Big Sky Pathway
Program of Study Team Worksheet

Requirements
The Carl D. Perkins Career and Technical Education Act of 2006 (Perkins IV), calls for states to offer "career and technical programs of study as educational options to students and parents when planning for and completing future coursework. These programs must:

- Incorporate and align secondary and postsecondary education elements and curriculum,
- Include academic and CTE content in a coordinated, non-duplicative progression,
- Offer the opportunity, where appropriate, for secondary students to postsecondary credits, and,
- Must lead to an industry-recognized credential or certificate, or degree.

In addition to the requirements above, Programs of Study in Montana must also meet the following criteria:
- Programs of study must include all state and local high school graduation requirements

Assembling a Team Designing and implementing a Big Sky Pathway requires collaboration at every level of the process. Based on your local community and the specific Career Pathway for which you wish to implement a Program of Study, you should assemble a team that includes academic and CTE Teachers, District or School CTE Advisors, Business and Industry Representatives, Postsecondary Partners and Faculty, Education Administrators, and even relevant local community leaders or recent program of study graduates.

This team will have several responsibilities in the creation of the Program of Study (POS), which are explained in depth in the Big Sky Pathway Implementation Guide For Montana (p. 47).

After reviewing the Guide, it is a good practice to fill out the information below and identify the roles and responsibilities of the team members:

Career Cluster: ____________ Health Science ____________

Career Pathway/Program of Study: ____________ Therapeutic Services/Medical Assistant ____________

High school & College: Bozeman High School & Gallatin College Montana State University

Date of Meeting: 2/4/14

Program of Study Team Members:

<table>
<thead>
<tr>
<th>Team Member</th>
<th>Name/Affiliation</th>
<th>Role/Responsibility</th>
<th>Signature/Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Big Sky Pathways Coordinator</td>
<td>Amy Williams Gallatin College</td>
<td>Meets with CTE instructors, school counselors, and school administrators to explain and advocate for pathways, assist in filling out pathway paperwork, and complete gap analysis; collaborates with Gallatin College Program Development Manager who communicates with industry leaders</td>
<td>Signature/Date</td>
</tr>
<tr>
<td>Role Description</td>
<td>Person(s)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>----------------------------------------------------------------------------------</td>
<td>--------------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Industry Liaison- Gallatin College Program Development Manager</td>
<td>Stephanie Gray</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Communications with industry leaders and GC advisory boards. Works directly with Amy Williams to communicate information from industry to secondary education and create programs connecting industry and secondary educators.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OPI Specialist</td>
<td>Renee Harris</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reviews Pathways materials sent by Amy Williams, assists with Cluster specific information as needed, provides information about regional schools and CTE programs/Perkins funds utilization.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Secondary Administration (Principal, Assistant Principal, etc.)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Meets with Amy Williams to discuss the establishment of Big Sky Pathways in the school, connects Mrs. Williams with CTE instructors and counselors, collaborates in the discussion of dual enrollment, and assists in any other ways helpful and/or necessary.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Postsecondary Administration (Academic Dean or Department Chair)</td>
<td>Janet Heiss Arms</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Communicates with Amy Williams about regional schools and Pathway establishment as well as dual enrollment.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Secondary Counselor</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assists Amy Williams in determining the correct sequence of courses (standard and rigorous core) that fulfill HS graduation requirements for the Pathway proposal document, assists in the gap analysis when available and relevant, reviews and approves courses in the pathway document.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Postsecondary Program Director</td>
<td>Carol Schloss</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Works with Amy Williams on the Postsecondary portion of the Gap Analysis and Proposal Document to ensure that his/her program is correctly described.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CTE Teacher(s)</td>
<td>Amy Washtak, Candy Barton, Dawn Drahos</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Works with Amy Williams to fill out the Gap Analysis document and complete the CTE electives portion of the Big Sky Pathways document. Collaborates with Mrs. Williams on identifying potential dual enrollment opportunities.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
In developing a pathway/program of study, it is also important to determine that the pathway includes the following elements:

<table>
<thead>
<tr>
<th>Pathway Checklist</th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Pathway includes all state and local graduation requirements preparing students for entry into a postsecondary program</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Pathway identifies the appropriate secondary CTE, academic, and recommended elective courses offered by the high school which will prepare the student for college-level courses without remediation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Pathway outlines a non-duplicative sequence of courses from grades 9-12 and from secondary to postsecondary education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Pathway leads to an industry-recognized postsecondary credential, degree or employment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Curriculum between secondary and postsecondary institutions has aligned curriculum, using industry recognized standards or with input of local/regional business and industry (May use Gap Analysis)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>List National Standards or Local/Regional Business Here:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Postsecondary: American Medical Technologists &amp; Accrediting Bureau of Health Education Schools</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Secondary: PTLW and Montana State Health Science Standards</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Pathway includes dual enrollment, high school for college credit, and opportunities for industry-recognized credentials and work-based learning experiences when applicable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. The pathway utilizes the guidance of a web-based career counseling system, or information regarding the pathway is available on the institution’s website.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Cluster Overview:
CAREERS IN HEALTH SCIENCE INVOLVE PLANNING, MANAGING, AND PROVIDING THERAPEUTIC SERVICES, DIAGNOSTIC SERVICES, HEALTH INFORMATICS, SUPPORT SERVICES, AND BIOTECHNOLOGY RESEARCH AND DEVELOPMENT.

### Pathway Options:
- Diagnostic Services
- Therapeutic Services
- Health Informatics
- Support Services
- Biotechnology Research and Development

### Occupation Examples:
- Athletic Trainer
- Certified Nursing Assistant
- Clinical Medical Assistant
- Dental Assistant
- Hygienist
- Dental Lab Technician
- EMT/Paramedic
- Home Health Aide
- Licensed Practical Nurse
- Massage Therapist
- Physical Therapist
- Physical Therapist Assistant
- Radiologic Technician
- Respiratory Therapist
- Audiologist
- Chiropractor
- Dentist
- Dietician
- Exercise Physiologist
- Nurse Pritioner
- Occupational Therapist
- Optometrist
- Physician (MD/DO)
- Physician’s Assistant
- Surgical Tech
- Speech Language Pathologist
- Mammography
- Nuclear Medicine Technologist
- Medical Librarian
- Cybrianian
- Radiologist
- Phlebotomist
- Medical Technologist
- Clinical Laboratory Scientist
- Nutritionist
- Pathologist
- Veterinarian

### SUGGESTED HIGH SCHOOL COURSES

<table>
<thead>
<tr>
<th>Grade</th>
<th>Graduation Requirements</th>
<th>CTE and/or Electives</th>
<th>Recommended CTE Cluster</th>
<th>Recommended CTE Pathway</th>
<th>Other Recommended CTE Courses</th>
<th>Recommended CTE Foundation Course(s):</th>
</tr>
</thead>
<tbody>
<tr>
<td>9th</td>
<td>4-Year MT College/Univ Prep (Honors Diploma preferred)</td>
<td>English I, Algebra I, Physical Science, World Geography, Health Enhancement, Foreign Language</td>
<td>Principles of Biomedical Science</td>
<td>Human Body Systems</td>
<td>Medical Interventions</td>
<td>Biomedical Innovations</td>
</tr>
<tr>
<td>10th</td>
<td>4-Year MT College/Univ Prep (Rigorous Core Preferred)</td>
<td>English II, Geometry, Biology, US History, Health Enhancement, Foreign Language</td>
<td>Human Body Systems</td>
<td>Biomedical Innovations</td>
<td>Computer Applications</td>
<td></td>
</tr>
<tr>
<td>12th</td>
<td>4-Year MT College/Univ Prep (Rigorous Core Preferred)</td>
<td>College Prep Writing, Senior Math, Social Studies Senior Elective, Electives</td>
<td>Biomedical Innovations (Option to take a AHMS 144- embedded into this course-as a senior)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### ADVANCED LEARNING OPPORTUNITIES

CTE START courses: None

Advanced Placement or IB courses:
- AP Biology
- AP Chemistry
- AP Psychology
- AP Statistics
- AP English Lit and Comp.
- AP US History
- AP Government and Politics
- AP European History
- AP Calculus
- AP Microeconomics
- AP Human Geography
- AP French
- AP German

Dual Enrollment courses:
- AHMS144, M146, CSC1107, ACTG101, EDU101 US, WRIT104 as concurrent offerings and other offerings through Gallatin College (campus is co-located at the high school). Note that AHMS144 is embedded within the biomed sequence, students not taking the biomed sequence can take the course through Gallatin College.

Online courses:
- Montana Digital Academy; For those students interested in attending GC, we recommend any courses that fulfill GC graduation requirements (see program below) available for college or dual credit through other two year colleges via MTDA.

Other:

For a complete listing, go to: [http://online.onetcenter.org/find/career?c=8&q=G](http://online.onetcenter.org/find/career?c=8&q=G)
<table>
<thead>
<tr>
<th>POSTSECONDARY PROGRAM OF STUDY</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Math</strong></td>
</tr>
<tr>
<td>13—Semester 1</td>
</tr>
<tr>
<td>13—Semester 2</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Summer semester</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

**MONTANA POSTSECONDARY OPPORTUNITIES**

Montana University System Degree and Program Inventory: [http://www.homepage.montana.edu/~mus/dropin/](http://www.homepage.montana.edu/~mus/dropin/)

Your Guide to Montana's Certificate and Associate Degree Programs: [http://mus.edu/wov/yourguide.html](http://mus.edu/wov/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>BLCT—Billings; GFCOT—Great Falls; HCOT—Helena; TECHCOT—Butte; UMCT—Missoula; SCP—Bozeman</td>
<td>DCC—Glendive; PVCC—Kalspehl; MCC—Missoula City</td>
<td>BROC—Browning; CDJC—Lame Deer; FBCC—Hardin; FCCP—Poplar; UBHC—Crow Agency; SCC—Box Elder; SCK—Pablo</td>
<td>MSC—Bozeman; MUB—Billings; MSUN—Havre; TECH—Bozeman; UM—Missoula; UMW—Dillon</td>
</tr>
</tbody>
</table>

**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://www.army.com](http://www.army.com)

**PROFESSIONAL CERTIFICATE**
- Requires diploma or GED
- Less than 30 credits; little or general ed credits
- Complete in one year or less
- Certified Nursing Assistant—TECHCOT, DCC, MCC
- Diagnostic Medical Sonography—TECHCOT
- Health Informatics Tech—GFCOT, UMCT, MTTECH
- Pharmacy Technology—PVCC, GFCOT
- Medical Receptionist—MCC

**APPRENTICESHIP**
- Requires diploma or GED
- Must be at least 18
- Minimum 2,000 hours of supervised experience
- Pharmacy Technician
  See the MT Dept of Labor website for more information: [http://www.dlnetmt.gov/apprenticeshipdefault.asp](http://www.dlnetmt.gov/apprenticeshipdefault.asp)

**CERTIFICATE OF APPLIED SCIENCE**
- Requires diploma or GED
- 30-45 credits; limited general education credits
- Complete in one year or less
- Dental Assistant—GFCOT, SCK
- EMT/Paramedic—GFCOT
- Health Information Coding Specialist—GFCOT, PVCC
- Medical Billing Specialist—GFCOT
- Medical Transcription—GFCOT, PVCC
- Medical Billing & Coding—BLCT
- Pharmacy Technology—UMCT, GFCOT

**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)
  - Dental Assistant—SCK
  - Dental Hygiene—GFCOT
  - Dietetic Technician—GFCOT
  - EMT/Paramedic—GFCOT, BLCT, PVCC
  - Health Information Coding Specialist—UMCT
  - Health Information Technology—GFCOT
  - Medical Assistant—GFCOT, TECHCOT, PVCC
  - Medical Transcription—GFCOT
  - Medical Billing & Coding—GFCOT
  - Nursing—Practical—UMCT, BLCT, GFCOT, PVCC, HCOT
  - Nursing (RN)—HCOT, UMCT, BLCT, MSUN, MCC, SCK, GFCOT
  - Physical Therapist Aide—GFCOT
  - Radiologic Technology—MCOT, BLCT, GFCOT, TECHCOT, PVCC
  - Respiratory Care—GFCOT, MCOT
  - Surgical Technology—PVCC, GFCOT, MCOT, BLCT, TECHCOT

**BACCALAUREATE DEGREE**
- Requires 4-year college prep for admission
- 128 credits (approximately)
- Complete in four years
  - Athletic Training—UM
  - Communicative Disorders—UM
  - Food & Nutrition—MSU
  - Health & Human Performance—MSU, UM
  - Health Care Informatics—TECH
  - Medical Technology—UM
  - Nursing—MSU, MSUN, SCK, MTTECH
  - Occupational Safety and Health—MTTECH
  - Pre-Med—MSU, UM

---

Health Science, page 2 of 3  
September 2011