**Block Scheduling: 2-85 minute classes per semester**
**4 classes/year or A/B Block**

**PLTW Pre-Engineering—2 year Program (Juniors & Seniors)**

| Course & OCAS Codes | Hours |
|---|---|
| **First Year** | |
| **Introduction To Engineering Design—** Computer Science Credit—(8709) | 120 |
| **Preparatory Advanced Mathematics**: Geometry (4520), Algebra II (4412), Trigonometry/Pre-Calculus (4750/4611), Pre-AP Calculus (4612) | 120 |
| **Advanced Laboratory Science**: Pre-AP Chemistry (5051), Pre-AP Physics (5211), AP Chemistry (5055), AP Physics B (5215), AP Physics C-Mechanics (5216), AP Physics C-Elec. & Magnetism (5217) AP Biology (5035), AP Environmental (5121) | 120 |
| **Principles of Engineering**--(8710) | 120 |
| **Second Year** | |
| **Engineering Specialty Course**: Digital Electronics (8711), Computer Integrated Manufacturing (8712), Civil Engineering and Architecture (8713), Biotechnical Engineering (8714), Aerospace Engineering (8716) | 120 |
| **Advanced Mathematics**: Trigonometry/Pre-Calculus (4750/4611) , Pre-AP Calculus (4612), AP Calculus AB (4615), AP Calculus BC (4616), AP Statistics (4760) | 120 |
| **Advanced Laboratory Science**: Pre-AP Chemistry (5051), Pre-AP Physics (5211), AP Chemistry (5055), AP Physics B (5215), AP Physics C-Mechanics (5216), AP Physics C-Elec. & Magnetism (5217) , AP Biology (5035), AP Environmental (5121) | 120 |
| **Engineering Design and Development**-(8716) | 120 |
| **Total—8 Courses** | 960 |

## PLTW Advanced Pre-Engineering—3-year program (Sophomores, Juniors, & Seniors)

| Course & OCAS Codes | Hours |
|---|---|
| **First Year** | |
| **Introduction To Engineering Design—** (8709) | 120 |
| **Preparatory Advanced Mathematics**: Geometry (4520), Algebra II (4412), Trigonometry/Pre-Calculus (4750/4611), Pre-AP Calculus (4612) | 120 |
| **Advanced Laboratory Science**: Pre-AP Chemistry (5051), Pre-AP Physics (5211), AP Chemistry (5055), AP Physics B (5215), AP Physics C-Mechanics (5216), AP Physics C-Elec. & Magnetism (5217) AP Biology (5035), AP Environmental (5121) | 120 |
| **Principles of Engineering**--(8710) | 120 |
| **Second Year** | |
| **Engineering Specialty Course**: Digital Electronics (8711), Computer Integrated Manufacturing (8712), Civil Engineering and Architecture (8713), Biotechnical Engineering (8714), Aerospace Engineering (8716) | 120 |
| **Advanced Mathematics**: Trigonometry/Pre-Calculus (4750/4611) , Pre-AP Calculus (4612), AP Calculus AB (4615), AP Calculus BC (4616), AP Statistics (4760) | 120 |
| **Advanced Laboratory Science**: Pre-AP Chemistry (5051), Pre-AP Physics (5211), AP Chemistry (5055), AP Physics B (5215), AP Physics C-Mechanics (5216), AP Physics C-Elec. & Magnetism (5217) , AP Biology (5035), AP Environmental (5121) | 120 |
| **Engineering Specialty Course**: Digital Electronics (8711), Computer Integrated Manufacturing (8712), Civil Engineering and Architecture (8713), Biotechnical Engineering (8714), Aerospace Engineering (8716) | 120 |

| **Third Year** | |
|---|---|
| **Engineering Specialty Course**: Digital Electronics (8711), Computer Integrated Manufacturing (8712), Civil Engineering and Architecture (8713), Biotechnical Engineering (8714), Aerospace Engineering (8716) | 120 |
| **Advanced Mathematics**: Trigonometry/Pre-Calculus (4750/4611) , Pre-AP Calculus (4612), AP Calculus AB (4615), AP Calculus BC (4616), AP Statistics (4760) | 120 |
| **Advanced Laboratory Science**: Pre-AP Chemistry (5051), Pre-AP Physics (5211), AP Chemistry (5055), AP Physics B (5215), AP Physics C-Mechanics (5216), AP Physics C-Elec. & Magnetism (5217), AP Biology (5035), AP Environmental (5121) | 120 |
| **Engineering Design and Development**—(8716) | 120 |
| **Total—12 Courses** | **1440** |

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