Curriculum Development Form
Modify an Existing Program (Academic Award)

Program Name (Academic Award): Welding Certificate
CIP Code: 48.0508

Type of Academic Award: □ AA □ AAS □ AFA □ AS □ Diploma □ Certificate

Current Location: □ Faribault □ North Mankato

Proposed Location: □ Faribault □ North Mankato

Current Credits: 16

Proposed Credits: 16

Date of Proposal: Fall 05/15 2/18/15

Proposed Implementation Date: Fall of 2015

Contact Person: Joe Volk

What is the modification being proposed? Adding 2 new courses - Metallurgy and Advanced Welding Lab and reducing some credits of current courses.

What impact will the modification have? More time spent on TIG welding courses.

Describe the rationale for this modification: Based on advice from our advisory committee.

Attach additional material if necessary

As Faculty Developer, by signing this Modify an Existing Program form, the Curriculum Committee is assured of the following (check marks required):

Prior to Preparing Documentation
☑ Initiation — idea was submitted to Department Chair(s) and Academic Dean/Director for discussion and support
☑ Explored existing program offerings to identify potential duplication
☑ Completed Intention Form

Continue the Curriculum Development Process
☑ Completed the comparison template outlining old program plan vs. new program plan, noting changes between the old and new
☑ Completed the WIDS Program Project, which includes outlining scope and sequence of program

Please Note: If courses do not already exist, the shell of each course must be created in WIDS before the WIDS Program Project can be completed
☑ Identified prerequisites (if any) for admission to the program
☑ Created program description in WIDS
☑ Created measurable program student learning outcomes in WIDS
☑ Proofread documentation for correct content
☑ Proofread documentation for grammatical and typographical errors
☑ Uploaded additional documentation to WIDS (comparison template, etc.)

[Signature]
Facility Developer Signature

Date: Feb 19, 2015
As Primary Department Chair, by signing this Modify an Existing Program form, the Curriculum Committee is assured of the following (check marks required):

☑ Documentation through email and department meetings made available for other faculty and programs to provide feedback
☑ Proofread documentation for correct content and proper structure
☑ Proofread documentation for grammatical and typographical errors
☐ For LAS programs, signature of all LAS Department Chairs included
☑ For technical programs, the change was discussed at Advisory Committee meeting (provide meeting minutes)

☐ I support this program plan        ☐ I do not support this program plan — please provide reason(s):

Primary Department Chair Signature  Date  2-19-15

For all modified program, if Primary Department Chair does not support the modified program proposal, faculty developer can elevate the proposal to AASC for resolution.

For AA, AFA and AS Degrees Only — As a LAS Department Chair, by signing this Modify an Existing Program form, the Curriculum Committee is assured of the following (check marks required):

☐ Documentation through email and department meetings made available for other faculty and programs to provide feedback

☐ I support this program plan        ☐ I do not support this program plan — please provide reason(s):

LAS Department Chair Signature  Date

☐ I support this program plan        ☐ I do not support this program plan — please provide reason(s):

LAS Department Chair Signature  Date

☐ I support this program plan        ☐ I do not support this program plan — please provide reason(s):

LAS Department Chair Signature  Date

If all four LAS Department Chairs do not support the modified program proposal, faculty developer can elevate the proposal to AASC for resolution.
As Academic Dean/Director, by signing this *Modify an Existing Program* form, the Curriculum Committee is assured of the following (check marks required):

- Identified potential opportunities and impacts of the change on other programs/departments (request DARS search from Registrar’s Office)
- Provided supporting documentation to populate Program Navigator

☑ I support this program plan  ☐ I do not support this program plan — please provide reason(s):

[Signature]
2/18/15

If Academic Dean/Director does not support the modified program proposal, faculty developer can elevate the proposal to AASC for resolution.

Upload this signed form as a PDF to WIDS Shared Document folder — Curriculum Committee. Place signed original forms in Curriculum Committee mailbox.

Following Curriculum Committee support, this form is completed with final signatures.

[Signature]
3/6/2015

[Signature]
3/20/15

The following steps are possible post-approval steps

**Modify an Existing Program**

— Credit length change

Upload to MnSCU Program Navigator
- Curriculum Committee Chair electronic approval
- Vice President of Student and Academic Affairs electronic approval
- President electronic approval
- Vice President of Student and Academic Affairs electronic approval (2nd)
- MnSCU reviews for final approval
- MnSCU grants approval

Student Affairs
- ISRS; DARS; eCatalog

Scope and Sequence for Perkins Programs of Study

Federal Dept. of Education review

Higher Learning Commissions (HLC) review

**Modify an Existing Program**

— No credit length change

Student Affairs (documentation posted on CC website)
- ISRS; DARS; eCatalog

Scope and Sequence for Perkins Programs of Study
South Central College

CERT 2460 / 3660 Welding Certificate

Program Student Learning Outcome Summary

Program Information

   Instructional Level  Certificate
   Career Cluster       Engineering, Manufacturing & Technology

Description

Students will learn how to practice safe welding techniques for production and mechanical settings. They will learn Shielded Arc Metal, Tungsten Arc, and Gas Metal Arc welding, as well as brazing and plasma cutting methods. Print reading skills for welding and metalurgy principals will also be acquired.

Related Outcomes

Institutional Core Competencies

1. Critical and creative thinking: Students will develop the disposition and skills to strategize, gather, organize, create, refine, analyze, and evaluate the credibility of relevant information and ideas.

2. Foundations and skills for lifelong learning: Students will display an understanding of learning as a lifelong process through demonstration of a desire to learn, the willingness to apply learning to other areas of their lives, the ability to think and act independently, be willing to take the initiative to get projects done, and demonstrate the ability to reflect upon what has occurred and how it impacts the student and others.

3. Teamwork and problem-solving: Students will demonstrate the ability to work together cohesively with diverse groups of persons, including working as a group to resolve any issues that arise.

Program Student Learning Outcomes

1. Interpret common welding symbols and features of welding prints
2. Define the various types of metals and best suited welding techniques
3. Apply safety standards and procedures in all settings
4. Conduct inspections to ensure quality of welds
5. Demonstrate basic Shielded Metal Arc Welding skills
6. Demonstrate basic Gas Metal Arc Welding skills
7. Demonstrate basic Gas Tungsten Arc Welding skills
8. Demonstrate brazing and cutting skills
Welding Diploma - New Award 35 credits, Welding Certificate - Redesign 16 credits

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<th>Current Welding Certificate</th>
<th>16 Credits</th>
<th>Action</th>
<th>fall or spring</th>
<th>Modified Welding Certificate</th>
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Advanced Manufacturing Technician Certificate 2 credits
MSSC Core Curriculum
CMAE 1514 Safety Awareness 2
CMAE 1518 Manufacturing Processes & Production 2
CMAE 1522 Quality Practices 2
CMAE 1526 Maintenance Awareness 2
MATH 1050 Math for Tech Careers 3
PHYS 101 Intro to Physics 3
COMM 140 Interpersonal Communications 3
or COMM 150 Small Group

New award 17 Credits

WELD 1005 Blueprint Reading (1 Credit)
WELD 1006 Blueprint Reading for Welding (1 Credit)
WELD 1010 OSHA 10 Hour and Welding Safety (1 Credit)
WELD 1011 OSHA 10 Hour and Welding Safety II (1 Credit)
WELD 1025 Introduction to Shielded Metal Arc Welding (SMAW) (2 Credits)
WELD 1026 Shield Metal ARC Welding II (1 Credit)
WELD 1035 Introduction to Gas Metal Arc Welding (GMAW) (2 Credits)
WELD 1036 Gas Metal Arc Welding II (1 Credit)
WELD 1055 Introduction to Oxy-Fuel Welding and Cutting (3 Credits)
WELD 1045 Introduction to Gas Tungsten Arc Welding (3 Credits)
WELD 1055 Metalurgy
WELD 1075 Advanced Welding Lab
WELD 1085 Welding Internship

Program Total for Welding Diploma 35 credits
MINUTES

SOUTH CENTRAL COLLEGE
WELDING ADVISORY COMMITTEE

Wednesday, November 12, 2014

South Central College
Faribault Campus – Event Center West A105A

Members Present: Troy Braun, Del Menze, William Smith, Matt Berg, Rick Amans, Blake Goehring, Valerie Bentdahl, Rikk Schaehrer, Joe Volk, John Kniefel, Devon Barnes, Barb Embacher, Thad Sundahl, Brian Coleman, Brent Cordes, Dean Odette, Andy Douty

Introductions
Each business rep described their workforce needs as they introduced themselves.

ByLaws
The ByLaws were introduced and reviewed to provide an overview to the role and responsibility of each member.

TAACCCT Grant
Barb Embacher highlighted the components of the $15 million U.S. Department of Labor TAACCCT grant, which will provide support to scale up Welding, CIM, and Mechatronics programs across the state through collaboration with 12 other MNSCU colleges and Workforce partners to address the skills gap in advanced manufacturing. There will be upcoming ways for businesses to get involved in developing apprenticeships and co-ops to help students Learn.Work.Earn.

Program Curriculum
As part of the grant, a core curriculum will be developed to set the foundation of skills needed in the manufacturing pathway. This series of 4, 2 credit courses will focus on Quality, Safety, Maintenance and Manufacturing Processes. The Committee agreed that this would be beneficial in the Welding curriculum at SCC.

Program Growth Ideas
Barb described the plan to offer welding classes again on the N. Mankato campus as well as Faribault, if we get enough students in January.

Marketing and outreach ideas were brainstormed. Businesses agreed that some flyers and bulletin board posters with inquiry postcards to tear off could be a good strategy for us to spread the word, along with radio ads, website features, and direct outreach in K-12 schools.
Election of Chair
A motion was made by Devon Barnes and seconded by William Smith to elect Rick Schaehrer as the Chair, and Blake Goehring as the Vice Chair for the 2014-2015 academic year. Motion passed with all in favor.

Welding Lab Tour
Joe Volk ended the meeting with a tour of the Faribault lab and got ideas on equipment and supply needs from members. Joe thanked the companies that he has been able to get scrap donations from. Barb Embacher described how companies can make cash, product, or equipment donations and the college can get a dollar for dollar capital equipment match from the state through June 30, 2015. If interested, contact Shelly Rockman at the SCC Foundation or Tami Reuter at the N. Mankato Foundation.