

# Science Technology, Engineering & Mathematics Career Plan of Study

This plan of study should 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 student's educational and career goals. All plans should meet high school graduation requirements as well as college entrance requirements.

**Required Courses**

**Recommended Courses**

HIGH SCHOOL COURSES	9 <sup>th</sup> Grade	10 <sup>th</sup> Grade	11 <sup>th</sup> Grade	12 <sup>th</sup> Grade
	English 9 or Honors English 9	English 10 or Honors English 10	English 11 or Honors English 11	2 English Electives or AP English
	Algebra I or Honors Algebra II	Geometry or Honors Geometry	Algebra/Trig or Honors Pre-Calculus	Pre-Calculus, AP Calculus, Stats or AP Stats
	Biology, Advanced Biology, or Honors Biology	Chemistry, Advanced Chemistry, or Honors Chemistry	Physics, Advanced Physics, or Honors Physics	AP Physics, AP Biology, AP Chemistry, Anatomy & Physiology
	World Cultures	US History I / US History II	US History III or APUSH / Economics	
	PE 9 / Health	PE 10	PE 11	
	<b>Computer Requirement:</b> grade 7-12 Computer Applications, Computer Studies, Programming 1, or Intro to Auto CADD			
	<b>Possible Electives:</b> Art, Business, Global Language, Music	<b>Possible Electives</b> Art, Business, Global Language, Music	<b>Additional High School Electives:</b> Art, Business, Global Language, Music	
<b>Career Electives</b> Intro to Tech Systems	<b>Career Electives</b> Computer Programming 1 & 2 Construction/Advanced Construction Intro to Auto-CADD / Advanced Auto-CADD Home Improvement	<b>Career Electives</b> Computer programming 3 Construction 1 (Greenfield) Project Lead the Way: (Greenfield) Intro to Engineering, AP Psychology Principles of Engineering Design <b>Youth Options</b> – Please see counselor.	<b>Career Electives</b> Additional Math Courses Additional Science Courses Construction 2 (Greenfield) <b>Youth Options</b> – Please see counselor.	
CAREER OPTIONS	<b>Occupations related to this career cluster:</b>			<b>Volunteer/Other Opportunities</b>
	<p>Engineers (Aerospace, Agricultural, Civil, Computer, Electrical, Mechanical) Chemical Technicians, Environmental Engineers (HOT), Marine Engineers, Mechanical Drafters, Nuclear Technicians, Software Engineers (HOT), Solar Engineers, Space Systems Technicians, Technical Writers, Tool Designers, Agronomists, Animal Scientists, Anthropologists, Archeologists, Astronomers, Biological Scientists, Biomedical Engineers (HOT), Cartographers, Chemists, Environmental Technicians, Food Technologists, Environmentalists, Geneticists (HOT), Geologists, Hydrologists (HOT), Insurance Underwriters, Job Analysts, Mathematicians, Oceanographers, Paleontologists, Seismologists, Sociologists, Soil Conservationists, Statisticians, Veterinarians, Wildlife Biologists, and Zookeepers</p> <p>More occupations can be found at <a href="http://www.wiscareers.wisc.edu">www.wiscareers.wisc.edu</a>. (HOT) Job openings in these occupations are projected to increase by at least 27% over the next 10 years.</p>			Numerous Volunteer Opportunities are available at: <a href="http://www.volunteermilwaukee.org">www.volunteermilwaukee.org</a>
POST SECONDARY	Technical College	College/University		Military
	<p><u>AAS/Associate Degree = 2 year program</u> Bio-medical Electronics, Chemical Technician, Electrical Engineering Technology, Electronics, Electronics – Computer, Industrial Engineering Technician, Mechanical Design Tech., Mechanical Engineering Technology</p> <p><u>Technical Diploma = 1 year program</u> Electrical Power Distribution Electricity</p>	<p><u>Possible Majors/Degrees</u> Engineering, Industrial Technology, Environmental Engineering, Applied Mathematics, Civil Engineering, Statistics, Mechanical Engineering, Physical Sciences, Electrical Engineering, Wildlife Biology, Zoology and Animal Biology, Physics, Information Technology, and Biotechnology</p> <p>More majors/degrees can be found at <a href="http://www.wiscareers.wisc.edu">www.wiscareers.wisc.edu</a>.</p>		<p>Civil Engineers, Building Electricians, Avionics Technicians, Electrical and Electronics Engineers, Industrial Engineers, Marine Engineers, Physical Scientists, Nuclear Engineers, Computer Systems Specialists</p> <p>Obtain a local recruiter contact information through high school guidance.</p>