

**SOUTHWESTERN OK STATE UNIVERSITY  
ANNUAL STUDENT LEARNING ASSESSMENT REPORT  
ACADEMIC DEGREE PROGRAMS AND OPTIONS**

<b>Degree Program:</b>	Computer Science Programming Major (NOTE: a fake major)
<b>Academic Department:</b>	Business and Computer Science
<b>Academic Year:</b>	2016-17
<b>Author of Report:</b>	Veronica McGowan
<b>Other participants:</b>	n/a
<b>Program Option (if applicable)</b>	n/a
<b>Is the program accredited?</b>	Yes
<b>Who is the accrediting body?</b>	ACBSP
<b>When is the next accreditation review?</b>	2018

**MISSION / GOALS**

University Mission: The mission of Southwestern Oklahoma State University, a member of the Regional University System of Oklahoma, is to provide educational opportunities, research, scholarly and creative activities, and service in a safe, accessible, nurturing learning environment that meets the needs of the state and region and contributes to the educational, economic, and cultural environment. SWOSU provides traditionally strong programs of study leading to a variety of degrees, from associate to doctoral degrees. The University's areas of study, nationally accredited programs, general education curriculum, service and experiential learning activities, and participation in student activities and organizations provide students with opportunities to obtain skills, knowledge, and cultural appreciation that promote achievement by students and alumni.

**Describe all or part of the mission statement that relates to the academic program:**

The mission of the Computer Science Programming Major program correlates with the part of the institutional mission statement that addresses academic program: "SWOSU provides traditionally strong programs of study leading to a variety of degrees, from associate to doctoral degrees." Students from both the traditional and non-traditional ranks are served by the Computer Programming Major in preparation for an occupation in either client or server-side applications. It is important to note that courses within the Computer Programming Major also serve students in other computer and business programs, including Information Systems, Business Administration, Management, and office technology. The primary purpose of the major is robust career preparation with student success achieved through providing practical, hands-on exercises that mimic field programming expectations, personal attention through individualized advising and mentoring of career planning and opportunities such as internships and field experiences. In addition the part of the mission statement that addresses field accreditation: "The University's areas of study, nationally accredited programs, general education curriculum, service and experiential learning activities, and participation in student activities and organizations provide students with opportunities to obtain skills, knowledge, and cultural appreciation that promote achievement by students and alumni." The Computer Programming Major is a quality educational program, fully accredited by the Association of Collegiate Business Schools and Programs (ACBSP), meeting the rigorous standards of excellence as set by that accrediting body. The department verifies that its programs are compatible with the institution's mission statement and that it is meeting its purposes through periodic reviews.

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INSTRUCTIONS: Evaluate 3-5 student learning goals, identify planned changes, and complete a continuous improvement of learning review.

**LEARNING GOAL #1 (describe using action verbs; goal must be measureable):**

While not required, a gold standard of ACBSP practices is the inclusion of one nationally recognized

**Select Criteria for Success or write your own:**

80% of students will achieve a score of 85 or better on the departmental standardized examination; 20% of students will complete the MCSD programming certification with a score of 700 or greater. Another gold standard for ACBSP would be a further sub-goal of setting a gradual increase in the number of students who attempt and successfully complete the nationally certified examination. Small percentage increments are accepted and valued as realistic goals.

**Was the Criterion for Success met?** Yes

**Is this student learning goal a General Education goal?** No

**Select Assessment Measure(s): a minimum of one, but two or more are recommended; mark all that apply.**

Objective exams (multiple choice, true/false, matching items)

Essay exams / discussion questions

**Briefly describe the measure or measures selected.**

As demonstrated in the three year trend chart of standardized examination grades, sub-goals of critical thinking and computational thinking are analyzed. NOTE: it is essential that evidence accompany all statements made in any narrative reviewed by ACBSP.

**List all courses where the learning goal was assessed (course prefix, number, and title of each):**

CSC 4023 Computer Programming II (note: a fake course)

**Student Sample Size (total number of students assessed for course(s)):** 70

**Number of sections included in the analysis (include all courses and all sections of each course):** 2

**Were Three Pillars courses included in the assessment process?** No

**Course delivery (Mark all that apply.):**

Face to Face

Online

**Course Information:**

**Did you use one or more rubrics to evaluate learning?** No

**Did faculty use the syllabus template for the course(s)?** Yes

**Based on the analysis of the assessment findings, describe student learning strengths and weaknesses as they relate to the learning goal.**

**Describe student learning strengths:**

Students are demonstrating success in being tested with a wide variety of problem formats, perhaps due to consistent use in other program coursework.

**Describe student learning weaknesses:**

Difficulty in modifying a method to fit variable changes of a particular data set.

**CONTINUOUS IMPROVEMENT PLAN**

**Select all planned changes that apply:**

- 1. Revise learning objective
- 9. Revise instruction

**Describe all selected items and note the dates of implementation:**

Faculty review category and subcategory scores for each cohort. After a three year trend of underperformance, faculty are required to make an instructional intervention and document the course of that intervention. Spring 2018.

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INSTRUCTIONS: Continue with evaluating 3-5 student learning goals, identify planned changes, and complete a continuous improvement of learning review.

**LEARNING GOAL #2 (describe using action verbs; goal must be measurable):**

Demonstrating and applying knowledge in multiple software projects and at least one substantial one.

**Select Criteria for Success or write your own:**

80% or more students achieved 85% or higher on the student learning goal as demonstrated by the assessment measure(s).

**Was the Criterion for Success met?** Yes

**Is this student learning goal a General Education goal?** No

**Select Assessment Measure(s): a minimum of one, but two or more are recommended; mark all that apply.**

Quantitative problems  
Defense of stated position (written/oral)  
Essays  
Research / term papers  
Other:  
Coding projects

**Briefly describe the measure or measures selected.**

80% of students will achieve a score of 85 or better on the Capstone Experience project in which students

**List all courses where the learning goal was assessed (course prefix, number, and title of each):**

CSC 4100 Program Capstone (note: a fake course)

**Student Sample Size (total number of students assessed for course(s):** 70

**Number of sections included in the analysis (include all courses and all sections of each course):** 2

**Were Three Pillars courses included in the assessment process?** No

**Course delivery (Mark all that apply.):**

Face to Face  
Online

**Course Information:**

**Did you use one or more rubrics to evaluate learning?** Yes

**Did faculty use the syllabus template for the course(s)?** Yes

**Based on the analysis of the assessment findings, describe student learning strengths and weaknesses as they relate to the learning goal.**

**Describe student learning strengths:**

Students are motivated to develop a portfolio of their best work because it may also serve employer expectations of the provision of a variety of coding projects.

**Describe student learning weaknesses:**

Difficulty in selecting a material that meets a learning goals vs. selecting a material the student likes or is most proud of.

### **CONTINUOUS IMPROVEMENT PLAN**

**Select all planned changes that apply:**

- 3. Change method(s) of data collection
- 8. Revise course content

**Describe all selected items and note the dates of implementation:**

Faculty review rubric scores and perceptions for each cohort. After a three year trend of underperformance, faculty are required to make a course content intervention and document the course of that intervention. Fall 2018.

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INSTRUCTIONS: Continue with evaluating 3-5 student learning goals, identify planned changes, and complete a continuous improvement of learning review.

**LEARNING GOAL #3 (describe using action verbs; goal must be measurable):**

Recognize how recurring themes such as abstraction, complexity, iteration, limits, sequences, and

**Select Criteria for Success or write your own:**

80% or more students achieved 85% or higher on the student learning goal as demonstrated by the assessment measure(s).

**Was the Criterion for Success met?** Yes

**Is this student learning goal a General Education goal?** No

**Select Assessment Measure(s): a minimum of one, but two or more are recommended; mark all that apply.**

Objective exams (multiple choice, true/false, matching items)

Quantitative problems

**Briefly describe the measure or measures selected.**

85% of students will achieve a score of 85 or better on a specific examination(s) that reflects these concepts; the average score of four key examinations will serve to reflect four major courses as a concentration area.

**List all courses where the learning goal was assessed (course prefix, number, and title of each):**

CSC 3100 Programming Algorithms (note: a fake course) CSC 3150 Data Structures (note: a fake course)  
CSC 3175 Visual Programming (note: a fake course) CSC 3225 Client and Server Side Programming (note: a fake course)

**Student Sample Size (total number of students assessed for course(s):** 70

**Number of sections included in the analysis (include all courses and all sections of each course):** 8

**Were Three Pillars courses included in the assessment process?** No

**Course delivery (Mark all that apply.):**

Face to Face

Online

**Course Information:**

**Did you use one or more rubrics to evaluate learning?** No

**Did faculty use the syllabus template for the course(s)?** Yes

**Based on the analysis of the assessment findings, describe student learning strengths and weaknesses as they relate to the learning goal.**

**Describe student learning strengths:**

The use of the average for the concentration courses provides clarity to students regarding the preparation and effort for the four essential courses.

**Describe student learning weaknesses:**

Student preparation for tests requires active participation in homework problems and students reflecting on what they have learned from the experiences and identifying further needs.

### **CONTINUOUS IMPROVEMENT PLAN**

**Select all planned changes that apply:**

- 4. Modify frequency or course schedule
- 5. Make technology related improvements
- 6. Revise or add prerequisite
- 9. Revise instruction

**Describe all selected items and note the dates of implementation:**

Tests are evaluated informally on a yearly bases and formally every 3-4 years to insure relevance and currency of material and alignment with other course materials. Due to the selection of some programming languages and software applications, faculty need to insure that computer labs, including those used by students to complete homework assignments are up-to-date with latest versions. Fall 2018. NOTE; the above sample size is due to the use of cohort data

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**Describe the program goal(s), assessment measure(s), sample size, criteria for success, assessment results, and if the criteria was met. Assessment measure(s) for program level evaluation may include: focus group interviews, course enrollment information, job placement, employer, alumni, student perception surveys, and graduate school placement rates.**

**Program Goal 1:**

Improve the educational and professional qualifications of program faculty

**Assessment Measure(s):**

Faculty Doctoral Attainment; Number of Faculty Certifications

**Sample Size & Criteria for Success:**

8 faculty, 1 faculty will obtain doctorate by Fall 2019, another by Fall 2020; 70% of faculty will achieve one certification by December 2021.

**Assessment Results & if the Criteria was Met:**

PLACEHOLDERS: Criteria Met\Not Met Doctorate percentage expected to increase by XX% Increase in certifications by XX%

**Program Goal 2:**

Increase the number of freshman returning for sophomore year

**Assessment Measure(s):**

Program fall-to-fall retention rates

**Sample Size & Criteria for Success:**

60 students, 85% of students will return for sophomore year

**Assessment Results & if the Criteria was Met:**

PLACEHOLDERS: Criteria Met\Not Met Student retention rate is XX%

**Program Goal 3:**

Employer overall satisfaction

**Assessment Measure(s):**

Employer Survey

**Sample Size & Criteria for Success:**

35 employers; overall satisfaction will be 85% or higher

**Assessment Results & if the Criteria was Met:**

PLACEHOLDERS: Criteria Met\Not Met Overall employer satisfaction rate is XX%

**If standardized testing is part of the degree program, describe the performance goal, type of test, sample size, criteria for success, assessment results, and if the criteria was met.**

**Performance Goal (describe what students will know or be able to do):**

Students will successfully complete the departmental Computer Programming Standardized Exam.

**Standardized Test (measure):**

departmental Computer Programming Standardized Exam MCSD Programming Certification Exam



**Sample Size and Criteria for Success:**

60 students, 80% of students will achieve a score of 85 or better on the departmental standardized examination; 20% of students will complete the MCSD programming certification with a score of 700 or greater.

**Assessment results including if the criteria was met or not met:**

Criterion met, 81% of students achieved a score of 85 or better on the departmental exam.

**CONTINUOUS IMPROVEMENT REVIEW: Year to Year Comparison**

**Based on the results from the previous program assessment report, please describe the student learning improvements from last year to this year. If no improvements occurred, please provide a brief explanation.**

Due to changes initiated by textbook publishers and software vendors, review of course materials and their alignment to learning objectives occurs more frequently for this major than other majors in other fields. Due to previous underperformance in essay rubrics for citation of student resources, interventions including links to library style guides and appearance of style guide compliance in assignment rubrics has results in an 8% improvement in this subcategory from 2014 results.

**Were planned changes from the previous year implemented?** Yes

**If no changes occurred, please provide a brief explanation.**

NV

**Is this your first-time to complete an assessment report for this degree program?** Yes

**Submit Date:** 2017/09/15 13:10:57