

# PE Engine Fundamentals, Repair

TEPM - 1010 251

## Course Description

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Designed to give experience from all aspects of small engines. Theory and operation are reviewed from the textbook during class, and students will service and repair engines and machine systems during lab. Students complete work on two- and/or four-cycle engines. Safe shop practices and professional behavior will be emphasized. This course is part 1 of 2.

Semester(s): Fall

## Course Student Learning Outcomes

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- Recognize and maintain safety in the shop as well as personal work habits.
- Identify different choices between fasteners, including sealants and gaskets. Demonstrate the appropriate use, torque and tightening sequence for the situation.
- Describe and summarize the structure of an atom, fundamentals of electricity and electrical circuits, relationship of magnetism with electricity, and electrical component construction and operation.
- Describe and summarize the principles of two and four-stroke engines and be able to identify the strengths of each.
- Identify the differences between carburetion and fuel injection systems, understanding the components and operating principles of each system.
- Identify and use correct tools, including precision measuring instruments.

## Course Prerequisites

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None

## Transfer/Certification/Licensure/Employment Information

None

## Engagement Plan

Example language:

- I will respond to email within one business day. I will offer feedback on major assignments within one business day. The best way to contact me is via the Canvas Inbox, as I will prioritize this email over other modes of communication.
- We will have classroom lecture, lab demonstrations, and assignments for you to complete on your own or with a small team of students.

## Keys for Success (how to succeed in the course)

Be on time. There is nothing more important than punctuality. There are always issues that arise in life, so when one of these issues comes up please let me know through CANVAS.

Do your own work. Even if you are working in a team, make sure you get the chance to see everything going on. Take turns with your team so everyone gets a chance to complete the work.

If you borrow a tool, please return it.

Be respectful to your fellow students; everyone is here to learn, and it's better when we all work together. A rising tide elevates us all.

Ask questions! If you don't understand something please ask. The principles we study build upon each other, so if you don't understand something it will weaken your learning foundation. Please ask. The only stupid question is the one not asked.

## Course Content Advisory

There will be a class fee of \$50 per term. This is a total of \$200 for the entire year. The fee is broken down by term to make it more manageable.

We will be using online materials primarily. If you need a hardcopy of anything it will be given to you or you will be notified. There are no required textbooks for this class.

## Brief Description of Assignments/Exams

We will discuss each topic in the classroom and a lecture will be provided. Once the lecture is complete, there will be a lab demonstration conducted by the instructor. After the lab demonstration you will be given an assignment for you to complete. This will give you hands-on learning on each topic of instruction.

## Assignment Schedule

Due Date	Assignment Name	Assignment Type	Points
	<a href="#">Acknowledgement of Syllabus</a>	Quiz	1
	<a href="#">Digital Wrench 2 Worksheet</a>	Assignment	40
	<a href="#">Introduce Yourself</a>	Discussion	0
	<a href="#">Introduce Yourself</a>	Discussion	0
	<a href="#">Polaris Visual Inspection Sheet</a>	Assignment	40
	<a href="#">Roll Call Attendance</a>	Assignment	100
	<a href="#">UofP Digital Wrench 2: Connecting a Vehicle and Vehicle Updates</a>	Assignment	20

Due Date	Assignment Name	Assignment Type	Points
	<a href="#">UofP Digital Wrench 2: Overview and Basic Functions</a>	Assignment	20
	<a href="#">UofP Digital Wrench 2: Service Reports</a>	Assignment	20
	<a href="#">UofP Introduction to the Polaris Technician Training Program for Students</a>	Assignment	20
9/20/24	<a href="#">Chapter 1 Review Questions</a>	Assignment	10
9/20/24	<a href="#">Chapter 2 Review Questions</a>	Assignment	35
9/20/24	<a href="#">Chapter 3 Review Questions</a>	Assignment	15
9/20/24	<a href="#">Chapter 4 Review Questions</a>	Assignment	20
9/20/24	<a href="#">Chapter 5 Review Questions</a>	Assignment	16
9/20/24	<a href="#">Chapter 6 Review Questions</a>	Assignment	20
9/20/24	<a href="#">Chapter 7 Review Questions</a>	Assignment	15
10/11/24	<a href="#">Chapter 10 Review Questions</a>	Assignment	15
10/11/24	<a href="#">Chapter 11 Review Questions</a>	Assignment	10
10/11/24	<a href="#">Chapter 12 Review Questions</a>	Assignment	10

Due Date	Assignment Name	Assignment Type	Points
10/11/24	<a href="#">Chapter 8 Review Questions</a>	Assignment	10
10/11/24	<a href="#">Chapter 9 Review Questions</a>	Assignment	15
12/5/24	<a href="#">Shop Clean Up</a>	Assignment	99
12/6/24	<a href="#">Chapter 13 Review Questions</a>	Assignment	14
12/6/24	<a href="#">Chapter 14 Review Questions</a>	Assignment	8
12/6/24	<a href="#">Chapter 15 Review Questions</a>	Assignment	20
12/6/24	<a href="#">Chapter 16 Review Questions</a>	Assignment	6
12/6/24	<a href="#">Chapter 17 Review Questions</a>	Assignment	5

## Grading Scale

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100% - 80% = A

>80% - 70% = B

>70% = E or F

## Academic Integrity

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Please do your own work. Make sure you understand each assignment before you move on.

No cheating, it will not be tolerated. The only getting cheated is yourself.

## How to Navigate to Canvas

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### Institutional Policies

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As members of our academic community, we would like to invite you to review the Institutional Syllabus which covers important policies and procedures. This document contains important links for students on the code of student rights and responsibilities, academic integrity, and grading policies, Title IX and other important acknowledgements. By familiarizing yourself with this information, you can help us create a safe and respectful environment for everyone.

For more information, navigate to the Institutional Policies tab on the [Institutional Syllabus](#) page.

### Learning Support and Tutoring Services

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We are pleased to offer a range of tutoring and learning support services to help you achieve your academic goals. Whether you need assistance with a specific subject or want to improve your study skills, you have many options for tutoring or other support.

To learn more about the services we offer and how to access them, visit the [Institutional Syllabus](#) page under the Tutoring and Learning Support tab. We encourage you to take advantage of these resources to help you succeed in your studies. If you have any questions or would like to schedule a tutoring session, please don't hesitate to reach out to us. We are here to support you in any way we can.

### Advising and Counseling Support Services

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At our institution, we are committed to supporting your academic and personal growth. That's why we offer a range of advising and counseling services to help you navigate the challenges of college life. To learn more about the resources available to you and how to access them, visit the [Institutional Syllabus](#) page under the Advising and Counseling Support Services tab. Our advising team and the support centers across campus are here to support you in achieving your goals and overcoming any obstacles you may face.

## Student Academic Calendar

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As students you should be aware of all important dates in the semester, such as the day that courses begin and end, as well as the drop date and the last day to withdraw. To learn more about those dates, navigate to the Student Academic Calendar below:

[SLCC Student Academic Calendar](#)