



Fort Zumwalt East High School Program of Study (POS)

Career Cluster Plan of Study (Pathways: Design/Pre-Construction, Construction, Maintenance/Operations)

This Career Cluster Plan of Study can serve as a guide, along with other career planning materials, as you continue your career path. Courses listed within this plan are only recommended coursework and should be individualized to meet each learner's educational and career goals. All plans should meet high school graduation requirements as well as college entrance requirements.




Grade	English 4 credits	Math 3 credits (4 recommended)	Science 3 credits	Social Studies/ Sciences 3 credits	Other Required Courses, Recommended Electives, Career & Technical Courses and/or Degree Major Courses	Additional Learning Opportunities	SAMPLE Occupations Relating to this Cluster
9	English I, Pre-AP English I	Algebra I, Geometry, Pre-AP Geometry	Physical Science, Biology, Pre-AP Biology	US History, Pre-AP US History	PE Health Foreign Language Intro to Art, Intro to Leadership, Adv. Leadership, PLTW Computer Sci and Soft Engineering, PLTW Intro to Engineering Design	Clubs: FBLA, FCCLA, DECA, Key, NHS, STUCO	<ul style="list-style-type: none"> ▶ Architect ▶ Carpenter ▶ Civil Engineer ▶ Construction Foreman ▶ Construction Manager ▶ Contractor ▶ Demolition Engineer ▶ Drafter ▶ Drywall Installer ▶ Electrician ▶ Electronic Systems Tech ▶ Equipment/Material Mngr. ▶ General Contractor/Builder ▶ Heating, Ventilation, Air Condition /Refrigeration Mechanic ▶ Interior Designer ▶ Painter ▶ Paperhanger ▶ Plumber ▶ Project Estimator ▶ Project Inspector ▶ Roofer ▶ Safety Director ▶ Sheet Metal Worker ▶ Tile and Marble Setter
10	English II, Pre-AP English II	Geometry, Pre-AP Geometry, Algebra II, Pre-AP Alg II	Biology Pre-AP Biology Chemistry Gen Physics Zoology Astron, Geology, Env Sci I/II	World History AP World Hist.	Personal Finance/Drawing, Foreign Language, Intro Drafting/Arch Draft/Eng Drafting/Intro Woods/ Adv Woods/Intro Metals/Adv Metals, Bus. Web Design, Bus. Adv. Web Design, PLTW Principles of Engineering		
11	American Literature Pre-AP American Literature AP Lang	Algebra II, Pre-AP Alg. II, Alg III, Pre-AP Cal, College Algebra, AP Statistics	Chemistry, Gen Physics, Applied Bio/Chem I, AP Physics AP Chem AP Biology	Govt. AP Govt.	Computer Programming Digital Art/ Graphic Design, Precision Machining, Welding and Fabrication, Engineering Woods/ Engineering Metals, Lewis & Clark Tech School: Building Trades I Brick & Stone Masonry I Heating, Vent, & Air I Electrical Trades I, Combination Welding I, Drafting and CAD I; PLTW (engineering track)	Athletics Summer Camps Job Shadow Volunteer Community Service see www.communityco council.org	
12	Senior Lit AP Lit AP Lang (or 2 sem classes)	College Algebra, Pre-AP Cal, AP Cal, AP Statistics	Physics or Applied Bio/Chem II		Continue 2 nd year of Lewis & Clark Tech School Program; PLTW (engineering track)	Part-time Employment Entrepreneurship	Assessments: PSAT, ACT SAT, ASVAB MO Connections

Post Secondary For listing of Community Colleges, Tech Schools, and 4 year colleges: www.missouriconnections.org

Military, On-the-Job Training, Apprenticeship If attend Lewis and Clark Tech, ask about the articulation agreements with other tech schools.



Careers in designing, planning, managing, building and maintaining the built environment.

Sample Career Specialties / Occupations	<p>Architect • Architectural and Civil Drafter • Civil Engineer (structural, geotechnical, transportation, etc.) • Civil Engineering Technician • Code Official • Computer Aided Drafter (CAD) • Cost Estimator • Drafter • Electrical and Electronic Engineering Technician • Electrical Engineer (electronics, security, telecommunications) • Environmental Designer • Environmental Engineer (hydro engineering, acoustical, etc.) • Environmental Engineering Technician • Fire Prevention and Industrial Engineer • Interior Designer • Landscape Designer • Landscape Architect • Materials Engineer • Mechanical Drafter • Mechanical Engineer (HVAC, plumbing, fire protection, etc.) • Modeler (traditional and computer) Planner/Designer • Preservationist • Programmer • Protection Engineer • Regional and Urban Renderer (traditional and computer) • Specifications Writer • Building Surveying and Mapping Technician • Surveyor •</p>	<p>Boilermaker • Carpenter • Carpet Installer • Concrete Finisher • Construction Craft Laborer • Construction Engineer • Construction Foreman • Construction Inspector • Construction Manager • Drywall Installer • Education and Training Director/Coordinator • Electrical & Power Transmission Installer • Electrician • Electronic Systems Technician • Elevator Installer • Equipment and Material Manager • Estimator • Explosives Worker • Field Supervisor • Floor Layer • General Contractor/Builder • Glazier • Heating, Ventilation, Air Conditioning and Refrigeration Mechanic • Insulation Worker • Iron/Metalworker (structural and reinforcing) • Landscaper/Groundskeeper • Lineworker • Manufacturer's Representative •</p> <p>NOTE: General contractors/Builders and Specialty contractors typically own the contracting company.</p>	<p>Mason • Millwright • Painter • Paperhanger • Pipe Fitter • Pipelayer • Pipeline Installer Plasterer/Drywall • Plumber • Preservationist • Project Inspector • Project Manager • Roofer • Safety Director • Sales and Marketing Manager • Scheduler • Security and Fire Alarm Systems Installer • Service Contractor • Sheetmetal Worker • Specialty Contractor • Specialty Trades Subcontractor • Steamfitter • Subcontractor • Superintendent • System Installer • Terrazo Worker and Finisher • Tile and Marble Setter •</p>	<p>Boilermaker • Carpenter • Carpet Installer • Concrete Finisher • Construction Manager • Construction Engineer • Construction Foreman • Construction Inspector • Cost Estimator • Demolition Engineer • Drywall Installer • Electrician • Electrician • Elevator Installer • Environmental Engineer • Equipment and Material Manager • Estimator • Facilities Engineer • Field Supervisor • General Maintenance Contractor • Glazier • Hazardous Materials Remover • Heating, Ventilation, Air Conditioning and Refrigeration Mechanic • Heavy Equipment Operator • Highway Maintenance Worker • Hydro Testing Technician • Insulation Worker • Insulation Worker • Iron/Metalworker (structural and reinforcing) • Landscaper/Groundskeeper • Maintenance Estimator • Maintenance Planner/Scheduler • Manufacturer's Representative •</p>	<p>Mason • Millwright • Operating Engineer • Paperhanger • Pipe Fitter • Pipelayer • Plumber • Preservationist • Project Inspector • Project Manager • Refractory Technician • Relay Technician Reliability Engineer • Remodeler • Restoration Technician • Safety Director • Sales and Marketing Manager • Scheduler • Security and Fire Alarm System Installer • Security Controls Manager • Service Contractor • Sheetmetal Worker • Specialty Trades Contractor • Steamfitter • Subcontractor • Substation Mechanic Superintendent • System Installer • Terrazo Worker and Finisher • Thermal Control Technician • Tile and Marble Setter • Utility Metering &Reg. Technician Wastewater Maintenance •</p>
Pathways	<p>Design/Pre-Construction</p> 	<p>Construction</p> 	<p>Maintenance/Operations</p> 		
Cluster K&S	<p>Cluster Knowledge and Skills</p> <p>◆ Academics ◆ Communications ◆ Problem Solving and Critical Thinking ◆ Information Technology Applications ◆ Systems ◆ Safety, Health and Environmental ◆ Leadership and Teamwork ◆ Ethics and Legal Responsibilities ◆ Employability and Career Development ◆ Technical Skills</p>				



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