HIGH SCHOOL: Helena High School	*BIG SKY PATHWAY PROPOSAL*
COLLEGE: Helena College University of Montana	
COLLEGE DEGREE PROGRAM: Computer Technology AAS Network Administration Option	

Cluster Overview:	Pathway Options:	Occupation Examples:
Information Technology careers encompass entry level, technical, and professional careers related to the design, development, support and management of hardware, software, multimedia, and systems integration services.	• Network Systems • Information Support and Services • Web and Digital Communications • Programming and Software Development	Animator, Database Administrator, Data Systems Designer, E-Business Specialist, Game Developer, Information Technology Engineer Media Specialist, Network Administrator, Network Security Analyst, PC Support Specialist, Programmer, Software Applications Specialist, Systems Administrator, Telecommunications Network Technician, User Support Specialist, Virtual Reality Specialist, Web Architect/Designer *For a complete listing, go to:* http://online.onetcenter.org/find/career?c=11&g=Go

SUGGESTED HIGH SCHOOL COURSES

9th	Graduation Requirements Workforce/2-Year College Prep	English I; Algebra I; Earth Science; World Cultures; Physical Ed I	**Recommended CTE Cluster Foundation Course(s):** Basic Computer Skills; Tech Skills for Life; Computer Science (HHS and/or MTDA);
	4-Year MT College/Univ Prep (Rigorous Core)	English I; Algebra I; Earth Science; World Cultures; Physical Ed I	
	CTE and/or Electives	Cisco I; Basic Computer Skills; Tech Skills for Life	**Recommended CTE Pathway Courses:** (HHS and/or MTDA), Oracle; Cisco 1-4
10th	Graduation Requirements Workforce/2-Year College Prep	English II; Geometry; Biology; Health; Physical Ed II; Art	
	4-Year MT College/Univ Prep (Rigorous Core)	English II; Geometry; Biology; Health; Physical Ed II; Art	
	CTE and/or Electives	Cisco II; CSCI240 Databases & SQL (Oracle); Accounting; Marketing	**Other Recommended CTE Courses:** Marketing; Bengal Business; Accounting; Small Business Management; Drafting, JMG
11th	Graduation Requirements Workforce/2-Year College Prep	English III or; Algebra II; US History; Chemistry	
	4-Year MT College/Univ Prep (Rigorous Core)	AP Language and Composition; Algebra II; AP US History; Bio II or Chemistry	
	CTE and/or Electives	Computer Science (Java - HHS); Cisco III; Computer Science (Python – MTDA); Bengal Business; Small Business Management	
12th	Graduation Requirements Workforce/2-Year College Prep	English IV or WRIT121T Technical Writing; US Government; M121 College Algebra	**Career & Technical Student Organization(s):** BPA, DECA
	4-Year MT College/Univ Prep (Rigorous Core)	English IV/ WRIT101 College Writing; AP Government; Pre-calc/Calculus; M121 College Algebra; Chemistry or Physics	
	CTE and/or Electives	Computer Science (Java - HHS); Cisco IV; DFT150CAD Drafting	

ADVANCED LEARNING OPPORTUNITIES
High School to College/Career Linkages

Advanced Placement or IB courses: AP US History; AP European History; AP Government; AP Psychology; AP English III & IV; AP Calculus; AP Biology

Dual Enrollment courses: M121 College Algebra; M151 Pre-calc; M171 Calc; WRIT101 College Writing or WRIT121T Technical Writing; CSCI100 Intro to Programming; CSCI111 Programming with Java 1; NTS104 CCNA 1: Intro to Networks; Oracle = CSCI240 Databases & SQL; DFT150 CAD 2D

Online courses: MTDA: CSCI107 Joy and Beauty of Computing (as per district policy 2.5 credits count towards graduation requirements)

Other: Helena Robotics Club, Business Co-op, Internships

POSTSECONDARY PROGRAM OF STUDY

	Math	English	Major	Other
Semester 1 (15 credits)	M121 College Algebra **/or** M115 Linear Mathematics 3CR	WRIT101 College Writing **/or** WRIT121T Technical Writing 3CR	CSCI100 Intro to Programming 3CR OR CSCI107 Joy & Beauty 3CR BMIS285 Fundmntls of Managemt Information Systems 3CR NTS104 CCNA 1: Intro to Networks	

				4CR	
Semester 2 (18 credits)				NTS105 CCNA 2: Routing & Switching 3CR MART145 Web Design 3CR ITS224 Intro to Linux 3 CR ITS280 Comp. Repair & Maintenance. 4CR	SOCI101 Intro to Sociology /or PSYX100 Into to Psychology /or HR110T Career Development and Human Relations 3CR
Semester 3 (14 credits)				NTS205 CCNA 4:Connecting Networks 3CR CSCI221 Syst. Analysis & Des. 4CR CSCI240 Databases & SQL 3CR ITS255 Telephony 3CR	ITS-- Intro to Administrative Scripting Microsoft Window 2CR ITS—Intro to Admin Scripting for Platform Integration 2CR
Semester 4 (15 credits)				CSCI212 Web Server Admin 3CR ITS212 Network Operating System Server Admin 4CR ITS218 Network Security 3CR NTS204 CCNA 3 Scaling and Networks 3CR	CSCI298 Internship **OR** CSCI299 Thesis/Capstone 2CR…

MONTANA POSTSECONDARY OPPORTUNITIES

Montana University System Degree and Program Inventory: http://www.homepage.montana.edu/~mus/drginv/
Your Guide to Montana's Certificate and Associate Degree Programs: http://mus.edu/twoyear/YourGuide.html

MSU Two Year Colleges and Programs: City College MSUB—Billings (CC); Great Falls College MSU—Great Falls (GFC); Helena College UM—Helena (HC) Highlands College MT Tech—Butte(HC-Tech); Missoula College UM—Missoula (MC); Gallatin College MSU—Bozeman(GC)	**Community Colleges:** Dawson Community College (DCC) Flathead Valley Community College (FVCC) Miles Community College (MCC)	**Tribal Colleges:** Aaniiih Nakoda College (ANC);Blackfeet Community College(BCC); Chief Dull Knife College (CDKC);Fort Peck Community College (FPCC);Little Big Horn College (LBHC);Stone Child College (SCC);Salish Kootenai College (SKC)	**Four Year Colleges/Universities:** MSU—Bozeman; MSUB—Billings; MSUN—Havre; MT Tech—Butte; UM—Missoula; UMW—Dillon
MILITARY	• Requires diploma or GED • 17 with parental consent; 18 without	Air Force, Air Guard, Army, Coast Guard, Marines, and Navy For more information: http://todaysmilitary.com	
PROFESSIONAL CERTIFICATE	• Requires diploma or GED • Less than 30 credits; little/no general ed credits • Complete in one year or less		
APPRENTICESHIP	• Requires diploma or GED • Must be at least 18 • Minimum 2,000 hours of supervised experience	See the MT Dept of Labor website for more information: http://wsd.dli.mt.gov/apprenticeship/default.asp	
CERTIFICATE OF APPLIED SCIENCE	• Requires diploma or GED • 30-45 credits; limited general education credits • Complete in one year or less	Computer Assistant — HC, HC Tech, GFC Computer Desktop/Network Support — FPCC Computer Networking — CC, HC Tech, GFC, UMW Computer Science/Technology — BCC Computer Skills Specialist — HC; Computer Support — MC Programming Technology — FPCC Web Technology/Development/Design — DCC	
ASSOCIATE'S OF APPLIED SCIENCE DEGREE	• Requires diploma or GED • 60-72 credits; includes 15-25 general ed credits • Complete in two years *(if prepared academically in math and English)*	Computer Desktop/Network Support — CC, SKC Computer Graphics — MCC Computer Information Systems — MC, MSUN, Computer Networking — HC, MC, HC Tech, GFC, MCC, FPCC Computer Science/Technology — FPCC, BCC Computer Systems Tech — CC Computer Technical Support Specialist — DCC Information Technology/Systems — FVCC Microcomputer Specialist/Technology — GFC Programming Technology — HC, CC Web Technology/Dev/Design — HC Tech , GFC, FVCC	
BACCALAUREATE DEGREE	• Requires 4-year college prep for admission • 128 credits (approximately) • Complete in four years	Computer Engineering — MSU, SKC Network Technology — TECH Computer Science — MSU, UM Computer Info Systems — MSUN Information Systems — UM Information Technology — SKC	

Degree and Program Inventory above may not be all inclusive