



Information Technology

Bismarck High School Career Cluster Program of Study

This Program of Study Template 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. **Ask your high school counselor to help you fill in the required courses you need to graduate.**

Grade	English 8 semesters	Math 6 semesters	Science 6 semesters	Social Studies 6 semesters	Other Required Courses, Recommended Electives	Career & Technical Courses and/or Degree Major Courses	SAMPLE Occupations Relating to this Pathway
9	Comm Arts I	High School Math	High School Science	High School S.S. Course	Personal Finance Computer Science Computer Science Electives	Keyboarding, Computer Applications, Agriculture Computers	<ul style="list-style-type: none"> ▶ Communications Analyst ▶ Data Communications Analyst ▶ Information Systems Administrator
10	Comm Arts II	High School Math	High School Science	High School S.S. Course	Personal Finance Computer Science Computer Science Electives	Advanced Computer Applications, Web Design I, Web Design II, Desktop Publishing, Desktop Publishing II	<ul style="list-style-type: none"> ▶ Information Systems Operator ▶ Information Technology Engineer ▶ Network Administrator ▶ Network Architect ▶ Network Engineer ▶ Network Manager ▶ Network Operations Analyst
11	Comm Arts III *English Comp I *Public Speaking	Pre-College Algebra or high school math course *College Algebra *College Trig *College Calc	High School Science *College Biology	High School S.S. Course – History & Government *College History I & II *College Political Systems	*Microapplications *Personal Finance *Computer Science Electives (Available for Dual Enrollment)	*Unitec – Computer networking classes *MAC Computer Networking Classes (Available for Dual Enrollment)	<ul style="list-style-type: none"> ▶ Network Security Analyst ▶ Network Specialist ▶ Network Technician ▶ Network Transport Administrator ▶ PC Support Specialist ▶ Systems Administrator ▶ Systems Engineer ▶ Systems Support Leader ▶ Technical Support Specialist ▶ Telecommunications Network Technician
12	Senior Comm Arts & Comm Arts elective *English Comp II *Intro to Literature	Pre- College Algebra or high school math * College Algebra *College Trig *College Calc	High School Science *College Intro to Chem –	High School S.S. Course – History & Government *College History I & II *College Political Systems	*Microapplications *Personal Finance *Computer Science Electives (Available for Dual Enrollment)	*Unitec – Computer networking classes *MAC Computer Networking Classes (Available for Dual Enrollment)	<ul style="list-style-type: none"> ▶ User Support Specialist

*Dual Credit courses can often be substituted for high school credit. Check with your Counselor.

*Dual Enrollment courses can be taken on a MAC campus or online.

Assessments/Certifications: College Placement Assessments, Compass, ACT, SAT

Clubs/Extracurricular Activities: [Ask your Counselor what is available at your school.](#)

Work-Based Learning: After School Employment Internship/Mentorship Job Shadowing Service Learning



Building Linkages in IT Occupations Framework: For Entry Level, Technical, and Professional Careers Related to the Design, Development, Support and Management of Hardware, Software, Multimedia, and Systems Integration Services.

	Administrator Analyst Architect Communications Analyst Data Communications Analyst Engineer Engineer Information Systems Administrator Information Systems Operator Information Technology Engineer Manager Network Consulting Engineer Network Pre-Sales Engineer Network: Administrator Operations Analyst PC Support Specialist Security Analyst Specialist Support Lead Technical Support Specialist Technician Telecommunications Network Technician Transport Administrator User Support Specialist	Account Manager Administration Associate Analyst Application Integrator Architect Business Continuity Analyst Call Center Support Representative Content Manager Cross-Enterprise Integrator Database Administrator Desktop Publisher Developer Document Specialist Documentation Specialist DSS (Decision Support Services) E-Business Specialist Editor Electronic Publications Specialist Electronic Transactions Implementer Help Desk Specialist Instructional Designer Integrator Knowledge Architect Liaison Maintenance Technician Management Associate Manager Modeling Specialist Online Publisher PC Support Specialist PC Systems Coordinator Planner Product Support Engineer Publications Manager Publisher Sales Support Technician Security Expert Service Professional Service Representative Support Engineer Support Representative Systems Analyst Systems Designer Technical Communicator Technician Testing Engineer Warehouse Designer Writer	2D/3D Artist Administrator Animator Architect Audio/Video Engineer Authoring Specialist Blog Developer Designer Developer Media Specialist Media/Instructional Designer Multimedia: Author Page Developer Producer Production Assistant Programmer Search Engine Marketing Specialist Search Engine Optimization Specialist Site Developer Social Networking Specialist Specialist Streaming Media Specialist Virtual Reality Specialist Web Developer Webmaster	Administrator Analyst Architect Business Analyst Computer Engineer Data Modeler Design Engineer Designer/Engineer Development Engineer Engineer Program Manager Programmer Programmer Analyst Project Lead QA Specialist Analyst Test Engineer Tester
--	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Pathways	Network Systems	Information Support and Services	Web and Digital Communications	Programming and Software Development
----------	-----------------	----------------------------------	--------------------------------	--------------------------------------

Cluster K&S	<p align="center"> Cluster Knowledge and Skills •Academic Foundations •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 Revised July 2009 www.careerclusters.org </p>			
-------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--	--	--