The Honors Capstone is your opportunity to do significant research, design, or creative activity in one of the academic disciplines here at UAH. [All examples below are actual student Capstones!]

The Capstone can be a **thesis** – a thoroughly researched essay.

Examples:
- Lab work investigating the potential for various compounds to kill cancer cells
- A mathematical model of traffic flow
- Historical research into Japanese Internment Camps

The Capstone can also be a **project** – hands-on work that involves designing, building, testing and/or displaying the results of your work. Examples:
- Design, build, and test a vacuum chamber to observe vacuum ignition
- Design and test a sensor to monitor rotor blade oscillation
- Design and manufacture costumes for a UAH theater production
- Write and implement a "to-do list" app for the iPhone

Note that projects still require a written explanation of your work, but the focus is on the actual work of the project, not the written explanation.

That sounds fun, but intimidating – how will I ever get there?

The Capstone does not have to be separate from other research or creative work that you will already do as part of your time at UAH. Capstones can come from:
- Your engineering senior design class
- Work you did while assisting a faculty member with their research
- Part of a summer research project, a co-op or internship, or a study abroad experience
- Something you did as part of an academic club

Students can complete their Capstone at any time.

Your Capstone doesn't have to be:
- Done during your senior year, it can be done earlier
- In your major (for example, STEM students sometimes do Capstones in Humanities or Arts)
- Your own idea; you may help faculty with their research, but it does have to be your work

To start the process, there are some electronic forms that need to be filled out, and you will need to select both a course to use for your Capstone and a Capstone director. Typically, you do not need an extra course to earn your Capstone hours. The best way to start is to look through the Capstone Handbook (uah.edu/honors-capstone/honors-capstone) and to meet with the Director of Undergraduate Research, David Cook.

**Engineering Students have the option build on work from their Senior Design Course!**
See the other side of this flyer to learn how.
**Senior Design for your Capstone**

Using Senior Design for your Capstone is *not* required and many engineering Honors Students do independent research with the faculty and use that for their Capstone. However, Senior Design is a great way to go, and *mechanical* and *aerospace* engineers have a special path for using their Senior Design course.

If you are not in mechanical and aerospace engineering and you want to use Senior Design as your Honors Capstone, set up an appointment with David Cook (david.cook@uah.edu) to discuss how to do this. You can then talk with your senior design instructor.

If you are in mechanical or aerospace engineering, and you plan to use the MAE Senior Design for your Capstone, Honors offers a course – HON 401 - to make this process easier and more rewarding. Each 1-hour section of HON 401 pairs with a section of Senior Design. When you take MAE 491 (the second term of your design course) you take its corresponding HON 401 supplement (just remember this simple rule: **490 goes with 401**). The HON 401 supplement makes it easier for you and the instructor to work together, and it also gives you a great opportunity to work with your fellow Honors Students. You take the supplement for only one semester, and you earn 4 hours of Honors Credit.

**Here's how it works:**

- Select your Senior Design course.
- In the **first** semester (during MAE 491), meet with the instructor and develop a project proposal, create timelines for completion, and decide upon deliverables. Your instructor should contact you to start this process, although you should feel free to approach your instructor as well. Once your proposal is complete, you'll submit it electronically for approval.
- In the **second** semester of Design (during MAE 491), sign up for the matching HON 401 in your design sequence. Course subtitles and section numbers for the HON 401 match the sections of MAE 491. For example, MAE 491-03: Rocket Design pairs with HON 401-H3: Eng. Capstone Rocket Design, etc. While taking HON 401 and MAE 491, you will complete your project and meet regularly with your instructor.
- Upon completion of the Senior Design course, the supplement, and successful submission of the Capstone project, you will earn 4 hours of Honors Credit (3 hours for MAE 491, plus one hour for HON 401).

Please contact David Cook, Beth Wilson, or Dr. Wilkerson if you have further questions about this.