Request for Approval with Assurances
Montana Big Sky Pathways (Programs of Study)

The Carl D. Perkins Career and Technical Education Act of 2006 (Perkins IV) calls for states to offer "career and technical programs of study," known as Big Sky Pathways in Montana, as an option to students and their parents when planning for and completing future coursework. These programs, at a minimum, must:

- Incorporate and align secondary and postsecondary education elements,
- Include academic and CTE content in a coordinated, non-duplicative progression of courses,
- Offer the opportunity, where appropriate, for secondary students to acquire postsecondary credits, and
- Lead to an industry-recognized credential or certificate at the postsecondary level, or an associate or baccalaureate degree.

Assurances:
By my signature on this form, I assure that to the best of my ability the proposed Big Sky Pathway submitted for approval by this high school/college satisfies the 10 stated requirements. For approval, all 10 requirements must be checked. NOTE: only the OPI Specialist has the authority to approve.

<table>
<thead>
<tr>
<th>Name of Big Sky Pathway (cluster level):</th>
<th>Agriculture, Food, Natural Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name of High School:</td>
<td>Harlowton High School</td>
</tr>
<tr>
<td>Names of Secondary Lead Teacher and Counselor:</td>
<td>JEFF HOLMES + KAY HINER</td>
</tr>
<tr>
<td>The Lead Secondary Teacher will be contacted if OPI has questions about this request</td>
<td></td>
</tr>
<tr>
<td>Lead Teacher’s email address:</td>
<td><a href="mailto:Jeffrey.holmes@harlowton.k12.mt.us">Jeffrey.holmes@harlowton.k12.mt.us</a></td>
</tr>
<tr>
<td>Lead Teacher’s phone number:</td>
<td>(406) 632-4384</td>
</tr>
<tr>
<td>Name of College:</td>
<td>Dawson Community College</td>
</tr>
<tr>
<td>Name of College Program:</td>
<td>Gas &amp; Diesel Technology AAS &amp; Certificate</td>
</tr>
<tr>
<td>Name of College Lead Faculty Member:</td>
<td>BRENT NELSON Chad Rupinski</td>
</tr>
</tbody>
</table>

**REQUIREMENTS FOR APPROVAL**

1. Includes all state and local graduation requirements
2. Identifies the appropriate secondary CTE, academic, and recommended elective courses offered by this high school which will prepare the student for college-level courses without remediation
3. Outlines a non-duplicative sequence of courses from grades 9-12 and from secondary to postsecondary education
4. Prepares students for entry into a postsecondary program or apprenticeship
5. Leads to an industry-recognized postsecondary credential, degree or employment
6. Includes appropriate state standards and/or industry skills standards. Identify standards used: (National Career Standards for...) Y
7. Aligns with an AAS program offered by a Montana college (college of technology, community college, tribal college, MSU-Northern) Y
8. Links with a web-based guidance delivery system such as MCIS if using something other than MCIS, please indicate: Yes
9. When applicable, dual enrollment opportunities have been identified.
10. When applicable, Advanced Placement, IB courses and CTE START (statewide articulations) have been identified.

**High School Principal’s Signature:** [Signature] Date: 11/18/11

**H.S. Advisory Committee Member’s Signature:** [Signature] Date: [Signature] Date: 11/18/11

**College Chief Academic Officer’s Signature:** [Signature] Date: 11/18/11

**College Lead Faculty Member’s Signature:** [Signature] Date: [Signature] Date: 11/18/11

Please submit this Request for Approval form and a copy of the Big Sky Pathway Proposal to:
OPI, Career and Technical Education, P.O. Box 202501, Helena, Montana 59620-2501

OPI Specialist Approval: [Signature] Date of Approval: 11/18/11

OCHE Approval: [Signature] Date of Approval: 11/18/11

Both the college and the high school will receive a signed copy when the BSP is approved.
<table>
<thead>
<tr>
<th>9th</th>
<th>Graduation Requirements</th>
<th>English 1, Geometry or Algebra 1, Physical Science, Weight Training or PE with Health Enhancement.</th>
<th>Recommended CTE Cluster Foundation Courses:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Workforce/2-Year College Prep</td>
<td>4-Year MT College/Univ Prep (Rigorous Core)</td>
<td>General Business</td>
</tr>
<tr>
<td></td>
<td>English, Algebra I, Earth (Lab) Science, Health Enhancement and 3 years of the following: World language/Computer Science/Visual or Performing Arts/Career &amp; Tech Ed</td>
<td>Ag Ed I</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CTE and/or Electives</td>
<td>Cluster Foundation Courses</td>
<td>General Math</td>
</tr>
<tr>
<td></td>
<td></td>
<td>English II, Algebra II or General Math, Biology, World History, Weight Training or Physical Education</td>
<td>Computer Lit</td>
</tr>
<tr>
<td>10th</td>
<td>Graduation Requirements</td>
<td>English, Geometry, Biology, Global Studies, and 3 years of the following: World language/Computer Science/Visual or Performing Arts/Career &amp; Tech Ed</td>
<td>Interpersonal Communications</td>
</tr>
<tr>
<td></td>
<td>Workforce/2-Year College Prep</td>
<td>4-Year MT College/Univ Prep (Rigorous Core)</td>
<td>Other Recommended CTE Courses:</td>
</tr>
<tr>
<td></td>
<td>English III, Chemistry, US History</td>
<td>Communication Arts, Algebra III</td>
<td>Life Skills</td>
</tr>
<tr>
<td></td>
<td>CTE and/or Electives</td>
<td>Cluster/Pathway Courses</td>
<td>Ag Ed II, III, IV</td>
</tr>
<tr>
<td>11th</td>
<td>Graduation Requirements</td>
<td>English, U.S. History, Algebra II, Chemistry or Physics, and 3 years of the following: World language/Computer Science/Visual or Performing Arts/Career &amp; Tech Ed</td>
<td>Ag Woods, Ag Greenhouse</td>
</tr>
<tr>
<td></td>
<td>Workforce/2-Year College Prep</td>
<td>4-Year MT College/Univ Prep (Rigorous Core)</td>
<td>FCS</td>
</tr>
<tr>
<td></td>
<td>English IV, Government</td>
<td>Pathway Course</td>
<td>Accounting</td>
</tr>
<tr>
<td></td>
<td>CTE and/or Electives</td>
<td>Journalism, Pre-Calculus, Calculus, Physics</td>
<td>Spanish</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Pathway Courses</td>
<td>CTE Student Organization(s):</td>
</tr>
<tr>
<td>12th</td>
<td>Graduation Requirements</td>
<td>English, Government, Social Studies, College Prep Writing, (additional math encouraged), and 3 years of the following: World language/Computer Science/Visual or Performing Arts/Career &amp; Tech Ed</td>
<td>FFA</td>
</tr>
<tr>
<td></td>
<td>Workforce/2-Year College Prep</td>
<td>4-Year MT College/Univ Prep (Rigorous Core)</td>
<td>FCCLA</td>
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<tr>
<td></td>
<td>English, Information Literacy</td>
<td>Pathway Courses</td>
<td>BPA</td>
</tr>
<tr>
<td></td>
<td>CTE and/or Electives</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**ADVANCED LEARNING OPPORTUNITIES**

High School to College/Career Linkages

<table>
<thead>
<tr>
<th>CTE START courses:</th>
<th>Web Design, MTDA</th>
</tr>
</thead>
</table>

Advanced Placement or IB courses:

Dual Enrollment courses:

Online courses:

Other: Supervised Agricultural Experience (SAE) and participation in appropriate FFA activities support and reinforce classroom and laboratory learning and should be a requirement for all students

**POSTSECONDARY PROGRAM OF STUDY**

<table>
<thead>
<tr>
<th>Math</th>
<th>English</th>
<th>Major</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>13—Semester 1</td>
<td>Information Literacy</td>
<td>Tool Measurement/Safety, Electricity AC/DC, Intro to Welding</td>
<td>Standard First Aid/CPR, Intro to Business,</td>
</tr>
<tr>
<td>13—Semester 2</td>
<td>Math for Liberal Arts</td>
<td>College Writing I</td>
<td>Hydraulics, Gas and Diesel Technology</td>
</tr>
</tbody>
</table>
### MONTANA POSTSECONDARY OPPORTUNITIES

Montana University System Degree and Program Inventory: [http://www.homepage.montana.edu/~mus/dqinv/Your Guide to Montana's Certificate and Associate Degree Programs; http://mus.edu/twoyear/YourGuide.html](http://www.homepage.montana.edu/~mus/dqinv/Your%20Guide%20to%20Montana's%20Certificate%20and%20Associate%20Degree%20Programs%3B%20http://mus.edu/twoyear/YourGuide.html)

<table>
<thead>
<tr>
<th>Colleges of Technology:</th>
<th>Community Colleges:</th>
<th>Tribal Colleges:</th>
<th>Four Year Colleges/Universities:</th>
</tr>
</thead>
<tbody>
<tr>
<td>BLCOT—Billings; GFHOT—Great Falls; HCOT—Helena; TECHCOT—Butte; UMCOT—Missoula; GCP—Bozeman</td>
<td>DCC—Glendive; FVCC—Kalispell; MCC—Missoula City</td>
<td>CDCC—Lame Deer; FBCC—Harlem; FPCC—Poplar; LBHC—Crow Agency; SCC—Box Elder; SKC—Pablo</td>
<td>MSU—Bozeman; MSUB—Billings; MSUN—Havre; TECH—Butte; UM—Missoula; UM—Dillon</td>
</tr>
</tbody>
</table>

#### MILITARY
- Requires diploma or GED
- 17 with parental consent; 18 without

For more information: [http://todaysmilitary.com](http://todaysmilitary.com)

#### PROFESSIONAL CERTIFICATE
- Requires diploma or GED
- Less than 30 credits; little/no general ed credits
- Complete in one year or less

Agri-Mechanics Machinery/Technology — MSUN

#### 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.dti.mt.gov/apprenticeship/default.asp](http://wsd.dti.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

Agri-Business Technology — MCC
Agri-Mechanics Machinery/Technology — DCC
Livestock Technology — DCC
Natural Resource Management — FVCC

#### 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)*

Agri-Business Technology — DCC
Agri-Business Technology—Equitation — DCC
Agricultural Science/Technology — MSUN
Agri-Mechanics Machinery/Technology — MSUN, DCC
Equine Studies — UMW, MCC
Natural Horsemanship — UMW
Natural Resource Management — FVCC, BFCC

#### BACCALAUREATE DEGREE
- Requires 4-year college prep for admission
- 128 credits (approximately)
- Complete in four years

Agriculture Business — MSU
Agriculture Education — MSU
Animal Science — MSU
Biotechnology — MSU
Environmental Horticulture — MSU
Environmental Sciences — MSU
Land Rehabilitation — MSU
Land Resource Sciences — MSU
Natural Resources & Rangeland Technology — MSU
Plant Science — MSU
Sustainable Food & Bio-energy Systems — MSU
Earth Sciences — MSU
Biological Sciences — MSU
Biology — UMS
Environmental Studies — UMS
Forestry — UMS
Resource Conservation — UMS
Wildland Restoration — UMS
Wildlife Biology — UMS
Environmental Engineering — TECH
Mining Engineering — TECH
Geological Engineering — TECH
Environmental Science — UMW, SKC
Earth Science — UMW
Natural Resource Management & Forestry — SKC

*Degree and Program Inventory above may not be all inclusive*