



**SOUTH DAKOTA BOARD OF REGENTS  
ACADEMIC AFFAIRS FORMS**

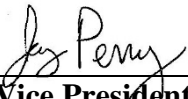
**Institutional Substantive Program Modification Requests**

**Institution:** South Dakota School of Mines & Technology **Date:** 01/08/2019

Institutional representatives should provide direct links to PDF documents for each of the program modification requests represented below. All requests should be posted on the campus Curriculum and Instruction website one week prior to the Academic Affairs Council meeting where the program modification request is being considered.

		<i>Approval</i>
<a href="#">Computer Science, Minor</a>		JP
<a href="#">Computer Science, BS</a>		JP

Program modifications referenced above for approval have been reviewed by the Academic Affairs Council and the System Vice President for Academic Affairs and may be advanced forward for entry in Colleague. For those program modifications listed above that did not receive approval, additional clarification or justification will be necessary and should be re-routed through the review process on a separate "Institutional Substantive Program Modification Requests" form once all issues have been resolved.

  
\_\_\_\_\_  
**Signature: System Vice President for Academic Affairs**

2/7/19  
\_\_\_\_\_  
**Date**



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**Substantive Program Modification Program**

Use this form to request minor changes in existing programs (majors, minors, certificates, or specializations).

<b>UNIVERSITY:</b>	SDSM&T
<b>CURRENT PROGRAM TITLE:</b>	<b>Computer Science Minor</b>
<b>CIP CODE:</b>	
<b>UNIVERSITY DEPARTMENT:</b>	<b>Math &amp; CSC</b>
<b>UNIVERSITY DIVISION:</b>	

**University Approval**

*To the Board of Regents and the Executive Director: I certify that I have read this proposal, that I believe it to be accurate, and that it has been evaluated and approved as provided by university policy.*

<hr/> Vice President of Academic Affairs or President of the University	Click here to enter a date. <hr/> Date
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**1. This modification addresses a change in (place an "X" in the appropriate box):**

- |  |   |
|--|---|
| <input checked="" type="checkbox"/> Total credits required within the discipline | <input checked="" type="checkbox"/> Total credits of supportive course work |
| <input type="checkbox"/> Total credits of elective course work                   | <input type="checkbox"/> Total credits required for program                 |
| <input type="checkbox"/> Program name  | <input type="checkbox"/> Existing specialization                            |
| <input type="checkbox"/> CIP Code  | <input type="checkbox"/> Other (explain below)                              |

**2. Effective date of change: 8/1/2017**

**3. Program Degree Level (place an "X" in the appropriate box):**

Associate  Bachelor's  Master's  Doctoral

**4. Category (place an "X" in the appropriate box):**

Certificate  Specialization  Minor  Major

**5. If a name change is proposed, the change will occur (place an "X" in the appropriate box):**

- On the effective date for all students
- On the effective date for students new to the program (enrolled students will graduate from existing program)

**Proposed new name:** \_\_\_\_\_

*Reminder: Name changes may require updating related articulation agreements, site approvals, etc.*

**6. Primary Aspects of the Modification (add lines or adjust cell size as needed):**

<i>Existing Curriculum</i>				<i>Proposed Curriculum (highlight changes)</i>			
Pref.	Num.	Title	Cr. Hrs.	Pref.	Num.	Title	Cr. Hrs.
CSC	150/150L	Computer Science 1	3				
CSC	250	Computer Science 2	4	CSC	215	Programming Techniques	4
CSC	251	Finite Structures	4	CSC	251	Finite Structures	4
CSC	300	Data Structures	4	CSC	315	Data Structure & Algorithms	4
CSC Electives: students must complete at least 6 credits from the following list: CSC 314, CSC 317, CSC 372, CSC 410, CSC 412, CSC 415, CSC 416, CSC 433, CSC 441, CSC 442, CSC 445, CSC 447, CSC 448, CSC 449, CSC 456, CSC 461, CSC 468, CSC 470, CSC 476/476L, and CSC 484			6	CSC Electives: students must complete at least 6 credits from the following list: CSC 314, CSC 317, CSC 340, CSC 372, CSC 410, CSC 412, CSC 414, CSC 415, CSC 416, CSC 433, CSC 441, CSC 442, CSC 445, CSC 447, CSC 448, CSC 449, CSC 454, CSC 458, CSC 461, CSC 468, CSC 476/476L, and CSC 484			6
Total Hours Required			21	Total Hours Required			18

**7. Explanation of the Change:**

This revision reflects the current course offerings on campus and aligns with our computer science major. The dropping of CSC 150/150L is indicative of the fact that any student interested in the minor would already be taking an introduction to programming course. This structure of dropping the introduction to programming course is consistent with the robotics minor that was approved a few years ago.



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<b>UNIVERSITY:</b>	SDSM&T
<b>CURRENT PROGRAM TITLE:</b>	<b>BS in Computer Science</b>
<b>CIP CODE:</b>	
<b>UNIVERSITY DEPARTMENT:</b>	<b>Math &amp; CSC</b>
<b>UNIVERSITY DIVISION:</b>	

**University Approval**

*To the Board of Regents and the Executive Director: I certify that I have read this proposal, that I believe it to be accurate, and that it has been evaluated and approved as provided by university policy.*

<hr/> Vice President of Academic Affairs or President of the University	Click here to enter a date. <hr/> Date
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**1. This modification addresses a change in (place an "X" in the appropriate box):**

- |  |   |
|--|---|
| <input checked="" type="checkbox"/> Total credits required within the discipline | <input checked="" type="checkbox"/> Total credits of supportive course work |
| <input checked="" type="checkbox"/> Total credits of elective course work        | <input type="checkbox"/> Total credits required for program                 |
| <input type="checkbox"/> Program name  | <input type="checkbox"/> Existing specialization                            |
| <input type="checkbox"/> CIP Code  | <input type="checkbox"/> Other (explain below)                              |

**2. Effective date of change: 8/1/2017**

**3. Program Degree Level (place an "X" in the appropriate box):**

Associate  Bachelor's  Master's  Doctoral

**4. Category (place an "X" in the appropriate box):**

Certificate  Specialization  Minor  Major

**5. If a name change is proposed, the change will occur (place an “X” in the appropriate box):**

- On the effective date for all students
- On the effective date for students new to the program (enrolled students will graduate from existing program)

**Proposed new name:** \_\_\_\_\_

*Reminder: Name changes may require updating related articulation agreements, site approvals, etc.*

**6. Primary Aspects of the Modification (add lines or adjust cell size as needed):**

Existing Curriculum				Proposed Curriculum (highlight changes)			
Pref.	Num.	Title	Cr. Hrs.	Pref.	Num.	Title	Cr. Hrs.
CSC	110	Survey of Computer Science and Mathematics	1	CSC	110	Survey of Computer Science and Mathematics	1
CSC	150/150L	Computer Science 1	3	CSC	150/150L	Computer Science 1	3
CSC	250	Computer Science 2	4	CSC	215	Programming Techniques	4
CSC	251	Finite Structures	4	CSC	251	Finite Structures	4
CSC	300	Data Structures	4	CSC	315	Data Structure & Algorithms	4
CSC	314/314L	Assembly Language	3	CSC	314/314L	Assembly Language	3
CSC	372	Analysis of Algorithms	3	CSC	340	Software Engineering & Design	3
CSC	456/456L	Operating Systems	4	CSC	372	Analysis of Algorithms	3
CSC	461	Programming Languages	4	CSC	458/458L	Theory and Design of Operating Systems	4
CSC	464	Senior Design 1	2	CSC	461	Programming Languages	4
CSC	465	Senior Design 2	2	CSC	464	Senior Design 1	2
CSC	468	Graphical User Interface	3	CSC	465	Senior Design 2	2
CSC	470	Software Engineering	3	CSC	468	Graphical User Interface	3
CSC	484	Database Management	3	CSC	484	Database Management	3
CSC Electives: students must complete at least 12 credits from the following list: CSC 410, CSC 412, CSC 414, CSC 415, CSC 416, CSC 426, CSC 433, CSC 440/440L, CSC 441, CSC 442, CSC 445, CSC 447, CSC 448, CSC 449, CSC 463, CSC 476/476L, and CENG 444			12	CSC Electives: students must complete at least 12 credits from the following list: CSC 410, CSC 412, CSC 414, CSC 415, CSC 416, CSC 426, CSC 433, CSC 441, CSC 442, CSC 445, CSC 447, CSC 448, CSC 449, CSC 454, CSC 476/476L, and CENG 444			12
PHYS	211	University Physics 1	3	PHYS	211	University Physics 1	3
Science Electives Students must take three science courses with two accompanying labs. These courses must be selected from at least two different disciplines, and one science course must be PHYS 211. List of Science courses for the science requirement: PHYS 213, CHEM 112, CHEM			8	Science Electives Students must take three science courses with two accompanying labs. These courses must be selected from at least two different disciplines, and one science course must be PHYS 211. List of Science courses for the science requirement: PHYS 213, CHEM 112,			8

114, BIOL 151, BIOL 153, and GEOL 201.				CHEM 114, BIOL 151, BIOL 153, and GEOL 201.			
MATH	123	Calculus 1	4	MATH	123	Calculus 1	4
MATH	125	Calculus 2	4	MATH	125	Calculus 2	4
MATH	225	Calculus 3	4	MATH	225	Calculus 3	4
MATH	315	Linear Algebra	3	MATH	315	Linear Algebra	3
MATH	381	Intro to Prob & Stats	3	MATH	381	Intro to Prob & Stats	3
MATH Elective At least three credits of a math lecture course that is from the following list: Math 321, Math 382, Math 353, Math 413, Math 421, Math 423, or Math 443.			3	MATH Elective At least three credits of a math lecture course that is from the following list: Math 321, Math 382, Math 353, Math 413, Math 421, Math 423, or Math 443.			3
ENGL	101	Composition 1	3	ENGL	101	Composition 1	3
ENGL	279	Tech Comm 1	3	ENGL	279	Tech Comm 1	3
ENGL	289	Tech Comm 2	3	ENGL	289	Tech Comm 2	3
Goal 3 and Goal 4 requirement in General Education.			12	Goal 3 and Goal 4 requirement in General Education.			12
Additional HUM/SOC – students are required to complete an additional 3 credits of HUM or SOC class at 100 level or above.			3	Additional HUM/SOC – students are required to complete an additional 3 credits of HUM or SOC class at 100 level or above.			3
Free	Elective	6 Credits of free elective	6	Free	Elective	6 Credits of free elective	6
Total Hours Required			120	Total Hours Required			120

## 7. Explanation of the Change:

This modification is the result of several changes: replace CSC 250 by CSC 215; replace CSC 300 by CSC 315; replace CSC 456/456L by CSC 458/458L, and replace CSC 470 by CSC 340. These changes are a result of resolving differences between our curriculum and the CSC curriculum that is common to the BOR system. The courses listed in the upper level CSC electives reflect the current list of courses that are being offered and deletes the courses that are not being offered.