

This is the HTML File of all pages towards the final project of Gabriel Yeager for EME6417, currently hosted on 300dayz.com/aut1010/.

<p style="text-align: center;">Navigation Bar</p>

<table>

<tbody>

<tr>

<td width="125">

<p style="text-align: center;">HOME</p>

</td>

<td style="text-align: center;" width="125">COURSE CONTENT</td>

<td style="text-align: center;" width="125">SYLLABUS</td>

<td style="text-align: center;" width="125">INBOX</td>

<td width="125">

<p style="text-align: center;">RESOURCES</p>

</td>

</tr>

</tbody>

</table>

<hr />

<h1>Welcome to AUT1010: Automotive Technology</h1>

This course is the first of a two-semester program on automotive technology. The course is designed for students to gain valuable information in automotive technology that they can put into practice in the following semester, and gain placement for an entry level position in an automotive shop. The course will be completely online and consist of virtual conferences, discussions, and a simulated automotive shop learning game.

My name is Gabriel Yeager, and I am the instructor and instructional designer for this course and program. For more information about this program, course, and me, view this brief introduction video:

<https://youtu.be/PVamKtTb3wI>

For detailed information on this course, visit the [Syllabus](http://300dayz.com/aut1010/syllabus/) and explore the [Course Content](http://300dayz.com/aut1010/coursecontent/) page to dive into the modules.

Have questions? Post them in the Q&A Forum so that others may learn from your questions, as well!

Gabriel Yeager

<p style="text-align:center;">Navigation Bar</p>

<table class=" aligncenter">

<tbody>

<tr>

<td style="text-align:center;" width="125">HOME</td>

<td style="text-align:center;" width="125">COURSE CONTENT</td>

<td style="text-align:center;" width="125">SYLLABUS</td>

```

<td style="text-align:center;" width="125"><strong><a
href="http://300dayz.com/aut1010/inbox/">INBOX</a></strong></td>

<td width="125">

<p style="text-align:center;"><strong><a
href="http://300dayz.com/aut1010/resources/">RESOURCES</a></strong></p>

</td>

</tr>

</tbody>

</table>

```

```

<hr />

```

To begin each module, select the topic title in the second column.

```

<table width="636">

<tbody>

<tr>

<td width="107"><strong>Start/End Date</strong></td>

<td width="99"><strong>Topics</strong></td>

<td width="288"><strong>Assignments (Due Dates)</strong></td>

<td width="142"><strong>Objectives</strong></td>

</tr>

<tr>

<td width="107"><strong>02/12/2018 – 02/18/2018</strong></td>

<td width="99">Introduction and Careers</td>

<td width="288">

<ol>

<li>Review syllabus (02/16/2018)</li>

<li>Syllabus Quiz (02/16/2018)</li>

<li>Introduction Post (02/18/2018)</li>

</ol>

```

</td>

<td width="142">Learner will review course policies and expectations. Learner will discuss desirable outcomes.</td>

</tr>

<tr>

<td width="107">02/19/2018 – 02/25/2018</td>

<td width="99">Engine Overview</td>

<td width="288">

Review module content, PPT, Videos (02/21/2018)

Complete simulation tasks within module (02/23/2018)

Post analysis of content (02/23/18)

Reply to at least two others (02/25/18)

</td>

<td width="142">Learner will analyze basic engine mechanics through applied practice in simulation and discussion.</td>

</tr>

<tr>

<td width="107">02/26/2018 – 03/04/2018</td>

<td width="99">Oil Systems</td>

<td width="288">

Review module content, PPT, Videos (02/28/2018)

Complete simulation tasks within module (03/02/2018)

Post analysis of content (03/02/18)

Reply to at least two others (03/04/18)

</td>

<td width="142">Learner will analyze basic oil systems through applied
practice in simulation and discussion.</td>

</tr>

<tr>

<td width="107">03/05/2018 – 03/11/2018</td>

<td width="99">Coolant Systems</td>

<td width="288">

Review module content, PPT, Videos (03/07/2018)

Complete simulation tasks within module (03/09/2018)

Post analysis of content (03/09/18)

Reply to at least two others (02/11/18)

</td>

<td width="142">Learner will analyze coolant systems through applied
practice in simulation and discussion.</td>

</tr>

<tr>

<td width="107">03/12/2018 – 03/18/2018</td>

<td width="99">Fuel Systems</td>

<td width="288">

Review module content, PPT, Videos (03/14/2018)

Complete simulation tasks within module (03/16/2018)

Post analysis of content (03/16/18)

Reply to at least two others (03/18/18)

</td>

<td width="142">Learner will analyze basic fuel systems through applied
practice in simulation and discussion.</td>

</tr>

<tr>

<td width="107">03/19/2018 – 03/25/2018</td>

<td width="99">Air and Exhaust Systems</td>

<td width="288">

Review module content, PPT, Videos (03/21/2018)

Complete simulation tasks within module (03/23/2018)

Post analysis of content (03/23/18)

Reply to at least two others (03/25/18)

MIDTERM QUIZ (03/25/18)

</td>

<td width="142">Learner will analyze basic air and exhaust systems through applied practice in simulation and discussion. Learner will pass midterm with >80%.</td>

</tr>

<tr>

<td width="107">03/26/2018 – 04/01/2018</td>

<td width="99">Understanding Basic Electronics</td>

<td width="288">

Review module content, PPT, Videos (03/28/2018)

Complete simulation tasks within module (03/30/2018)

Post analysis of content (03/30/18)

Reply to at least two others (04/01/18)

APPLY to internship (04/01/18)

</td>

<td width="142">Learner will analyze basic electronics through applied practice in simulation and discussion. Learner will apply for approved internship.</td>

</tr>

<tr>

<td width="107">04/02/2018 – 04/08/2018</td>

<td width="99">Recharging Systems</td>

<td width="288">

Review module content, PPT, Videos (04/04/2018)

Complete simulation tasks within module (04/06/2018)

Post analysis of content (04/06/18)

Reply to at least two others (04/08/18)

</td>

<td width="142">Learner will analyze basic recharging systems through applied practice in simulation and discussion.</td>

</tr>

<tr>

<td width="107">04/09/2018 – 04/15/2018</td>

<td width="99">Ignition Systems</td>

<td width="288">

Review module content, PPT, Videos (04/11/2018)

Complete simulation tasks within module (04/13/2018)

Post analysis of content (04/13/18)

Reply to at least two others (04/15/18)

</td>

<td width="142">Learner will analyze basic ignition systems through applied practice in simulation and discussion.</td>

</tr>

<tr>

<td width="107">04/16/2018 – 04/22/2018</td>

<td width="99">Braking Systems</td>

<td width="288">

Review module content, PPT, Videos (04/18/2018)

Complete simulation tasks within module (04/20/2018)

Post analysis of content (04/20/18)

Reply to at least two others (04/22/18)

</td>

<td width="142">Learner will analyze basic braking systems through applied
practice in simulation and discussion.</td>

</tr>

<tr>

<td width="107">04/23/2018 – 04/29/2018</td>

<td width="99">Suspension Systems</td>

<td width="288">

Review module content, PPT, Videos (04/25/2018)

Complete simulation tasks within module (04/27/2018)

Post analysis of content (04/27/18)

Reply to at least two others (04/29/18)

</td>

<td width="142">Learner will analyze basic suspension systems through applied
practice in simulation and discussion.</td>

</tr>

<tr>

<td width="107">04/30/2018 – 05/06/2018</td>

<td width="99">Overview</td>

<td width="288">

Review all course content (05/04/18)

Complete final exam (05/06/18)

Prepare for internship (05/06/18)

</td>

<td width="142">Learner will review all previous content and simulations. Learner will pass their final exam with >80%.

Learner will confirm internship.</td>

</tr>

</tbody>

</table>

<p style="text-align:center;">Navigation Bar</p>

<table>

<tbody>

<tr>

<td style="text-align:center;" width="125">HOME</td>

<td style="text-align:center;" width="125">COURSE CONTENT</td>

<td style="text-align:center;" width="125">SYLLABUS</td>

<td style="text-align:center;" width="125">INBOX</td>

<td width="125">

<p style="text-align:center;">RESOURCES</p>

</td>
</tr>
</tbody>
</table>

<hr />

AUT1010 Module 2, basic engine mechanics.

Module Overview:

Course Objective: Learner will be able to identify primary components and their functions.

Module Objective:

Define and Discuss basic engine functions and theories with their peers.

Review engine mechanics through text and rich media presentations within the module.

Analyze basic engine functions and theories by identifying key components in a simulated environment with 80% accuracy or greater.

Chevelle SS, Tampa Bay Auto Show 2016, 300DayZ Photography

Module 2 is designed to get you up to speed and prepared for the rest of this course. Begin this module by:

Reviewing the different types of vehicles.

Then, review the basic and most common engine types.

Finally, read about how engines work.

Then, watch a video explaining the very basics of engine functions.

After you have been exposed to the content and theories above, progress to the Module 2 simulation, where you will identify 20 components and theories of automotive technology.

Lastly, you will review the discussion rubric, post your original discussion by Friday, 02/23/2018, and reply to at least two of your peers by Sunday, 02/25/2018.

You can also explore additional resources on the topics covered in this module (optional).

<p style="text-align:center;">Navigation Bar</p>

<table>

<tbody>

<tr>

<td style="text-align:center;" width="125">HOME</td>

<td style="text-align:center;" width="125">COURSE CONTENT</td>

<td style="text-align:center;" width="125">SYLLABUS</td>

<td style="text-align:center;" width="125">INBOX</td>

<td style="text-align:center;" width="125">RESOURCES</td>

</tr>

</tbody>

</table>

<hr />

<h3>Module 2: Types of Vehicles</h3>

To begin Module 2, it is important to understand that while vehicles share certain similarities, there can be vast differences. The last thing you want to happen on the job is for a customer to bring in their vehicle, and you have no idea how to repair it. By the end of this section, you should be able to identify different vehicle types and how to find solutions for them.

Classic Ozona, 2013, 300DayZ Photography.

To begin, we have classic cars, such as the Ford Model A. These vehicles are becoming increasingly rare, and are often owned by classic car restoration hobbyist. Nonetheless, you may still encounter a classic car from time-to-time. It is important to realize that much of the vehicle is still the same. These vehicles were carbonated, did not have emissions control, and had the bare minimum of electronics. Everything was done by hand, so be prepared to put in some elbow-grease and patience, as classic cars are typically thoroughly rusted. Parts for these vehicles can be extremely hard to source, so try searching for replacements on Classic Car Industries and eBay. Additionally, there may be a classic car restoration company in your area, so it is always worth a quick check to see if any local shops have the parts that you need.

Moving forward, cars got progressively more advanced in engine performance, handling, and technology. By 1988, the Engine Control Unit (or Management) became an electronic way of controlling the engine and emissions outputs. In 1988, Honda introduced the On Board Diagnostic (OBD) systems in vehicles with their B-series engines. This early model of technology is informally known as OBD0. It was not until 1992 that the OBD1 system was introduced, a true programmable computer controller for car performance. A more

advance version of this system, the OBD2, was introduced by Honda only four years later in 1996. Cars with OBD2 systems, the majority of which you will see today, contain nearly every dataset you could ever dream for, and allows for dealers and mechanics to quickly identify problems within a vehicle.

During this course, we are going to focus on cars that are gasoline powered and run on the OBD2 system. We will not be getting into more advanced topics, such as diesel engines, heavy equipment operation, or classic car restoration.

Regardless if you are working on a car or truck, the most important thing to remember is this: All gasoline powered cars require the same key ingredients, which we will dive into next.

<p style="text-align:center;">Navigation Bar</p>

<table>

<tbody>

<tr>

<td style="text-align:center;" width="125">HOME</td>

<td style="text-align:center;" width="125">COURSE CONTENT</td>

<td style="text-align:center;" width="125">SYLLABUS</td>

<td style="text-align:center;" width="125">INBOX</td>

<td width="125">

<p style="text-align:center;">RESOURCES</p>

</td>

</tr>

</tbody>

</table>

<hr />

AUT1010 Module 2, Engine Types

It is important to understand that there are variety of engine types available, and each manufacture may do something slightly different. Even certain cars will have extremely different engine options available, such as the 2018 Ford Mustang with an Eco-Boost engine or the 5.0 L Coyote GT engine.

The first thing to be aware of when speaking about gasoline engine types: Carburetor or fuel injection?

With the onset of the ECU, the mid 1980s saw nearly all vehicles switch from carburetors to electronic fuel injection. While we will cover fuel injectors in greater detail during Module 5, for now, you simply need to understand that fuel injectors spray fuel into the air intake of an engine, or directly into the combustion chamber.

Most traditional engines are piston driven, however, there is also the Rotary engine which uses triangular cones that spin rapidly to propel a crankshaft, rather than pistons. Rotary engines are a little more unique, and will be discussed in great detail in the Advanced Automotive Technology course, AUT2010.

The most commonly seen engine is the inline 4-cylinder engine. However, you can also find the inline-6 engine produced by AMC in the Jeep Wrangler and Cherokee lineups. Other common engines include the V6, V8, and V10 and V12 in some exotic vehicles and trucks.

Watch this video for a quick explanation on the differences between standard engine types, then progress to the next section:

<https://www.youtube.com/watch?v=gum3yyJhfs&list=PL30C950600B683799&index=6>

<p style="text-align:center;">Navigation Bar</p>

<table>

<tbody>

```

<tr>

<td style="text-align:center;" width="125"><strong><a
href="http://300dayz.com/aut1010/">HOME</a></strong></td>

<td style="text-align:center;" width="125"><strong><a
href="http://300dayz.com/aut1010/coursecontent/">COURSE CONTENT</a></strong></td>

<td style="text-align:center;" width="125"><strong><a
href="http://300dayz.com/aut1010/syllabus/">SYLLABUS</a></strong></td>

<td style="text-align:center;" width="125"><strong><a
href="http://300dayz.com/aut1010/inbox/">INBOX</a></strong></td>

<td width="125">

<p style="text-align:center;"><strong><a
href="http://300dayz.com/aut1010/resources/">RESOURCES</a></strong></p>

</td>

</tr>

</tbody>

</table>

<hr />

```

AUT1010 Module 2: How Engines Work

All gasoline engines must operate on the same four concepts:

- ```

 Fuel

 Air

 Spark

 Compression


```

At the core of engine performance, these are the most critical considerations. Engines are specifically produced to have a delicate balance of all four of the items mentioned above. Without the proper ratios, the engine may run poorly, fail to run, or even spontaneously explode. However, not all engines are reaching their full potential. Manufacturers are often forced to restrict an engines power

output by dulling these ratios so as to stay in compliance with emissions regulations. In AUT2010, Advanced Automotive Technology, we discuss this in greater detail.

For now, it is simply important that you remember these four things: fuel, air, spark, and compression are the power of life in an engine. You can come up with a creative way to remember this and share it in this weeks discussion.

An engine consist of multiple moving parts, all timed to achieve the ideal ratios of compression, air, fuel, and spark. It all begins with an air intake. The engine sucks air in through a filter, past the Mass Airflow Sensor (MAF) and into the throttle body. In most engines, there is fuel injector in the throttle body that is receiving fuel from a fuel pump on the gas tank. Typically speaking, there will be one fuel injector for each cylinder in the engine, which one located in the throttle body just outside of the cylinder.



<em>Cylinder head, valve springs, rocker arms, fuel injectors. Notice the valve that is open, the third spring from the back is compressed. </em>

Attached to the head of the block is the cylinder head, which holds valves and valve springs, all tucked away nicely under the valve cover. There can be anywhere from two to eight valves per a cylinder. Located in the cylinder head with the valve springs is a camshaft, sometimes more than one. The camshaft is connect with the crankshaft by way of a timing belt or chain. As the camshaft rotates, it pushed the valves open or close, in time with the piston rising and falling.

When the piston begins to fall, the valve opens allowing the air and fuel mixture into the cylinder chamber. As the crankshaft pushed the piston back up, the exhaust gases are pushed out and the valves all close, allowing compression to build as the piston reaches its apex. Once the piston has reached the top of the cylinder, a spark plug ignites the compressed gas, causing a combustion and starting the process over again.

As you can see, it is a relatively simple process, but one that requires absolute precision. See the video discussing this before moving onto the simulation and discussion activities.

---

<p style="text-align:center;">Navigation Bar</p>



```
<table>

<tbody>

<tr>

<td style="text-align:center;" width="125">HOME</td>

<td style="text-align:center;" width="125">COURSE CONTENT</td>

<td style="text-align:center;" width="125">SYLLABUS</td>

<td style="text-align:center;" width="125">INBOX</td>

<td width="125">

<p style="text-align:center;">RESOURCES</p>

</td>

</tr>

</tbody>

</table>
```

<hr />

AUT1010 Module 2, Simulation Activity

<em>The Module 2 Simulation Activity would be created and embedded here. </em>

---

<p style="text-align:center;">Navigation Bar</p>

```
<table>

<tbody>

<tr>
```

<a href="http://300dayz.com/aut1010/">HOME</a>
<a href="http://300dayz.com/aut1010/coursecontent/">COURSE CONTENT</a>
<a href="http://300dayz.com/aut1010/syllabus/">SYLLABUS</a>
<a href="http://300dayz.com/aut1010/inbox/">INBOX</a>
<a href="http://300dayz.com/aut1010/resources/">RESOURCES</a>

---

### Discussion Post Rubric

<td width="90">Criteria Points</td>

</tr>

<tr>

<td width="96">Initial Post</td>

<td width="186">Initial post demonstrates clear analysis of module content and application of automotive technology principles. Post defines module topic and discusses what they learned about the system and how they would troubleshoot and repair the system covered by the module.</td>

<td width="89">10

Post is relevant and provides quality analysis of content.</td>

<td width="84">5

Post pertains to module topic but shows little analysis.</td>

<td width="79">0

Post is not relevant to module topic and has no analysis.</td>

<td width="90"> </td>

</tr>

<tr>

<td width="96">First Response</td>

<td width="186">Reply to peer's initial post furthers the discussion by relating information from the module's content and simulation activities. Reply provides alternative suggestions for troubleshooting and repairing system.</td>

<td width="89">5

Post enhances original authors contribution with relevant suggestions.</td>

<td width="84">3

Post is relevant but offers to no elaboration of original author's post.</td>

<td width="79">0

Post is not relevant and does not contribute to the discussion.</td>

<td width="90"> </td>

</tr>

<tr>

<td width="96">Second Response</td>

<td width="186">Reply to peer's initial post furthers the discussion by relating information from the module's content and simulation activities. Reply provides alternative suggestions for troubleshooting and repairing system.</td>

<td width="89">5

Post enhances original authors contribution with relevant suggestions.</td>

<td width="84">3

Post is relevant but offers to no elaboration of original author's post.</td>

<td width="79">0

Post is not relevant and does not contribute to the discussion.</td>

<td width="90"> </td>

</tr>

<tr>

<td width="96">Timeline</td>

<td width="186">Initial post is submitted by module Friday at 11:55PM, all replies are submitted by module Sunday at 11:55PM.</td>

<td width="89">5

Both the original post and replies are submitted by their due dates.</td>

<td width="84">3

Original post met the due date, but replies did not.</td>

<td width="79">0

Original post and replies were not submitted on time.</td>

<td width="90"> </td>

</tr>

<tr>

<td width="96">Writing Quality</td>

<td width="186">Writing is free of grammatical errors, uses appropriate language, and has APA formatting for in-text citations and references when appropriate. Original post is at least 300 words in length.</td>

<td width="89">5

All posts are well written and maintain proper APA formatting when needed.</td>

<td width="84">3

1-3 grammatical, writing, or APA citation errors.</td>

<td width="79">0

Posts do not contain correct grammar, writing style, or APA citations when appropriate.</td>

<td width="90"> </td>

</tr>

<tr>

<td colspan="5" width="533">Total Points</td>

<td width="90"></td>

</tr>

</tbody>

</table>

---

Module 2: Discussion of Engines

Now that you have [reviewed how engines work](http://300dayz.com/aut1010/module2-overview/howengineswork/), and the [different types of engines](http://300dayz.com/aut1010/module2-overview/engine/types/), you should have completed the [simulation activities](http://300dayz.com/aut1010/module2-overview/simulationactivity/) identifying different components and functions. For this discussion, pick an area of interest from this week's materials and elaborate on the function of that component. Support your discussion post with a YouTube video explaining that component.

Following the [discussion rubric](http://300dayz.com/aut1010/coursecontent/discussionrubric/), make your initial post by 11:55PM Friday, 02/23/2018, and reply to at least two of your peers by 11:55PM Sunday, 02/25/2018.

---

[contact-form][contact-field label="Name" type="name" required="1" /][contact-field label="Email" type="email" required="1" /][contact-field label="Website" type="url" /][contact-field label="Comment" type="textarea" required="1" /][contact-form]

---

Navigation Bar

--

--

--

<strong><a href="http://300dayz.com/aut1010/">HOME</a></strong>
-----------------------------------------------------------------

<strong><a href="http://300dayz.com/aut1010/coursecontent/">COURSE CONTENT</a></strong>
-----------------------------------------------------------------------------------------

<strong><a href="http://300dayz.com/aut1010/syllabus/">SYLLABUS</a></strong>
------------------------------------------------------------------------------

<strong><a href="http://300dayz.com/aut1010/inbox/">INBOX</a></strong>
------------------------------------------------------------------------

--

<strong><a href="http://300dayz.com/aut1010/resources/">RESOURCES</a></strong>
--------------------------------------------------------------------------------

--

</tr>  
</tbody>  
</table>

<hr />

AUT1010 Module 2, Additional Resources

Interested in learning more?

View <a href="https://youtu.be/8Rsl8jzlgno">these videos</a> created by Engineering Explained for additional in-depth explanations of everything having to do with vehicles.

Explore this Wiki on <a href="https://en.wikipedia.org/wiki/Internal\_combustion\_engine">Internal Combustion Engines</a>.

Read up on Air/Fuel ratios according to <a href="https://www.turbobygarrett.com/turbobygarrett/airfuel\_ratio\_tuning\_rich\_vs\_lean">Turbos by Garrett</a>.

Find more relevant information and resources? Have something you want to share? Use "#aut1010yeager" on <a href="http://twitter.com">Twitter </a>to share it with the class!

---

<p style="text-align:center;">Navigation Bar</p>

<table>  
<tbody>  
<tr>  
<td width="125">  
<p style="text-align:center;"><span style="color:#ff0000;"><strong><a href="http://300dayz.com/aut1010/">HOME</a></strong></span></p>  
</td>

<td style="text-align:center;" width="125"><span style="color:#ff0000;"><strong><a href="http://300dayz.com/aut1010/coursecontent/">COURSE CONTENT</a></strong></span></td>

<td style="text-align:center;" width="125"><span style="color:#ff0000;"><strong><a href="http://300dayz.com/aut1010/syllabus/">SYLLABUS</a></strong></span></td>

<td style="text-align:center;" width="125"><span style="color:#ff0000;"><strong><a href="http://300dayz.com/aut1010/inbox/">INBOX</a></strong></span></td>

<td width="125">

<p style="text-align:center;"><span style="color:#ff0000;"><strong><a href="http://300dayz.com/aut1010/resources/">RESOURCES</a></strong></span></p>

</td>

</tr>

</tbody>

</table>

<hr />

<h1>Syllabus</h1>

<h2 style="text-align:center;"><span style="color:#ff0000;">Course Information</span></h2>

<strong>AUT1010: Automotive Technology</strong>

This course is the first of a two-semester program on automotive technology. The course is designed for students to gain valuable information on automotive technology that they can put into practice in the following semester, and gain placement for an entry level position in an automotive shop. The course will be completely online and consist of virtual conferences, discussions, and a simulated automotive shop learning game.

<strong>College of Engineering</strong>

<strong>Course Length: </strong>02/12/2018 to 05/06/2018

<strong>Number of Credits</strong>: 5



**Delivery Method:** Online

**Term:** 0540

**Prerequisites:** ENC1101 AND pre- or co-requisite MAT1100 or equivalent

**Contact & Communication**

**Instructor Name:** Gabriel Yeager

**Email Address:** PROTECTED FOR INTERNET DISTRIBUTION

**Office Number/Location:** OFFICE ROOM

**Phone Number:** 727-XXX-XXXX

**Office Hours:** By Appointment Only

**How to Contact Instructor:** Course Email Preferred.

**How to Set Up a Meeting:** Email the instructor requesting a meeting, providing three available times.

**How Feedback Will Be Provided:** Feedback will be provided under the Grade Comments section within the course, unless specific feedback was requested through email.

**The Online Classroom**

**Announcements:** The instructor will use the course Announcements feature to relay time sensitive information and course updates. Expect weekly announcements from the instructor containing reflection content from the previous module and tips for success in the next module of instruction. The instructor will also provide a link to an anonymous survey through these announcements to provide feedback on the module that you just finished.

**Content:** Course content can be found by using the top navigation bar and selecting Course Content. From here, you will find the links to each module. Within each module, you find relevant text, PowerPoints, images, videos, simulation activities, and discussion forums.

**Syllabus:** The syllabus can be found on the front page of the course, on the navigation menu located on the left-hand side of the course, and at the top of the Course Content area. The syllabus contains an outline of course objectives and content, and serves as a guide for your studies within the course. The syllabus is a contract between the student and the professor, and must be agreed to in the Syllabus Acknowledgement Quiz during the first week of the course to prevent being dropped.

**Discussions:** Discussions will be embedded in weekly modules found in the Course Content. Students will post an original reply with detailed information pertaining to the module's content, following that module's discussion guidelines. Additional discussion areas are provided for students to casually connect with each other and discuss the course content, and relevant topics in automotive technology.

**Course Messages/Email:** Students can use the course email system found on the top navigation bar to communicate with other students and the instructor. Remember to follow communication protocols.

**Calendar:** The course calendar can be accessed from the course homepage and from navigation on the left-hand side of the course. The calendar contains up-to-date deadlines for weekly assignments, and links to each assignment.

### Course Resources

**Required Textbook:** No Textbook

**Required Orientation:** New Student Orientation

**Description of Materials/Tools Used or Needed:** See Technology Requirements

### **Course Description**

This course is the first in the automotive technology series at THIS COLLEGE. The course consists of basic automotive maintenance and repair. Students will learn through simulation and mixed media presentation in an online environment to assess, investigate, research, diagnose, and repair vehicles. The course will also cover skills in the field, and how to acquire and internship and their first job in this career.

Topics include:

<ul>

- <li>Basic engine mechanics</li>
- <li>Oil and lubrication systems</li>
- <li>Coolant systems</li>
- <li>Fuel systems</li>
- <li>Air Exhaust systems</li>
- <li>Basic electrical systems</li>
- <li>Recharging systems (alternator, brake charging, EV)</li>
- <li>Ignition systems</li>
- <li>Braking systems</li>
- <li>Suspension systems</li>

</ul>

<h3 style="text-align:center;"><span style="color:#ff0000;">Learning Objectives</span></h3>

<strong>Course Objectives:</strong>

Upon course completion, students will be able to:

<ul>

- <li><strong>Identify</strong> key automotive components and their relative functions</li>
- <li><strong>Examine </strong>causes for automotive problems</li>
- <li><strong>Apply</strong> knowledge through simulated repairs</li>
- <li><strong>Discuss</strong> automotive technology and repair methods with peers and the instructor</li>
- <li><strong>Demonstrate </strong>successful completion of all learning simulators related to automotive technology</li>

</ul>

<strong>Module 1 Objectives:</strong>

The student will be able to:

<ol>

<li><strong>Identify</strong> course requirements by completing the syllabus quiz.</li>

<li><strong>Describe </strong>their interest in automotive technology in a 300-word introduction post.</li>

<li><strong>Discuss</strong> their goal and expectations of the course with peers in the introduction forum area.</li>

</ol>

<strong>Module 2 Objectives:</strong>

The student will be able to:

<ol>

<li><strong>Define </strong>and <strong>Discuss</strong> basic engine functions and theories with their peers.</li>

<li><strong>Review </strong>engine mechanics through text and rich media presentations within the module.</li>

<li><strong>Analyze </strong>basic engine functions and theories by identifying key components in a simulated environment with 80% accuracy or greater.</li>

</ol>

<strong>Module 3 Objectives:</strong>

The student will be able to:

<ol>

<li><strong>Locate</strong> oil systems and components within a simulated environment.</li>

<li><strong>Explain</strong> and <strong>discuss</strong> oil purposes, types, and systems in class discussion.</li>

<li><strong>Demonstrate </strong>repairs of oil systems in a simulated environment with 80% accuracy or greater.</li>

</ol>

<strong>Module 4 Objectives:</strong>

The student will be able to:

<ol>

<li><strong>Locate</strong> coolant systems and components within a simulated environment.</li>

<li><strong>Explain</strong> and <strong>discuss</strong> coolant purposes, types, and systems in class discussion.</li>

<li><strong>Demonstrate </strong>repairs of coolant systems in a simulated environment with 80% accuracy or greater.</li>

</ol>

<strong>Module 5 Objectives:</strong>

The student will be able to:

<ol>

<li><strong>Locate</strong> fuel systems and components within a simulated environment.</li>

<li><strong>Explain</strong> and <strong>discuss</strong> fuel purposes, types, and systems in class discussion.</li>

<li><strong>Demonstrate </strong>repairs of fuel systems in a simulated environment with 80% accuracy or greater.</li>

</ol>

<strong>Module 6 Objectives:</strong>

The student will be able to:

<ol>

<li><strong>Locate</strong> air and exhaust systems and components within a simulated environment.</li>

<li><strong>Explain</strong> and <strong>discuss</strong> air and exhaust purposes, types, and systems in class discussion.</li>

<li><strong>Demonstrate </strong>repairs of air and exhaust systems in a simulated environment with 80% accuracy or greater.</li>

</ol>

<strong>Module 7 Objectives:</strong>

The student will be able to:

<ol>

<li><strong>Locate</strong> basic electrical systems and components within a simulated environment.</li>

<li><strong>Explain</strong> and <strong>discuss</strong> basic electrical purposes, types, and systems in class discussion.</li>

<li><strong>Demonstrate </strong>repairs of basic electrical systems in a simulated environment with 80% accuracy or greater.</li>

</ol>

<strong>Module 8 Objectives:</strong>

The student will be able to:

<ol>

<li><strong>Locate</strong> recharging systems and components within a simulated environment.</li>

<li><strong>Explain</strong> and <strong>discuss</strong> recharging purposes, types, and systems in class discussion.</li>

<li><strong>Demonstrate </strong>repairs of recharging systems in a simulated environment with 80% accuracy or greater.</li>

</ol>

<strong>Module 9 Objectives:</strong>

The student will be able to:

<ol>

<li><strong>Locate</strong> ignition systems and components within a simulated environment.</li>

<li><strong>Explain</strong> and <strong>discuss</strong> ignition purposes, types, and systems in class discussion.</li>

<li><strong>Demonstrate </strong>repairs of ignition systems in a simulated environment with 80% accuracy or greater.</li>

</ol>

<strong>Module 10 Objectives:</strong>

The student will be able to:

<ol>

<li><strong>Locate</strong> braking systems and components within a simulated environment.</li>

<li><strong>Explain</strong> and <strong>discuss</strong> braking purposes, types, and systems in class discussion.</li>

<li><strong>Demonstrate </strong>repairs of braking systems in a simulated environment with 80% accuracy or greater.</li>

</ol>

<strong>Module 11 Objectives:</strong>

The student will be able to:

<ol>

<li><strong>Locate</strong> suspension systems and components within a simulated environment.</li>

<li><strong>Explain</strong> and <strong>discuss</strong> suspension purposes, types, and systems in class discussion.</li>

<li><strong>Demonstrate </strong>repairs of suspension systems in a simulated environment with 80% accuracy or greater.</li>

</ol>

<strong>Module 12 Objectives:</strong>

The student will be able to:

<ol>

<li><strong>Synthesize </strong>all course content by creating a checklist for inspecting a car to be purchased.</li>

<li><strong>Evaluate </strong>their comprehensive knowledge of automotive technology by completing a final simulated activity with 80% accuracy or greater.</li>

<li><strong>Recall </strong>and <strong>apply</strong> course content for successful completion of a 50-question final exam.</li>

</ol>

### Assignment Descriptions

**Discussion Posts:** Students will engage in a rich discussion each module, elaborating on their experience in the simulation and their techniques for diagnosing issues. The discussion will be guided by the module's topic, and students are expected to explain and discuss their understanding of the topic, the systems used, the strategies for diagnosis and repairs, and how they would apply what they learned in the real world. Students must then reply to at least two of their peers, elaborating on their original post and providing new or alternative suggestions. The original post must be made by Module Friday at 11:55PM, and all replies must be submitted by Module Sunday at 11:55PM, but it is encouraged to continue the discussion beyond the assignment.

**Simulations:** Each module, students will participate in an online simulation after completing the module's content. The simulation is embedded at the end of each module, before reaching the module's discussion forum. In the simulation, students work for their mentor (the instructor) in a small independent repair shop. Each simulation will consist of the student interacting with their boss and a customer, troubleshooting and diagnosing a vehicle problem, repairing the vehicle, and clearing the vehicle through their boss and returning it to the customer. Depending on the module, student's will complete 10 to 20 simulated diagnosis and repairs of customer cars as assigned. It is encouraged that students access the simulator for all previous modules and continue to practice in them throughout the course.

**Internship Application Process:** Students will work with Internship Coordinator, PERSON, to update their resume/cover letter, and apply for their internship during the next semester. Students will submit a copy of their application to the instructor in the assignment drop box. Students are responsible for ensuring their internship is confirmed for the next semester by Module 12, and submit confirmation of their schedule to the instructor through the assignment drop box.

**Midterm Quiz:** Students will complete the Midterm Quiz during Module 6, which contains 25 questions from the first six modules. Students have 45 minutes to complete the quiz, and they may use the course content to aid them. However, the time constraint encourages that you rely on your notes.

**Final Exam:** Students will complete the cumulative Final Exam during Module 12, which contains 50 questions from all 12 modules. Students have 75 minutes to complete the quiz, and they may use the course content to aid them. However, the time constraint encourages that you rely on your notes.

**Used Car Checklist:** By module 12, students will complete a Used Car Checklist that can be used for inspecting a vehicle that you or your client is looking to buy. Based on the information provided in this course and the knowledge and skills that you have learned, what would you include on



this checklist and how you determine if the vehicle is worth purchasing? See the module for details on this assignment and the rubric by which it will be graded.

### Course Requirements

**Student Expectations:** Students are expected to log into the course every other day to check communication and complete assignments. Students are expected to be respectful and professional in all course communication, and are expected to complete all assignments by 11:55 PM EST on their deadline.

**Grading Scale:** S/U: Student is considered successful if they exceed 80% overall.

**Assignment Grade Values:**

||
||
||

<strong>Assignment</strong>
-----------------------------

<strong>Percent of Grade Towards Overall</strong>
---------------------------------------------------

||
||
||

Discussion Posts
------------------

20%
-----

||
||
||

Simulations
-------------

20%
-----

||
||
||

Internship Application Process
--------------------------------

10%
-----

||
||
||

Midterm Quiz	20%
Final Exam	20%
Used Car Checklist	10%

**Extra Credit:** Extra credit opportunities are rarely given, but may be possible through an arrangement with the instructor by completing related tasks in the real world.

**Late Assignment Policy:** Due to the pace of the course, no late assignments will be accepted unless there is medical documentation.

### Schedule of Activities

**Weekly Breakdown**

Start/End Date	Topics	Assignments (Due Dates)
----------------	--------	-------------------------

<strong>Objectives</strong>									
<table border="1"> <tr> <td data-bbox="180 283 812 367"></td> <td data-bbox="812 283 1399 367"> <strong>02/12/2018 – 02/18/2018</strong> </td> </tr> <tr> <td data-bbox="180 367 812 451"> Introduction and Careers </td> <td data-bbox="812 367 1399 451"></td> </tr> <tr> <td colspan="2" data-bbox="180 451 1399 819"> <table border="1"> <tr> <td colspan="2" data-bbox="180 451 812 819"> <ol style="list-style-type: none"> <li>Syllabus Quiz (02/16/2018)</li> <li>Introduction Post (02/18/2018)</li> </ol> </td></tr> </table> </td></tr> </table>		<strong>02/12/2018 – 02/18/2018</strong>	Introduction and Careers		<table border="1"> <tr> <td colspan="2" data-bbox="180 451 812 819"> <ol style="list-style-type: none"> <li>Syllabus Quiz (02/16/2018)</li> <li>Introduction Post (02/18/2018)</li> </ol> </td></tr> </table>		<ol style="list-style-type: none"> <li>Syllabus Quiz (02/16/2018)</li> <li>Introduction Post (02/18/2018)</li> </ol>		
	<strong>02/12/2018 – 02/18/2018</strong>								
Introduction and Careers									
<table border="1"> <tr> <td colspan="2" data-bbox="180 451 812 819"> <ol style="list-style-type: none"> <li>Syllabus Quiz (02/16/2018)</li> <li>Introduction Post (02/18/2018)</li> </ol> </td></tr> </table>		<ol style="list-style-type: none"> <li>Syllabus Quiz (02/16/2018)</li> <li>Introduction Post (02/18/2018)</li> </ol>							
<ol style="list-style-type: none"> <li>Syllabus Quiz (02/16/2018)</li> <li>Introduction Post (02/18/2018)</li> </ol>									
Learner will <strong>review</strong> course policies and expectations. Learner will <strong>discuss</strong> desirable outcomes.									
<table border="1"> <tr> <td data-bbox="180 976 812 1060"></td> <td data-bbox="812 976 1399 1060"> <strong>02/19/2018 – 02/25/2018</strong> </td> </tr> <tr> <td data-bbox="180 1060 812 1144"> Engine Overview </td> <td data-bbox="812 1060 1399 1144"></td> </tr> <tr> <td colspan="2" data-bbox="180 1144 1399 1627"> <table border="1"> <tr> <td colspan="2" data-bbox="180 1144 812 1627"> <ol style="list-style-type: none"> <li>Review module content, PPT, Videos (02/21/2018)</li> <li>Complete simulation tasks within module (02/23/2018)</li> <li>Post analysis of content (02/23/18)</li> <li>Reply to at least two others (02/25/18)</li> </ol> </td></tr> </table> </td></tr> </table>		<strong>02/19/2018 – 02/25/2018</strong>	Engine Overview		<table border="1"> <tr> <td colspan="2" data-bbox="180 1144 812 1627"> <ol style="list-style-type: none"> <li>Review module content, PPT, Videos (02/21/2018)</li> <li>Complete simulation tasks within module (02/23/2018)</li> <li>Post analysis of content (02/23/18)</li> <li>Reply to at least two others (02/25/18)</li> </ol> </td></tr> </table>		<ol style="list-style-type: none"> <li>Review module content, PPT, Videos (02/21/2018)</li> <li>Complete simulation tasks within module (02/23/2018)</li> <li>Post analysis of content (02/23/18)</li> <li>Reply to at least two others (02/25/18)</li> </ol>		
	<strong>02/19/2018 – 02/25/2018</strong>								
Engine Overview									
<table border="1"> <tr> <td colspan="2" data-bbox="180 1144 812 1627"> <ol style="list-style-type: none"> <li>Review module content, PPT, Videos (02/21/2018)</li> <li>Complete simulation tasks within module (02/23/2018)</li> <li>Post analysis of content (02/23/18)</li> <li>Reply to at least two others (02/25/18)</li> </ol> </td></tr> </table>		<ol style="list-style-type: none"> <li>Review module content, PPT, Videos (02/21/2018)</li> <li>Complete simulation tasks within module (02/23/2018)</li> <li>Post analysis of content (02/23/18)</li> <li>Reply to at least two others (02/25/18)</li> </ol>							
<ol style="list-style-type: none"> <li>Review module content, PPT, Videos (02/21/2018)</li> <li>Complete simulation tasks within module (02/23/2018)</li> <li>Post analysis of content (02/23/18)</li> <li>Reply to at least two others (02/25/18)</li> </ol>									
Learner will <strong>analyze</strong> basic engine mechanics through applied <strong>practice</strong> in simulation and discussion.									
<strong>02/26/2018 – 03/04/2018</strong>									

<td width="99">Oil Systems</td>

<td width="288">

<ol>

<li>Review module content, PPT, Videos (02/28/2018)</li>

<li>Complete simulation tasks within module (03/02/2018)</li>

<li>Post analysis of content (03/02/18)</li>

<li>Reply to at least two others (03/04/18)</li>

</ol>

</td>

<td width="142">Learner will <strong>analyze</strong> basic oil systems through applied  
<strong>practice </strong>in simulation and discussion.</td>

</tr>

<tr>

<td width="107"><strong>03/05/2018 – 03/11/2018</strong></td>

<td width="99">Coolant Systems</td>

<td width="288">

<ol>

<li>Review module content, PPT, Videos (03/07/2018)</li>

<li>Complete simulation tasks within module (03/09/2018)</li>

<li>Post analysis of content (03/09/18)</li>

<li>Reply to at least two others (02/11/18)</li>

</ol>

</td>

<td width="142">Learner will <strong>analyze</strong> coolant systems through applied  
<strong>practice </strong>in simulation and discussion.</td>

</tr>

<tr>

<td width="107"><strong>03/12/2018 – 03/18/2018</strong></td>

<td width="99">Fuel Systems</td>

<td width="288">

<ol>

<li>Review module content, PPT, Videos (03/14/2018)</li>

<li>Complete simulation tasks within module (03/16/2018)</li>

<li>Post analysis of content (03/16/18)</li>

<li>Reply to at least two others (03/18/18)</li>

</ol>

</td>

<td width="142">Learner will <strong>analyze</strong> basic fuel systems through applied  
<strong>practice </strong>in simulation and discussion.</td>

</tr>

<tr>

<td width="107"><strong>03/19/2018 – 03/25/2018</strong></td>

<td width="99">Air and Exhaust Systems</td>

<td width="288">

<ol>

<li>Review module content, PPT, Videos (03/21/2018)</li>

<li>Complete simulation tasks within module (03/23/2018)</li>

<li>Post analysis of content (03/23/18)</li>

<li>Reply to at least two others (03/25/18)</li>

<li>MIDTERM QUIZ (03/25/18)</li>

</ol>

</td>

<td width="142">Learner will <strong>analyze</strong> basic air and exhaust systems through applied  
<strong>practice </strong>in simulation and discussion. Learner will pass midterm with >80%.</td>

</tr>

<tr>

<td width="107"><strong>03/26/2018 – 04/01/2018</strong></td>

<td width="99">Understanding Basic Electronics</td>

<td width="288">

<ol>

	<ul style="list-style-type: none"> <li>Review module content, PPT, Videos (03/28/2018)</li> <li>Complete simulation tasks within module (03/30/2018)</li> <li>Post analysis of content (03/30/18)</li> <li>Reply to at least two others (04/01/18)</li> <li>APPLY to internship (04/01/18)</li> </ul>	
	Learner will analyze basic electronics through applied practice in simulation and discussion. Learner will apply for approved internship.	
	04/02/2018 – 04/08/2018	Recharging Systems
	<ul style="list-style-type: none"> <li>Review module content, PPT, Videos (04/04/2018)</li> <li>Complete simulation tasks within module (04/06/2018)</li> <li>Post analysis of content (04/06/18)</li> <li>Reply to at least two others (04/08/18)</li> </ul>	
	Learner will analyze basic recharging systems through applied practice in simulation and discussion.	
	04/09/2018 – 04/15/2018	Ignition Systems
	<ul style="list-style-type: none"> <li>Review module content, PPT, Videos (04/11/2018)</li> </ul>	

<ul style="list-style-type: none"> <li>Complete simulation tasks within module (04/13/2018)</li> <li>Post analysis of content (04/13/18)</li> <li>Reply to at least two others (04/15/18)</li> </ul>	
Learner will analyze basic ignition systems through applied practice in simulation and discussion.	
04/16/2018 – 04/22/2018	Braking Systems
<ul style="list-style-type: none"> <li>Review module content, PPT, Videos (04/18/2018)</li> <li>Complete simulation tasks within module (04/20/2018)</li> <li>Post analysis of content (04/20/18)</li> <li>Reply to at least two others (04/22/18)</li> </ul>	
Learner will analyze basic braking systems through applied practice in simulation and discussion.	
04/23/2018 – 04/29/2018	Suspension Systems
<ul style="list-style-type: none"> <li>Review module content, PPT, Videos (04/25/2018)</li> <li>Complete simulation tasks within module (04/27/2018)</li> <li>Post analysis of content (04/27/18)</li> </ul>	

<ul style="list-style-type: none"> <li>Reply to at least two others (04/29/18)</li> </ul>	
	<p>Learner will <strong>analyze</strong> basic suspension systems through applied <strong>practice</strong> in simulation and discussion.</p>
04/30/2018 – 05/06/2018	Overview
	<ul style="list-style-type: none"> <li>Review all course content (05/04/18)</li> <li>Complete final exam (05/06/18)</li> <li>Prepare for internship (05/06/18)</li> </ul>
	<p>Learner will <strong>review</strong> all previous content and simulations. Learner will pass their final exam with &gt;80%.</p> <p>Learner will confirm internship.</p>

### Student Responsibilities

**Attendance/Participation:** Students are expected to log into the course every other day, and are expected to engage in rich discussions with other students. Students are required to attend at least 60% of the weekly virtual conferences.

**Studying and Preparation Time:** Students are expected to spend 15 hours a week in course material and discussions.



**How to Submit Assignments:** Simulation data will be downloaded by the instructor weekly. Students are responsible for submitting discussions posts and exams by their deadlines.

**Student Misconduct Policies:** See College Policies on academic misconduct. Students suspected of cheating or misconduct will received a grade of F in the course and will not be allowed to repeat without approval of the campus Provost.

**Communication Protocol:** All course communication and assignments should be completed using formal English. Casual “texting” communication will not be tolerated, including the use of unrelated abbreviations (“BTW,” “IMO,” “IDK,” “ASAP,” etc.). In communication, minimal text emojis may be used to convey emotion since this is hard to do by text. The following are acceptable emojis to use in the forum: :-), :D, ;-), :-/, :-(. All communication should be conducted in a polite and respectful manner, regardless if you agree with the other person’s opinion or not. **Cyber-bullying will not be tolerated**. If you experience a concern with another student, please contact the professor immediately so that they can moderate a discussion via Skype with all parties involved.

### <span style="color:#ff0000;">Academic Resources</span></h3>

**Advising and Testing Center:** 727-XXX-XXXX, PERSON (English/Spanish)

**SCHOOL Business Office:** 727-XXX-XXXX, PERSON

**Internship Coordinator:** 727-XXX-XXXX, PERSON

### <span style="color:#ff0000;">Technical Requirements</span></h3>

**Computer Requirements:** Windows 10 operating system with the latest Adobe Flash. Minimum CPU of dual-core 1.7GHz, 4GB RAM, GPU equivalent to NVIDIA 9700. For best results, use Google Chrome.

**Where to Get Technical Support:** Contact the OUR SCHOOL Help Desk: 727-XXX-XXXX

### <span style="color:#ff0000;">Accessibility</span></h3>

As a student at THIS SCHOOL with a documented disability, you may be eligible to receive services. If you think you have a disability but have not had it documented, your campus Accessibility Coordinator will explain how to get proper testing or assessment. To be documented, you must have a recent report from a licensed physician or psychologist or an IEP or SOP from your high school. Appropriate accommodations will be arranged for all students registered with the Accessibility Services Department. For more information, contact OUR COORDINATOR at 727-XXX-XXXX.

### **Course Citations**

ASE at a Glance. (n.d.). Retrieved June 18, 2017, from <http://www.ase.com/About-ASE/ASE-at-a-Glance.aspx>

Automotive Training and Resource Site. (n.d.). Retrieved June 18, 2017, from <http://www.autoshop101.com/>

Bureau of Labor Statistics, U.S. Department of Labor, Automotive Service Technicians and Mechanics, *Occupational Outlook Handbook, 2016-17 Edition*, Retrieved June 18, 2017, from <https://www.bls.gov/ooh/installation-maintenance-and-repair/automotive-service-technicians-and-mechanics.htm>

Culatta, R. (n.d.). *Andragogy (Malcolm Knowles)*. Retrieved October 2, 2017, from <http://www.instructionaldesign.org/theories/andragogy.htm>

Culatta, R. (n.d.). *Conditions of Learning (Robert Gagne)*. Retrieved October 2, 2017, from <http://www.instructionaldesign.org/theories/conditions-learning.html>

Culatta, R. (n.d.). *Experiential Learning (Carl Rogers)*. Retrieved October 2, 2017, from <http://www.instructionaldesign.org/theories/experiential-learning.html>

Exercise design approach for intelligent simulation based training system. (1995). *Proceedings of Third Australian and New Zealand Conference on Intelligent Information Systems. ANZIIS-95, Intelligent Information Systems, 1995. ANZIIS-95. Proceedings of the Third Australian and New Zealand Conference on*, 13. doi:10.1109/ANZIIS.1995.705707

Florida Trade Schools and Vocational Schools. (n.d.). Retrieved June 18, 2017, from <http://www.rwm.org/florida-trade-schools/>

Klopfer, E., Osterweil, S., Groff, J., & Haas, J. (2009). The instructional power of digital games, social networking, simulations, and how teachers can leverage them. *Cambridge, MA: The Education Arcade, Massachusetts Institute of Technology.*

Landicho, J. j., Dela Cerna, A. A., Marapao, J. G., Balhin, G. P., & Paid, R. M. (2017). Hortari: A gamification application for engaged teaching and learning in higher education. *Journal of E-Learning & Knowledge Society*, 13(1), 181-187.

Ren-Jye, D., Ken-Yu, L., & Pei-Ru, W. (2014). Building a construction procurement negotiation training game model: Learning experiences and outcomes. *British Journal Of Educational Technology*, 45(6), 1115-1135.

Riddell, R. (2017, June 02). Value of game-based learning on the rise. Retrieved June 18, 2017, from <http://www.educationdive.com/news/value-of-game-based-learning-on-the-rise/444046/>

Serious Gaming for Pharmacy Education: Development of a Serious Games for Teaching Pharmacist Communication and Drug Administration in a Virtual Hospital Setting. (2016). 2016 9th International Conference on Developments in eSystems Engineering (DeSE), Developments in eSystems Engineering (DeSE), 2016 9th International Conference on, DESE, 151. doi:10.1109/DeSE.2016.25

Universal Technical Institute, (n.d.). Retrieved June 18, 2017, from <https://www.uti.edu/learner-services/tuition-estimator/tuition-estimator>

Why Teach with Simulations? (2017, April 18). Retrieved June 18, 2017, from <http://serc.carleton.edu/sp/library/simulations/why.html>

---

<p style="text-align:center;">Navigation Bar</p>

<table>

<tbody>

<tr>

<td style="text-align:center;" width="125"><strong><a href="http://300dayz.com/aut1010/">HOME</a></strong></td>

<td style="text-align:center;" width="125"><strong><a href="http://300dayz.com/aut1010/coursecontent/">COURSE CONTENT</a></strong></td>

<td style="text-align:center;" width="125"><strong><a href="http://300dayz.com/aut1010/syllabus/">SYLLABUS</a></strong></td>

<td style="text-align:center;" width="125"><strong><a href="http://300dayz.com/aut1010/inbox/">INBOX</a></strong></td>

```
<td width="125">

<p style="text-align:center;">RESOURCES</p>

</td>

</tr>

</tbody>

</table>
```

<hr />

AUT1010 INBOX

<em>This is a place holder for the course inbox feature of the LMS.</em>

---

<p style="text-align:center;">Navigation Bar</p>

```
<table>

<tbody>

<tr>

<td style="text-align:center;" width="125">HOME</td>

<td style="text-align:center;" width="125">COURSE CONTENT</td>

<td style="text-align:center;" width="125">SYLLABUS</td>

<td style="text-align:center;" width="125">INBOX</td>

<td width="125">

<p style="text-align:center;">RESOURCES</p>

</td>

</tr>
```

</tbody>

</table>

<hr />

AUT1010, Additional Resources

Looking for more information?

<strong>Course Design Documents:</strong>

<ul>

<li><a title="YeagerGabrielSyllabus"  
href="https://300dayz.files.wordpress.com/2017/11/yeagergabrielsyllabus.docx">Syllabus</a></li>

<li><a title="YeagerGabrielRubric"  
href="https://300dayz.files.wordpress.com/2017/11/yeagergabrielrubric.docx">Assessment  
Rubric</a></li>

<li><a title="YeagerGabrielASSUREModel"  
href="https://300dayz.files.wordpress.com/2017/11/yeagergabrielassuremodel.docx">ASSURE  
Model</a></li>

<li><a title="YeagerGabrielStoryboard"  
href="https://300dayz.files.wordpress.com/2017/11/yeagergabrielstoryboard.docx">Storyboard</a></li>  
>

</ul>

Relevant Sites:

<a href="http://www.motortrend.com/">MotorTrend</a>

<a href="https://www.ase.com/Home.aspx">Automotive Service Excellence</a>

[Engineering Explained](http://www.howdoesacarwork.com/)

[Snap-on](https://store.snapon.com/)

[APTuned](http://www.aptuned.com/blog/a-beginners-guide-to-modifying-a-car.html)

---