**HIGH SCHOOL:** Adult Basic Education  
**COLLEGE:** Helena College University of Montana  
**COLLEGE DEGREE PROGRAM:** LPN and RN

### 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/Assistant, Radiologic Technician, Registered Nurse, Respiratory Therapist, Audiologist, Chiropractor, Dentist, Dietician, 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 Technologist/Clinical, Laboratory Scientist, Nutritionist, Pathologist, Veterinarian

For a complete listing, go to:  [http://online.onetcenter.org/find/career?c=8&g=Go](http://online.onetcenter.org/find/career?c=8&g=Go)

### CRITICAL SKILLS PRACTICED IN ADULT LEARNING CENTER

<table>
<thead>
<tr>
<th>Reading</th>
<th>Concentrate on medical terminology. Take a basic medical terminology class which goes into prefixes, root word analysis and suffixes.</th>
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</thead>
</table>

**Applications**
Read a general Medical/Surgical book which has definitions included.  
Read an article in the American Journal of Nursing.

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<tr>
<th>Writing</th>
<th>Learn to use APA format with research formatted in a bibliography.</th>
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**Applications**
Write a research paper about a related health care field such as phlebotomy or LPN, including the scope of practice.

| Mathematics | Calculate basic math operations using numbers, fractions and decimals;  
Apply ratio concepts to ratios and percentages;  
Calculate formulas and solve for any of the variables in the formulas;  
Use the metric system and calculate conversions; |
|---|---|

**Application**
Write 7.2 ounces to 8.4 ounces as a ratio of whole numbers using fractional notation and write the fraction in its simplest form.  
85% of 300 is what number? Find the number of fluid ounces in 1.5 gallons.  
Solve $-8(n + 2) + 17 = -6n - 5$ for $n$.  
Solve $|2x - 5| = 19$ for $x$.

### Employability Skills
Professional behaviors, communication and critical thinking skills, coming to work on time, being loyal and dependable.

**Application**
Hold a job that requires dependability.

### SUGGESTED TRANSITIONAL COURSES AND EXPERIENCES

**College courses:** For M121 or M115, COMPASS math score of 70 or above or ACT math of 22 or above; For WRIT101, COMPASS Writing score of 90 or above or ACT Combined Writing of 18 or 7 on Essay Portion.

**Online courses:** NRSG100: Introduction to Nursing (1cr.); NRSG 110: Calculations for Health Professions (2cr.); PSYX100: Intro to Psychology

**Other:** Job experience in any health care field.

### POSTSECONDARY PROGRAM OF STUDY

| Semester 1 | M121 College Algebra (3 cr)  
WRIT101 College Writing (3 cr)  
BIOH 201 & 202 Anatomy & Physiology with Lab (4 cr)  
NUTR 221 Basic Human Nutrition (3 cr) |
|---|---|

| Semester 2 | BIOH 211 & 212 Anat & Phys with Lab II (4 cr);  
NRSG 100 Intro to Nursing (1 cr)  
PSYX 100 Intro to Psychology (3 cr);  
CHYMY 121 & 122 General and Inorganic Chemistry with Lab (4 cr) |
|---|---|

**LPN Major**

| Semester 3 | NRSG 130/131 Fundamentals of Nursing (7 cr);  
NRSG 135 Nursing Pharmacology (3 cr);  
NRSG 138 Gerontology for Nursing (2 cr)  
NRSG 144 Core Concepts of Mental Health Nursing (2 cr) |
|---|---|

| Semester 4 | NRSG 140 Core Concepts of Adult Nursing (7 cr);  
NRSG 142 Maternal/Child Nursing (3 cr)  
NRSG 148 Leadership Issues (2 cr) |
|---|---|

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<table>
<thead>
<tr>
<th>Semester 5</th>
<th>Semester 6</th>
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<tbody>
<tr>
<td>11 NRSG credits</td>
<td>9 NRSG credits</td>
</tr>
<tr>
<td>SOCI 101 Intro to Sociology (3 cr)</td>
<td>BIOL 250 &amp; 251 Microbiology (4 cr)</td>
</tr>
</tbody>
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## 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)

### 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:
- Aanilh 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—Helena; MT TECH—Butte; UM—Missoula; UMW—Bozeman

### 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](http://todaysmilitary.com)

### PROFESSIONAL CERTIFICATE
- Requires diploma or GED
- Less than 30 credits; little/no general ed credits
- Complete in one year or less
- Certified Nursing Assistant—HC Tech, DCC, MCC, HC
- Diagnostic Medical Sonography—HC Tech
- Health Informatics Tech—GFC
- Pharmacy Technology—FVCC, GFC, HC
- Medical Receiving—MCC

### APPRENTICESHIP
- Requires diploma or GED
- Must be at least 18
- Minimum 2,000 hours of supervised experience
- Pharmacy Technician, Respiratory Therapist
- See the MT Dept of Labor website for more information: [http://wsd.dli.mt.gov/apprenticeship/default.asp](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
- Dental Assistant—GFC, SKC
- EMT/Paramedic—GFC
- Health Information Coding Specialist—GFC, FVCC
- Medical Assisting—HC, Medical Billing Specialist—GFC
- Medical Transcription—GFC, FVCC
- Medical Billing & Coding—CC
- Nursing-Licensed Practical—HC
- Pharmacy Technology—MC

### 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—SKC, Dental Hygiene—GFC
- EMT/Paramedic—GFC, CC, FVCC
- Health Information Coding Specialist—MC
- Health Information Technology—GFC
- Medical Administrative Specialist—HC
- Medical Assistant—GFC, HC Tech, FVCC
- Medical Transcription—GFC, Medical Billing & Coding—GFC
- Nursing-Practical—MC, CC, GFC, FVCC
- Nursing (RN)—HC, CC, MCC, SKC
- Physical Therapist Assistant—GFC
- Radiologic Technology—MC, CC, GFC, HC Tech, FVCC
- Respiratory Care—GFC, MC
- Surgical Technology—FVCC, GFC, MC, CC, HC Tech

### 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—MT Tech
- Medical Technology—UM
- Nursing—MSU, MSUN, SKC
- Occupational Safety and Health—MT Tech
- Pre-Med—MSU

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