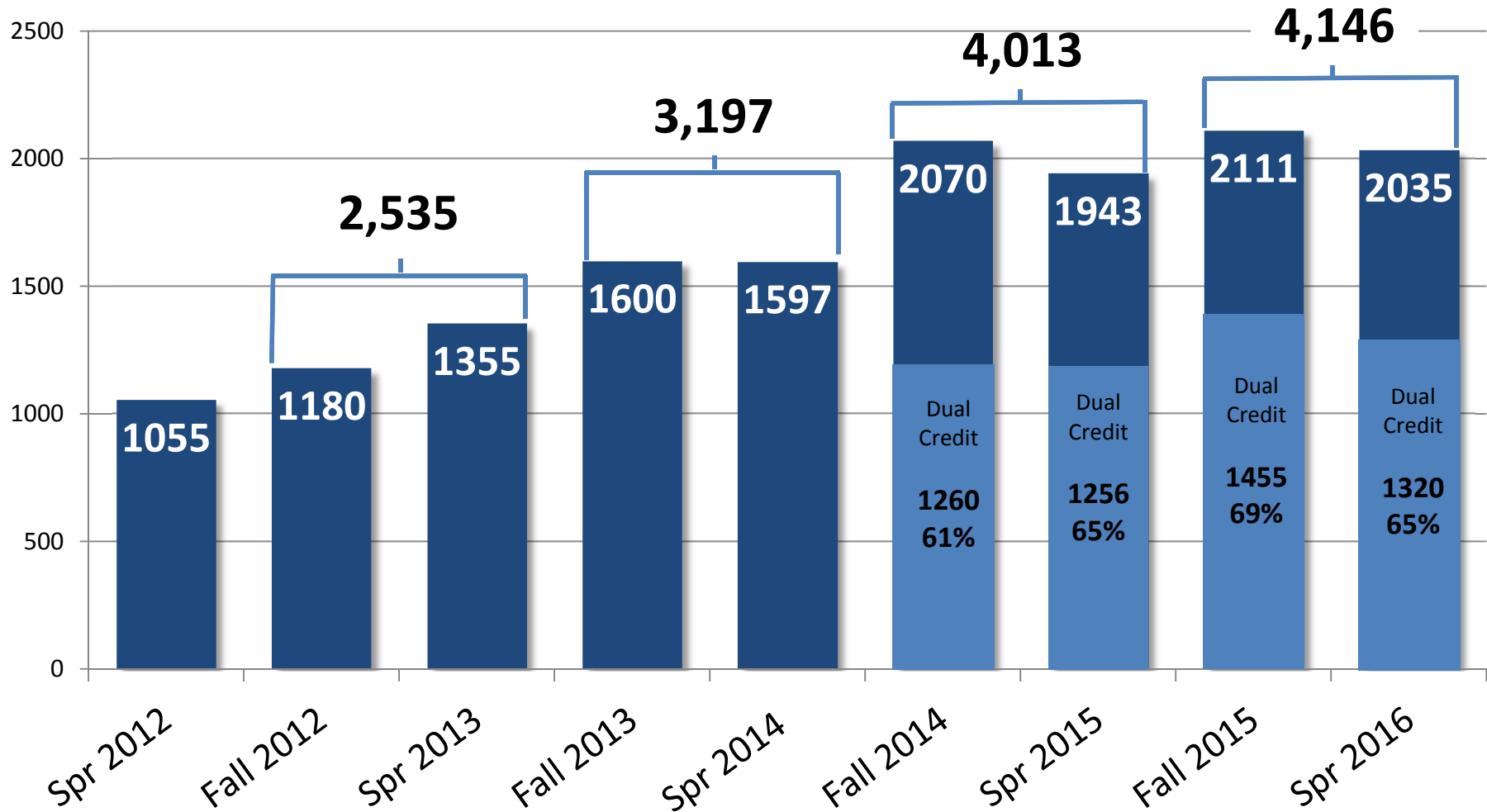# Dual Enrollment Update

Enrollment & Student Success
Instructor Requirements
Student Eligibility & Access
Strategies & Challenges
Big Sky Pathways

Presentation to the Education & Local Gov't Interim Committee
April 6, 2016

Dual Enrollment Headcount

Unduplicated count of high school students enrolled in at least one college course

	Spr 2012	Fall 2012	Spr 2013	Fall 2013	Spr 2014	Fall 2014	Spr 2015	Fall 2015	Spr 2016
Total		**2,535**		**3,197**		**4,013**		**4,146**	
Upper bar	1055	1180	1355	1600	1597	2070	1943	2111	2035
Dual Credit						1260 61%	1256 65%	1455 69%	1320 65%

MUS Dual Enrollment - Academic Year Headcount
Unduplicated Fall Headcount + Unduplicated Spring Headcount

CAMPUS	AY 2012-13	AY 2013-14	AY 2014-15	AY 2015-16	2012-13 to 2015-16 % chg
Flathead Valley CC	426	510	735	781	83%
Helena College	417	382	645	612	47%
Missoula College*	442	666	648	574	30%
Great Falls College	280	383	543	541	93%
Highlands College	469	515	515	541	15%
City College	307	355	452	518	69%
Gallatin College**	66	150	212	246	273%
Miles CC	89	114	155	130	46%
MSU Northern	37	78	49	117	216%
Dawson CC	0	14	43	48	-
UM Western	2	30	16	38	1800%
Total AY Headcount	**2535**	**3197**	**4013**	**4146**	**64%**

*includes enrollments from UM Missoula and Bitterroot College
**includes enrollments from MSU Bozeman

Spring 2016 based on census data

2015-16 Stats

- ❖ Average credit load = 4.4 credits
- ❖ 58% female
- ❖ 84% success rate (grade = A,B,C), fall 15
- ❖ 45% from AA high schools

- ❖ Most popular subjects:
  - Math (15%)
  - Writing (13%)
  - Statistics (5.8%)
  - Chemistry (5.3%)
  - Biology (5.2%)
  - Literature (5.2%)
  - History (5.2%)
  - Psychology (5.2%)
  - Welding (4.6%)

- ❖ High School Enrollment (spr 16)
  - Great Falls High (186)
  - Home School (122)
  - Charles M. Russell (109)
  - Butte High (91)
  - Bozeman (83)
  - Columbia Falls (78)

- ❖ High School Enrollment (fall 15)
  - Helena High (150)
  - Sentinel High (125)
  - Helena Capital (108)
  - Hellgate High (102)
  - Butte High (100)
  - Home School (94)

Capture Rates

➢ 63% of high school students earning dual enrollment credit enter the MUS as college students.

➢ In comparison, approximately 40% of public high school graduates attend a MUS campus within 16 months of graduation.

Student Success

➢ Compared to students who do not participate in dual enrollment, dual enrollment students outperform their peers in key success areas.

- 16% higher rate of first year retention (84% DE, 68% non-DE)
- Higher freshman GPA (3.06 DE, 2.8 non-DE)
- Earn more credits in first year of college.
- The benefits are independent of high school GPA, and often "B" and "C" students make larger gains than "A" students when compared to non-participating peers.

Instructor Requirements

General Education course qualifications: A master's degree with at least 9 credits in the teaching field/discipline of the dual credit class being taught. A temporary three year waiver of the nine credits can be granted if the instructor is actively pursuing the additional required credits.

Career Technical Education course qualifications: three years' experience in the occupation to be taught or an equivalent number of years of postsecondary education in the career/technical discipline, combined with work experience in the subject area of the dual credit class being taught.

Montana Teachers Dual Credit Incentive Program

C REDIT 4 REDIT
C O U P O N

Get Informed:	Get Some Credit:	Get Connected:	Get Schooled:	Check Qualifications:	Dual Credit 411:
What is the Montana Dual Credit Incentive Program?	C4C Coupons	Reach out to your local two-year college	Find graduate credits in your discipline	Dual Credit Teacher Requirements	Weekly Webinars

Student Eligibility & Access

ONLINE COURSES:
To learn more about registering for online dual enrollment courses offered to students in all communities across the state, go to http://montanadigitalacademy.org/montana-university-system-dual-credit-information/.   *(View list of courses available-Fall here)*

ON-CAMPUS COURSES:
To learn more about on-campus dual enrollment courses offered locally, contact the dual enrollment coordinator listed below at your community's college: http://www.mus.edu/2yr/DualEnrollment.asp

ELIGIBILITY:
➢ Varies by course
➢ Methods of assessment: ACT/SAT scores, placement test, Prerequisites

Strategies Influencing Dual Enrollment Growth

1. **Common Course Numbering**
   - Guaranteed transfer of credit state-wide

2. **Price Reduction**
   - Half the two-year college tuition rate, no fees ($50/cr. state average)

3. **Performance-Based Funding**
   - 3rd year of dual enrollment performance funding

4. **Dual Credit Incentive Initiative** – Credit for Credit (C4C)
   - Increased pool of qualified teachers, increased knowledge of program

Areas of focus

1. Student affordability

2. Professional development

3. Public awareness

4. Enrollment process

5. Rural access

Big Sky Pathways

What is Big Sky Pathways?

- Gives students an early start on college and career, helps ensure a successful transition from high school to college and career.

How does dual enrollment fit in Big Sky Pathways?

- Pathways connect a high school and college around a specific program of study. Each Pathway contains a sequence of recommended courses and/or activities to help students to best prepare for the next step, college or career.

- The Pathway shows the dual enrollment courses a student can take in high school, and how they fit in the college program.

Big Sky Pathways is gearing up to grow CTE dual enrollment options in high schools across Montana in the coming year.

Big Sky Pathways & Career Clusters

Download a sortable list of all pathways in the state!

Using Adobe Document Cloud

Click on one the clusters below to see approved pathways within the cluster, or for a blank pathway template.

- Agriculture, Food, & Natural Resources
- Arts, A/V Technology & Communications
- Architecture & Construction
- Business Management & Administration
- Education & Training
- Finance
- Government & Public Administration
- Health Science
- Hospitality & Tourism
- Human Services
- Information Technology
- Law, Public Safety, Corrections & Security
- Manufacturing
- Marketing
- Science, Technology, Engineering & Mathematics
- Transportation, Distribution & Logistics

Computer Technology – Associate of Applied Science

HIGH SCHOOL: Helena High School		**BIG SKY PATHWAY PROPOSAL**
COLLEGE: Helena College University of Montana		
COLLEGE DEGREE PROGRAM: Computer Technology AAS Programming Option		
Cluster Overview: 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.	**Pathway Options:** • Network Systems • Information Support and Services • Web and Digital Communications • Programming and Software Development	**Occupation Examples:** 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

Computer Technology – Associate of Applied Science

		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	Computer Science (Java - HHS); Cisco I, Computer Science (Python – MTDA); Basic Computer Skills; Tech Skills for Life	**Recommended CTE Pathway Courses:** Oracle; Cisco 1
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	Computer Science (Java - HHS); Cisco I , Computer Science (Python – MTDA); Marketing	**Other Recommended CTE Courses:** Marketing; Bengal Business; Accounting; Small Business Management; Drafting, JMG; Cisco 2-4
11th	Graduation Requirements Workforce/2-Year College Prep	English III;; Algebra II; US History	
	4-Year MT College/Univ Prep (Rigorous Core)	AP Language and Composition; Algebra II; AP US History; Chemistry; Bio II or Chemistry	
	CTE and/or Electives	CSCI100 Intro to Programming; CSCI111Programming with Java; Cisco I , Computer Science (Python – MTDA); Basic Computer Skills; 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)	WRIT101 College Writing/English IV or WRIT121T Technical Writing; AP Government; M121 College Algebra; Physics	
	CTE and/or Electives	CSCI240 Databases & SQL (Oracle); Accounting 1; Marketing; DFT150 CAD 2D (Drafting)	

Computer Technology – Associate of Applied Science

ADVANCED LEARNING OPPORTUNITIES
High School to College/Career Linkages
CTE START courses:
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; WRIT101 College *Writing* , *WRIT121T* Technical Writing; CSCI100 Intro to Programming; CSCI111 Programming with Java 1; NTS104 Intro to Networks; CSCI240 Databases & SQL (Oracle); DFT150 CAD 2D (Drafting)
Online courses: MTDA: CSCI 107 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 Fundamentals of Management Information Systems 3CR	ITS164 Networking Fundamentals 3CR OR NTS104 Intro to Networks 3CR Successful placement or CAPP 100
Semester 2 (18 credits)			CSCI111 Programming with Java I 4CR CSCI240 Databases & SQL 3CR ITS280 Comp. Repair & Maintenance. 4CR MART145 Web Design 3CR	SOCI101 Intro to Sociology /or PSYX100 Into to Psychology /or HR110T Career Development and Human Relations 3CR
Semester 3 (14 credits)			CSCI 2?? DB xxxxx 3CR CSCI211 Client Side Web Dev 3CR CSCI221 Syst. Analysis & Des. 4CR CSCI236 XML Data Processing 2CR CSCI276 Application Security 2CR	
Semester 4 (15 credits)			CSCI121 Program w/Java II 4CR CSCI238 Standard Mobile Apps 3CR CSCI206 .NET Applications 4CR CSCI 2xx Web Services 3CR	CSCI298 Internship OR CSCI299 Thesis/Capstone 2CR...

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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	

Computer Technology – Associate of Applied Science

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:	Community Colleges:	Tribal Colleges:	Four Year Colleges/Universities:
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)	Dawson Community College (DCC) Flathead Valley Community College (FVCC) Miles Community College (MCC)	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)	MSU—Bozeman; MSUB—Billings; MSUN—Havre; MT Tech—Butte; UM—Missoula; UMW—Dillon

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