

CAREER PROGRAM OF STUDY








Career Cluster: **SCIENCE, TECHNOLOGY, ENGINEERING & MATHEMATICS**

Pathway: *Engineering & Technology; Science & Math*

Student Name: _____

Career Clusters identify pathways from high schools to two- and four-year technical colleges, universities, apprenticeship programs and the workplace so that students can recognize the relationship between what they learn in school and what they can do in the future.

Knowledge and Skills Needed to Succeed in this Career Cluster: Problem Solving and Critical Thinking, Information Technology Applications, Systems, Safety, Health and Environmental, Leadership and Teamwork, Ethics and Legal Responsibilities, Employability and Career Development, and Technical Skills.

	9 th Grade	10 th Grade	11 th Grade	12 th Grade
    	English			
	<i>Core Courses</i>			
	English I English Prep 2 English Prep I	English II Basic Skills English English Prep 2 English Prep I	Adv. Comp. & Early Amer. Lit. American Literature Basic Skills English English Prep 2	AP English World Literature Adv. Comp. & Early Amer. Lit. Technical Writing Everyday English
	<i>Schedule a Sophomore Individual Planning Conference with your Counselor</i>			
	U.S. History	World History	Modern American History (req.) Psychology Sociology Comparative Politics Modern Global Issues	AP American History Pop Culture Microeconomics Macroeconomics
	<i>Schedule College Visits & College Entrance Exams for Junior Year</i>			
Math	Algebra I Extended Algebra Geometry	Geometry Extended Geometry Algebra II	Probability & Stats Adv. Geometry Pre-Calculus FST	AP Calculus Discrete Math ACT Math Prep
	<i>Schedule Senior Interview with your Counselor before October 1</i>			
Science	Integrated Science Biology Plant Science	Biology Chemistry Animal Science	Physics Animal Health & Nutrition AP Chemistry	AP Physics AP Biology Food Science

CAREER ENHANCEMENT	Elective Courses Within This Cluster Include:		School Activities
	Implementing Technology Computer Programming I Computer Programming II JAVA Programming Industrial Communication Drafting & CAD Architectural Planning Advanced Technical Design Activities in Construction Activities in Manufacturing	Electricity & Electronics Ag Survey Environmental Conservation Wildlife Management Materials & Process Welding Manufacturing Technology Advanced Topics in Manufacturing Microsoft Office Employability Skills	Skills USA-VICA FFA Band Choir

Student Signature: _____

Date: _____

Parent/Guardian Signature: _____

Date: _____

Counselor Signature: _____

Date: _____



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States' Career Clusters Initiative, 2007, www.careerclusters.org*

SCIENCE, TECHNOLOGY, ENGINEERING & MATHEMATICS

Career Majors			
POST SECONDARY PROGRAMS	Wisconsin Technical College System – 2 year www.witechcolleges.com		Wisconsin College/University System – 4 year www.uwhelp.wisconsin.edu Wisconsin Independent Colleges & Universities www.wisconsinmentor.org
	Power Engineering & Boiler Operator Applied Engineering Technology Bio-Medical Electronics Chemical Technician Civil Engineering Technology Electron Microscopy Electronic Engineering Tech Industrial Engineering Tech Agri-Business/Science Tech Biotechnology Laboratory Technician Environmental & Pollution Control Tech Health Physics Technician Laboratory Animal Technician Veterinary Technician	Applied Science Aquatic Science Astronomy - Physics Atmospheric and Oceanic Sciences Bacteriology Biochemistry Biochemistry/Molecular Biology Biological Systems Engineering Biomedical Engineering Chemical Engineering Biology Biotechnology Botany Chemistry Chemistry with Business Emphasis Earth Science Engineering Physics Entomology Environmental Engineering Geological Engineering	General Science Genetics Geology/Geophysics Human Biology Hydrogeology/Water Chemistry Medical Microbiology & Immunology Molecular Biology Molecular Biology & Bioinformatics Natural Science Naval Science Nuclear Engineering Nutritional Science Pharmacology and Toxicology Physics Plant Pathology Polymer Chemistry Science, Broad Area Zoology
	Learn more about career programs at www.careervoyages.com		



SCIENCE, TECHNOLOGY, ENGINEERING & MATHEMATICS

SAMPLE CAREER OCCUPATIONS	Specialty Careers / Occupations			
	Engineering & Technology		Science & Math	
	Aerospace Engineer Aeronautical Engineer Agricultural Engineer Agricultural Technician Application Engineer Architectural Engineer Automotive Engineer Biomedical Engineer Biotechnology Engineer Chemical Engineer Civil Engineer Communications Engineer Computer Engineer Computer Hardware Engineer Computer Programmer Computer Science Technician Computer Software Engineer Construction Engineer Consultant Development Engineer Drafter Electrical Engineer Electrician Electronics Technician Energy Transmission Engineer Environmental Engineer Facilities Technician Fire Protection Engineer Geothermal Engineer Hazardous Waste Engineer Hazardous Waste Technician Human Factors Engineer Industrial Engineer Industrial Engineering Technician Licensing Engineer Manufacturing Engineer Manufacturing Technician Manufacturing Processes Engineer	Marine Engineer Materials Engineer Materials Lab & Supply Technician Mechanical Engineer Metallurgic Engineer Mining Engineer Naval Engineer Network Technician Nuclear Engineer Ocean Engineer Operations Research Engineer Packaging Engineer Packaging Technician Petroleum Engineer Pharmaceutical Engineer Plastics Engineer Power Systems Engineer Product Design Engineer Project Engineer Project Manager Prototype Engineer Researcher Safety Engineer Software Engineer Quality Engineer Quality Technician Radio/TV Broadcast Technician Radiology Engineer Sound Technician Structural Engineer Survey Technician Systems Design Engineer Technical Sales Manager Technical Writer Telecommunications Engineer Textile Engineer Transportation Engineer	Analytical Chemist Anthropologist Applied Mathematician Archeologist Astronomer Astrophysicist Atmospheric scientist Biologist Botanist CAD Operator Cartographer Chemist Communications Technologist Conservation Scientist Cosmologist Cryptograph Crystallographer Demographer Dye Chemist Ecologist Economist Electronmicroscopist Environmental Scientist Expert systems Scientist Geneticist Geologist Geophysicist Geoscientist Herpetologist Hydrologist Ichthyologist Inorganic Chemist Laboratory Technician Mammalogist Marine Scientist	Materials Analyst Materials Scientist Mathematician Mathematics Metallurgist Meteorologist Microbial Physiologist Mycologist Nanobiologist Nuclear Chemist Nuclear Technician Numerical Analyst Nutritionist Oceanographer Organic Chemist Ornithologist Paleontologist Physicist Polymer scientist Programmer Protein scientist Protozoologist Lab Tech Quality-control Scientist Radio Chemist Research Chemist Research Technician Science Teacher Scientific Visualization/Graphics Expert Spectroscopist Statistician Technical writer Technologist Toxicologist Zoologist
Learn more about specific occupations at: http://www.bls.gov/oco/				

