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 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>Health Science</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name of High School:</td>
<td>Derby High School</td>
</tr>
<tr>
<td>Names of Secondary Lead Teacher and Counselor:</td>
<td>Shelley Peters</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></td>
</tr>
<tr>
<td>Lead Teacher's phone number:</td>
<td></td>
</tr>
<tr>
<td>Name of College:</td>
<td>UM Missoula COT</td>
</tr>
<tr>
<td>Name of College Program:</td>
<td>Health Professions - nursing</td>
</tr>
<tr>
<td>Name of College Lead Faculty Member:</td>
<td>Mary Niederer, DNP</td>
</tr>
</tbody>
</table>

**REQUIREMENTS FOR APPROVAL**

1. Includes all state and local graduation requirements
2. Identifies the appropriate 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: **Foundations of Health Science**
7. Aligns with an AAS program offered by a Montana college (college of technology, community college, tribal college, MSU-Horsemint)
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:**

**Date:** 10/18/11

**H.S. Advisory Committee Member's Signature:**

**Date:** 9/21/11

**College Chief Academic Officer's Signature:**

**Date:** 11/01/2011

**College Lead Faculty Member's Signature:**

**Date:** 11/02/2011

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 202301, Helena, Montana 59620-2501

**OPI Specialist Approval: **

**Date of Approval:** 10/27/11

**OCHE Approval:**

**Date of Approval:** 11/7/11

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

January 2011
### HIGH SCHOOL: Darby High School
### COLLEGE: University of MT College of Technology
### COLLEGE DEGREE PROGRAM: Nursing, Radiology Technologist, Respiratory Care, Surgical Technology

#### 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
- Pharmacist/Pharmacy Technician
- Physical Therapist
- Respiratory Therapist
- Audiologist
- Chiropractor
- Dietitian
- Exercise Physiologist
- Nurse Practitioner
- Occupational Therapist
- Optometrist
- Physician (MD/DO)
- Physician's Assistant
- Surgical Tech
- Speech Language Pathologist
- Mammographer
- Nuclear Medicine Technologist
- Medical Librarian/Cybrarian
- Radiologist
- Phlebotomist
- Medical Technology
- Clinical, Laboratory Scientist
- Nutritionist
- Pathologist
- Veterinarian

For a complete listing, go to:
http://online.netcenter.org/find/career?c=8&g=Go

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### SUGGESTED HIGH SCHOOL COURSES

<table>
<thead>
<tr>
<th>Grade</th>
<th>Course Requirements</th>
<th>Electives</th>
<th>CTE and/or Electives</th>
</tr>
</thead>
<tbody>
<tr>
<td>9th</td>
<td>Graduation Requirements</td>
<td>Workforce/2-Year College Prep</td>
<td>English 9, Math/Recommend Algebra I, Earth Science, Health/PE</td>
</tr>
<tr>
<td></td>
<td>4-Year MT College/Univ Prep</td>
<td>(Rigorous Core Preferred)</td>
<td>English 9, Math/Recommend Algebra I, Earth Science, Health/PE</td>
</tr>
<tr>
<td>CTE and/or Electives</td>
<td>Fine Arts, CTE Electives or General Electives</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10th</td>
<td>Graduation Requirements</td>
<td>Workforce/2-Year College Prep</td>
<td>English 10, Math/Recommend Geometry, Biology, World History, PE</td>
</tr>
<tr>
<td></td>
<td>4-Year MT College/Univ Prep</td>
<td>(Rigorous Core Preferred)</td>
<td>English 10, Math/Recommend Geometry, Biology, World History PE</td>
</tr>
<tr>
<td>CTE and/or Electives</td>
<td>Fine Arts, CTE Electives or General Electives</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11th</td>
<td>Graduation Requirements</td>
<td>Workforce/2-Year College Prep</td>
<td>English 11, Math/Recommend Algebra II, US History</td>
</tr>
<tr>
<td></td>
<td>4-Year MT College/Univ Prep</td>
<td>(Rigorous Core Preferred)</td>
<td>English 11, Math/Recommend Algebra II, US History, Recommend Anatomy &amp; Physiology, Spanish I or Pre-Calculus</td>
</tr>
<tr>
<td>CTE and/or Electives</td>
<td>Fine Arts, CTE Electives or General Electives</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12th</td>
<td>Graduation Requirements</td>
<td>Workforce/2-Year College Prep</td>
<td>English 12, Government, Math if 3 credits not complete</td>
</tr>
<tr>
<td></td>
<td>4-Year MT College/Univ Prep</td>
<td>(Rigorous Core Preferred)</td>
<td>English 12 or AP English, Government or AP Government, Recommend Anatomy &amp; Physiology, AP Environmental Science, Pre-Calculus, Calculus, Spanish II</td>
</tr>
<tr>
<td>CTE and/or Electives</td>
<td>Fine Arts, CTE Electives or General Electives</td>
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</tr>
</tbody>
</table>

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### PATHWAY LEARNING OPPORTUNITIES

CTE START courses: Medical Foundations

Advanced Placement or IB courses: AP English; AP Psychology; AP Biology; AP Math

Dual Enrollment courses: College Algebra, Statistics;

Online courses: NRSG 100: Intro to Nursing (1 cr.); NRSG 110: Calculations for Health Professions (2 cr.)

Other: Program entry courses to apply for the Nursing (N), Radiation Technology (Ra), Respiratory Therapist (RT), Surgery Technician (S)

### SECONDARY PROGRAM OF STUDY

<table>
<thead>
<tr>
<th>Semester</th>
<th>Math</th>
<th>English</th>
<th>Major</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>13—Semester 1</td>
<td>MTH 111 College Algebra OR MTH 113 Finite Math and/or Pre-calculus</td>
<td>WRIT 111 College Writing</td>
<td>BIOL 211N (SCN 201) Anat. &amp; Phys (N, Ra, RT, S)</td>
<td>NUTR 221N Nutrition (N)</td>
</tr>
<tr>
<td></td>
<td>WRIT 111 College Writing</td>
<td></td>
<td>BIOL 212N Anat. &amp; Phys, Lab (N, Ra, RT, S)</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>SCN 175N Integrated Physical Science (Ra, RT)</td>
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<tr>
<td>13—Semester 2</td>
<td></td>
<td></td>
<td>CHMY 121N Anat. &amp; Phys II, BIOL 211 Lab (N, Ra, RT, S)</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>CHMY 122N Gen. Chem, &amp; CHMY 122 Lab (N, Ra, RT, S)</td>
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</tr>
</tbody>
</table>

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September 2011
### MONTANA POSTSECONDARY OPPORTUNITIES

Montana University System Degree and Program Inventory: [http://www.homepage.montana.edu/~mus/dirginv/Your Guide to Montana's Certificate and Associate Degree Programs: [http://mus.edu/twodayear/YourGuide.html](http://mus.edu/twodayear/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; GFCOT—Great Falls; HCOT—Helena; TEHCOT—Butte; UMCC—Missoula; GCP—Bozeman</td>
<td>DCC—Dinkey; VFCC—Kalispell; MCC—Miss City</td>
<td>BFCC—Browning; GDCC—Lance 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; UMW—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; lifetime 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 ed 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 of prepared academically (Math and English)

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

### Advanced Opportunities
- Certified Nursing Assistant—TEHCOT, DCC, MCC
- Diagnostic Medical Sonography—TEHCOT
- Health Informatics Tech—GFCOT, UMCOT, MTTECH
- Pharmacy Technology—VFCC, GFCOT
- Medical Receptionist—MCC
- Pharmacy Technician

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

See the MT Dept of Labor website for more information: [http://wslab.mt.gov/apprenticeship/default.asp](http://wslab.mt.gov/apprenticeship/default.asp)

- Dental Assistant—GFCOT, SKC
- EMT/Paramedic—GFCOT
- Health Information Coding Specialist—GFCOT, VFCC
- Medical Billing Specialist—GFCOT
- Medical Transcription—GFCOT, VFCC
- Medical Billing & Coding—BLCOT
- Pharmacy Technology—UMCOT, GFCOT
- Dental Assistant—SKC
- Dental Hygiene—GFCOT
- Dietetic Technician—GFCOT
- EMT/Paramedic—GFCOT, BLCOT, VFCC
- Health Information Coding Specialist—UMCOT
- Health Information Technology—GFCOT
- Medical Assistant—GFCOT, TECHCOT, VFCC
- Medical Transcription—GFCOT
- Medical Billing & Coding—GFCOT
- Nursing-Practical—UMCOT, BLCOT, GFCOT, VFCC, HCOT
- Nursing (RN)—HCOT, UMCOT, BLCOT, MSUN, MCC, SKC, GFCOT
- Physical Therapist Asst—GFCOT
- Radiologic Technology—MCOT, BLCOT, GFCOT, TECHCOT, VFCC
- Respiratory Care—GFCOT, MCOT
- Surgical Technology—VFCC, GFCOT, MCOT, BLCOT, TECHCOT

- Athletic Training—UM
- Communicative Disorders—UM
- Food & Nutrition—MSU
- Health & Human Performance—MSU, UM
- Health Care Informatics—TECH
- Medical Technology—UM
- Nursing—MSU, MSUN, SKC, MTTECH
- Occupational Safety and Health—MTTECH
- Pre-Med—MSU, UM

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