



ARTICULATION AGREEMENT

Offered collaboratively by

**MONTANA STATE UNIVERSITY-NORTHERN**

and

**Bates Technical College**

**(Associate of Applied Science Degree – Diesel & Heavy Equipment  
Mechanic)**

For

**BACHELOR OF SCIENCE DEGREE**

**IN DIESEL TECHNOLOGY**



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## I. SCOPE OF THE PROGRAM

Montana State University-Northern and Bates Technical College, Tacoma, Washington, hereby establish an articulation agreement leading to a Bachelor of Science Degree in Diesel Technology. The degree will be conferred by MSU-Northern.

## II. LENGTH OF AGREEMENT

This agreement will begin fall semester 2015, the next review will be fall semester 2017. The parties commit to a review every other year after the 2017 review.

## III. COURSE ARTICULATION

Students completing the **Associate of Applied Science Degree – Diesel & Heavy Equipment Mechanic** will be granted 58 semester credits toward a Bachelor of Science degree in Diesel Technology at MSU-Northern. Students must have 39 credits at the upper division (300/400) level to complete the degree program. Upon completion of the following technical courses as shown in **Exhibit A** and the meeting of all graduation requirements including the general education requirements as shown in **Exhibit B**, a Bachelor of Science degree in Diesel Technology will be awarded. 120 semester credits are required. **Exhibit C** provides an overview of degree requirements.

General education courses listed on the MSU-Northern transfer equivalency guide will be accepted to meet part of the 33 credit general education core.

**EXHIBIT A  
Required technical courses**

<b>Technical Courses to be completed at MSU-Northern</b>		<b>Credits</b>
ATDI 384	AT/DI Electrical/Electronic Systems III	4
ATDI 400	Shop Procedures	3
DST 314	Hydraulics & Pneumatics II	4
DST 420	Diesel Shop Management	2
DST 434	Current Model Year Technology (Capstone Course)	3
DST 440	Advanced Fuel Systems	4
DST 450	Diagnosis of Power Shifts/HD Automatics	4
DST 498	Cooperative Education	5
	Total technical requirements	29
	General Education	27 (minimum)
	Transferred Block (Technical courses)	58 (Exhibit C)
	Transferred General Education courses (3 courses)*	6*
	Total for degree completion	120

**\*Note: General Education Transfer credits will vary by individual student. These courses will be evaluated by Gen. Ed. faculty at MSU-Northern as part of the transcript evaluation.**



## EXHIBIT B General Education Requirements

Category I (CAT I) Communication (6 credits)	WRIT 101 AND COMX 111 OR COMX 115 OR WRIT 350
Category II (CAT II) Mathematics	M 121, M 145, M 162, M 171, STAT 216, STAT 217
Category III (CAT III) Natural Sciences (6 credits) Students must take one science course that includes a lab. See course description to verify this requirement.	BIOB 101, BIOB 160, BIOE 110, BIOH 104, BIOH 201, BIOH 211, BIOM 250, BIOO 220, CHMY 121, CHMY 123, CHMY 141, ENSC 245, GEO 101, GEO 314, GPHY 111, PHSX 105, PHSX 205, TSCI 304
Category IV (CAT IV) Social Sciences/History (6 credits)	CMSV 101, ECNS 201, ECNS 202, HSTA 101, HSTA 102, HSTR 101, HSTR 102, HSTA 255, PSCI 210, PSYX 100, SOCI 101, SOSC 201
Category V (CAT V) Cultural Diversity (3 credits)	BGEN 360, NASL 120, NASL 331, NASX 105, NASX 304, NASX 232, NASX 235, NASX 310, NASX 340, NASX 450, NRSB 331, SPCH 245, SPNS 101
Category VI (CAT VI) Humanities Appreciation/Creative Arts (6 credits). It is recommended that baccalaureate candidates complete at least one course in each sub category, for a total of 6 credits.	ARTH 160, ARTH 330, ARTH 340, LSH 201, LIT 110, LIT 210, LIT 211, LIT 223, LIT 224, LIT 230, LIT 309, LIT 327, LIT 363, LIT 382, MUSI 201, PHIL 200, PHIL 210 ARTZ 105, ARTZ 106, ARTZ 231, ARTZ 284, ARTZ 363, CRWR 340, MUSI 103, THTR 105
Category VII (CAT VII) Technology (3 credits)	AOT 301, CAPP 120, CAPP 151, EDU 370, IT 100
<p><b>Total General Education Credits 33 credits</b> (In order to effectively meet the 39 credit upper division requirement, it is recommended 6 of the general education credits be at the 300 or 400 level)</p>	

- Refer to the current MSU-N transfer equivalency guide, or contact the MSU-N registrar's office for general education equivalencies.
- [https://atlas.montana.edu:9002/pls/hvagent/hwzkxfer.p\\_selstate](https://atlas.montana.edu:9002/pls/hvagent/hwzkxfer.p_selstate)



### EXHIBIT C - Overview of Equivalencies

Program Technical Requirements	Transferred Courses		
ATDI 134 Auto/Diesel Electrical/Electronic Systems I	6	DIESL 111 Intro to Basic Electrical Systems DIESL 112 Electrical Systems Applications	2.68 2.68
ATDI 257 Automatics	4	DIESL 115 Introduction to Power Trains DIESL 117 Automated Manual Transmission Service DIESL 113 Automatic Transmission Service	0.67 1.34 1.34
ATDI 264 Auto/Diesel Electrical/Electronic Syst. II	6	DIESL 113 Electronic Engine Systems DIESL 205 Advanced Service Techniques	2 4
ATDI 265 Heating & Air Conditioning	4	DIESL 114 Mobile Air Conditioning Systems DIESL 205 Advanced Service Techniques	2 2
ATDI 384 Auto/Diesel Electrical/Electronic Syst. III	4	To be taken at MSU-Northern	
ATDI 400 Shop Procedures	3	To be taken at MSU-Northern	
DST 104 Intro to Diesel Engines	3	DIESL 106 Engine Construction	3.35
DST 114 Intro to Diesel Engines Lab	3	DIESL 107 Engine Systems DIESL 108 Engine Reassembly	0.67 2.68
DST 115 Intro to Diesel Fuel Systems	5	DIESL 109 Fuel Systems DIESL 201 Basic Vehicle Service	1.34 4
DST 204 Intro to Hydraulics & Pneumatics	2	DIESL 103 Introduction to Hydraulic Systems	3.35
DST 214 Intro to Hydraulics & Pneumatics Lab	2	DIESL 104 Diagnosis & Testing of Hydr. Systems	0.67
DST 216 Heavy Duty Power Trains	4	DIESL 116 Manual Transmission Service DIESL 118 Clutch Service DIESL 121 Differentials/Final Drive	2 1.34 1.34
DST 219 Heavy Duty Chassis	4	DIESL 110 Introduction to Air Brakes DIESL 120 Driveline Service DIESL 122 Wheel End Service	1.34 0.67 0.67
DST 264 Diesel Engine Diagnosis & Repair	3	DIESL 203 Advanced Service Applications	3.35
DST 274 Diag. Diesel Engine Repair Lab	3	DIESL 201 Basic Vehicle Service	3.35
DST 273 Diesel Shop Practices	4	DIESL 205 Advanced Service Techniques	4
DST 314 Hydraulics & Pneumatics II	4	To be taken at MSU-Northern	
DST 420 Diesel Shop Management	2	To be taken at MSU-Northern	
DST 440 Advanced Fuel Systems	4	To be taken at MSU-Northern	
DST 434 Current Model Year Technology	3	To be taken at MSU-Northern	
DST 450 Diagnosis of Power Shifts & HD Auto	4	To be taken at MSU-Northern	
DST 498 Cooperative Education	4	To be taken at MSU-Northern	
MCH 200 Machining	3	Waived	
WLDG 110 Welding Theory I	2	WBAS 101 Welding Basics	2
WLDG 111 Welding Theory I Practical	2	WBAS 101 Welding Basics	2
WLDG 260 Repair & Maintenance Welding	3	WBAS 101 Welding Basics	1.36
<b>Program Gen. Ed. Requirements</b> See Exhibit B for eligible courses			
<i>CAT I Communications (6 credits)</i>		CMST210 Interpersonal Communications (3.335 cr), ENGL 101 English Composition I (3.335 cr)	6
<i>Cat II – Mathematics (3 credits)</i>		Please see the Transfer Guide online for courses to fulfill this area	3
<i>Cat III – Natural Sciences (6 credits)</i>		Please see the Transfer Guide online for courses to fulfill this area	3
<i>Cat IV – Social Sciences/History (6 credits)</i>		Please see the Transfer Guide online for courses to fulfill this area	6
<i>Cat V – Cultural Diversity (3 credits)</i>		Please see the Transfer Guide online for courses to fulfill this area	3
<i>Cat VI – Humanities– Fine Arts (6 credits)</i>		Please see the Transfer Guide online for courses to fulfill this area	6



#### IV. TUITION AND FEES

Tuition will be billed to each student at MSU-Northern's prevailing cost-per-credit rate for all courses.

Western Undergraduate Exchange:

The Western Undergraduate Exchange (WUE) is a program of the Western Interstate Commission for Higher Education (WICHE). Through WUE, students in qualifying states may enroll in many 2-year and 4-year college programs at a reduced tuition level: approximately 150 percent of the institution's regular resident tuition. All degree programs at MSU-Northern are open to WUE students.

WUE scholarship applicants must have a complete Admission file for award consideration.

Conditions for enrollment under WUE:

- Maintain a 2.5 GPA
- Minimum of 15 credits per semester of continuous enrollment during fall & spring semesters

Application and admission information:

Refer to the Admissions Office 1-800.622.6132 X3704 or email [admissions@msun.edu](mailto:admissions@msun.edu).

#### V. ADMISSIONS POLICY AND REQUIREMENTS

Admission requirements for MSU-Northern are as follows:

- 1) Completed MSU-Northern Application for Admission.
- 2) \$30 non-refundable "one-time" application fee.
- 3) In order to be in compliance with Montana state law, all degree seeking students or students carrying more than seven (7) credits, who are born on or after January 1, 1957 must show proof of two vaccinations against measles and one against rubella; "or" show documentation from a physician with dates of illness of having contracted measles and rubella; "or" file a notarized medical or religious exemption.
- 4) An official academic transcript from **all** accredited universities, colleges, and vocational technical centers attended (Official College transcripts must be sent to the Admissions Office in a sealed envelope directly from the institution).
- 5) Students transferring to MSU-Northern must have a minimum cumulative transferable grade point average of 2.0 from all colleges or universities previously attended.

#### VI. FINANCIAL AID

All enrolled students are eligible to apply for financial aid at MSU-Northern. Each student's situation will be evaluated on an individual basis. Students must apply for financial assistance through the Financial Aid Office at MSU-Northern.

## VII. CONTACT INFORMATION

### Montana State University-Northern:

Admissions: 1-800-662-6132 ext. 3704  
Registrar: 1-800-662-6132 ext. 3703  
Financial Aid: 1-800-662-6132 ext. 3787

#### Student Success Center:

Tracey Jette  
Senior Director 1.800.662.6132 ext. 3566  
[Tracey.jette@msun.edu](mailto:Tracey.jette@msun.edu)

College of Technical Sciences: 1-800-662-6132 ext. 3740

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Dean, College of Technical Sciences 1.800.662.6132 ext. 3724  
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Professor, Diesel Technology 1.800.662.6132 ext.4187  
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### Bates Technical College:

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ARTICULATION AGREEMENT APPROVAL SIGNATURE SHEET

Participating institution: **Bates Technical College**

Articulated Program: **Associate of Applied Science – Diesel & Heavy Equipment  
Mechanic**

Degree/Credential: **BACHELOR OF SCIENCE Diesel Technology**

Effective Dates: Start: Fall Semester 2015 Review: Fall Semester 2017

New Agreement  Review

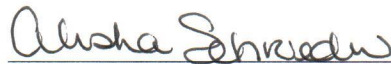
The undersigned have read and concur with the applicable policies and procedures for the attached articulation agreement.

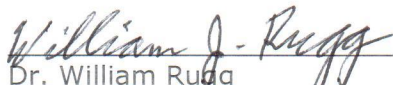
**MSU–Northern**

  
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Diesel Technology

  
Steven Don – Chair,  
College of Technical Sciences


  
Dr. Larry Strizich – Dean,  
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Affairs

  
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Chancellor

**Bates Technical College**

  
Holly Woodmansee  
Vice President of Administrative Services