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 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.

<table>
<thead>
<tr>
<th>Name of Big Sky Pathway (cluster level):</th>
<th>Agriculture, Food &amp; Natural Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name of School:</td>
<td>Carter County High School</td>
</tr>
<tr>
<td>Names of Secondary Lead Teacher and Counselor:</td>
<td>Tyler Classen &amp; Cathy Fyfe</td>
</tr>
<tr>
<td>Lead Teacher's email address:</td>
<td><a href="mailto:tylerc@kalka.k12.mt.us">tylerc@kalka.k12.mt.us</a></td>
</tr>
<tr>
<td>Lead Teacher's phone number:</td>
<td>406-725-8767</td>
</tr>
<tr>
<td>Name of College:</td>
<td>Dawson Community College</td>
</tr>
<tr>
<td>Name of College Lead Faculty Member:</td>
<td>Jeanne Hoagland</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:
7. Aligns with an AAS program offered by a Montana college (college of technology, community college, tribal college, MSU-Northern)
8. Links with a web-based guidance delivery system such as MCIS
   If using something other than MCIS, please indicate:
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: 2-2-11
H.S. Advisory Committee Member’s Signature: [Signature]  Date: 2-14-11
College Chief Academic Officer’s Signature: [Signature]  Date: 2-22-11
College Lead Faculty Member’s Signature: [Signature]  Date: 2-17-11

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: 8-26-13
OCHE Approval: [Signature]  Date of Approval: 2/28/2013

Both the college and the high school will receive a signed copy when the BSP is approved

January 2011
### HIGH SCHOOL: Carter County High School

**COLLEGE:** Dawson Community College  
**COLLEGE DEGREE PROGRAM:** Agribusiness Technology

<table>
<thead>
<tr>
<th>Cluster Overview:</th>
<th>Pathway Options:</th>
<th>Occupation Examples:</th>
</tr>
</thead>
</table>
| Careers in the Agriculture, Food and Natural Resources cluster involve the planning, implementation, production, management, processing, and/or marketing of agricultural commodities and services. | - Food Products and Processing Systems  
- Plant Systems  
- Animal Systems  
- Power, Structural & Technical Systems  
- Natural Resources Systems  
- Environmental Service Systems  
- Agribusiness Systems | Agricultural Chemical Dealer, Aquaculturist, Environmental Compliance-Assurance Manager, Farm Manager, Health and Safety Sanitarian, Meat Cutter-Meat Grader, Park Manager, Produce Buyer, Recycling Technician, Wildlife Manager, Botanist, Agricultural Educator, Ecologist, Environmental Engineer, Fish and Game Officer, Bank Loan Officer, Plant Pathologist, Veterinarian |

For a complete listing, go to:  
http://online.onetcenter.org/find/career?q=1&g=Go

### SUGGESTED HIGH SCHOOL COURSES

<table>
<thead>
<tr>
<th>Grade</th>
<th>Course Details</th>
<th>Recommended CTE Cluster Foundation Courses:</th>
</tr>
</thead>
</table>
| 9th   | Graduation Requirements  
Workforce/2-Year College Prep | Intro. To Agriculture, Computer Applications |
|       | 4-Year MT College/Univ Prep (Rigorous Core) |  

**English I, Math, Earth Science (lab science), PE/Health 9, Current Events, and three years of the following: Career & Tech Ed/Fine Arts (band, choir, drama)/Foreign Language** |

Other Recommended CTE Courses:  
Ag. Communications/Marketing  
Farm Management  
Entrepreneurship  
Accounting I & II  
Introduction to Business |

<table>
<thead>
<tr>
<th>Grade</th>
<th>Course Details</th>
<th>CTE Student Organization(s):</th>
</tr>
</thead>
</table>
| 10th  | Graduation Requirements  
Workforce/2-Year College Prep | FFA |
|       | 4-Year MT College/Univ Prep (Rigorous Core) |  

**English II, Math, Biology (lab science), Speech, PE/Health 10, and three years of the following: Career & Tech Ed/Fine Arts (band, choir, drama)/Foreign Language** |

<table>
<thead>
<tr>
<th>Grade</th>
<th>Course Details</th>
<th>CTE and/or Electives:</th>
</tr>
</thead>
</table>
| 11th  | Graduation Requirements  
Workforce/2-Year College Prep | Ag. Communications/Marketing, Farm Management, Accounting I, Chemistry |
|       | 4-Year MT College/Univ Prep (Rigorous Core) |  

**English III, American History and three years of the following: Career & Tech Ed/Fine Arts (band, choir, drama)/Foreign Language** |

<table>
<thead>
<tr>
<th>Grade</th>
<th>Course Details</th>
<th>CTE and/or Electives:</th>
</tr>
</thead>
</table>
| 12th  | Graduation Requirements  
Workforce/2-Year College Prep | Entrepreneurship, Accounting II, Chemistry |
|       | 4-Year MT College/Univ Prep (Rigorous Core) |  

**English IV, U. S. Government and three years of the following: Career & Tech Ed/Fine Arts (band, choir, drama)/Foreign Language** |

### ADVANCED LEARNING OPPORTUNITIES

**High School to College/Career Linkages**  
**CTE START courses:** Computer Applications (CAPP 120 Introduction to Computers), Accounting I (ACTG 101 Accounting Procedures I)  
**Advanced Placement or IB courses:** AP Calculus  
**Dual Enrollment courses:** N/A  
**Online courses:** Available through Montana Digital Academy

---

Agriculture, Food & Natural Resources, page 1 of 3  
November 2010
**POSTSECONDARY PROGRAM OF STUDY**

<table>
<thead>
<tr>
<th>Semester 1</th>
<th>Math</th>
<th>English</th>
<th>Major</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>13—</td>
<td>WRIT101</td>
<td>AG104, AG114, AG110, AG150 or AG278, AG140 or AG232</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13—</td>
<td>M108</td>
<td>CM110</td>
<td>AG111 or AG225, AG220</td>
<td>CAPP131</td>
</tr>
<tr>
<td>14—</td>
<td>AG150 or AG278, AG230, AG140 or AG232</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14—</td>
<td>BIO265, BIO266, AG111 or AG225, SC209</td>
<td>SOCI101, PSYX100</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**MONTANA POSTSECONDARY OPPORTUNITIES**

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

<table>
<thead>
<tr>
<th>Colleges of Technology:</th>
</tr>
</thead>
<tbody>
<tr>
<td>BLCOT—Billings; GFCOT—Great Falls; HCOT—Helena; TECHCOT—Butte; UMCOT—Missoula; GCP—Bozeman</td>
</tr>
<tr>
<td>Community Colleges:</td>
</tr>
<tr>
<td>DCC—Glendive; KCC—Kalispell; MCC—Miles City</td>
</tr>
<tr>
<td>Tribal Colleges:</td>
</tr>
<tr>
<td>BFCC—Browning; CDKC—Lame Deer; FBCC—Harlem; FPCC—Poplar; LBHC—Crow Agency; SCC—Box Elder; SKC—Pablo</td>
</tr>
<tr>
<td>Four Year Colleges/Universities:</td>
</tr>
<tr>
<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

**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

**CERTIFICATE OF APPLIED SCIENCE**
- Requires diploma or GED
- 30-45 credits; limited general education credits
- Complete in one year or less

**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)

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

- Power, Air Force, Air Guard, Army, Coast Guard, Marines, and Navy
  For more information: [http://todaysmilitary.com](http://todaysmilitary.com)
- Agri-Mechanics Machinery/Technology — MSUN
- Farm Equipment Mechanics
  See the MT Dept of Labor website for more information:
- Agri-Business Technology — MCC
- Agri-Mechanics Machinery/Technology — DCC
- Livestock Technology — DCC
- Natural Resource Management — FVCC
- Agri-Business Technology — DCC
- Agri-Business Technology—Equitation — DCC
- Agricultural Science/Technology — MSUN
- Agri-Mechanics Machinery/Technology — MSUN, DCC
- Equine Studies — UM, MCC
- Natural Horsemanship — UM
- Natural Resource Management — FVCC, BFCC
- 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 — UM
- Environmental Studies — UM
<table>
<thead>
<tr>
<th>Field</th>
<th>University</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forestry</td>
<td>UM</td>
</tr>
<tr>
<td>Resource Conservation</td>
<td>UM</td>
</tr>
<tr>
<td>Wildland Restoration</td>
<td>UM</td>
</tr>
<tr>
<td>Wildlife Biology</td>
<td>UM</td>
</tr>
<tr>
<td>Environmental Engineering</td>
<td>TECH</td>
</tr>
<tr>
<td>Mining Engineering</td>
<td>TECH</td>
</tr>
<tr>
<td>Geological Engineering</td>
<td>TECH</td>
</tr>
<tr>
<td>Environmental Science</td>
<td>UMW, SKC</td>
</tr>
<tr>
<td>Earth Science</td>
<td>UMW</td>
</tr>
<tr>
<td>Environmental Science &amp; Forestry</td>
<td>SKC</td>
</tr>
</tbody>
</table>

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