

CAREER CLUSTERS

Opportunities after high school are endless for those who prepare well. Students who plan their high school years wisely and take advantage of the learning opportunities extended to them during high school are better able to determine their college and career pursuits with confidence. In addition, those students who apply themselves in high school by taking and completing challenging courses position themselves well to take advantage of a variety of college and career opportunities upon graduation.

The following pages provide students with a better understanding of the various careers that are available today. Careers are listed by “cluster” so that students may explore a wide range of options associated with their interests. Information regarding which high school courses students should take to prepare well for a particular field and various associated college majors and programs are also included.

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Career Cluster: Agriculture, Food & Natural Resources

Careers	Animal Caretaker Agricultural Educator Botanist Ecologist Farm Manager Fish & Game Officer	Meat Science Researcher Horticulture Landscape Architect & Design Landscape Maintenance Floral Design Natural Areas Manager	Physiologist Producer Buyer Recycling Technician Wildlife Biologist Veterinarian Veterinarian Assistant	
Required High School Courses	9th grade	10th grade	11th grade	12th grade
	OWC Algebra 1 (or higher) Biology Social Studies PE Computer Tech	World Literature Geometry (or higher) Chemistry World History PE, Health Driver Ed	American Literature Algebra 2 (or higher) Physics US History PE	English Elective Government PE
Recommended or related pathway courses offered at ZB		Foods & Nutrition 1 & 2	Foods & Nutrition 1 & 2 Environmental Ecology 1 & 2 AP Environmental Science	Foods & Nutrition 1 & 2 Environmental Ecology 1 & 2 AP Biology AP Environmental Science
Tech Campus related pathway courses			Culinary Arts	Culinary Arts
4 year college majors	Animal Health Agricultural Education Services Animal Nutrition Animal Training		Landscape Architect & Design Botanist Horticulture Wildlife Biologist Veterinarian	
CLC Programs	Horticulture Sustainable Agriculture Landscape Design Landscape Maintenance		Floral Design Arboriculture Natural Areas Management Veterinarian Technician	

Career Cluster: Architecture & Construction

Careers	Architect Builder Carpenter Civil Engineer Construction Contractor Foreman/Manager	Demolition Engineer Drafter Drywaller Electrician Electrical Systems Tech Equipment Material Manager	HVAC Mechanic Plumber Project Inspector Roofer Sheet Metal Worker Tile Setter	
Required Courses	9th grade	10th grade	11th grade	12th grade
Recommended or related pathway courses offered at ZB	OWC Algebra 1 (or higher) Biology Social Studies PE Computer Tech	World Literature Geometry (or higher) Chemistry World History PE, Health Driver Ed	American Literature Algebra 2 (or higher) Physics US History PE	English Elective Government PE
Tech Campus related pathway courses			Construction Skills & Management Civil Engineering & Architecture Welding	Construction Skills & Management Civil Engineering & Architecture Welding
4 year College Majors	Architecture/Building Sciences Architectural Drafting Architectural Engineering Architectural History/Critic Architectural Tech Architect Building Construction		Building Management Civil Engineering Construction Management Drafting/Design Tech Energy Management Landscape Architecture Mechanical Drafting	
CLC Programs	Architectural Tech CAD Drafting Tech Civil Engineering Tech Construction Management Tech		Electrical Engineering Tech HVAC Tech Welding	

Career Cluster: Arts, Audio Visual Technology & Communication

Careers	Acting Art Director Artist Audio Video Operator Broadcast Technician Computer Animator	Editor Fashion Designer Furnishing Coordinator Interior Design Journalist Musician	Publisher Producer Radio & Television Announcer Reporter Researcher Writer	
Required Courses	9th grade	10th grade	11th grade	12th grade
	OWC Algebra 1 (or higher) Biology Social Studies PE Computer Tech	World Literature Geometry (or higher) Chemistry World History PE, Health Driver Ed	American Literature Algebra 2 (or higher) Physics US History PE	English Elective Government PE
Recommended or related pathway courses offered at ZB	Yearbook Journalism Intro to Television Television Intro to Art 3D Sculpture 1 & 2 Calligraphy Ceramics 1 & 2 Graph Art Design 1 & 2 Drawing 1 & 2 Jewelry 1 & 2 Painting 1 & 2 Acting 1 & 2 Intro to Theater Survey of Art & Music Beginning Guitar Symphonic Band Wind Ensemble ZB Chorus Adv. Treble Choir Concert Choir Sweet Harmony Singers Chamber Singers	Yearbook Journalism Intro to Television Television ZB TV Media Prod Intro to Art 3D Sculpture 1 & 2 Calligraphy Ceramics 1 & 2 Graph Art Design 1 & 2 Drawing 1 & 2 Jewelry 1 & 2 Painting 1 & 2 Acting 1 & 2 Intro to Theater Survey of Art & Music Beginning Guitar Symphonic Band Wind Ensemble ZB Chorus Adv. Treble Choir Concert Choir	Journalism Yearbook Creative Writing 1 & 2 Rhetoric & Comp Public Speaking Intro to Television Television ZB TV Media Prod Photography Intro to Art 3D Sculpture 1 & 2 Calligraphy Ceramics 1 & 2 Graph Art Design 1 & 2 Drawing 1 & 2 Jewelry 1 & 2 Painting 1 & 2 Acting 1 & 2 Intro to Theater Survey of Art & Music Beginning Guitar Symphonic Band Wind Ensemble ZB Chorus Sweet Harmony Singers Chamber Singers	AP Studio Art Journalism Yearbook Creative Writing 1 & 2 Rhetoric & Comp Public Speaking Intro to Television Television ZB TV Media Prod Photography Intro to Art 3D Sculpture 1 & 2 Calligraphy Ceramics 1 & 2 Graph Art Design 1 & 2 Drawing 1 & 2 Jewelry 1 & 2 Painting 1 & 2 Acting 1 & 2 Intro to Theater Survey of Art & Music Beginning Guitar Symphonic Band Wind Ensemble ZB Chorus Sweet Harmony Singers Chamber Singers

Tech Campus related pathway courses			Graphic & Web Design Photographic Design	Graphic & Web Design Photographic Design
4 year college majors	Acting Applied Arts Cinematography Creative Writing Commercial Photography Fashion/Apparel Design Film/Cinema/Video Studies Graphic Design	Illustration Journalism Interior Design Music Music Technology Publishing Photographic & Film		Radio & Television Radio, Television & Digital Communication Speech Communications Technical & Business Writing Theater Visual Performing Arts Video Technology
CLC Programs	English Journalism Art Theater		Music Digital Media & Design Digital A/V Production & Editing Technical Communication	

Career Cluster: Business, Management, Marketing & Finance

Careers	Actuary Administrative Assistant Advertising Sales Auditor Business Consultant Certified Public Accountant	Corporate Trainer Economist Logistics/Supply Chain Manager Entrepreneur Finance Director Human Resources Manager Marketing Analyst	Office Manager Personnel Recruiter Public Relations Manager Sales Representative Wholesale/Retail Buyer	
Required Courses	9th grade	10th grade	11th grade	12th grade
Required Courses	OWC Algebra 1 (or higher) Biology Social Studies PE Computer Tech	World Literature Geometry (or higher) Chemistry World History PE, Health Driver Ed	American Literature Algebra 2 (or higher) Physics US History PE	English Elective Government PE
Recommended or related pathway courses offered at ZB	Business Concepts	Public Speaking Business Concepts	Sociology Accounting Marketing Entrepreneurship Business Law Web Design Public Speaking Adult Living	College Algebra Readiness Pre-Calculus Pre-Calculus Honors AP Calculus AP Statistics Financial Algebra 1 & 2 Psychology 1 & 2 Sociology 1 & 2 AP Psychology Accounting Marketing Entrepreneurship Business Law Web Design Public Speaking Adult Living
Tech Campus related pathway courses			Graphic Design Photo Design	Graphic Design Photo Design
4 year College Majors	Actuarial Science Accounting Advertising Arts Management Business Administration Entrepreneurship	Human Resources Finance International Business Marketing Public Relations & Communication	Purchasing/Procurement Logistics/Supply Chain Management Info Systems Operations Management Organizational Behavior Organizational Leadership	
CLC Programs	Accounting Administrative Office Systems Supervision		Small Business Management Sales Marketing	

Career Cluster: Education & Training

Careers	Administrator Child Care Worker Coach College/University Faculty Counselor	Curriculum Director Elementary Teacher Middle School Teacher High School Teacher Principal	Special Education Teacher Librarian Paraprofessional Educator	
Required Courses	9th grade	10th grade	11th grade	12th grade
	OWC Algebra 1 (or higher) Biology Social Studies PE Computer Tech	World Literature Geometry (or higher) Chemistry World History PE, Health Driver Ed	American Literature Algebra 2 (or higher) Physics US History PE	English Elective Government PE
Recommended or related pathway courses offered at ZB	Family/Consumer Science Careers	Family/Consumer Science Careers Child Develop 1 & 2 Integrated PE	Family/Consumer Science Careers Sociology 1 & 2 Child Develop 1 & 2 Integrated PE	Family/Consumer Science Careers Child Develop 1 & 2 College Algebra Readiness Pre-Calculus Calculus AP Calculus Sociology 1 & 2 Psychology 1 & 2 AP Psychology Public Speaking Integrated PE
Tech Campus related pathway courses			Early Childhood Education	Early Childhood Education
4 year college majors	Education Early Childhood Education Educational Administration Elementary Education Coaching		Kindergarten/Preschool Education School Library Specialist/Science Special Education Teaching Secondary Education	
CLC Programs	Early Childhood Education Paraprofessional Education Human Services Library Technical Assistant			

Career Cluster: Health Science

Careers	Athletic Trainer Biostatistician Dental Assist./Hygienist EMT/Paramedic Health Administrator Geneticist		Health Information Coder Laboratory Technician Nutritionist/Dietician Occupational Therapist Optometrist Research Scientist		Phlebotomist Physician Physician's Assistant Radiographer Physical Therapist Registered Nurse	
Required Courses	9th grade	10th grade	11th grade	12th grade		
	OWC Algebra 1 (or higher) Biology Social Studies PE Computer Tech	World Literature Geometry (or higher) Chemistry World History PE, Health Driver Ed	American Literature Algebra 2 (or higher) Physics US History PE	English Elective Government PE		
Recommended or related pathway courses offered at ZB	Family/Consumer Science Careers	Family/Consumer Science Careers Foods 1 & 2 Child Develop 1 & 2 Integrated PE	Family/Consumer Science Careers Foods 1 and 2 Child Develop 1 & 2 Sociology 1 & 2 Integrated PE Human Anatomy	Family/Consumer Science Careers Foods 1 & 2 Child Develop 1 & 2 Sociology 1 & 2 Human Anatomy Psychology 1 & 2 AP Psychology AP Biology AP Chemistry AP Physics College Algebra Readiness Pre-Calculus Pre-Calculus Honors AP Calculus Integrated PE		
Tech Campus related pathway courses			Medical Assisting	Certified Nurse Assistant Emergency Medical Tech		
4 year college majors	Athletic Training Audiology Bioethics Biotechnology Clinical Nutrition/Dietetics Clinical Lab Science		Cognitive Psychology Genetic Counseling Health Administration Hospital/Care Administration Kinesiology/Movement Science		Nursing Occupational Therapy Pharmaceutical Science Public Health Physical Therapy	
CLC Programs	Nursing Phlebotomy Technician Surgical Technician Dental Hygiene		Emergency Medical Technician Personal Trng. Health Information Technician Pharmaceutical Technician		Wellness Coach Medical Imaging Medical Assisting Massage Therapy	

Career Cluster: Hospitality

Careers	Baker Caterer Concierge Convention Services Manager	Event Planner Executive Chef Facilities Manager Hotel Management	Restaurant Owner/Manager Tour & Travel Guide Travel Agent	
Required Courses	9th grade	10th grade	11th grade	12th grade
	OWC Algebra 1 (or higher) Biology Social Studies PE Computer Tech	World Literature Geometry (or higher) Chemistry World History PE, Health Driver Ed	American Literature Algebra 2 (or higher) Physics US History PE	English Elective Government PE
Recommended or related pathway courses offered at ZB	Business Concepts	Foods & Nutrition 1 & 2 Business Concepts	Foods & Nutrition 1 & 2 Business Concepts Entrepreneurship Marketing Web Design	Foods & Nutrition 1 & 2 Business Concepts Entrepreneurship Marketing Web Design
Tech Campus related pathway courses			Culinary Arts	Culinary Arts
4 year college majors	Facilities Planning & Management Natural Resources Recreation & Tourism Hospitality & Culinary Management Culinary Arts			
CLC Programs	Hospitality & Culinary Management Baking and Pastry Assistant Professional Cook		Professional Chef Hospitality Supervisor Hospitality Manager	

Career Cluster: Human Services

Careers	Community Service Dir. Cosmetologist Director of Child Care Facility	Emergency Relief Worker Massage Therapy Personal Fitness Trainer Licensed Professional Counselor	School Counselor/ Psychologist Social Worker	
Required Courses	9th grade	10th grade	11th grade	12th grade
	OWC Algebra 1(or higher) Biology Social Studies PE Computer Tech	World Literature Geometry (or higher) Chemistry World History PE, Health Driver Ed	American Literature Algebra 2 (or higher) Physics US History PE	English Elective Government PE
Recommended or related pathway courses offered at ZB	Spanish 1	Spanish 2 Athletic Training Integrated PE Child Develop 1 & 2	Spanish 3 Sociology 1 & 2 Athletic Training Integrated PE Child Develop 1 & 2	Spanish 4 Psychology 1 & 2 Sociology 1 & 2 Athletic Training Integrated PE Child Develop 1 & 2
Tech Campus related pathway courses			Cosmetology Early Childhood Ed	Cosmetology Early Childhood Ed
4 year college majors	Child Development Family & Community Services Family & Consumer Sciences Mental Health Counseling Social Work		Psychologist Sociology Athletic Trainer Wellness	
CLC Programs	Social Work Children Adolescents Adult Services Massage Therapy		Alcohol, Substance Abuse & Addictive Disorders Correctional Counseling Trauma, Prevention and Victim Services	

Career Cluster: Information Technology

Careers	Animator Database Administrator Data Systems Design Game Developer IT Engineer Computer Forensics				Media Specialist Network Administrator Network Security Analyst Telecommunications Network Tech				PC Support Specialist Programmer Software Application Specialist Systems Administrator Web Architect/Designer			
Required Courses	9th grade		10th grade		11th grade		12th grade					
	OWC Algebra 1 (or higher) Biology Social Studies PE Computer Tech		World Literature Geometry (or higher) Chemistry World History PE, Health Driver Ed		American Lit Algebra 2 (or higher) Physics US History PE		English Elective Government PE					
Recommended or related pathway courses offered at ZB	Electronics 1 & 2		Electronics 1 & 2		Electronics 1 & 2 Sociology 1 & 2		Electronics 1 & 2 College Algebra Readiness Pre-Calculus Pre-Calculus Honors AP Calculus Sociology 1 & 2 Psychology 1 & 2 AP Psychology Public Speaking					
Tech Campus related pathway courses					C++ programming Computer Support Services Graphic/Web Design		C++ programming Computer Support Services Graphic/Web Design					
4 year College Majors	Computer Forensics Artificial Intelligence Computer Info Systems Computer Engineering Computer Programming				Computer Science Computer Software Applications Digital Arts Game/Interactive Media Design Information Technology							
CLC Programs	Digital Media Web Programmer Computer forensics Network Administration Security Administration				Office Application Specialist Desktop Support Tech C++ Programming Game Development Cisco Networking							

Career Cluster: Law & Public Safety

Careers	Corporate Security Manager Firefighter Lawyer Corrections Officer Hazardous Materials Responder	Paralegal Court Reporter Homeland Security Park Ranger Detective	Immigration Officer Police Officer Emergency Medical Technician Judge Probation/Parole Officer	
Required Courses	9th grade	10th grade	11th grade	12th grade
	OWC Algebra 1 (or higher) Biology Social Studies PE Computer Tech	World Literature Geometry (or higher) Chemistry World History PE, Health Driver Ed	American Literature Algebra 2 (or higher) Physics US History PE	English Elective Government PE
Recommended or related pathway courses offered at ZB	Spanish 1	Spanish 2	Spanish 3 Public Speaking Forensic Science Business Law Sociology 1 & 2	Spanish 4 Psychology 1 & 2 AP Psychology Sociology 1 & 2 Public Speaking Forensic Science Business Law Sociology 1 & 2
Tech Campus related pathway courses			Criminal Justice Emergency Medical Service Firefighting Medical Assisting	Criminal Justice Emergency Medical Service Firefighting Medical Assisting
4 year college majors	Corrections Criminal Justice Criminology Cyber/Computer Forensics Energy, Environment, & Natural Resource Law		Fire Science Fire Service Administration Forensic Science and Technology Health Law Homeland Security Law	
CLC Programs	Criminal Justice Paralegal Studies Emergency Medical Technician Fire Science Technician		Administrative Leadership Office Professional Correctional Counseling Trauma/Victim Services	

Career Cluster: Manufacturing

Careers	CNC Operator Health & Safety Rep Manufacturing Technician Design Engineer Industrial Machinery Mechanic	Mechanic Production Manager Environmental Engineer Inspector Quality Control Technician	Foundry Worker Labor Relations Manager Safety Engineer Freight, Stock, Material Mover Machinist Welder	
Required Courses	9th grade	10th grade	11th grade	12th grade
	OWC Algebra 1 (or higher) Biology Social Studies PE Computer Tech	World Literature Geometry (or higher) Chemistry World History PE, Health Driver Ed	American Literature Algebra 2 (or higher) Physics US History PE	English Elective Government PE
Recommended or related pathway courses offered at ZB	Pre-Engineering Pre-Architecture Electricity & Electronics 1 & 2 Metals 1 & 2 Power Mechanics 1 & 2 Woods 1 & 2 3-D Sculpture 1	Engineering & Architecture 3-D Sculpture 2	Intro to Carpentry, Building Trades & Construction	
Tech Campus related pathway courses			Computer Integrated Manufacturing Construction Skills & Management Welding – Fabrication Principles of Engineering Introduction to Engineering Manufacturing	Computer Integrated Manufacturing Construction Skills & Management Welding – Fabrication Principles of Engineering Introduction to Engineering Manufacturing
4 year college majors	Apparel & Textiles Design Computer Engineering Tech Engineering Industrial Technology	Laser & Optical Technology Manufacturing Engineering Mechanical Engineering Metallurgical Technology Nuclear Power Technology	Occupational Safety & Technology Plastics & Polymer Engineering Robotics Technology Industrial Engineer	
CLC Programs	Business Administration Mechanical Engineering Technology Welding Construction Management Technician		CNC Programming CAD Drafting Technician Electrical Engineer Technician	

Career Cluster: Science, Technology, Engineering & Mathematics

Careers	Actuary Geneticist Photonics Tech Anthropologist Electrical Engineer	Physicist Archeologist Math/Science Teacher Statistician	Astronomer Mechanical Engineer Chemist Meteorologist	
Required Courses	9th grade	10th grade	11th grade	12th grade
	OWC Algebra 1 (or higher) Biology Social Studies PE Computer Tech	World Literature Geometry (or higher) Chemistry World History PE, Health Driver Ed	American Literature Algebra 2 (or higher) Physics US History PE	English Elective Government PE
Recommended or related pathway courses offered at ZB	Business Concepts Pre-Engineering Electricity & Electronics 1 & 2	Engineering & Architecture	Pre-Calculus Pre-Calculus Honors AP Calculus Meteorology Astronomy Forensic Science Environmental Ecology 1 & 2 AP Environmental Science Accounting	AP Statistics Pre-Calculus Pre-Calculus Honors AP Calculus Meteorology Astronomy Forensic Science Environ Ecology 1 & 2 AP Environmental Science AP Biology AP Chemistry AP Physics AP Environmental Science Accounting
Tech Campus related pathway courses			Photonics	Photonics
4 year college majors	Actuarial Science Astronomy Behavioral Sciences Biology Chemical Engineering Engineering Ecology	Marine Biology Mathematics Robotics Pharmacology Physics Radiation Biology Botany	Genetics Geological & Earth Sciences Nanotechnology Natural Sciences Nutrition Sciences Oceanography	
CLC Programs	Chemistry Biology Physics Mathematics Engineering Photonics	Mechanical Engineering Wireless Networking Security Fiber Optics Technician Nanoscience		

Career Cluster: Service Technologies

Careers	Automotive Mechanic Electrician Plumber Automotive Repair General Contractor	Roofer Avionics Technician HVAC Mechanic Sheet Metal Worker	Carpenter Locomotive Engineer Drywall Installer Painter	
Required Courses	9th grade	10th grade	11th grade	12th grade
	OWC Algebra 1 (or higher) Biology Social Studies PE Computer Tech	World Literature Geometry (or higher) Chemistry World History PE, Health Driver Ed	American Literature Algebra 2 (or higher) Physics US History PE	English Elective Government PE
Recommended or related pathway courses offered at ZB	Pre-Engineering Pre-Architecture Electricity & Electronics 1 & 2 Metals 1 & 2 Power Mechanics 1 & 2 Woods 1 & 2 Painting 1	Engineering & Architecture Painting 2		
Tech Campus related pathway courses			Auto Collision Repair Automotive Service Construction Skills & Management Welding - Fabrication	Auto Collision Repair Automotive Service Construction Skills & Management Welding - Fabrication
4 year college majors	Electrical Engineering			
CLC Programs	Automotive Collision Repair Automotive Technology Heating, Ventilation & Air Conditioning Electrical Engineering Technology			