



## Basic Course Information

Semester:	Fall 2024	Instructor Name:	Pat Barbee
Course Title & #:	Basic Shop Skills AUT 075	Email:	<a href="mailto:pat.barbee@imperial.edu">pat.barbee@imperial.edu</a>
CRN #:	10437	Webpage:	
Classroom:	1602	Office #:	1104 A
Class Dates:	August 12-December 7	Office Hours:	Mondays/Wednesdays 11:10-12:10pm & Tuesdays 5:00-6:00pm & Thursdays 12:00-1:00pm
Class Days:	Thursdays	Office Phone #:	
Class Times:	1:00-4:10PM	Emergency Contact:	Tisha Nelson: 760-355-6361
Units:	3.0	Class Format:	Face to Face

## Course Description

This is a comprehensive course in tool usage, nomenclature, and terminology of tools and equipment for the beginning student in the technologies. The course is for the student who has not developed a background in industrial technology, as well as for the bilingual student who wants to improve his/her technical vocabulary. (Nontransferable, AA/AS degree only)

## Course Prerequisite(s) and/or Corequisite(s)

None

## Student Learning Outcomes

Upon course completion, the successful student will have acquired new skills, knowledge, and or attitudes as demonstrated by being able to:

1. Identify and locate the most important parts of a vehicle.
2. Identify common automotive hand tools.
3. Select the right tool for a given job

## Course Objectives

Upon satisfactory completion of the course, students will be able to:

1. Basic Industrial and Automotive Terminology.
2. Hand Tool Nomenclature and Utilization.
3. Hand Power Tool Nomenclature and Utilization.
4. Machine Tool Nomenclature.
5. Identification of Machinery.
6. Identification of Automotive nomenclature.
7. Identification of Woods, Metals and Plastics.



## Textbooks & Other Resources or Links

Textbook used: *Modern Automotive Technology* 10<sup>th</sup> Edition by James E. Duffy (ISBN 978-1-64564-688-4) *Small Gas Engines 12th edition* by Alfred C. Roth, Blake J. Fisher, W. Scott Gauthier (ISBN:978-1-63776-072-7)

Access to computer, Internet, and word type applications.

Pen and pencils

Standard writing paper and notebook.

Lab days will require: Safety glasses, work footwear (no open toe shoes, slip resistant), proper shirts and pants.

## Course Requirements and Instructional Methods

This course will consist of a variety of instructional methods and assignments including, but not limited to, lectures, class discussions, group activities, a research paper, interviews, and hands-on shop experiences.

## Course Grading Based on Course Objectives

Grading System:

A – 513-570 of points = Excellent

B – 456-512 of points = Good

C – 399-455 of points = Acceptable

D – 342-398 of points = Below Average

F – 341 points and below = Failing

Activities	Points
Homework (14 assignments * 15pts each)	210
Quizzes (14 quizzes * 10pts each)	140
Labs (12 labs * 5pts each)	60
Mid-Term	80
Final Exam	80
Total Points	570

\*\*\*There are no make-up exams unless arrangements with the instructor are made prior to exam.

## Course Policies

- Electronic Devices: Cell phones and electronic devices must be turned off and put away during class, unless otherwise directed by the instructor.
- Food and Drink: Food and drink are prohibited in all classrooms. Water bottles with lids/caps are the only exception. Additional restrictions will apply in labs. Please comply as directed by the instructor.
- Disruptive Students: Students who disrupt or interfere with a class may be sent out of the room and told to meet with the Campus Disciplinary Officer before returning to continue with coursework. Disciplinary procedures will be followed as outlined in the General Catalog.
- Children in the classroom: Due to college rules and state laws, only students enrolled in the class may attend; children are not allowed.

**Academic honesty** in the advancement of knowledge requires that all students and instructors respect the integrity of one another's work and recognize the important of acknowledging and safeguarding intellectual property. There are



many different forms of academic dishonesty. The following kinds of honesty violations and their definitions are not meant to be exhaustive. Rather, they are intended to serve as examples of unacceptable academic conduct.

**Plagiarism** is taking and presenting as one's own the writings or ideas of others, without citing the source. You should understand the concept of plagiarism and keep it in mind when taking exams and preparing written materials. If you do not understand how to cite a source correctly, you must ask for help.

**Cheating** is defined as fraud, deceit, or dishonesty in an academic assignment, or using or attempting to use materials, or assisting others in using materials that are prohibited or inappropriate in the context of the academic assignment in question. Anyone caught cheating or plagiarizing will receive a zero (0) on the exam or assignment, and the instructor may report the incident to the Campus Disciplinary Officer, who may place related documentation in a file. Repeated acts of cheating may result in an F in the course and/or disciplinary action. Please refer to the [General Catalog](#) for more information on academic dishonesty or other misconduct. Acts of cheating include, but are not limited to, the following:

- plagiarism
- copying or attempting to copy from others during an examination or on an assignment
- communicating test information with another person during an examination
- allowing others to do an assignment or portion of an assignment
- using a commercial term paper service.

**Attendance:** A student who fails to attend the first meeting of a class or does not complete the first mandatory activity of an online class will be dropped by the instructor as of the first official meeting of that class. Should readmission be desired, the student's status will be the same as that of any other student who desires to add a class. It is the student's responsibility to drop or officially withdraw from the class. See [General Catalog](#) for details.

Regular attendance in all classes is expected of all students. A student whose continuous, unexcused absences exceed the number of hours the class is scheduled to meet per week may be dropped. For online courses, students who fail to complete required activities for two consecutive weeks may be considered to have excessive absences and may be dropped.

Absences attributed to the representation of the college at officially approved events (conferences, contests, and field trips) will be counted as excused absences.

## Other Course Information

### Shop/Lab Area Safety

- Safety test must be passed to work in the shop and complete required lab exercise.
- Safety glasses are required to be worn at all times while in the shop area, safety glasses are the student's responsibility (students not wearing safety glasses will be asked to leave lab for that day, no exceptions).
- Clean up your area and any other loose debris, trash, or spills.
- Wear all required safety protection and comply with posted signs.
- No shorts or open toe footwear, always be prepared for lab exercises.



- Comply with tool check out policy and clean tools before returning.
- Damaged or missing tools must be reported immediately. Tools are the students' responsibility.
- Do not perform any work on any vehicle outside the assigned task without permission from your instructor.
- Long hair must be kept in a ponytail or tucked away for safety.
- Jewelry such as rings and necklaces must be put away or tucked in for safety.
- Lab work will cease 20 minutes prior to end of class to allow time for cleaning areas and returning tools.

#### Projects

- All projects must be approved by instructor and require a written work order.
- All projects must be removed from campus prior to finals.
- Projects are taken with students at end of class unless approved by instructor.

In addition to standard course curriculum, portions of this course will prepare you for ASE certifications.

### IVC Student Resources

IVC wants you to be successful in all aspects of your education. For help, resources, services, and an explanation of policies, visit <http://www.imperial.edu/studentresources> or click the heart icon in Canvas.

### Anticipated Class Schedule/Calendar

Date or Week	Activity, Assignment, and/or Topic	Pages/ Due Dates/Tests
Week 1	Syllabus Chapter 5: Auto Shop Safety	
Week 2	Chapter 3: Basic Hand Tools	Pages 65-66
Week 3	Chapter 4: Power Tools & Equipment	Pages 40-41
Week 4	Chapter 6: Automotive Measurements	Pages 53-54
Week 5	Chapter 8: Fasteners, Gaskets, Seals & Sealants	Pages 75-76
Week 6	Chapter 17: Fundamentals of Electricity and Electronics	Page 98-99
Week 7	Chapter 18: Circuit Types and OHM's Law	Page 200-201
Week 8	<b>Mid-Term</b>	
Week 9	Chapter 19: Electric and Electronic Components	Page 208-209



Date or Week	Activity, Assignment, and/or Topic	Pages/ Due Dates/Tests
Week 10	Chapter 20: Electrical Tools and Test Equipment	Pages 224-227
Week 11	Chapter 21: Wiring Diagrams and Wiring	Pages 234-236
Week 12	Chapter 22: Basic Electrical Tests	Page 259-261
Week 13	Chapter 5 Principles of Engine Operation, Two and Four Stroke Engines. Small Gas Engines Book	Pages 93-103
Week 14	Chapter 8 Fuel Supply, Air induction and Emissions	Pages 151-165
Week 15	<b>**NO CLASS THANKSGIVING BREAK**</b>	
Week 16	Chapter 9 Carburetion and fuel Injection	Pages 171-445
Week 17	<b>Final Exam</b>	

**\*\*\*Subject to change without prior notice\*\*\***