



CAREER PLAN OF STUDY: ENGINEERING - PROJECT LEAD THE WAY

CAREER CLUSTER: SCIENCE, TECHNOLOGY, ENGINEERING, MATH

CAREER PATHWAY: ENGINEERING AND TECHNOLOGY

SAMPLE OCCUPATIONS: Aerospace, Chemical and Civil Engineer, Computer Hardware Engineer, Estimator, Electrical, Fire-Prevention and Protection Engineer, Industrial Safety and Health Engineer, Marine Architect, Mechanical Engineer, Nuclear Engineer

CERTIFICATION: SolidWorks CSWA OR Submit for AutoCAD certification

ENGINEERING PROGRAM OF STUDY

CTE Courses offered grades 9-12

HIGH SCHOOL PLAN OF STUDY	GRADE	Suggested Program of Study					
		CAREER AND TECHNICAL EDUCATION COURSES	ENGLISH (4 Credits)	MATH (4 Credits)	SCIENCE (3 Lab)	SOCIAL STUDIES (3 Credits)	OTHER REQUIRED COURSES
	9	IT 41 Introduction to Engineering Design	EN09 - Freshman English	MA30 - Geometry (must have Algebra I prior)	SC09 - Essential Elements of Science	SS22 - World History/ Geography	Practical Art - 1 Credit OR ↓
	10	IT 43 Principles of Engineering	EN47 - Sophomore English	MA40 - Algebra II	SC49 - Biology		Fine Arts 1 credit
	11	IT 42 Digital Electronics or IT50 Aerospace Engineering	EN48 - Jr. English	MA45-PreCalculus OR MA42 College Algebra/Trigonometry	SC71 - Chemistry	SS35 - American/AZ History	PE - 1 Credit
	12	CT74 Engineering Cooperative Education OR CT75 Engineering Internship	EN49 - Sr. English	MA50 - AP Calculus AB	SC80 - AP Physics	SS51 - Government and SS77 - Principles and Practices of Economics	World Language - 2 Credits university entrance
LEGEND	CTE Program of Study (Meets practical art requirement)		**Dual Enrollment Option - College credit may be available				
	Refer to each university's website for specific admission requirements						
POST SECONDARY	COMMUNITY COLLEGE		UNIVERSITY				
	Mesa Community College http://mesacc.edu/high-school/career-pathways		Arizona State University https://webapp4.asu.edu/programs/t5/undergrad				
	Chandler Gilbert Community College www.cgc.maricopa.edu/Academics/Pages/by-department.aspx		Embry Riddle Aeronautical University-Prescott www.erau.edu				
			University of Arizona http://www.arizona.edu/topics/academics				
Go to www.mpsaz.org/cte/programs for more information on this and other CTE Programs of Study.							
CAREER PLANNING LINKS			PROFESSIONAL ORGANIZATION LINKS				
MPS Career and Technical Education - www.mpsaz.org/cte			American Society of Civil Engineers - www.asce.org				
MPS Career Planning System-Kuder Navigator-www.mpsaz.kuder.com			American Academy of Environmental Engineers - http://www.aees.org/				
MyMPS - www.mpsaz.org/mymps			Institute of Industrial Engineers - www.iienet.org				