

ACADEMIC YEAR 2021-2022 / ANNUAL PROGRAM REVIEW (APR)

Computer Science BS

This view always presents the most current state of the plan item.

Plan Item was last modified on 1/6/22, 1:34 PM

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Template:

Student Learning Assessment Report (add one "plan item" for each major, degree, and/or certificate offered by dept)

Name of degree/major or credential (example: Psychology BA/BS):

Computer Science BS

Assessment Cycle State Date:

3/1/2021

Assessment Cycle End Date:

7/1/2022

Progress:

Under Review by College/Institution

Providing Department:

Computer Science-Academic

Responsible Users:**Assessment Report Contact:**

Terence Soule

Program Changes in Past Year:

CS360 Database Systems added as a required course

CS220 Secure Coding and Testing added as a required course

List of allowed science courses expanded

Stat251 accepted as an alternative to Stat301

CS360 Database Systems extended from 3 to 4 credits

Learning Outcomes are Communicated to All Students in Program (check box if true):

true

Learning Outcomes are Communicated to All Faculty (check box if true):

true

Optional: Framework Alignment:**Import Outcomes Data (from Anthology Outcomes):**


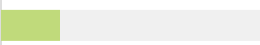
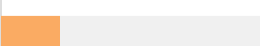
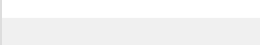
1.

Problem-solving Skills

Graduates of the program will be able to analyze a complex computing problem and apply principles of computing and other relevant disciplines to identify solutions.

Academic Year 2020-2021: Computer Science (B.S.C.S.)

Term: Overview

Exceeded		54.55%	12
Met		22.73%	5
Partially Met		22.73%	5
Not Met		0%	0

2.

Critical Thinking

Graduates of the program will be able to design, implement and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program's discipline.

Academic Year 2020-2021: **Computer Science (B.S.C.S.)**

Term: **Overview**

Exceeded		64.95%	63
Met		29.9%	29
Partially Met		5.15%	5
Not Met		0%	0

3.

Communication Skills

Graduates of the program will be able to communicate effectively in a variety of professional contexts.

Academic Year 2020-2021: **Computer Science (B.S.C.S.)**

Term: **Overview**

Exceeded		36.36%	8
Met		63.64%	14
Partially Met		0%	0
Not Met		0%	0

4.

Professionalism

Graduates of the program will be able to recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles.

Academic Year 2020-2021: **Computer Science (B.S.C.S.)**

Term: **Overview**

Exceeded		88.24%	15
Met		11.76%	2
Partially Met		0%	0
Not Met		0%	0

5.

Teamwork

Graduates of the program will be able to function effectively as a member or leader of a team engaged in activities appropriate to the program's discipline.

Academic Year 2020-2021: **Computer Science (B.S.C.S.)**

Term: **Overview**

No Results

6

Apply

Graduates of the program will be able to apply computer science theory and software development fundamentals to produce computing-based solutions.

Academic Year 2020-2021: **Computer Science (B.S.C.S.)**

Term: **Overview**

Exceeded		50%	11
Met		22.73%	5
Partially Met		13.64%	3
Not Met		13.64%	3

Summary of Student Learning:

Overall students are meeting the learning outcomes. This conclusion is supported by both the direct and indirect measures. There are a few weak points (see imported outcomes data) that need to be addressed through our continual improvement processes. Because assessment of outcomes is done in the 300- and 400- level courses, these weaknesses are discussed by all faculty so that they can be addressed throughout the curriculum.

Attached Files

There are no attachments.

Summary of Faculty Discussion:

Faculty felt that programming skills were not as strong as they could/should be by the senior years -- due in part to a reduced amount of programming in the sophomore and junior years. Additionally, some skills that were important in the junior/senior years were not fully developed.

Attached Files

There are no attachments.

Summary of Changes/Improvements Being Considered:

CS 220 was added as a required course to increase programming practice in the sophomore year. CS 360 was expanded to 4 credits to increase programming and hands-on experience in the junior year. The content of CS 210 Programming Languages was changed slightly to make sure that it covers the skills needed in the junior and senior years.

Attached Files

There are no attachments.

Inter-rater Reliability:

We use a standardized document for data collection to try to ensure that all faculty are using similar metrics and instruments for assessing student mastery of program learning outcomes.

Closing the Loop:

Previous assessments have led to a number of program changes in terms of both curriculum (required courses) and teaching methodology (an increased use of supplemental materials, allowing more hands-on, flipped classroom, style activities in the classroom). Student performance in program 'capstone' courses, including both Senior Capstone Design (CS480/481) and Compilers (CS 445) has improved slightly and is in on track to meet our goals given that some of the changes (e.g. additional credits in CS 360 and making CYB 220 required) have not impact out current seniors.

Attached Files

[CS-E002-EAC-Self-Study-Questionnaire-08-29-18 V13.docx](#)

Quality Assessment Feedback:

Attached Files

There are no attachments.

Related Items

No connections made