# ACADEMY OF ENGINEERING at University High School

<u> Introduction to Engineering Design (IED) - Year 1</u>

This honors course exposes students to the design process, research and analysis, teamwork, engineering standards, and technical documentation. Students will learn to use 3D modeling software to apply engineering and scientific concepts in the solution of engineering design problems. Students have an opportunity to earn Autodesk Fusion 360 Industry Certification.

Principles of Engineering (POE) - Year 2 Option

This honors course helps students understand the field of engineering/engineering technology and prepares them for post-secondary engineering programs by developing a more in-depth mastery of the required knowledge and skills. Through problem-based solving strategies, students explore various technology systems and manufacturing processes.

## <u>Computer Integrated Manufacturing (CIM)</u> <u>Year 2, 3 or 4</u>

This honors course provides an opportunity for students to develop a better understanding of this innovative and exciting industry. Students learn about manufacturing processes, product design, robotics, and automation, and apply this knowledge as they design, build, and program factory system models.

## <u>Digital Electronics (DE) - Year 3 or 4</u>

This honors course in applied logic encompasses the application of electronic circuits and devices. Computer simulation software is used to design and test digital circuitry prior to the actual construction of circuits and devices.

## Aerospace Engineering (AE) - Year 3 or 4

This honors course helps students understand the field of engineering/engineering technology and prepares them for postsecondary engineering programs by developing a more in-depth mastery of the associated mathematics, science, and technology knowledge and skills. The course also includes essential concepts of technology and design, as well as concerns about the social and political implications of technological change.

#### **CONTACT US:**

1000 W. RHODE ISLAND AVENUE ORANGE CITY, FL 32763 — P:386.968.0013 UHSTITANS.COM

### MOTTO:

Aut Viam Inveniam Aut Faciam

TRANSLATION:

I'll either find a way or make one

Engineering



The Engineering Academy is delivered in a comprehensive high school environment. We challenge students to achieve academically through college preparatory courses while exploring their stated career interests in the area of Engineering and its associated careers. University High School, located in Orange City, Florida, is a place where our students benefit from the excellence in academies, sports and school activities in an exceptional high school environment.

## Who Is eligible to apply?

All students entering 9th or 10th grade during the open enrollment period who have a 3.0 or better G.P.A., excellent attendance, consistent test scores, and no behavioral referrals

## Benefits of this program?

Membership in the Engineering Academy exposes students to several of the Engineering disciplines where they can learn how their skills and interests align with the various fields of engineering.

Additionally, students completing the Engineering Academy who go on to college level engineering typically have an easier transition due to exposure of many of the topics and skills needed for success.







