



**FUTURE READY
INSTITUTES**
of Hamilton County

Institute of Architecture and Engineering Design

The Institute of Architecture and Engineering Design at Harrison Bay Center teaches students how to design, model, draw and build projects for different engineering disciplines. The students will use current technology and apply industry standards to their designs. This institute is partnered with Terracon, the Chattanooga State TCAT Center, and other companies to give students opportunities to explore career opportunities and gain real-world application for their new skills. Whether it is drafting software, 3D printing, or other manufacturing techniques, this institute lays a strong foundation for students going to college, building their employability skills, or entering the workforce.

**Students that are a part of this institute will travel from Central High School or Ooltewah High School by county bus to spend their morning at Harrison Bay Center to complete their Future Ready Institute classes (see back for more information on classes). Prior to lunch, students will be bused back to either Central HS or Ooltewah HS to complete the rest of their schedule.

Central HS & Ooltewah HS at Harrison Bay

Career Technical Education Pathway:

Architectural and Engineering Design- The major focus of this Institute is to expose students to the different disciplines of architecture and engineering. Students will study the design process to create, document and build projects using CAD software, 3D printers, robotics components, model building, blueprints, structures, surveying techniques and other current technologies.

Student schedules will consist of both Future Ready Institute classes as well as the opportunity to take a variety of classes offered by the particular high school in order to fulfill all graduation requirements. This is the 4 year plan for the student's institute classes only. *IC= Industry Certification *LDC= Local Dual Credit *AP= Advance Placement

FRI Pathway(s)	Year 1	Year 2	Year 3	Year 4
CTE	Principles of Manufacturing <i>IC: Machining Level I - Measurement, Materials, and Safety Certification -and/or- OSHA 10 -and/or- Precision Measurement Instruments Certification</i> -and- Architectural and Engineering Design	Architectural and Engineering Design II with LDC Drafting Design -and- AP Computer Science	Architectural and Engineering Design III <i>IC: Certified Solidworks Associate -and/or- AutoCAD User</i>	Engineering Practicum
Core Classes	Physical World Concepts English 9	Biology English 10	TBD	TBD

Ooltewah High School

6123 Mountain View
Ooltewah, TN 37363
(423) 498-6920

Principal- Mrs. Angela Cass

Central High School

5728 Hwy 58
Harrison, TN 37341
(423)344-1447

Principal- Mr. Finley King

Harrison Bay Center

9050 Career Lane
Ooltewah, TN 37363

FRI Lead Teacher- Karen Haynes
haynes_k@hcde.org



FRI Opportunities:

- Industry Specialist
- Industry Field Trips
- SkillsUSA Competitions
- Robotics/Drone Teams
- CAD Certifications
- Job shadowing/Work-based learning
- National Technical Honor Society
- Work Ethic Diploma
- Scholarships
- Hands-On Projects

Partners



TENNESSEE COLLEGE
OF APPLIED TECHNOLOGY
CHATTANOOGA

