Curriculum Development Form — Modify an Existing Course

Course Designator, Number, Title and Number of Credits (i.e. ACCT 1800, Business Law, 3 cr)

CIM 1102 CVC Programing I 3 cp

Date of Proposal: 2-17-15  Author: Jon Morgan

Course Contact:  Yes  Modified  No  Pass/Fail
Grading Method:  Variable

Scheduling:  ☑ Fall  ☑ Spring  ☑ Summer  ☑ Alternate Years  ☑ Variable  ☑ On Demand

Is this proposed course a Liberal Arts and Sciences course?  ☑ Yes  ☑ No

If yes, which MnTC area(s) will it fulfill (http://mnstransfer.org)?

☐ 1  ☑ 2  ☑ 3  ☑ 4  ☑ 5  ☑ 6  ☑ 7  ☑ 8  ☑ 9  ☑ 10

The course is being:  ☑ Modified  ☑ Deleted (complete Intention Form and obtain signatures)

Describe the modification and the rationale: Credit Reduction From 3-2 cp

Is this course a requirement/elective for a specific program or programs?  ☑ Yes  ☑ No

If yes, which program(s)? — DARS search

What impact will this modified course have on other program(s)?  None

Attach additional paperwork if necessary

As Faculty Developer, by signing this Modify an Existing Course 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

☐ Completed Intention Form

Continue the Curriculum Development Process

☐ COPY of existing CCO was used to make changes

☐ Double-checked:
  • concise 2-3 sentence course description
  • course name
  • lecture/lab credits and hour breakdown
  • course prefix and number
  • prerequisites
  • MnTC goal area — LAS courses

☐ Completed MnTC Goal Area Cross-walk Template (for LAS MnTC courses only)

☐ Verified measurable course competencies and learning objectives

☐ Considered potential opportunities and impacts of the change on other programs/departments — DARS Search

☐ Proofread documentation for correct content and proper structure on CCOs based on SCC example

☐ Proofread documentation for grammatical and typographical errors

Faculty Developer Signature  Date

As Primary Department Chair, by signing this Modify an Existing Course 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, includes MnTC Goal Area Cross-walk Template(s)

☑ Proofread documentation for correct content and proper structure on CCOs based on SCC example

☑ Proofread documentation for grammatical and typographical errors

☑ I support this course  ☑ I do not support this course — please provide reason(s):

Primary Department Chair Signature  Date
For LAS (MnTC courses) — As a LAS Department Chair, by signing this Modify an Existing Course form, the Curriculum Committee is assured of the following (check marks required):

☐ LAS course (specifically MnTC courses), documentation through email and department meetings made available for other faculty and programs to provide feedback, includes MnTC Goal Area Cross-walk Template(s)

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

__________________________________________  ____________________
LAS Department Chair Signature  Date

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

__________________________________________  ____________________
LAS Department Chair Signature  Date

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

__________________________________________  ____________________
LAS Department Chair Signature  Date

If all 4 LAS Department Chairs do not support the modified course proposal, faculty developer can elevate the proposal to AASC for resolution.

As Academic Dean/Director, by signing this Modify an Existing Course 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
☑ Reviewed MnTC Goal Area Cross-walk Template (for LAS MnTC courses only)
☑ MnTC Goal Area is appropriate based on MnSCU guidelines — Transfer Specialist consulted
☑ Verified credentials for faculty teaching the course
☑ Addressed the need for Class Maximum Change Request form
  ☐ No change in class maximum OR
  ☐ Change in class maximum — Class Maximum Change Request form completed with all necessary signatures

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

__________________________________________  ____________________
Academic Dean/Director Signature  Date

If Academic Dean/Director does not support the modified course 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.

__________________________________________  ____________________
Curriculum Committee Chair Signature  Date

__________________________________________  ____________________
Vice President of Student and Academic Affairs Signature  Date

Modify an Existing Course Form — 12/9/14 — Page 2
CIM 1102  CNC Programming I

Course Outcome Summary

Course Information
Description  This course covers creation and editing of basic computer control programs, incorporating knowledge of G&M codes and hands-on control functions. Application lab time is allocated for students to practice basic computer control programs for machining. (Prerequisites: Declare CIM as a major)

Total Credits  2.00
Total Hours  48.00

Types of Instruction
Instruction Type       Credits/Hours
Lecture               1/16
Lab                   1/32

Pre/Corequisites
Declare CIM as a major.

Institutional Core Competencies
Analysis and inquiry: Students will demonstrate an ability to analyze information from multiple sources and to raise pertinent questions regarding that information.

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.

Course Competencies

1. Practice CNC machine safety.
   Learning Objectives
   Perform machine clean-up.
   List CNC safety practices.

2. Write a basic mill and lathe program.
   Learning Objectives
   Demonstrate proper program structure.
   Describe the purpose of G&M codes.
3. **Utilize proper coordinate and positioning systems.**

   **Learning Objectives**
   Describe absolute and incremental positioning and the benefits of each.
   Describe Cartesian Coordinate System and Polar Coordinate System.

4. **Operate CNC controls.**

   **Learning Objectives**
   Explain axis movements.
   Determine necessary maintenance during CNC operation.
   Perform basic start-up processes.
   Select program needed for part.
   Identify functions of CNC machine keys.

5. **Developed canned cycles.**

   **Learning Objectives**
   Identify proper code for tapping and threading cycles.
   Create different types of drilling cycles.

6. **Execute program prove-out procedures.**

   **Learning Objectives**
   Run graphical simulation.
   Create a program to practice prove-out.

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**SCC Accessibility Statement**

If you have a disability and need accommodations to participate in the course activities, please contact your instructor as soon as possible. This information will be made available in an alternative format, such as Braille, large print, or cassette tape, upon request. If you wish to contact the college ADA Coordinator, call that office at 507-369-7222.

Disabilities page [http://southcentral.edu/academic-policies/disability-rights.html](http://southcentral.edu/academic-policies/disability-rights.html)
Curriculum Development Form — Modify an Existing Course

Course Designator, Number, Title and Number of Credits (i.e. ACCT 1800, Business Law, 3 cr)

C1M 1106 Machine Tool Theory I (2) cr

Date of Proposal: 2-17-15  Author: Jon Morgan

Course Contact: ☑ CON M0V (MN)  Grading Method: ☑ Grade □ Pass/Fail

Scheduling: ☑ Fall □ Spring □ Summer □ Alternate Years □ Variable □ On Demand

Is this proposed course a Liberal Arts and Sciences course? □ Yes ☑ No

If yes, which MnTC area(s) will it fulfill (http://mntransfer.org)?

☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 ☐ 10

The course is being: ☑ Modified □ Deleted (complete Intention Form and obtain signatures)

Describe the modification and the rationale: Credit Reduction from 2 to 1 cr

Is this course a requirement/elective for a specific program or programs? ☑ Yes □ No

If yes, which program(s) — DARS search C1M

What impact will this modified course have on other program(s)? None

Attach additional paperwork if necessary

As Faculty Developer, by signing this Modify an Existing Course 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

☒ Completed Intention Form

Continue the Curriculum Development Process

☒ COPY of existing CCO was used to make changes

☒ Double-checked:
  • concise 2-3 sentence course description
  • course prefix and number
  • course name
  • prerequisite and hour breakdown
  • MnTC goal area — LAS courses

☒ Completed MnTC Goal Area Cross-walk Template (for LAS MnTC courses only)

☒ Verified measurable course competencies and learning objectives

☒ Considered potential opportunities and impacts of the change on other programs/departments — DARS Search

☒ Proofread documentation for correct content and proper structure on CCOs based on SCC example

☒ Proofread documentation for grammatical and typographical errors

Facility Developer Signature  Date: 2-17-15

As Primary Department Chair, by signing this Modify an Existing Course 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, includes MnTC Goal Area Cross-walk Template(s)

☒ Proofread documentation for correct content and proper structure on CCOs based on SCC example

☒ Proofread documentation for grammatical and typographical errors

☒ I support this course □ I do not support this course — please provide reason(s):

Primary Department Chair Signature  Date: 2-19-15
For LAS (MnTC courses) — As a LAS Department Chair, by signing this Modify an Existing Course form, the Curriculum Committee is assured of the following (check marks required):

☐ LAS course (specifically MnTC courses), documentation through email and department meetings made available for other faculty and programs to provide feedback, includes MnTC Goal Area Cross-walk Template(s)

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

__________________________________________________________  _________________________________
LAS Department Chair Signature                                  Date

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

__________________________________________________________  _________________________________
LAS Department Chair Signature                                  Date

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

__________________________________________________________  _________________________________
LAS Department Chair Signature                                  Date

If all 4 LAS Department Chairs do not support the modified course proposal, faculty developer can elevate the proposal to AASC for resolution.

As Academic Dean/Director, by signing this Modify an Existing Course 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
☐ Reviewed MnTC Goal Area Cross-walk Template (for LAS MnTC courses only)
☐ MnTC Goal Area is appropriate based on MnSCU guidelines — Transfer Specialist consulted
☐ Verified credentials for faculty teaching the course
☐ Addressed the need for Class Maximum Change Request form
  ☐ No change in class maximum OR
  ☐ Change in class maximum — Class Maximum Change Request form completed with all necessary signatures

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

__________________________________________________________  _________________________________
Academic Dean/Director Signature                                 Date

If Academic Dean/Director does not support the modified course 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.

__________________________________________________________  _________________________________
Curriculum Committee Chair Signature                            Date

__________________________________________________________  _________________________________
Vice President of Student and Academic Affairs Signature        Date

Modify an Existing Course Form — 12/9/14 — Page 2
South Central College

CIM 1106  Machine Tool Theory I

Course Outcome Summary

Course Information
Description  This course provides an exploration of the basics in machining, raw materials, use of hand tools, safety and maintenance. A basic foundational knowledge regarding lathe, milling, grinding, and drill press is also established. Teamwork, critical thinking, and problem solving are emphasized. Hands-on experience and practical applications are included.  (Prerequisite: Declare CIM as a major)

Total Credits 1.00
Total Hours 16.00

Types of Instruction
Instruction Type            Credits/Hours
Lecture                     1/16

Pre/Corequisites
Declare CIM as a major.

Institutional Core Competencies
Analysis and inquiry: Students will demonstrate an ability to analyze information from multiple sources and to raise pertinent questions regarding that information.

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.

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.

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.

Written and oral communication: Students will communicate effectively in a range of social, academic, and professional contexts using a variety of means, including written, oral, numeric/quantitative, graphic, and visual modes of communication.

Course Competencies
1. Explore shop floor layout.
2. **Identify safety elements in shop.**
   Learning Objectives
   - Explain key safety terms.
   - Describe lockout/tagout.
   - Use PPE, guards, and barriers as appropriate.
   - Locate Personal Protective Equipment (PPE).

3. **Recognize major machine tools.**
   Learning Objectives
   - Explain basic machine differences.
   - Identify types of drills and insert tooling.
   - Identify lathe and milling machines.
   - Identify multiple hand tools.

4. **Discuss maintenance schedules.**
   Learning Objectives
   - Communicate lubrication needs.
   - Explain methods of application.
   - Use cutting fluids.

5. **Explain semi-precision measurement tools.**
   Learning Objectives
   - Define key measurement terms.
   - Identify calipers, adjustable squares, and fixed gages.

**SCC Accessibility Statement**
If you have a disability and need accommodations to participate in the course activities, please contact your instructor as soon as possible. This information will be made available in an alternative format, such as Braille, large print, or cassette tape, upon request. If you wish to contact the college ADA Coordinator, call that office at 507-389-7222.

Disabilities page [http://southcentral.edu/academic-policies/disability-rights.html](http://southcentral.edu/academic-policies/disability-rights.html)
Curriculum Development Form — New Course

Course Designator, Number, Title and Number of Credits (i.e. ACCT 1800, Business Law, 3 cr)

CIM 1207 Interpreting Engineering Drawings 2 cr

Date of Proposal: 2-17-15  
Author: Jon Morgan

Course Contact: Jon Morgan  
Grading Method: ☒ Grade  
☐ Pass/Fail

Scheduling: ☒ Fall  
☐ Spring  
☐ Summer  
☐ Alternate Years  
☐ Variable  
☐ On Demand

Is this proposed course a Liberal Arts and Sciences course?  
☐ Yes  
☒ No

If yes, which MnTC area(s) will it fulfill (http://mctransfer.org)?

☐ 1  
☐ 2  
☐ 3  
☐ 4  
☐ 5  
☐ 6  
☐ 7  
☐ 8  
☐ 9  
☐ 10

Is this course a requirement/elective for a specific program or programs?  
☒ Yes  
☐ No

If yes, which program(s)? — DARS search

☐ Combined

What impact will this new course have on other program(s)?  
None

Describe the rationale for offering this new course:

Combined CIM 1100 & CIM 1101

Attach additional paperwork if necessary

As Faculty Developer, by signing this New Course 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 course offerings to identify potential duplication
☒ Completed Intention Form

Continue the Curriculum Development Process
☒ Used online WIDS to create Common Course Outline (CCO)
☒ Identified:
• concise 2-3 sentence course description  
• course name  
• lecture/lab credits and hour breakdown  
• course prefix and number  
• prerequisites  
• MnTC goal area — LAS courses
☒ Completed MnTC Goal Area Cross-walk Template (for LAS MnTC courses only)
☒ Created measurable course competencies and learning objectives
☒ Considered potential opportunities and impacts of the change on other programs/departments — DARS Search
☒ Proofread documentation for correct content on CCOs based on SCC example
☒ Proofread documentation for grammatical and typographical errors

Faculty Developer Signature  
2-17-15

As Primary Department Chair, by signing this New Course 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, includes MnTC Goal Area Cross-walk Template(s)
☒ Proofread documentation for correct content and proper structure on CCOs based on SCC example
☒ Proofread documentation for grammatical and typographical errors
☒ I support this course  
☐ I do not support this course — please provide reason(s):

Primary Department Chair Signature  
2-18-15
For LAS (MnTC courses) — As a LAS Department Chair, by signing this New Course form, the Curriculum Committee is assured of the following (check marks required):

- LAS course (specifically MnTC courses), documentation through email and department meetings made available for other faculty and programs to provide feedback, includes MnTC Goal Area Cross-walk Template(s)

- I support this course  □ I do not support this course — please provide reason(s):

- LAS Department Chair Signature Date

- I support this course  □ I do not support this course — please provide reason(s):

- LAS Department Chair Signature Date

- I support this course  □ I do not support this course — please provide reason(s):

- LAS Department Chair Signature Date

- I support this course  □ I do not support this course — please provide reason(s):

- LAS Department Chair Signature Date

If all 4 LAS Department Chairs do not support the new course proposal, faculty developer can elevate the proposal to AASC for resolution.

As Academic Dean/Director, by signing this New Course 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
- Reviewed MnTC Goal Area Cross-walk Template (for LAS MnTC courses only)
- MnTC Goal Area is appropriate based on MnSCU guidelines — Transfer Specialist consulted
- Verified credentials for faculty teaching the course
- Addressed the need for Class Maximum Change Request form
  - No change in class maximum OR
  - Change in class maximum — Class Maximum Change Request form completed with all necessary signatures

- I support this course  □ I do not support this course — please provide reason(s):

- [Signature]

If Academic Dean/Director does not support the new course proposal, faculty developer can elevate 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]

- Vice President of Student and Academic Affairs Signature Date

New Course Form — 12/9/14 — Page 2
South Central College

CIM 1207 Interpreting Engineering Drawings

Course Outcome Summary

Course Information

Description
This course provides an overview of basic prints and drawings involved in machining. Upon completion of this course the student will be able to interpret drawing information, describe basic symbols and notation and interpret basic GD&T feature control frames. (Prerequisite: CIM 1106 Machine Tool Theory I)

Total Credits 2.00
Total Hours 48.00

Types of Instruction

<table>
<thead>
<tr>
<th>Instruction Type</th>
<th>Credits/Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lecture</td>
<td>1/16</td>
</tr>
<tr>
<td>Lab</td>
<td>1/32</td>
</tr>
</tbody>
</table>

Pre/Corequisites

CIM 1106 Machine Tool Theory I

Institutional Core Competencies

Analysis and inquiry: Students will demonstrate an ability to analyze information from multiple sources and to raise pertinent questions regarding that information.

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.

Written and oral communication: Students will communicate effectively in a range of social, academic, and professional contexts using a variety of means, including written, oral, numeric/quantitative, graphic, and visual modes of communication.

Course Competencies

1. Identify basic symbols and notation on blueprints.
   Learning Objectives
   Explain different icons used to create title block and other blueprint components.
   Identify drawing nomenclature.

2. Explain the utilization of tolerances.
Learning Objectives
Apply Maximum Material Condition (MMC).
Acknowledge limit tolerances.
Explain unilateral tolerances.
Explain bilateral tolerances.

3. Interact with engineering drawings.
   Learning Objectives
   Describe line types.
   Create title block.
   Utilize the components of engineering drawings.
   Explain key terms.

4. Apply blueprint basics to interaction with working drawings.
   Learning Objectives
   Create accurate blueprints, using appropriate symbols and notations.
   Interpret blueprint drawings.
   Describe project specifications based on title block information.

5. Explain Geometric Dimensioning and Tolerancing (GD&T).
   Learning Objectives
   Describe modifiers.
   Interpret basic GD&T feature control frame.
   Identify basic GD&T symbols.
   Explain GD&T.

6. Apply Geometric Dimensioning and Tolerancing (GD&T) to projects as appropriate.
   Learning Objectives
   Apply runout tolerances.
   Demonstrate the use of a feature control frame.
   Use drawing to define datum.

SCC Accessibility Statement
If you have a disability and need accommodations to participate in the course activities, please contact your instructor as soon as possible. This information will be made available in an alternative format, such as Braille, large print, or cassette tape, upon request. If you wish to contact the college ADA Coordinator, call that office at 507-389-7222.

Disabilities page [http://southcentral.edu/academic-policies/disability-rights.html](http://southcentral.edu/academic-policies/disability-rights.html)
Curriculum Development Form — Modify an Existing Course

Course Designator, Number, Title and Number of Credits (i.e. ACCT 1800, Business Law, 3 cr)

CIM 2101 Interpreting Engineering Drawings 10 3

Date of Proposal: 2-17-15

Author: Jon Wegman

Course Contact: YX MOA (MN)

Grading Method: ☐ Grade ☐ Pass/Fail

Scheduling: ☑ Fall ☐ Spring ☐ Summer ☐ Alternate Years ☐ Variable ☐ On Demand

Is this proposed course a Liberal Arts and Sciences course? ☑ Yes ☐ No

If yes, which MnTC area(s) will it fulfill (http://mntransfer.org)?

☒ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 ☐ 10

The course is being: ☑ Modified ☐ Deleted (complete Intention Form and obtain signatures)

Describe the modification and the rationale: Credit Reduction From 3-2 cr

Is this course a requirement/elective for a specific program or programs?

☑ Yes ☐ No

If yes, which program(s)? — DARS search

CIM

What impact will this modified course have on other program(s)? None

Attach additional paperwork if necessary

As Faculty Developer, by signing this Modify an Existing Course 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

☑ Completed Intention Form

Continue the Curriculum Development Process

☑ COPY of existing CCO was used to make changes

☑ Double-checked:
  • concise 2-3 sentence course description
  • course name
  • lecture/lab credits and hour breakdown
  • course prefix and number
  • prerequisites
  • MnTC goal area — LAS courses

☑ Completed MnTC Goal Area Cross-walk Template (for LAS MnTC courses only)

☑ Verified measurable course competencies and learning objectives

☑ Considered potential opportunities and impacts of the change on other programs/departments — DARS Search

☑ Proofread documentation for correct content and proper structure on CCOs based on SCC example

☑ Proofread documentation for grammatical and typographical errors

Faculty Developer Signature 2-17-15

As Primary Department Chair, by signing this Modify an Existing Course 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, includes MnTC Goal Area Cross-walk Template(s)

☑ Proofread documentation for correct content and proper structure on CCOs based on SCC example

☑ Proofread documentation for grammatical and typographical errors

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

Primary Department Chair Signature 2-19-15
For LAS (MnTC courses) — As a LAS Department Chair, by signing this Modify an Existing Course form, the Curriculum Committee is assured of the following (check marks required):

☐ LAS course (specifically MnTC courses), documentation through email and department meetings made available for other faculty and programs to provide feedback, includes MnTC Goal Area Cross-walk Template(s)

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

__________________________  ________________________
LAS Department Chair Signature  Date

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

__________________________  ________________________
LAS Department Chair Signature  Date

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

__________________________  ________________________
LAS Department Chair Signature  Date

If all 4 LAS Department Chairs do not support the modified course proposal, faculty developer can elevate the proposal to AASC for resolution.

As Academic Dean/Director, by signing this Modify an Existing Course 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
☐ Reviewed MnTC Goal Area Cross-walk Template (for LAS MnTC courses only)
☐ MnTC Goal Area is appropriate based on MnSCU guidelines — Transfer Specialist consulted
☐ Verified credentials for faculty teaching the course
☐ Addressed the need for Class Maximum Change Request form
   ☒ No change in class maximum OR
   ☐ Change in class maximum — Class Maximum Change Request form completed with all necessary signatures

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

__________________________  ________________________
Academic Dean/Director Signature  Date

If Academic Dean/Director does not support the modified course 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.

__________________________  ________________________
Curriculum Committee Chair Signature  Date

__________________________  ________________________
Vice President of Student and Academic Affairs Signature  Date

Modify an Existing Course Form — 12/9/14 — Page 2
South Central College

CIM 2101 Interpreting Engineering Drawings III

Course Outcome Summary

Course Information

Description: This course expands on the other courses concerning usage of prints and drawings in machining. Students will be provided with more learning opportunities, including continued, hands-on interaction with symbols, notations, and GD&T feature control frames. (Prerequisite: CIM 1201 - Interpreting Engineering Drawings II)

Total Credits: 2.00
Total Hours: 48.00

Types of Instruction

<table>
<thead>
<tr>
<th>Instruction Type</th>
<th>Credits/Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lecture</td>
<td>1/16</td>
</tr>
<tr>
<td>Lab</td>
<td>1/32</td>
</tr>
</tbody>
</table>

Pre/Corequisites

CIM 1201 - Interpreting Engineering Drawings II

Institutional Core Competencies

Analysis and inquiry: Students will demonstrate an ability to analyze information from multiple sources and to raise pertinent questions regarding that information.

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.

Written and oral communication: Students will communicate effectively in a range of social, academic, and professional contexts using a variety of means, including written, oral, numeric/quantitative, graphic, and visual modes of communication.

Course Competencies

1. Analyze multiple symbols and notations on machining prints.
   Learning Objectives
   Explain the use of variant items on engineering drawings.
   Define a wide variety of nomenclature on prints.

2. Appraise usage of tolerances.
   Learning Objectives
   Critique uses of bilateral and unilateral tolerances.
3. Modify prints as needed.
   Learning Objectives
   Determine effectiveness of prints.
   Identify elements to modify on prints.

4. Apply engineering drawing specifics to projects.
   Learning Objectives
   Utilize information to determine steps of project.
   Develop a plan based on print components.
   Consult drawing to create part.

5. Practice reading multifaceted drawings.
   Learning Objectives
   Explain location of print components.
   Identify meaning of various elements of blueprints.
   Summarize project specifications after consulting drawings.

6. Determine project plan from multiple prints.
   Learning Objectives
   Read symbols and notations to create a project plan.
   Evaluate project requirements to determine content of prints.

SCC Accessibility Statement

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Disabilities page [http://southcentral.edu/academic-policies/disability-rights.html](http://southcentral.edu/academic-policies/disability-rights.html)
Curriculum Development Form — New Course

Course Designator, Number, Title and Number of Credits (i.e. ACCT 1800, Business Law, 3 cr)

CIM 2103 CVC Programming III 4 cr

Date of Proposal: 2-17-15 Author: Jon Morgan

Course Contact: Jon Morgan Grading Method: ☑ Grade ☐ Pass/Fail

Scheduling: ☑ Fall ☐ Spring ☐ Summer ☐ Alternate Years ☐ Variable ☐ On Demand

Is this proposed course a Liberal Arts and Sciences course? ☐ Yes ☑ No

If yes, which MnTC area(s) will it fulfill (http://mntctransfer.org)?

☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 ☐ 10

Is this course a requirement/elective for a specific program or programs? ☑ Yes ☐ No

If yes, which program(s)? — DARS search CIM

What impact will this new course have on other program(s)? None

Describe the rationale for offering this new course: Credit Increase From 3-4

Attach additional paperwork if necessary

As Faculty Developer, by signing this New Course 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 course offerings to identify potential duplication
☑ Completed Intention Form

Continue the Curriculum Development Process
☑ Used online WIDS to create Common Course Outline (CCO)
☑ Identified:
  • concise 2-3 sentence course description
  • course prefix and number
  • course name
  • prerequisites
  • lecture/lab credits and hour breakdown
  • MnTC goal area — LAS courses
☑ Completed MnTC Goal Area Cross-walk Template (for LAS MnTC courses only)
☑ Created measurable course competencies and learning objectives
☑ Considered potential opportunities and impacts of the change on other programs/departments — DARS Search
☑ Proofread documentation for correct content on CCOs based on SCC example
☑ Proofread documentation for grammatical and typographical errors

Faculty Developer Signature 2-17-15

As Primary Department Chair, by signing this New Course 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, includes MnTC Goal Area Cross-walk Template(s)
☑ Proofread documentation for correct content and proper structure on CCOs based on SCC example
☑ Proofread documentation for grammatical and typographical errors
☐ I support this course ☐ I do not support this course — please provide reason(s):

Primary Department Chair Signature 2-18-15
For LAS (MnTC courses) — As a LAS Department Chair, by signing this New Course form, the Curriculum Committee is assured of the following (check marks required):

☐ LAS course (specifically MnTC courses), documentation through email and department meetings made available for other faculty and programs to provide feedback, includes MnTC Goal Area Crosswalk Template(s)

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

__________________________________________________________

LAS Department Chair Signature Date

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

__________________________________________________________

LAS Department Chair Signature Date

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

__________________________________________________________

LAS Department Chair Signature Date

If all 4 LAS Department Chairs do not support the new course proposal, faculty developer can elevate the proposal to AASC for resolution.

As Academic Dean/Director, by signing this New Course 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

☒ Reviewed MnTC Goal Area Crosswalk Template (for LAS MnTC courses only)

☒ MnTC Goal Area is appropriate based on MnSCU guidelines — Transfer Specialist consulted

☒ Verified credentials for faculty teaching the course

☒ Addressed the need for Class Maximum Change Request form

☒ No change in class maximum OR

☒ Change in class maximum — Class Maximum Change Request form completed with all necessary signatures

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

__________________________________________________________

Academic Dean/Director Signature Date

If Academic Dean/Director does not support the new course proposal, faculty developer can elevate 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.

__________________________________________________________

Curriculum Committee Chair Signature Date

__________________________________________________________

Vice President of Student and Academic Affairs Signature Date

New Course Form — 12/9/14 — Page 2
South Central College

CIM 2103  CNC Programming III

Course Outcome Summary

Course Information

Description
This course provides students with continuing opportunities to work with CNC programming, building on what was learned in the previous programming course. Topics include lathe programming, program downloading, editing, and advanced set-ups and operations.
(Prerequisite: CIM 1202 - CNC Programming II).

Total Credits 4.00
Total Hours 96.00

Types of Instruction

Instruction Type Credits/Hours
Lecture 2/32
Lab 2/64

Pre/Corequisites

CIM 1202 - CNC Programming II

Institutional Core Competencies

Analysis and inquiry: Students will demonstrate an ability to analyze information from multiple sources and to raise pertinent questions regarding that information.

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.

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.

Course Competencies

1. Create a program.
   Learning Objectives
   Use lathe "M" codes.
   Use lathe "G" codes.

2. Demonstrate tapping process.
   Learning Objectives

Course Outcome Summary - Page 1 of 3
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3. **Demonstrate the control memory operation.**
   Learning Objectives
   Choose upload programs.
   Choose download programs.

4. **Explain machine controls.**
   Learning Objectives
   Identify length offsets.
   Identify diameter offsets.

5. **Identify wire Electrical Discharge Machining (EDM).**
   Learning Objectives
   Use EDM holding accessories.
   Demonstrate specialized EDM principles.

6. **Create a file.**
   Learning Objectives
   Demonstrate file management.
   Exhibit file management habits.

7. **Identify machine axis.**
   Learning Objectives
   Demonstrate 2-axis cutting.
   Describe 4-axis cutting.

8. **Demonstrate lathe graphing.**
   Learning Objectives
   Explain lathe dry run.
   Explain simulate program.

9. **Explain ways to break an edge.**
   Learning Objectives
   Use auto chamfer.
   Demonstrate auto radius application.

10. **Explain tooling holders.**
    Learning Objectives
    Use Cat-40 taper Holders.
    Identify tool length touch-off procedures.

11. **Program 2d geometry with Mastercam.**
    Learning Objectives
    Use contouring and drilling tool paths.
    Use pocketing and high speed toolpaths.
    Create geometry in different planes.

12. **Identify different type of cutting tools.**
    Learning Objectives
    Use end mills (Flat, Bull Nose, and Ball nose).
    Use corner rounding and chamfer tools.
    Use various types of drills.

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