

Montana University System
PROGRAM REVIEW

Institution: **Montana State University - Northern**

Program Years: **2009-2017**

List of the programs reviewed:

- B.S. Biology
 - A.A.S. Design Drafting Technology
 - Plumbing Technology (A40)
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Decision(s) concerning the future of the program(s), based on the program review criteria established at the campus:

See attached detailed individual Program Review summaries.

Rationale or justification for the decision based on the program review process established at the campus. Include graduation numbers and student majors for each of the last seven (7) years for every program under review.

See attached detailed individual Program Review summaries.

Montana University System

PROGRAM REVIEW

Institution: Montana State University - Northern

Program Years: 2009-2016

List of the programs reviewed:

B.S. in Biology

Decision(s) concerning the future of the program(s), based on the program review criteria established at the campus:

The recommendation is to retain and grow the biology program.

Rationale or justification for the decision based on the program review process established at the campus. Include graduation numbers and student majors for each of the last seven (7) years for every program under review.

Majors (for fall of the year indicated)	2009	2010	2011	2012	2013	2014	2015	2016
Biology	40	32	29	29	23	30	23	31

Graduates (for academic year ending in August)	2010	2011	2012	2013	2014	2015	2016
Biology	3	6	5	6	5	3	2

Providing the foundation for a decision to retain the biology program is the rationale that it supports students in a wide variety of pre-professional careers, including pharmacy, medicine, physical therapy, veterinarian medicine and a variety of other areas. Designed as a generic biology program, it has a large number of available electives that provide pre-requisite courses for diverse graduate and professional programs, as well as careers. For example, students interested in physical therapy and other medical programs may supplement their biology program with courses in the Health Promotion or Nursing programs. Students that seek entry into a veterinary program may take classes offered in the Agriculture program. Biology students pair their program with Criminal Justice courses in their track to become game wardens, park rangers, or forensic scientists. The variety of organismal and ecological courses prepare graduates to enter directly into careers with land management agencies at the federal, state, or local level. Of equal importance, all but one of the biology core courses is also used in the B.S. in Secondary Education – General Science degree program.

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Institution: **Montana State University Northern**

Program Years: **2010 - 2017**

List of the programs reviewed:

A.A.S. Design Drafting Technology

Decision(s) concerning the future of the program(s), based on the program review criteria established at the campus:

Growth program

Rationale or justification for the decision based on the program review process established at the campus. Include graduation numbers and student majors for each of the last seven (7) years for every program under review.

The Design Drafting Technology program has been identified by the MSU Northern Core Leadership team as a growth program. A new instructor for the program was recently hired and is teaching the majority of the DDSN and MCH (Machining) classes. Other instructors also teach classes required in the degree, but these classes are for the Civil engineering Technology program and the business program also.

Several of the larger employers who recruit students from MSU Northern have expressed an interest in seeing the program grow (e.g. Kiewit, BNSF) as their needs are changing and the labor pool to fill these needs is diminishing. Montana DLI statistics show that there is a current need for graduates of this program and a modest projected future demand.

Graduation rates have been very low (as shown by the graduation data attached). One of the biggest issues this program has faced is that there has not been a dedicated faculty person to champion the program - we now have a faculty person to fill this role. The program faculty member has met with a campus recruiter, and new recruiting efforts are being planned in conjunction with the Admissions & Recruiting office to market this degree. These efforts will include target recruiting (high school visits with industry partners), electronic media (e.g. Facebook), and mailings. We are confident that with a dedicated program faculty and aggressive marketing and recruiting efforts, the graduates of this program will grow.

Table 1: Graduation data – A.A.S. Design Drafting

2011	2012	2013	2014	2015	2016	2017
1	0	1	0	0	0	0

Table 2: Declared majors – A.A.S. Design Drafting

2011	2012	2013	2014	2015	2016	2017
12	18	10	3	1	1	2

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Institution: Montana State University Northern

Program Years: 2011-2017

List of the programs reviewed:

Plumbing Technology (A40)

Decision(s) concerning the future of the program(s), based on the program review criteria established at the campus:

Enrollment and graduate numbers in the program have gradually increased and graduates have enjoyed success in obtaining apprenticeships with Plumbing Contractors. Graduation rates are low due to an extreme demand for Plumbing Apprentices. Students are leaving after their Freshman year to seek job opportunities. A very aggressive recruiting effort has increased the number of incoming Freshman to a record number. Many of the graduates of the program are sitting for and successfully obtaining their Montana State Journeyman's Plumbing Licenses. Many of the graduates have achieved their Plumbing Masters Licenses and are owners of their own companies.

Years 2011-2017

Plumbing Technology Majors

2011 (19) 2012 (19) 2013 (23) 2014 (14)

2015 (21) 2016 (20) 2017 (28)

Plumbing Technology Graduates

2011 (9) 2012 (6) 2013 (6) 2014 (4)

2015 (4) 2016 (4) 2017 (4)

Advisory Board Recommendations:

1. Continue the program on the Havre Campus with a targeted recruiting plan to encourage growth.
 2. Work towards a higher number of graduates.
 3. Develop a plan to offer all apprentices college credits for their Related training course work.
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Rationale or justification for the decision based on the program review process established at the campus. Include graduation numbers and student majors for each of the last seven (7) years for every program under review.

Years 2011-2017

Plumbing Technology Majors

2011 (19) 2012 (19) 2013 (33) 2014 (14)

2015 (21) 2016 (20) 2017 (28)

Plumbing Technology Graduates

2011 (9) 2012 (6) 2013 (6) 2014 (4)

2015 (4) 2016 (4) 2017 (4)

Based upon the review of program assessments, the Plumbing Technology Advisory Board has concluded that some minor changes should be made to the Plumbing Technology Program. The program should develop courses that address the Uniform Plumbing Codes and Plumbing Math in each year of the Associates Degree Program. Montana State University has considered not offering a Technical math course and a Plumbing Codes & calculations course, imbedded in the program, would meet the math requirements of the program and desires of the Advisory Board. Montana State University Northern handles all the apprenticeship education for the Montana Department of Labor & Industry. Apprenticeship Employers in the state have requested face to face courses to assist the completion of the apprenticeships and have stated a need for those to be evening courses offered in multiple cities during both Fall & Spring Semesters. MSU Northern should explore this option and also offer the option of each apprentice earning college credit for the courses they complete.