

**ACADEMIC SENATE PROPOSAL TRACKING SHEET**  
**(Document To Be Originated By the Academic Senate Secretary On Canary Color Paper)**

<b>Proposal # 13-19</b>	<b>Title: Diesel Technology – Certificate of Applied Science Request</b>
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(Proposal explanation, submitter and college dean signatures on attached program/degree or course revision form.)

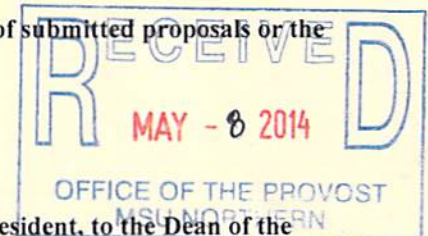
**All proposals MUST have their originating college faculty body (Ex. Arts & Sciences, Education and Nursing; Technical Sciences) approval and must be signed by the submitter and the college dean before being submitted to the Academic Senate Secretary.**

1. Submit all proposals (using the appropriate Academic Senate program/degree and/or course revision forms or General Education Inclusion form) to the Academic Senate Secretary. NOTE: Level 1 or Level 2 forms must be submitted concurrent with this proposal where applicable. For Education proposals, PEU approval must be received prior to forwarding the proposal to the Senate.
2. The Academic Senate Secretary logs and numbers items and forwards them to the appropriate Academic Senate subcommittee(s): General Education (if applicable), or Curriculum. A transmittal e-mail will be sent to the Recording Secretary of the receiving committee, cc Provost's Administrative Assistant, by the Academic Senate Secretary. A digital copy of the proposal will be linked on the Academic Senate Proposal page by the Academic Senate Secretary.
3. The Academic Senate subcommittee(s) consider(s) the proposal. If approved, the proposal is returned to the Academic Senate Secretary for forwarding to the next committee. If a committee disapproves the proposal, the originator may request that the item be forwarded to the next body for consideration. The committee will provide written rationale to the originator, via the Academic Senate, when a proposal is disapproved and the proposal is returned to the originator. Upon completion of committee action, the proposal will be returned to the Academic Senate Secretary, and a transmittal e-mail sent by the Committee Recorder to the Senate Secretary, cc Provost's Administrative Assistant.
4. The Academic Senate considers the proposal and recommends approval or disapproval. If approved, the proposal is forwarded to the Provost for consideration. If the Academic Senate disapproves the proposal, the originator may request that the item be forwarded to the Full Faculty for consideration, utilizing the procedures set forth in the Senate Bylaws. The Academic Senate will provide written rationale to the originator when proposals are disapproved and the proposal is returned to the originator.
5. Approved proposals will be forwarded to the Provost. The Provost approves or disapproves the proposal. If approved, the proposal is then forwarded to the Chancellor. From this point forward, the Provost's Administrative Assistant will update the Proposal page on the website by contacting the webmaster.
7. The Chancellor approves or disapproves the proposal.
8. The proposal will then either be implemented or referred to MSU for further action. The tracking page on the Provost site will be updated as required.

Subcommittee and Academic Senate college representatives will notify their respective colleges' of the progress of submitted proposals or the proposal may be tracked via the web page -- <http://www.msun.edu/admin/provost/senate/proposals.htm>

Documentation and forms for the curriculum process is also available on the web page:  
<http://www.msun.edu/admin/provost/forms.htm>

\*\*\*\*\***(If a proposal is disapproved at any level, it is returned through the Academic Senate secretary and the Senate President, to the Dean of the submitting college who then notifies the originator.**



See back for tracking form

	Date	Action Taken	Signature	Date	Comments/Reason for Disapproval	Sent to	Date	Transmittal E-mail sent
*Abstract received by Senate Secretary		Copy to Senate President. Forward to Provost.						
*Provost		<input type="checkbox"/> Abstract Approved <input type="checkbox"/> Disapproved						
Received by Senate Secretary	4-28-14	Tracking form initiated	Sandra Caven	4-28-14		Gen Ed	4-28-14	
General Education Committee (if applicable)	4-28-14	<input checked="" type="checkbox"/> Approved <input type="checkbox"/> Disapproved	Jay Sims	5-2-14		Curriculum	5-2-14	
Curriculum Committee (if applicable)	5-6-14	<input checked="" type="checkbox"/> Approved <input type="checkbox"/> Disapproved	Byron C. [Signature]	5-6-14		Senate	5-6-14	5-6-14
Academic Senate	5-6-14	<input checked="" type="checkbox"/> Approved <input type="checkbox"/> Disapproved	Steven Dow	5/6/14		Provost	5-6-14	
Full Faculty (if necessary)		<input type="checkbox"/> Approved <input type="checkbox"/> Disapproved						
Provost		<input checked="" type="checkbox"/> Approved <input type="checkbox"/> Disapproved	Wm. J. Ruff	6-6-14		Chancellor	6-6-14	
Chancellor		<input checked="" type="checkbox"/> Approved <input type="checkbox"/> Disapproved	[Signature]	6-10-14				
MSU		<input type="checkbox"/> Approved <input type="checkbox"/> Disapproved						
BOR		<input type="checkbox"/> Approved <input type="checkbox"/> Disapproved						
NWCCU		<input type="checkbox"/> Approved <input type="checkbox"/> Disapproved						
Provost		Advise originating college and Academic Senate of status. Update Web page.						
Registrar		Catalog/Policy Manual Update						

**NOTE:** The secretary of the Academic Senate will update the Academic Senate Proposal web page from initial receipt until the proposal reaches the Provost. The Provost's Administrative Assistant will ensure that the current status of each proposal is maintained on the Academic Senate Proposal web page from that point forward.

**\*Abstract and pre-approval required for new programs ONLY.**

Academic Senate Form 1 (Revised 3/21/2012)

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**1. Overview**

Montana State University- Northern is partnering with Helena College in the Strengthening Workforce Alignment in Montana's Manufacturing and Energy Industries (SWAMMEI) grant in development of a stackable credential program in diesel. This newly proposed program supports the creation of vocational pathways and portable stackable credentials for students building a portfolio of skills for the workplace. SWAMMEI programs are designed to create multiple tiers, each representing a complete credential, but can also build upon one another for those students hoping to obtain a higher level of education or training.

To create the ability to stack credentials necessary for SWAMMEI, the instructors in participating colleges reached consensus and have identified a sequence of Tier I courses which overlap with learning outcomes found in the beginning coursework of existing two- and four-year diesel technology curricula. A Tier I CAS will therefore, align and articulate into existing programs.

Written into the grant, as part of the diesel technology strategy, is to explore online delivery opportunities. As part of the SWAMMEI grant, Montana State University- Northern and Helena College will have some content in the Certificate of Applied Science (CAS) available online for students throughout Montana. The hands-on, applied components of instruction will be delivered at the participating college campuses.

**2. Provide a one paragraph description of the proposed program. Be specific about what degree, major, minor or option is sought.**

This newly developed program is built upon the existing AAS Diesel Technology degree programs at each of the partner colleges. The program student learning outcomes were identified by consensus among diesel faculty representing participating colleges in Montana. The program competencies will focus on industry approved credentials.

**3. Need**

**A. To what specific need is the institution responding in developing the proposed program?**

The successful 2013 Montana SWAMMEI grant application was built upon the need to provide accelerated training and education in diesel technology to meet current and future industry demand. Input from industry professionals guided the development of the diesel program. A student completing this Tier I program will earn a CAS from Montana State University - Northern. This exit point allows students to enter the workforce at levels commensurate with different responsibilities and wage-rates within the career pathway of diesel technicians, or to seamlessly continue with education.

**B. How will students and any other affected constituencies be served by the proposed program?**

Industry partners of the SWAMMEI grant are in support of the proposal. Completion of the CAS will prepare students for employment as they earn industry recognized certifications when they pass competency exams. This prepares them to enter the workforce upon completion of the program; or continue their education, stacking the Tier I certificates into a diesel AAS or BS degree. The credential becomes portable for students who complete the coursework and gain the ability to move seamlessly into the AAS Diesel degree program offered by Montana State University- Northern or other colleges in the State.

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**C. What is the anticipated demand for the program? How was this determined?**

Montana diesel maintenance and repair shops, dealerships, and construction companies continue to experience a shortage of a highly skilled workforce which meets their current and future demands. Among the participating grant-funded colleges, it is anticipated that at least 243 students through Helena College and another 440 students through Montana State University- Northern will complete the Certificate of Applied Science described in this proposal. While we anticipate more demand for students who continue complete AAS-level coursework, the CAS will provide an alternative for students looking for entry level jobs in the industry.

**4. Institutional and System Fit**

**A. What is the connection between the proposed program and existing programs at the institution?**

This specialized Certificate of Applied Science was developed and will be implemented to complement the Montana State University-Northern existing Diesel Technology AAS program of study. Students completing this CAS will be prepared to continue to the Montana State University- Northern AAS degree or BS degree in diesel technology.

**B. Will approval of the proposed program require changes to any existing programs at the institution? If so, please describe.**

Creation of this program does not create the need to make changes to any existing Montana State University- Northern programs. This program has been created to permit students who complete the CAS and to move seamlessly into the Montana State University- Northern 2<sup>nd</sup> year coursework leading to an AAS degree in diesel technology.

**C. Describe what differentiates this program from other, closely related programs at the institution (if appropriate).**

This program is based upon the SWAMMEI Grant initiative and uses a specific program format and delivery system for our program and others in the consortium. The integration of learning assessment leading to industry-recognized credentials, allows for the stacking of the appropriate credentials leading to the CAS and beyond, as per the SWAMMEI vision. Students entering this program have the benefit of working with the Grant's Workforce Navigator who will provide career counseling and educational advising; further ensuring the student is enrolled in the intended courses along the program of study pathway.

**D. How does the proposed program serve to advance the strategic goals of the institution?**

The Vision Statement of Montana State University Northern is: "Montana State University- Northern will be known for its supportive, student-centered environment in which a unique mix of academic programs are responsive to local, regional, and state workforce needs, offered in an atmosphere that promotes student success." This program will support the vision by providing students with an off ramp into industry; or to continue in education by offering accessible and portable learning opportunities.

Mission of Montana State University – Northern

*MSU-Northern, a teaching institution, serves a diverse student population by providing liberal arts, professional and technical education programs ranging from certificates through master's degrees. The*

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*university promotes a student centered and culturally enriched environment endorsing lifelong learning, personal growth and responsible citizenship. The university partners with a variety of community and external entities to enhance collaborative learning, provide applied research opportunities, stimulate economic development and expand student learning experiences.*

- E. Describe the relationship between the proposed program and any similar programs within the Montana University System. In cases of substantial duplication, explain the need for the proposed program at an additional institution. Describe any efforts that were made to collaborate with these similar programs; and if no efforts were made, explain why. If articulation or transfer agreements have been developed for the substantially duplicated programs, please include the agreement(s) as part of the documentation.**

The model based upon this program is a certificate with a commonly agreed upon set of learning outcomes able to articulate among 2- and 4-year campuses throughout the state implementing parallel programs. For example, a student could complete the CAS in Helena and then transfer to another SWAMMEI campus to engage in additional specialized training and/or earn the AAS. It is flexible and creates tremendous access for our future Montana workforce.

**5. Program Details**

- A. Provide a detailed description of the proposed curriculum. Where possible, present the information in the form intended to appear in the catalog or other publications. NOTE: In the case of two-year degree programs and certificates of applied science, the curriculum should include enough detail to determine if the characteristics set out in Regents' Policy 301.12 have been met.**

**PROGRAM/DEGREE REVISION FORM**

NEW X DROPPED \_\_\_\_\_ MAJOR REVISION \_\_\_\_\_ FOR INFORMATION ONLY \_\_\_\_\_

College COTS Program Area Diesel Technology Date: 4/17/2014

Submitter Strizich Dean G. Kegel Date \_\_\_\_\_

Signature

Signature (indicates "college" level approval)

**Please provide a brief explanation & rationale for the proposed revision(s).**

*This program represents the first year of the existing Associate of Applied Science degree and upon completion allows a student to transition seamlessly into an AAS or BS program in Diesel Technology.*

**Please provide in the space below a "before and after" picture of the program with the changes in the program noted. Attach appropriate Course Revision Forms. Please indicate changes by shading the appropriate cells.**

**PROPOSAL TITLE Diesel Technology – Certificate of Applied Science**

Course			Gen-Ed	Degree
Prefix	#	Course Title	Credits	Credits
ATDI	134	Elect/Electronics Systems I*		6
DST	104	Intro to Diesel Engines		3

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DST	114	Intro to Diesel Engines Lab		3
DST	115	Intro to Diesel Fuel Systems		5
DST	216	Heavy Duty Power Trains		4
DST	219	Heavy Duty Chassis		4
WLDG	110	Welding Theory		2
WLDG	111	Welding Theory Practicum I		2
WRIT	108	Technical Writing	3	
COMX	115	Intro to Interpersonal Communic.	3	
		* contains computational area		
			6	29
		<b>Total</b>		<b>35</b>

**B. Describe the planned implementation of the proposed program, including estimates of numbers of students at each stage.**

The SWAMMEI initiative requires our consortium programs be delivered beginning Fall 2014. The initial number of students will be based upon available equipment and dependent on our ability to recruit eligible students. The SWAMMEI Diesel Technology CAS program will be operating in parallel with our current 1<sup>st</sup> year coursework in the Diesel Technology AAS. Equipment and resources will be assigned as needed. This program represents the first year of the existing AAS degree in Diesel Technology at Montana State University- Northern.

**6. Resources**

**A. Will additional faculty resources be required to implement this program? If yes, please describe the need and indicate the plan for meeting this need.**

At this time we will not be able to implement the new CAS program without the addition of 1 full-time diesel trainer. Resources to develop new curriculum, recruit and train new faculty, and expand our facilities will be funded by our SWAMMEI grant allocation. These resources are in place.



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- B. Are other, additional resources required to ensure the success of the proposed program? If yes, please describe the need and indicate the plan for meeting this need.**

The program should be sustainable once student numbers are sufficient to cover program costs. Methods of delivery in modular credentials using alternate delivery modalities will require curriculum development as funded by our SWAMMEI grant allocation.

**7. Assessment**

**How will the success of the program be measured?**

Assessment to determine student and program success will be scheduled and conducted according to existing Montana State University- Northern internal program review processes.

**8. Process Leading to Submission**

**Describe the process of developing and approving the proposed program. Indicate, where appropriate, involvement by faculty, students, community members, potential employers, accrediting agencies, etc.**

The program, as described, was created in consultation with participating SWAMMEI diesel technology faculty. In addition, the Montana State University- Northern Diesel Technology program has a strong advisory board, represented by our local and regional industry partners, which this program will fall under. The Montana State University- Northern diesel faculty proposed the program. The proposed curriculum has been reviewed by the Montana State University- Northern Academic Senate curricular review process.