



Career Plan of Study—Baker High School



Pathway Options: Engineering and Technology, Science and Math

Overview: Jobs in the Science, Technology, Engineering and Mathematics career cluster involve planning, managing, and providing scientific research and professional technical services including laboratory and testing services, and research and development services.

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 learner’s educational and career goals. All plans should meet high school graduation requirements as well as college entrance requirements.

	9th Grade	10th Grade	11th Grade	12th Grade
High School	*English 9 *Math	*English 10 *Math	*Composition 11/English Electives	*Composition 12/English Electives
	*PE/Health *Doc Formatting	*PE/Health *Biology	Or AP English	Or AP English
	*Earth Science		*US History *Math	*US Government
	*World History		*Speech	
	Career Electives: Computer Electives	Career Electives: Computer Electives, Drafting, Alg. II/Trig	Career Electives: Drafting, Chemistry, Statistics, Computer Electives, Pre-Calculus, Alg. II/Trig, Bio II, Chemistry	Career Electives: Drafting, Computer Electives, , Stats, Physics, AP Calculus, Astronomy, Geology, Science Research
Post-Secondary Degrees	2 Year College/Vo-Tech		College/University	
	City College —Drafting Design Technology Highlands College —Drafting Technology/Technician, Civil Engineering Tech Gallatin College — Design Drafting Tech, Residential Building Performance Helena College — Computer Aided Drafting, Geoscience Technology WDTI —Drafting and Machining Technology, Electrical Trades, Environmental Engineering Tech, HVAC Tech, Plumbing, Precision Machining Casper — Bio, Chem, Math, Physics, Stats, Engineering, Anthropology, Geology Dawson —Engineering Technology, Science Options	Flathead —Electrical Technology, Land Surveying, Miles City — Pre-Engineering Tech, Sheridan —Bio, Math, Eng Tech, Environmental Eng Powell —Bio, Chem, Engineering, Physics, Math <hr/> SDSMT —Bio Sci, Chem, Physics, Atmospheric Sci, Math, Petroleum Systems, Chemical/Civil/Electrical/Geological/Industrial/Mechanical/Metallurgical/Mining/Environmental/ Sustainability/ Global Uof M —Biochemistry, Biophysics, Cellular/Molecular/Microbial Bio, Chem, Geoscience, Neuroscience, Physics, Anthropology, Forensic Studies, International Field Geosciences, Forensic Studies, U of M Western — Bio, Environmental Interpretation U of Mary —Bio, Chem, Eng. Sci, Math	BHSU — Bio, Chem, Phys/Social Sci, Manufacturing Eng, Construction Tech Eng, Math Carroll — Bio, Chem, Physics, Civil Eng, Engineering, Eng. Sci, Anthrozoology DSU — Bio, Chem, Comp/Industrial/Manufacturing/Electrical Eng., Math, Geology, Environmental Science MSU —Civil/Bio/Chemical/Electrical/Comp/Environmental/Industrial Eng., Cell Bio and Neuroscience, Microbiology, Anthropology, Museum Studies, Optics and Photonics, MSU-B —Bio, Chem, Math, Stats, Pre-Eng MSU-Northern — Bio, Civil Eng. Tech, Eng Tech MT-Tech — Biological Sci, Chem, Geoscience, Stats, Mathematical Science, Electrical/Civil/Mechanical/Welding/Mining/Petroleum/Metallurgical and Materials/Software Eng. RMC — Bio, Chem, Math UGF —Bio, Chem, Math	
Activities & Employment	Suggested Extra-Curricular Activities		Suggested Volunteer/Employment Opportunities	
	BPA Math Team Academic Olympics		Oil Industry Worker/Volunteer Farm Services Administration Worker/Volunteer Pharmacy Assistant	

* Required for graduation at BHS



Sample Occupations and Degree Areas	Military	Associate's Degree
	<ul style="list-style-type: none"> ◆ Requires High School Diploma or GED ◆ 17 years old with parental consent, 18 without ◆ For more information go to: http://todaysmilitary.com 	<ul style="list-style-type: none"> ◆ Requires diploma or GED ◆ 60-72 credits; includes 15-25 general education credits ◆ Complete in 2 years (<i>if prepared academically in math and English</i>) ◆ Examples: Laboratory Technician, Engineering Technologist (All), Land Surveyor, Hazardous Materials/ Waste Mgmt. Tech
	Professional Certificate	Bachelor's Degree
	<ul style="list-style-type: none"> ◆ Requires High School Diploma or GED ◆ Less than 30 credits; little/no general education credits ◆ Complete in one year or less ◆ Examples: Land Surveyor, Draftsman 	<ul style="list-style-type: none"> ◆ Requires 4-year college prep for admission ◆ Approximately 128 credits ◆ Complete in four years ◆ Examples: Engineers (All), Chemist, Botanist, Geologist, Mathematician, Physicist, Economist, Laboratory Technologist, Scientist, Statistician, Archeologist, Engineering Managers
	Apprenticeship	Graduate Degree
	<ul style="list-style-type: none"> ◆ Requires High School Diploma or GED ◆ Must be at least 18 ◆ Minimum 2,000 hours of supervised experience ◆ Examples: 	<ul style="list-style-type: none"> ◆ Requires education beyond Bachelor's Degree ◆ Examples: Astrophysicist, Anthropologist, Chemist, Physicist, A graduate degree is required to teach at colleges or to lead research projects
Certificate of Applied Science		
<ul style="list-style-type: none"> ◆ Requires High School Diploma or GED— Complete in 1 year or less ◆ 30-45 credits; limited general education credits ◆ Examples: Computer Aided Draftsman, Geographic Information Systems Specialist 		
Requirements	Baker High School Graduation	Montana University System College Entrance
	4 credits English 3 credits Social Studies 3 credits Math 2 credits Science (1 Physical, 1 Biological) 2 credits PE/Health 1 credit Fine Arts 1 credit Vocational/Practical Arts (.5 must be Document Formatting) .5 credit Speech 5.5 credits Electives TOTAL 22 CREDITS	4 credits English 3 credits Social Studies 3 credits Math (Algebra I, II, and Geometry) 2 credits Science 2 credits Electives Rigorous Core Courses include: 1 additional credit Math 1 additional credit Science 1 additional credit Elective Visit www.mus.edu /for further information