

# MECHANICS 10

## INTRODUCTORY MODULES

### Program Rational:

Mechanics is a program consisting of modules that provide a wide variety of experiences. This in turn helps you develop personal skills related to mechanics and other career fields. This program consists of courses and activities designed to explore different technologies. All courses and activities are designed for practical preparation which in turn allows you to pursue a career in a trade field. In the process, the Mechanics 10 program will help develop your problem solving abilities, increase your self-knowledge, explore your talents and develop mechanical skills.

### General Objectives:

This course will provide you with the opportunity to:

1. Become familiar with the importance of the automobile in our society
2. Become familiar with technical terms found in the field of Automotives
3. Learn to work safely and to practice safe work habits
4. Develop good work habits by working both independently and harmoniously
5. Become familiar with the many different types of tools used in the automotive field
6. Be able to use the proper tools for the task at hand
7. Understand the fundamentals of engine operation
8. Become familiar with basic diagnostic procedures
9. An introduction to basic vehicle service and care
10. An introduction to a vehicles ride and control systems

### Course Content:

1. Automotive Shop and Personal Safety
2. Shop Hand Tools
3. Shop Equipment and Power Tools
4. Automotive Fasteners, Gaskets and Sealants

**Chapter Assignments:** Written review questions at the end of each chapter are to be completed and the review questions are to be neatly written. Please UNDERLINE OR highlight the review questions.

**Exams and Quizzes:** While class notes and lectures are given, quizzes will be given so that students can evaluate their own progress in achieving the course objectives. The quizzes will be from the chapter assignments and overhead notes. The instructor will also mark all notebooks. A final cumulative exam will be given at the end of the term.

**Additional Information:**

1. The student is responsible for bringing his / her pen, notebook and textbook to class.
2. If you miss a day due to unforeseen reasons it is your responsibility to ask a fellow student what happened. It is up to you to collect any missed information.
3. Learning is the students' responsibility, but assistance is **ALWAYS** available. If at any time you are unsure about procedures or directions ask your instructor.
4. Remember that acting like an adult gains respect and greater responsibilities.

**General Shop Safety Rules:**

1. NO HORSEPLAY or running is permitted.
1. All loose clothing and hair must be secured before operating any machine.
1. Know the location of fire extinguishers and emergency cut-off switches.
2. Check all electrical equipment before using it. Report any frayed or broken cords
3. Report all accidents, however minor, to your instructor immediately.
4. Keep the shop neat by putting away all tools when the job is finished.
5. DO NOT leaving oil, grease, tools or other loose objects on the floor.
6. Don't forget your eye protection. Always keep safety shields and guards in place.
7. Don't distract a person operating a hoist or machine.
8. Never use a file without a handle.
9. If you have any doubts about shop procedures ask your instructor.

Remember this course belongs to you and its success rests largely with you. If you do not understand, just ask.

1. Basic Vehicle Service and Care
2. Fundamentals of Engine Operation
3. Engine Construction
4. Disassembly, Measurement, and Assembly of an Engine
5. Basic Electrical Fundamentals

6. Vehicle Suspension Systems
7. Special Project

**Evaluation:**

8. Shop Work and F.A.A.P. (See below) 60% of classroom time.
9. Chapter Assignments 20% of classroom time.
10. Exams and Quizzes 20% of classroom time.

**Shop Work:** All tasks performed in the shop which include, oil changes, engine work and also maintaining a clean and safe environment. You will demonstrate the safe use of hand tools and shop equipment including using the proper tools for a specific job and accuracy of work.

**Focus:** Students are to focus on learning and the task given to them. All assignments will be completed in a timely manner.

**Attendance:** Students must attend class. Failure to attend means you will not be able to keep up with required work.

**Accountability:** Students are accountable for your actions; both in the classroom and in the shop. You will listen to instructions and complete the tasks given to you. You will show respect and politeness towards your instructor and also your fellow students. You will use appropriate language while working in the shop.

**Personal readiness:** Students are to be ready to learn. You must bring your books.

I am looking forward to a great year in Mechanics 10, as we learn the basics about cars and their systems. Students who complete ALL written work on time, and who have a reasonable mark at year end may be eligible for 7 credits and spare for the last 2 weeks of class.

If you have any questions or concerns please contact me at 780 467 8816 ext. 5735 or email me at [aaron.breitkreuz@eips.ca](mailto:aaron.breitkreuz@eips.ca)

Sincerely,

Mr. Aaron Breitkreuz  
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