

**Minnesota State University Moorhead**  
**2007-2008 Assessment Report Cover Sheet**

(An electronic version of this form can be accessed at <http://www.mnstate.edu/assess>)

*Note: All non-accredited programs are required to complete this form. Include Assessment Reporting Forms for each learning outcome assessed.*

**Academic Program: Computer Information Systems**

**Department: CSIS**

**College: CBI**

**Date: 10/31/2007**

**1. Name(s) of Department Assessment Coordinator and/or Assessment Committee Members**

**Andrew Chen**

**2. List of All Student Learning Outcomes.** (List all outcomes, placing an asterisk (\*) by the outcomes you are assessing this year.)

Students will be able to competently develop computer software. (\*)

Students will be able to communicate, to technical and non-technical audiences, about computers and computation through writing and speech.

Students will possess competitive and comprehensive discipline-specific content knowledge. (\*)

Students will be able to solve problems in their careers.

**3. Describe how your program has addressed the comments from the Student Learning Outcomes Assessment Committee during the past two academic years?** (If you have made changes to your plan, file a revised Assessment Plan Cover Sheet and Assessment Planning Form(s).)

A more specific software development rubric (specifically, the same rubric, but with more precise meanings to the terms used) was developed. Most of the other feedback provided by SLOAC is appropriate for revisions to the assessment plan, which we'll be doing after submitting this assessment report. In addition to incorporating SLOAC's feedback, we're also planning on pursuing ABET accreditation and so will be revising our assessment plan in preparation for that.

**4. If you have received an Instructional Improvement Grant in the past two years, identify the outcomes on which the grant was based and provide a summary here of the results from your grant.**

## 5. Signatures

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Department Chair or Program Director

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Dean or Director

### **Required Attachments:**

1. Assessment Reporting Forms
2. Records of department meetings when Assessment Report was discussed and approved.

CIS Summary				
Rubric	Poor	Fair	Good	N/A
packaging		41.67%	58.33%	0.00%
documentation	25.00%	25.00%	50.00%	0.00%
functionality	16.67%	33.33%	50.00%	0.00%
modularity	16.67%	33.33%	50.00%	0.00%
clarity of code		25.00%	41.67%	33.33%
efficiency of code				100.00%
algorithm selection				100.00%
adherence to specifications	16.67%	33.33%	50.00%	0.00%
innovation, extra effort, added features, introduction/use of non-requisite tools	45.83%	4.17%	50.00%	0.00%
Summary:	24.17%	27.98%	50.00%	25.93%

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2007-2008 Assessment Reporting Form**

(An electronic version of this form can be accessed at <http://www.mnstate.edu/assess>)

*Instructions: Include this form for each student learning outcome assessed during the previous year. Include Assessment Report Cover Sheet.*

**Academic Program:** Computer Information Systems

**1. Learning outcome assessed (please include the number of the outcome to correspond with the list on the cover sheet).**

**Students will possess competitive and comprehensive discipline-specific content knowledge.  
(3)**

**2. Describe assessment measure used for this learning outcome (attach instrument or rubric)**

**A special assessment test created by the faculty that teach upper-level required courses for the Computer Information Systems major. An example such test should be found accompanying this document. Feedback on the test welcome.**

**3. Expected/satisfactory student results (from assessment plan)**

**The first year in which we do this will establish a baseline. Each year after that, we will expect improvement.**

**4. Actual results from the past year (attach additional information, if necessary)**

**See attached spreadsheet.**

**5. Describe and explain available trend data for student performance on this outcome over the past several years. In other words, describe how the results of this measure have changed over the past several years.**

**No trend data is available, since this is our first time.**

**6. Proposed action in response to results.** (Please note if improvements can be made with existing department resources. If improvements cannot be made with existing department resources, consider applying for an Instructional Improvement Grant.)

**At present, we intend to continue to administer this test in this same fashion to determine trend data. We will also be discussing the appropriateness of this assessment method in our discussions of how to revise our assessment plan. In addition to revising to accommodate our concerns, we're also planning on pursuing ABET accreditation and so will be revising our assessment plan in preparation for that.**

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*Instructions: Include this form for each student learning outcome assessed during the previous year. Include Assessment Report Cover Sheet.*

**Academic Program:** Computer Information Systems

**1. Learning outcome assessed (please include the number of the outcome to correspond with the list on the cover sheet).**

**Students will be able to competently develop computer software. (1)**

**2. Describe assessment measure used for this learning outcome (attach instrument or rubric)**

**Evaluation of selected student work based on rubrics that are attached.**

**3. Expected/satisfactory student results (from assessment plan)**

**The first time this is done, faculty members will establish a baseline against which we can compare this. Future revisions to this assessment plan will be revised accordingly.**

**4. Actual results from the past year (attach additional information, if necessary)**

**For every piece of student work evaluated according to these rubrics, and for every evaluator, a rubric sheet is available. Please find attached a summary rubric sheet.**

**5. Describe and explain available trend data for student performance on this outcome over the past several years. In other words, describe how the results of this measure have changed over the past several years.**

**No trend data is available, since this is our first time.**

**6. Proposed action in response to results.** (Please note if improvements can be made with existing department resources. If improvements cannot be made with existing department resources, consider applying for an Instructional Improvement Grant.)

**There was a degree of dissatisfaction with the choice of rubrics and with the sampling methods that had been recommended (best student, worst student, average student). We plan to have future discussions regarding these concerns and to revise our assessment plan accordingly. In addition to revising to accommodate our concerns, we're also planning on pursuing ABET accreditation and so will be revising our assessment plan in preparation for that.**

DEPARTMENTAL SUMMARY OF ASSESSMENT INDICATORS

Assessment Indicator Number	Assessment Indicator Title	Mean Percent Correct
1	Programming	64
2	Discrete Structures and Algorithms	33
3	Systems: Architecture/Operating Systems/Networking/Database	51

Students responding to less than 50% of the questions: 0  
 Students in frequency distribution: 5  
 Students tested: 5

DEPARTMENTAL SUMMARY OF TOTAL TEST AND SUBSCORES

TOTAL TEST		
Scaled Score Range	Number in Range	Percent Below
200	0	100
195-199	0	100
190-194	0	100
185-189	0	100
180-184	0	100
175-179	0	100
170-174	1	80
165-169	0	80
160-164	1	60
155-159	0	60
150-154	2	20
145-149	0	20
140-144	0	20
135-139	0	20
130-134	1	0
125-129	0	0
120-124	0	0

	Mean	Standard Deviation
Total Test Scaled Score	153	14

Students responding to less than 50% of the questions: 0  
 Students in frequency distribution: 5  
 Students tested: 5

Test
55.6
51.1
64.4
43.3
52.2

Test was out of a 100 point scale.  
Other information (student ID, grade in class and on other assignments,  
etc...) has been removed for confidentiality reasons.

**Test Average**

**53.3**

Student:					
Assignment:					
Rubric	(0-100%)	Poor	Fair	Good	N/A
packaging		No clear effort to package	An obvious effort to package, but a clear lack of understanding on how to do so properly	Packaged in accordance with specifications	
documentation		No documentation	Unclear or incomplete documentation	Documentation is clear and complete and conforms to established standards	
functionality		Does not work at all	Works, but has bugs or misfeatures	Completely works, no known or observable bugs or misfeatures	
modularity		No or little use of functions, methods, classes, or other forms of modularity; OR uses globals extensively	Obvious attempts at modularity - use of the tools of modularity, such as limited or no globals, use of functions, methods, classes, and other techniques to achieve modularity	Successful use of the techniques that can be used to achieve modularity - modules are separate, cleanly divided, and lack undocumented dependencies	
clarity of code		Code is obfuscated	Code can be read, but causes a headache to do so	Code is completely clear and the meaning and intent of the code is obvious	
efficiency of code		Code is highly inefficient - redundant checks, no use of optimization	Code attempts to be efficient - expressions are not obviously re-evaluated un-necessarily	Code is as efficient as can be without sacrificing clarity	
algorithm selection		Code is highly inefficient and uses algorithms that are at least a factor of n greater than what is needed	Code attempts to be efficient - algorithms are only at most a factor of lg n greater than what is needed	Code uses the known provably optimal algorithms in terms of the complexity of the problem	
adherence to specifications		Absolutely no adherence to any specification; no indication of knowledge of specifications	Partial adherence to specifications; an understanding of, but an obvious confusion about, specifications	Complete and total adherence to specifications; clearly understood specifications completely	
innovation, extra effort, added features, introduction/use of non-requisite tools		No innovation, no extra effort, no additional features, no introduction or use of non-requisite tools	A failed attempt, or mis-application or inappropriate selection of: innovation, effort, features, non-requisite tools	A successful attempt, or application or appropriate selection of: innovation, effort, features, non-requisite tools	