





PROGRAM OF STUDY:

Industry Sector: Engineering & Architecture

Career Pathway: Engineering Academy

| Levels | Grade | CTE Courses | English Language Arts | Math | Social Science | Science | Other Required Courses or Recommended Electives | Dual Enrollment | Articulated Courses (College) |  The Academic Senate strongly recommends that high school students take and strive to pass college prep English and mathematics courses all through high school, including four years of progressively more challenging math courses. |
|--------|--------------------------------|-------------|-----------------------|--------------------------|--------------------------|---------------------------------------------|-------------------------------------------------|-----------------|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | | Secondary | 8 | Exploratory Engineering | | | | | | |
| 9 | | | English 9 | Alg 1, Geo, Alg 2 | Health | Geo Science Biology | Physical Ed Wrld Lng VAPA | | | |
| 10 | Intro to Engineering | | English 10 | Geo, Alg 2, Pre-calc | World Hist, AP Euro Hist | Biology Chemistry | Physical Ed CTE Wrld Lng VAPA | | | |
| 11 | Principles of Engineering | | English 11 | Alg 2, Pre-calc, AP Calc | US Hist AP US Hist | Chem, AP Chem Anatomy, AP Bio Phys, AP Phys | CTE Wrld Lng VAPA | | | |
| 12 | Digital Electronics Eng Design | | English 12 ERWC | Pre-calc, AP Calc, Stats | Econ/Gov AP Econ/Gov | Anatomy, Marine, AP Bio AP Chem, AP Phys | CTE Wrld Lng VAPA | | | |

| Levels | Grade | AS-T Courses | Additional and Optional Courses | General Education Requirements | | | Occupations Relating to this Pathway | | | |
|---------------|-------|----------------------------------|-------------------------------------------------------------------------------------|------------------------------------------------------------|-------------------------------------------------------|---------------------------------------------------------------------|-----------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | | ...For completion of AS-T Degree | ...For completion of Local AS/AA Degree (total Units) | ...For completion of Achievement Certificate (total units) | ...For completion of Skills Certificate (total Units) | Area A English Language Communication & Critical Thinking (9 units) | Area B Scientific Study & Quantitative Reasoning with 1 lab (9 units) | Area C Arts & Humanities (9 units) | Careers requiring a high school diploma or equivalent | Careers requiring a BA / BS degree |
| Postsecondary | 13 | | Engineering/ Electro-Mechanical AS Degree | Engineering/ Electro-Mechanical Certificate | | Eng Comp | Math | Arts | Street Supervisor General, Painting, or Construction Contractor Plumbing and Heating Contractor Mason Property Developer Electrician | Engineer Design Engineer Architect Chemical Engineer Scientist Technical Supervisor Pharmaceutical Process |
| | | | | | | Oral Communications | Physical Science | Humanities | | |
| | | | | | | Critical Thinking | Life Science | | | |
| | 14 | | ENGR 100,101,104, 106,108,109 T ED 140,143 Plus General Education Courses | ENGR 100,101,104, 106,108,109 T ED 140,143 | | Area D Social Sciences (9units) | Area E Lifelong Learning & Self Development (3 units) | When course requirements are counted for credit in more than one area, i.e. double counted, students must complete additional transferable units to result in a cumulative total of 60 units. | Careers requiring some post-secondary | Careers requiring a BA/BS+ |
| | | | | | | US Hist | Psych Comm Recreation Physical Ed Dance | | | |
| | | | | | | Govt | | | | |
| NOTES: | | | | | | | | | Careers requiring 2 year degree Contract Analyst Cost Analyst Cost & Risk Analysis Mgr. Highway Construction Inspector Fire Protection Eng Tech |  STATEWIDE CAREER PATHWAYS Creating School to College Articulation |

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