|  |
| --- |
| Career Technical Education (CTE) Program of Study for Entry into 4-Year University |
|  | **Name:**       | **ID:**       | **Gr:**    | **Department:** Engineering and Technology |
| **Industry Sector:** Engineering and Design | **Career Pathway:** Engineering Design, Engineering Technology, Architectural, Computer Hardware, Electrical and Network Engineering | **Student Organization or Club:**Engineering and ACME Club |
| **Recommended High School Course Schedule** |
| ***Level*** | ***Grade*** | ***English*** | ***Social Studies*** | ***Math*** | ***Science*** | ***Other Required Courses, Electives, CTE*** | ***Other Required Courses, Electives, CTE*** | ***Work-Based******Learning Activities*** |
| Secondary | 9 | English 1 orEnglish 1 Pre-AP | Geography & Health & Wellness  | Geometry | Biology | Physical Ed 1  | Introduction to Engineering\*\* Plus\*\*Computer Applications | * Engineering Club
 |
| 10 | English 2 orEnglish 2 Pre-AP | World History orWorld History Adv. | Algebra 2 Trigonometry | Chemistry | Physical Ed 2  | \*\*Principles of Engineering | * Engineering Club
* ROP Industry Day
 |
| 11 | English 3 orAP EnglishLang/Comp  | US History orAP US History | Pre-Calculus or probability and Statistics | Physics | Foreign Language I | Select One: Digital Electronics or Computer Integrated Manufacturing | * Engineering Club
 |
| 12 | English 4 orAP English Literature | Government & Economics or AP US Govern. & Politics | AP Calculus or AP Statistics  | **Fine Art**Art I or \*\* Computer Graphics I  | **Select Foreign Language II and 1 Period from:** Engineering Design Development, or \*\*\*Internships in Agriculture (2 Periods), \*\*Beginning Drafting | * Engineering Club
* ROP Community

Classroom/Portfolio Day* Senior Exit Interviews
 |
| Postsecondary | **Articulated Courses: Student earns Merced College units of credit for the identified college course when student passes the ACE (Articulated Credit by Exam)** |
| MUHSD/ROP | MERCED COLLEGE | UNITS |
| Computer Applications I | AOM 50B: Document Formatting and Keyboarding | 3 |
| Internships In Agriculture (2 periods) | Co-op 41A: Cooperative Education | 3 |
| Computer Graphics I | ART 40A: Introduction to Digital Media | 3 |
| Introduction Engineering Design | DRFT 04C:L Introduction to Parametric Modeling | 3 |
| Principles of Engineering  | ENGR 30: Introduction to Engineering | 2 |
| Beginning Drafting | DRFT 04A: Fundamentals of Computer-Aided Drafting | 3 |
|  ***\*ROP Certificate Earned at Completion of Course \*\*Merced College credit earned through articulation \*\*\*ROP & Articulation*** |
| Merced Community College Coursework Related to the Pathway | Sample Occupations Related to the Pathway |
| Degrees & Certificates | Other Courses for Engineering Degree | AA or AS Degree or Certificate | BS or BA Degree |
| **Degrees:** A.S. or A.S. Engineering, A.S. Engineering Tech, A.A. CAD Draftsman Architectural or Mechanical, A.A. Computer & Networking Tech, A.A. Electronics Tech, A.A. Industrial Electronics Tech, A.A. Instrumentation & Process Control Tech **Certificates:** Several in Engineering, Drafting, Electronics |  ENGR 05: Engineering GraphicsENGR 10: Engineering MaterialsENGR 18: Electrical Circuits AnalysisENGR 25: Descriptive GeometryELCT 32: Semiconductors & Integrated CircuitsDRFT 10: Rendering and Animation  |  Drafter/Designer Engineering TechnicianCAD/CAM SpecialistJourneyman EngineerSurveyorIndustrial Designer Estimator |  ArchitectCivil EngineerMechanical EngineerArchitectrual EngineerStructural EngineerComputer EngineerSoftware EngineerElectrical Engineer |

POS Engineering & Design Community College – 10/16/14