

## UCO Racing Club (Formula SAE)

### What is Formula SAE?

SAE stands for *Society of Automotive Engineers*. Formula SAE is a manufacturing and design competition among college students who compete to produce a 1/5<sup>th</sup> scale formula style race car. Competitions include 8 different events from acceleration and braking to fuel economy and engine endurance. Other non-race events such as presentations and budget reviews are also incorporated.

College formula teams are assembled of 10-20 highly effective students. These students are often engineering majors who are learning the process of designing and manufacturing as it relates to real world applications. However, we believe a good Formula SAE team has an inclusive team approach that can use and develop the skills of accounting majors, business law majors, communications majors, and anyone who is passionate about racing and wants to make use of their skillset to further their academic and professional career.

*Photo 1: Formula SAE Race Craft Example*



### What are we doing?

The UCO Racing Team is a brand-new endeavor this upcoming Fall semester and the team has already forged some long-term goals set to be accomplished before the founding officer's leave. Paramount of these goals is to see Version 1 of the craft dash and maneuver a successful trip around UCO's campus. For the short term though, it is important to share

the development of what checkpoints we have set that will bring us closer to where we want to be.

Before our journey begins towards suspension and aerodynamics, it is important to have a strong backbone for our operations. This means preparing to transfer our engine from one mount to another. We will be assigning parts and creating an accurate inventory of parts that are good and bad. It's also a good idea to take measurements of the engine so that we can begin prep and development of a new engine mount for a hopeful chassis by the end of spring. With our target being set we will put ourselves in a great position for productive meetings and plenty of lessons shared.

Advancing our student body is the final integral part of starting up our highly specialized club, this semester we strive to produce both hands on and visual learning to many of the pieces of equipment our school has provided for us in the new UCO MakerSpace, equipment such as an engine hoist, lathes, mills, and CNC machines. Also important, is a better understanding of suspension systems, steering geometry, and some of the important aspects of changing an engine into a performance engine. These are all skills we hope to equip our team with this semester through the generosity of professional, highly experienced individuals that want to grow the future of racing and engineering technology.

### **How can Formula SAE benefit the University?**

Nearby to the University of Central Oklahoma are many engineering opportunities, and they continue to grow. Aviation and Defense is often brought up as a prominent industry in Oklahoma, [OKCommerce.gov](http://OKCommerce.gov) even says that Oklahoma is the maintenance, repair, and operations capital of the world. If Aerospace is the prominent major industry, then some might say energy would be the premier Industry in Oklahoma. These large entities want to recruit in-state colleges for graduates who are looking to enter the workforce. STEM majors are in high demand and UCO is investing in its engineering department for the exact purpose of this club. To improve the quality of student our college produces!

University of Central Oklahoma has been building its accredited engineering program for over 15 years. It now includes Biomedical Engineering, Computer Engineering, Electrical Engineering, Engineering Physics, and Mechanical Engineering, and no university can

compete with Central Oklahoma's combination of prestige and proximity to these major work destinations. Formula SAE will help bring more technical experience to any student eager to sharpen their professional skills. UCO has 80 new students enrolled for their Intro to Engineering courses this Fall 2023 semester. With many nearby opportunities, a growing number of students will look to UCO for its engineering college and wonder if it's the right fit for them. Formula SAE hopes to breakthrough as an exciting club for those passionate about engines and increasing hands-on experience.

### **Why donate to us?**

UCO Racing Club is sitting on the foundation of the club, we just received a donation of a Honda CB650 engine which will stand as the cornerstone of model #1 for the next 3 years. To help us fill in the gaps of our vehicle we are asking you to help us reach our goal of \$10,000 through in-kind and cash donations. In-kind donations such as steel and aluminum are the critical materials for any beginning formula SAE club, for some companies these donations can help bring a small tax relief by offloading material that may have ended up wasted anyway. With any donation of cash we receive, we will allocate it to specialty components such as tires, racing suit, helmet, suspension system, etc. We are also going to add a newsletter that will share what we are working on with you. It will be a brief, but fun report to keep everyone consistently involved in our success. We are open to listing your company/organization as an official club sponsor.

*Photo 2: Removing the Donor Engine*



Possible items for in-kind donation:

- Aluminum Round Tube 2014-T4 / 6061
- Mild Steel Round Tube 1018 / 1026 / 4030
- Performance Racing Expertise
- Welding Expertise
- Other Resources

### Contact Us:

There is no better feeling than getting to live your passion, this is what we are doing with Formula SAE, and it's only possible thanks to the support we receive from all of you. We would love to hear from you and look forward to our conversation!

Formula SAE contact information:

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