Skyview Engineering/Technical Trade Classes Overview

All three of the Engineering & Technical Field Classes I offer are:

- Designed to be introductory classes – not expert or higher math/science classes
- Designed for work to be done in class – minimal homework
- Designed to be very "hands-on" – many projects and fun activities
- Taught using curriculum from a college recognized platform (PLTW)
- Taught from my perspective of 30 years as an Engineer/Technical Manager
- Open to any Skyview student (not SMT only)

Introduction to Engineering Design (IED)

- Students learn many introductory engineering concepts and skills, including how to use Fusion (Computer Design Program) and how to 3D print.
- Usually the best class for an incoming Ninth grade student, but also an excellent class for sophomores to seniors
- No prerequisites. Some math at a Pre-Algebra or Algebra 1 level.
- **A full year of IED counts as BOTH a full year of CTE Elective PLUS 0.5 years of Art credit here at Skyview.**
- **IED combined with POE makes the student eligible for College Credit.**

Principles of Engineering (POE) – My #1 recommended class based on my engineering career

- A "survey" class that covers all five major areas of Engineering (Computer Eng., Mechanical Eng., Electrical Eng., Civil/Architectural Eng., and Chemical Eng.)
- Recommended to be taken after IED, but that is not required. Ninth grade students are recommended to take IED (not POE). Tenth to Twelve grade students welcomed to POE.
- Most of the class requires Algebra 1 type math. Three weeks of the class in the second semester require that a student has either taken or is taking Geometry.
- While the full year is recommended, students may take either semester independently.
- Very project oriented class with many hands-on projects to learn "real world"
- **A full year of POE counts as BOTH a full year of CTE Elective PLUS 0.5 years of Art credit here at Skyview.**
- **IED combined with POE makes the student eligible for College Credit.**

Digital Electronics (DE)

- Class focuses on learning how the inside of digital devices work. Focuses on integrated logic chips (computer chips), programmable chips, displays, wiring, etc.
- Great class for someone interested in programming to take to learn the hardware
- Generally taken in Eleventh or Twelve grade, but open to Tenth grade. For most students, I recommend they take POE before DE (because it is a broader class).
- Minimal math required in this class. Lots of logical thinking.
- For someone following the Engineering pathway, this is the junior year class.