STUDENTS WIN NATIONALS, TWICE!
West Ada’s Pre-Engineering students, in year 2013 and again in 2014, led the nation in their architectural technical expertise, all-encompassing design aesthetics, hustle, leadership skills and team work. Each team was made up of students from home high schools throughout the District. The dedicated students and their Advisor, worked endless hours beyond the classroom to prepare for the Technical Skills Association (TSA) Architectural Renovation Competition. The event included both a panel interview by industry experts as well as, a redesigned home model. The 2014 winning model is pictured below.
Pre-Engineering training is offered at the CTE Center—Renaissance Campus. This program is a Project Lead The Way nationally certified program that prepares students to be innovative and productive leaders in science, technology, engineering and mathematics. Students create, design and problem solve in computer classrooms using state-of-art software and equipment. They actualize and test their projects using high tech equipment including a 3D printer, laser printer, CNC mill, CNC router and wind tunnel.

**Home High School Classes:**
- Intro to Engineering Design /Architectural Drafting
- Principles of Engineering

By going through this Pre-Engineering Pathway, students have opportunities to earn concurrent credit(s) as well as several Auto Desk User Certification (Inventor, Revit AutoCAD.)

**Traveling CTE Magnet class:**

**Computer Integrated Manufacturing (CIM) (1st Semester)/Digital Electronics (DE) (2nd Semester)**—Students who get into CIM must be concurrently enrolled in Algebra II or higher. Students use computer modeling, Computer Numeric Control (CNC) equipment, Computer Aided Manufacturing (CAM) software, robotics and flexible manufacturing systems to discover manufacturing design and processes. DE is the study of electronic circuits which is the foundation of all modern electronic devices e.g. laptops, cell phones, high-definition TVs.

**Civil Engineering and Architecture**—Students work in teams and learn 3D design software skills by developing property sites and trouble shooting solutions. Students must document their project work and present them to industry professionals.

**Aerospace Engineering**—Students use 3D design software to design intelligent vehicles which engage them in engineering design challenges related to the evolution and physics of flight, flight simulation, rocketry, space travel and physiology, as well as related structures and materials, remote sensing and robotics. Students must

**Engineering Design & Development**—In this capstone class students work in groups to research, design, build and then test a new engineering design or, one that improves an existing design. Students participate in an event where they explain and share their group projects with local engineers for feedback and mentorship as well as the public.

West Ada’s 2014-15 Pre-Engineering Program received an Exemplary Program Award from the Idaho Division of CTE! This prestigious honor showcases the best of the best programs in Idaho’s high schools. The Pre-Engineering program stands alone in providing depth in terms of course offerings and opportunities for students to learn industry standards on state-of-art equipment. Another highlight of the program is that students receive opportunities to develop leadership skills as well as STEM skills.

Learn more about...

**CTE Magnet Programs at:**
www.westada.org/CTE

Pre-Engineering students may pursue SkillStack badging, an optional system of earning Technical Competency Credits. More information about this option is presented to students through their engineering instructors.

CTE Administrative Office - 208.350.5051