Curriculum Development Form
New Program (Academic Award)

Program Name (Academic Award): Manufacturing Production Technology

CIP Code: ____________________________

Type of Academic Award: [ ] AA [ ] AAS [ ] AFA [ ] AS [ ] Diploma [ ] Certificate

Current Location: [ ] Faribault [ ] North Mankato

Proposed Location: [ ] Faribault [ ] North Mankato

Contact Person: Ryan Langemeier

Proposed Credits: 17

Date of Proposal: Feb. 6, 2015

Proposed Implementation Date: Fall 2015

What program is being proposed? A certificate that will lead to students completing the curriculum for a Certified Production Technician.

What impact will this new program have? Present entry-level opportunities for students to learn basic skills in manufacturing - will be a pathway for other programs (Mechatronics, CIM, Welding)

Describe the rationale for this new program: Adding a certificate in alignment with the TAACCCT grant work that is being done in manufacturing and adding basic manufacturing & 'soft' skills.

Attach additional material if necessary

As Faculty Developer, by signing this New 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

MnSCU Notice of Intent (NOI) — Program Navigator
[ ] Program Plan brought to Curriculum Committee for information purposes
[ ] Articulation agreement included for AA, AS, AFA programs
[ ] Vice President of Student and Academic Affairs approval
[ ] President approval
[ ] MnSCU Program Navigator upload — New Notice of Intent (NOI) informing other MnSCU colleges/universities of the program
[ ] MnSCU initiates the intention stage for feedback; 60 days to complete official paperwork after MnSCU approval

Continue the Curriculum Development Process
[ ] 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 measurable program student learning outcomes
[ ] Proofread documentation for correct content
[ ] Proofread documentation for grammatical and typographical errors
[ ] Uploaded additional documentation to WIDS (comparison template, etc.)

Ryan Langemeier
Faculty Developer Signature

1-20-2015

Date
As Primary Department Chair, by signing this *New 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):

[Signature]
Primary Department Chair Signature

[Date]

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

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For AA and AFA Degrees Only — As a LAS Department Chair, by signing this *New 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 new program proposal, faculty developer can elevate the proposal to AASC for resolution.
As Academic Dean/Director, by signing this New 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 — DARS search
☑ Provided supporting documentation to populate Program Navigator

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

bane

Academic Dean/Director Signature        1/26/15

If Academic Dean/Director does not support the new 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.

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

[Signature]        2/20/15
Curriculum Committee Chair Signature

[Signature]        3-2-15
Vice President of Student and Academic Affairs Signature

[Signature]        3-5-15
President Signature

The following steps are possible post-approval steps

New Program
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
South Central College
Program Design

CERT Manufacturing Production Technology

Program Information

Instructional Level  Certificate
Career Cluster     Engineering, Manufacturing & Technology

Description
This entry-level certificate introduces students to production technologies and information to start on a manufacturing career pathway. Additionally, students are given opportunities to enhance or develop important work-place knowledge and skills in the areas of communication, math, and physics.

Program Student Learning Outcomes

1  Identify appropriate safety procedures and apply them in a manufacturing setting.
2  Apply specific manufacturing process procedures.
3  Identify specific quality procedures.
4  Identify maintenance processes and procedures.
5  Explain the coordination of industry safety programs.

Program Configurations

Single Semester

Credits

<table>
<thead>
<tr>
<th>Technical Course</th>
<th>11.00</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liberal Arts &amp; Sciences</td>
<td>6.00</td>
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</table>

Total Credits  17.00

Semester 1

<table>
<thead>
<tr>
<th>Course #</th>
<th>Course Title</th>
<th>Credits</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMAE 1514*</td>
<td>Safety Awareness - new course</td>
<td>2.00</td>
<td>Technical Course</td>
</tr>
<tr>
<td>CMAE 1518*</td>
<td>Manufacturing Process and Production - new course</td>
<td>2.00</td>
<td>Technical Course</td>
</tr>
<tr>
<td>CMAE 1522*</td>
<td>Quality Practices - new course</td>
<td>2.00</td>
<td>Technical Course</td>
</tr>
<tr>
<td>CMAE 1526*</td>
<td>Maintenance Awareness - new course</td>
<td>2.00</td>
<td>Technical Course</td>
</tr>
<tr>
<td>MATH 1050</td>
<td>Mathematics for Technical Careers</td>
<td>3.00</td>
<td>Technical Course</td>
</tr>
<tr>
<td>PHYS 101</td>
<td>Introductory Physics</td>
<td>3.00</td>
<td>Liberal Arts &amp; Sciences</td>
</tr>
<tr>
<td>COMM Option</td>
<td>COMM 120 or COMM 140</td>
<td>3.00</td>
<td>Liberal Arts &amp; Sciences</td>
</tr>
<tr>
<td>Number</td>
<td>Title</td>
<td>Credits</td>
<td>Pre/Corequisites</td>
</tr>
<tr>
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<td>-----------------------------------------------</td>
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<td>CMAE 1526*</td>
<td>Maintenance Awareness - new course</td>
<td>2.00</td>
<td></td>
</tr>
<tr>
<td>COMM 120</td>
<td>Small Group Communication</td>
<td>3.00</td>
<td>READ 0080 &amp; READ 0090 with a grade of C or higher OR a score of 78 or higher on the reading portion of Accuplacer exam.</td>
</tr>
<tr>
<td>COMM 140</td>
<td>Interpersonal Communication</td>
<td>3.00</td>
<td></td>
</tr>
<tr>
<td>MATH 1050</td>
<td>Mathematics for Technical Careers</td>
<td>3.00</td>
<td>A score of at least 56 on the Arithmetic portion of the Accuplacer test.</td>
</tr>
<tr>
<td>PHYS 101</td>
<td>Introductory Physics</td>
<td>3.00</td>
<td>MATH 0075 with a C or higher, or a score of 56 or higher on the Arithmetic portion of the Accuplacer test.</td>
</tr>
</tbody>
</table>
**Certified Production Technician**

**Manufacturing & Production Technologies**

17 credits

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<tbody>
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<td>2</td>
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<td>2</td>
</tr>
<tr>
<td>CMAE 1526</td>
<td>Maintenance Awareness</td>
<td>2</td>
</tr>
</tbody>
</table>

**MSSC-based Courses:**

**LAS Additional Courses:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 1050</td>
<td>Tech Math</td>
<td>3</td>
</tr>
<tr>
<td>COMM</td>
<td>Inter. Or Small Group</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 101</td>
<td>Intro to Physics</td>
<td>3</td>
</tr>
</tbody>
</table>

**TOTAL** 17