit Hours: 1
Lecture Hours: per week
Lab Hours: (1) 2-hour lab per week
 Other: per week

Course Length: 15 Weeks

- D. **WRITING INTENSIVE COURSE:** Yes No
- E. **GER CATEGORY:** None: Yes: GER !
If course satisfies more than one: GER !
- F. **SEMESTER(S) OFFERED:** Fall Spring Fall & Spring

G. **COURSE DESCRIPTION:**

Topics include automotive shop procedures involved in general maintenance of vehicles related to suspension, engine, and driveline. Additional information addresses New York State inspection. Students who have successfully completed a high school vocational program in Automotive Mechanics/Technology may be eligible for transfer credit

- H. **PRE-REQUISITES:** None Yes If yes, list below:

CO-REQUISITES: None Yes If yes, list below:

Auto 101 Automotive Service Lecture

I. STUDENT LEARNING OUTCOMES: (see key below)

By the end of this course, the student will be able to:

<u>Course Student Learning Outcome</u> <u>[SLO]</u>	<u>Program Student Learning Outcome</u> <u>[PSLO]</u>	<u>GER</u> <i>[If Applicable]</i>	<u>ISLO & SUBSETS</u>	
Demonstrate safe work practices in the Auto Lab	ALO1, ALO4	N/A	2-Crit Think 5-Ind, Prof, Disc, Know Skills ISLO	CA IA PS Subsets
Utilize maintenance information from owner's manual and service manual	ALO1, ALO2, ALO3	N/A	1-Comm Skills 2-Crit Think 5-Ind, Prof, Disc, Know Skills	W CA IA PS
Recognize, differentiate and properly remove and install common fasteners found on automobiles and light trucks	ALO1	N/A	2-Crit Think 5-Ind, Prof, Disc, Know Skills ISLO	CA IA PS Subsets
Demonstrate safe operation of floor jacks and safe use of jack stands	ALO1, ALO4	N/A	2-Crit Think 5-Ind, Prof, Disc, Know Skills ISLO	CA IA PS Subsets
Perform dismount and remount of tires using a rim clamp style tire changer	ALO1	N/A	2-Crit Think 5-Ind, Prof, Disc, Know Skills ISLO	CA IA PS Subsets
Use electronic spin balancer to balance tire wheel assembly	ALO1	N/A	2-Crit Think 5-Ind, Prof, Disc, Know Skills ISLO	CA IA PS Subsets

Demonstrate testing coolant for pH levels and specific gravity to determine freeze point, then drain and flush radiator	ALO1		2-Crit Think 5-Ind, Prof, Disc, Know Skills ISLO	CA IA PS Subsets
Demonstrate engine oil change and engine oil filter change	ALO1		2-Crit Think 5-Ind, Prof, Disc, Know Skills ISLO	CA IA PS Subsets
Evaluate disk brake pads and drum brake linings	ALO1		2-Crit Think 5-Ind, Prof, Disc, Know Skills ISLO	CA IA PS Subsets
Demonstrate the ability to work independently and in small groups	ALO1		1-Comm Skills 2-Crit Think 5-Ind, Prof, Disc, Know Skills	O CA IA PS

KEY	<u>Institutional Student Learning Outcomes [ISLO 1 – 5]</u>
ISLO #	ISLO & Subsets
1	Communication Skills Oral [O], Written [W]
2	Critical Thinking <i>Critical Analysis [CA] , Inquiry & Analysis [IA] , Problem Solving [PS]</i>
3	Foundational Skills <i>Information Management [IM], Quantitative Lit./Reasoning [QTR]</i>
4	Social Responsibility <i>Ethical Reasoning [ER], Global Learning [GL], Intercultural Knowledge [IK], Teamwork [T]</i>
5	Industry, Professional, Discipline Specific Knowledge and Skills

*Include program objectives if applicable. Please consult with Program Coordinator !

J. **APPLIED LEARNING COMPONENT:** Yes No

If YES, select one or more of the following categories:

- | | |
|---|--|
| <input checked="" type="checkbox"/> Classroom/Lab | <input type="checkbox"/> Civic Engagement |
| <input type="checkbox"/> Internship | <input type="checkbox"/> Creative Works/Senior Project |
| <input type="checkbox"/> Clinical Placement | <input type="checkbox"/> Research |
| <input type="checkbox"/> Practicum | <input type="checkbox"/> Entrepreneurship |
| <input type="checkbox"/> Service Learning | (program, class, project) |
| <input type="checkbox"/> Community Service | |

K. **TEXTS:**

Erjavec, Jack. NATEF Standards Job Sheets, Delmar Cengage Learning. 2015.

L. **REFERENCES:**

All Data,shop manuals, ShopKeyPro

M. **EQUIPMENT:** None Needed: Student tool list

N. **GRADING METHOD:** A-F

O. **SUGGESTED MEASUREMENT CRITERIA/METHODS:**

Performance Exams, attendance, preparedness for lab, applies learned knowledge, professional attitude, and completes assigned projects/tasks. Practicum at Midterm and Final Labs.

P. **DETAILED COURSE OUTLINE:**

- I. Shop Safety and Waste dDposal
- II. Vehicle Service Information (written and electronic)
- III. Lift, Jacking and Jack Stand Safety
- IV. Fastener ID and Usage
- V. Basic Hand Tool Usage
- VI. Tire Dismounting and Remounting
- VII. Tire Balancing
- VIII. Pratical Midterm Exam
- IX. Coolant System Service
- X. Radiator Flushing
- XI.Disc. Brake Inspection
- XII. Oil Changes
- XIII. Practical Final Exam

Q. **LABORATORY OUTLINE:** None Yes