

Program Plan and Findings: Four Column Layout



Program (CAS) - CS - Computer Science (BS) - 052

Program Mission Statement: 1) to pursue and to publicize research projects in computer science in order to extend the present state of knowledge in the computer field
2) to educate students in all program levels in order to provide them with the knowledge, interest, and ethics to become productive members of the computing profession
3) to serve as an initial and continuing source of education in the field of computer science

Program Information

2019 - 2020

Program Information

Assessment Coordinator's Name: Shital Joshi

Assessment Coordinator's E-mail Address: Shital.Joshi@okstate.edu

Number of Students Enrolled in the Program: 267

Total Number of Students Graduated: 38

Number of Student Graduates from Stillwater Campus:

Number of Student Graduates from Tulsa Campus:

Were university assessment funds used by the department/program for assessment activities?: No

If yes, describe how funds were used and the contribution the funds had on the assessment process:

Annual Executive Summaries

2019 - 2020

Program Assessment Coordinator: Shital Joshi

Plan Review and Approval

Date Current Plan Was Reviewed and Approved:

Date of Future Plan Review and Approval:

Summary of Assessment Findings

Describe overall assessment findings and faculty members' interpretation of the assessment results: This is the first year that the new ABET assessment rubric has been used, and so the baselines are still being established.

Dissemination of Findings

Describe the individual(s) or committee responsible for reviewing and interpreting assessment data: The assessment coordinator with input from the department head and all faculty

Describe the process for sharing and discussing assessment findings with program faculty: The results were discussed and distributed to all faculty during the faculty meeting in multiple occasion

Program Improvements Based on Assessment

Based on data collected this year, what changes are being considered or planned for the program?: No changes considered necessary

Based on this year's findings, what (if any) changes are planned for the assessment process?: No changes are planned

Describe the process for implementing these changes/planned program improvements: Not applicable

Program Improvements Made in the Last Year:

"Other" Improvements:

Goals for the Coming Year: Applying for ABET Accreditation. Readiness reviews will be submitted on October, 1st and based in the result, further action would be followed.

Is this Summary Report Complete?: Yes

List all individuals associated with this report preparation: Department Faculty

<i>Outcomes</i>	<i>Assessment Methods</i>	<i>Findings</i>	<i>Use of Findings (Actions)</i>
<p>Analysis and Application - Analyze a complex computing problem and apply principles of computing and other relevant disciplines to identify solutions.</p> <p>Outcome Status: Active</p> <p>Planned Assessment Year: 2019 - 2020</p> <p>Start Date: 08/19/2019</p> <p>Archived Date:</p> <p>Outcome Type: Knowledge</p> <p>Reason for Archival:</p>	<p>Rubrics data collected to evaluate the following indicators:</p> <ol style="list-style-type: none"> 1) Abstraction of complex problems into formal models allowing for algorithmic solutions 2) Knowledge of adequate algorithmic strategies for solution development and implementation 3) Mapping formal specifications of problems into algorithmic solutions <p>* Learning Outcome</p> <p>Goal/Benchmark: All outcomes are evaluated against the threshold of 70%.</p> <p>Timeline for Assessment:</p> <p>Other Assessment Type:</p>	<p>Reporting Period: 2019 - 2020</p> <p>Conclusion: 3 - Meets Program Expectations (Proficient)</p> <p>Average:</p> <p>Unsatisfactory: 13.39%</p> <p>Developing: 19.29%</p> <p>Satisfactory: 32.4%</p> <p>Exemplary: 34.92% (09/09/2020)</p> <p>Number of Students Assessed: 27</p> <p>Number of Successful Students: 24</p> <p>How were students selected to participate in the assessment of this outcome?: Rubrics data were collected for all CS undergraduate students enrolled in the course</p> <p>What do the findings suggest about student achievement of this learning outcome?: The outcomes met the 70% threshold criterion</p>	<p>Use of Findings (Actions): Use of Findings (Actions): Based on the rubric data, the outcomes met the 70% threshold criterion. So, no action deemed necessary at this time. (09/11/2020)</p>
<p>Design, Implement and Evaluate - Design, implement and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program's discipline</p> <p>Outcome Status: Active</p> <p>Planned Assessment Year: 2019 - 2020</p> <p>Start Date: 08/19/2019</p>	<p>Rubrics data collected to evaluate the following indicators:</p> <ol style="list-style-type: none"> 1) Designs a programmable solution for a problem 2) Implements an executable solution 3) Validates the implementation relative to requirements <p>* Learning Outcome</p> <p>Goal/Benchmark: All outcomes are</p>	<p>Reporting Period: 2019 - 2020</p> <p>Conclusion: 2 - Meets Minimum Program Expectations (Developing)</p> <p>Average:</p> <p>Unsatisfactory: 26.07%</p> <p>Developing: 26.28%</p> <p>Satisfactory: 24.79%</p> <p>Exemplary: 22.86% (09/09/2020)</p> <p>Number of Students Assessed: 17</p> <p>Number of Successful Students: 14</p>	<p>Use of Findings (Actions): Use of Findings (Actions): Based on the rubric data, the outcomes met the 70% threshold criterion. So, no action deemed necessary at this time. (09/11/2020)</p>

<i>Outcomes</i>	<i>Assessment Methods</i>	<i>Findings</i>	<i>Use of Findings (Actions)</i>
<p>Archived Date:</p> <p>Outcome Type: Knowledge</p> <p>Reason for Archival:</p>	<p>evaluated against the threshold of 70%.</p> <p>Timeline for Assessment:</p> <p>Other Assessment Type:</p>	<p>How were students selected to participate in the assessment of this outcome?: Rubrics data were collected for all CS undergraduate students enrolled in the course</p> <p>What do the findings suggest about student achievement of this learning outcome?: The outcomes met the 70% threshold criterion</p>	
<p>Effective Communication - Communicate effectively in a variety of professional contexts.</p> <p>Outcome Status: Active</p> <p>Planned Assessment Year: 2019 - 2020</p> <p>Start Date: 08/19/2019</p> <p>Archived Date:</p> <p>Outcome Type: Knowledge</p> <p>Reason for Archival:</p>	<p>Rubrics data collected to evaluate the following indicators:</p> <ol style="list-style-type: none"> 1) Demonstrates effective written communication skills in the context of discussion topics 2) Effectively presents concepts in oral presentation <p>* Learning Outcome</p> <p>Goal/Benchmark: All outcomes are evaluated against the threshold of 70%.</p> <p>Timeline for Assessment:</p> <p>Other Assessment Type:</p>	<p>Reporting Period: 2019 - 2020</p> <p>Conclusion: 4 - Exceeds Program Expectations (Advanced)</p> <p>Average: Unsatisfactory: 6.07% Developing: 9.19% Satisfactory: 48.72% Exemplary: 36.03% (09/09/2020)</p> <p>Number of Students Assessed: 16</p> <p>Number of Successful Students: 15</p> <p>How were students selected to participate in the assessment of this outcome?: Rubrics data were collected for all CS undergraduate students enrolled in the course</p> <p>What do the findings suggest about student achievement of this learning outcome?: The outcomes met the 70% threshold criterion</p>	<p>Use of Findings (Actions): Use of Findings (Actions): Based on the rubric data, the outcomes met the 70% threshold criterion. So, no action deemed necessary at this time. (09/11/2020)</p>
<p>Professional responsibilities - Recognize professional responsibilities and make informed judgements in computing practice based on legal and ethical principles.</p> <p>Outcome Status: Active</p> <p>Planned Assessment Year: 2019 - 2020</p> <p>Start Date: 08/19/2019</p> <p>Archived Date:</p> <p>Outcome Type: Knowledge</p> <p>Reason for Archival:</p>	<p>Rubrics data collected to evaluate the following indicators:</p> <ol style="list-style-type: none"> 1) Demonstrates knowledge of ethical, legal and social implications of computing 2) Demonstrates understating of the impact of computing practices in society at large 3) Demonstrates awareness of the significance of privacy and security in data management <p>* Learning Outcome</p> <p>Goal/Benchmark: All outcomes are evaluated against the threshold of 70%.</p> <p>Timeline for Assessment: 2019_Fall</p> <p>Other Assessment Type:</p>	<p>Reporting Period: 2019 - 2020</p> <p>Conclusion: 4 - Exceeds Program Expectations (Advanced)</p> <p>Average: Unsatisfactory: 6.07% Developing: 3.13% Satisfactory: 36.58% Exemplary: 54.23% (09/09/2020)</p> <p>Number of Students Assessed: 16</p> <p>Number of Successful Students: 15</p> <p>How were students selected to participate in the assessment of this outcome?: Rubrics data were collected for all CS undergraduate students enrolled in the course</p> <p>What do the findings suggest about student achievement of this learning outcome?: The outcomes met the 70% threshold criterion</p>	<p>Use of Findings (Actions): Use of Findings (Actions): Based on the rubric data, the outcomes met the 70% threshold criterion. So, no action deemed necessary at this time. (09/11/2020)</p>

Outcomes	Assessment Methods	Findings	Use of Findings (Actions)
<p>Team Coordination - Function effectively as a member or leader of a team engaged in activities appropriate to the program's discipline</p> <p>Outcome Status: Active</p> <p>Planned Assessment Year: 2019 - 2020</p> <p>Start Date: 08/19/2019</p> <p>Archived Date:</p> <p>Outcome Type: Knowledge</p> <p>Reason for Archival:</p>	<p>Rubrics data collected to evaluate the following indicators:</p> <ol style="list-style-type: none"> 1) Attendance and participation in team meetings 2) Contributes to overall group work product 3) Demonstrates leadership and teamwork skills <p>* Learning Outcome</p> <p>Goal/Benchmark: All outcomes are evaluated against the threshold of 70%.</p> <p>Timeline for Assessment:</p> <p>Other Assessment Type:</p>	<p>Reporting Period: 2019 - 2020</p> <p>Conclusion: 4 - Exceeds Program Expectations (Advanced)</p> <p>Average: Unsatisfactory: 9.4% Developing: 52.57% Satisfactory: 15.17% Exemplary: 22.87% (09/09/2020)</p> <p>Number of Students Assessed: 17</p> <p>Number of Successful Students: 16</p> <p>How were students selected to participate in the assessment of this outcome?: Rubrics data were collected for all CS undergraduate students enrolled in the course</p> <p>What do the findings suggest about student achievement of this learning outcome?: The outcomes met the 70% threshold criterion</p>	<p>Use of Findings (Actions): Use of Findings (Actions): Based on the rubric data, the outcomes met the 70% threshold criterion. So, no action deemed necessary at this time. (09/11/2020)</p>
<p>Application - Apply computer science theory and software development fundamentals to produce computing-based solutions</p> <p>Outcome Status: Active</p> <p>Planned Assessment Year: 2019 - 2020</p> <p>Start Date: 08/19/2019</p> <p>Archived Date:</p> <p>Outcome Type: Knowledge</p> <p>Reason for Archival:</p>	<p>Rubrics data collected to evaluate the following indicators:</p> <ol style="list-style-type: none"> 1) Working knowledge of programming languages and software fundamentals 2) Knowledge of fundamental data structures and algorithms 3) Knowledge of asymptotic notions and notations, and best-expected and worst-case analysis of algorithms <p>* Learning Outcome</p> <p>Goal/Benchmark: All outcomes are evaluated against the threshold of 70%.</p> <p>Timeline for Assessment:</p> <p>Other Assessment Type:</p>	<p>Reporting Period: 2019 - 2020</p> <p>Conclusion: 3 - Meets Program Expectations (Proficient)</p> <p>Average: Unsatisfactory: 11.21% Developing: 21.47% Satisfactory: 32.75% Exemplary: 34.58% (09/09/2020)</p> <p>Number of Students Assessed: 27</p> <p>Number of Successful Students: 24</p> <p>How were students selected to participate in the assessment of this outcome?: Rubrics data were collected for all CS undergraduate students enrolled in the course</p> <p>What do the findings suggest about student achievement of this learning outcome?: The outcomes met the 70% threshold criterion</p>	<p>Use of Findings (Actions): Use of Findings (Actions): Based on the rubric data, the outcomes met the 70% threshold criterion. So, no action deemed necessary at this time. (09/11/2020)</p>