

YEARLY PLANNING DISCUSSION TEMPLATE

General Questions

Program Name _Computer Science_____ **Academic Year** 2025-2026

1. Has your program mission or primary function changed in the last year?

No. The primary function of the Computer Science program remains to prepare students for transfer to four-year universities and for continued study in computer science, software development, data science, cybersecurity, and related technical fields. The program still introduces students to programming, computer architecture, mathematics, problem solving, and software/hardware design.

2. Were there any noteworthy changes to the program over the past year? (eg, new courses, degrees, certificates, articulation agreements)
 - The program began using a zero-cost textbook for CS111. This work aligns with prior program-review discussions and with the broader goal of lowering barriers for students in the CS sequence.
 - CS111 changed to use Python instead of Java and changed to focus on algorithm thinking. This change is intended to make the first programming course more accessible while still emphasizing core computer science skills.
 - CS112 lecture and assignment materials continued to be revised to strengthen alignment between class examples, homework, and assessment. More work to be done in the upcoming academic year.
 - We continued to monitor the impact of AI tools on student learning, academic integrity, and assessments. This remains one of the most important challenges affecting the program and affecting all of academia.
3. Is your two-year program map in place and were there any challenges maintaining the planned schedule?

Yes. We have two pathways:

- Associate in Science for Transfer - Computer Science
- Associate in Arts - Computer Science

Program map links for review:

- Computer Science pathway page:

<https://www.hancockcollege.edu/pathways/sciences-technologies/computer-science.php>

- AS-T Computer Science program map:

<https:// HancockCollege.curriqnet.com/Report/Program/GetReport/1245?reportId=486>

- AA Computer Science program map:

<https:// HancockCollege.curriqnet.com/Report/Program/GetReport/1258?reportId=486>

We were able to offer at least one instance of each required Computer Science course in both fall and spring semesters so students had regular access to the planned course sequence. We did not have issues maintaining the planned schedule.

4. Were there any staffing changes?

No. We had no staffing changes this year.

5. What were your program successes in your area of focus last year?

- Completely re-written content for CS111 (using Python instead of Java now). This includes
 - All new videos for online students
 - All assignments are new
 - All new course material
 - All new tests
 - New assignment rules to combat AI integrity problems.
- Zero cost textbook for CS111.
- Articulation with UCSB for CS111 and CS112. We lost this a few years ago, but, after a bit of convincing, we got it back!
- For the first time ever, we used embedded tutors. This was extremely useful and helped discourage the use of AI.

Learning Outcomes Assessment

- a. Please summarize key results from this year's assessment.
Learning outcome assessment was not done this year. More fundamentally, we need to revise our outcomes to be a bit less generic. This will lead to better assessment.
- b. Please summarize your reflections, analysis, and interpretation of the learning outcome assessment and data.

N/A

- c. Please summarize recommendations and/or accolades that were made within the program/department.

N/A

- d. Please review and attach any changes to planning documentation, including PLO rubrics, associations, and cycles planning.

Distance Education (DE) Modality Course Design Peer Review Update (Please attach documentation extracted from the *Rubric for Assessing Regular and Substantive Interaction in Distance Education Courses*)

- a. Which courses were reviewed for regular and substantive interactions (RSI)?

No review during this cycle.

- b. What were some key findings regarding RSI?

N/A

- Some strengths:

N/a

- Some areas of possible improvement:

N/A

- c. What is the plan for improvement?

N/A

CTE two-year review of labor market data and pre-requisite review

- a. Does the program meet documented labor market demand?

N/A not CTE, but we do offer market labor analysis in the next section.

- b. How does the program address needs that are not met by similar programs?

N/A

- c. Does the employment, completion, and success data of students indicate program effectiveness and vitality? Please, explain.

N/A

- d. Has the program met the Title 5 requirements to review course prerequisites, and advisories within the prescribed cycle of every 2 year for CTE programs and every 5 years for all others?

N/A

- e. Have recommendations from the previous report been addressed?

N/A

Area of Focus Discussion Template

EDUCATION AND INDUSTRY PARTNERSHIPS

Education and Industry Partnerships – review relationships with four-year institutions including preparation for transfer and changes in major requirements assess employment as well as review employment and the needs of employers and regional partners. Sample activities include the following:

Possible topics:

- Review academic transfers and associate degree for transfer alignments.
- Review articulation agreements.
- Review C-ID (course identification system) modifications.
- Integrate advisory committee recommendations and regional training needs.
- Review career and technical education (CTE) labor market information and trends.
- Explore collaborations, internships and externships, and cooperative work experience opportunities.
- CTE unit completion goals in the Student Centered Funding Formula and CCCCO Vision for Success.

1. What data were analyzed and what were the main conclusions?

Sources reviewed:

- U.S. Bureau of Labor Statistics, Computer and Information Technology Occupations: <https://www.bls.gov/ooh/computer-and-information-technology/home.htm>
- U.S. Bureau of Labor Statistics, Software Developers, Quality Assurance Analysts, and Testers: <https://www.bls.gov/ooh/computer-and-information-technology/software-developers.htm>
- U.S. Bureau of Labor Statistics, Information Security Analysts: <https://www.bls.gov/ooh/computer-and-information-technology/information-security-analysts.htm>
- U.S. Bureau of Labor Statistics, Data Scientists: <https://www.bls.gov/ooh/math/data-scientists.htm>
- U.S. Department of Education, Artificial Intelligence and the Future of Teaching and Learning: <https://www.ed.gov/sites/ed/files/documents/ai-report/ai-report.pdf>
- National Institute of Standards and Technology, AI Risk Management Framework: <https://www.nist.gov/itl/ai-risk-management-framework>

- Cal Poly, Selection Criteria for Transfer Students: <https://www.calpoly.edu/admissions/transfer-student/selection-criteria>
- University of California, Basic Transfer Requirements: <https://admission.universityofcalifornia.edu/admission-requirements/transfer-requirements/preparing-to-transfer/basic-requirements.html>
- ASSIST: <https://assist.org>

Labor market: our program remains strongly connected to high-demand, bachelor's-level pathways. **BLS projects computer and information technology jobs to grow much faster than average from 2024 to 2034, with about 317,700 openings per year.** BLS also reports strong projected growth in jobs directly connected to our curriculum. Software developer, quality assurance analyst, and tester roles are projected to grow 15 percent; information security analysts 29 percent; and data scientists 34 percent. These occupations generally require a bachelor's degree, so the community-college role is to provide strong lower-division preparation for transfer.

The industry: computing is being reshaped by AI, automation, data, and security. BLS specifically identifies continued software-development demand connected to artificial intelligence, Internet of Things, robotics, and automation applications. This means that our students must be able to use AI to do their jobs **but also skilled enough to review and shape the resulting work from AI.**

AI: The U.S. Department of Education identifies both opportunities and risks in AI-enabled education, including the risk that students may represent others' work as their own. The same report emphasizes human judgment, educator involvement, and trust. NIST's AI Risk Management Framework similarly frames AI as a technology that requires attention to trustworthiness, risk, evaluation, and responsible use. For our program, the main conclusion is that we must maintain academic and technical integrity in a world consumed by AI. Students should learn about and use AI, but they must still demonstrate independent understanding of foundational programming and computer science skills.

Transfer: Cal Poly and UCSB preparation remain essential and our core courses need to align with theirs in addition to aligning with statewide standards. Cal Poly articulation remains strongly intact. In prior years, the UCSB articulation was lost for CS111 and CS112, but has recently since been recovered (we had to convince them that their course in C++ is equivalent to our course in Python/Java).

2. Based on the data analysis and looking through a lens of equity, what do you perceive as *challenges* with student success or access in your area of focus?

With articulation agreements and industry outlook healthy, the main challenge remains AI. One symptom of AI usage is high marks on homework and low scores on tests. If the student cannot evaluate and apply results properly from AI, then course objectives will not be met and course repetition and/or failure in future courses might result. Simply telling students and writing rules in a syllabus are not effective ways to prevent AI integrity issues.

3. What are your plans for change or *innovation*?

Students need to be able to perform when in a controlled environment. We plan to have more in-class sessions where students demonstrate their skills without aids. This can take the form of test preparation, whiteboard-only activities, or skill drills. Further, point values of homework should be reduced and naturally shift student priorities to tests.

4. How will you *measure* the results of your plans to determine if they are successful?

Successful results would include increasing test scores, and, in turn, a higher success rates.

Validation for Program Planning Process: If you have chosen to do the Validation this year, please explain your process and the findings.

1. Who have you identified to validate your findings? (Could include Guided Pathway Success Teams, Advisory Committee Members, related faculty, industry partners or higher education partners)
2. Are there specific recommendations regarding the core topic responses from the validation team?

Based on the narratives for the prompts above, what are some program planning initiatives and resources needed for the upcoming years? Use the tables below to fill in **NEW** resources and planning initiatives. ***This section is only used if there are new planning initiatives and resources requested that pertain to the Core Topic only.***

| New Program Planning Initiative (Objective) – Core Topic Only | |
|---|--|
| Title (including number): | CS-1 Controlled Environment Practice and Testing |
| Planning years: | 2026-2027 |
| Description: | |
| The success levels of our courses have indicated that students need to be able to perform well on tests. To do this, we will need to have controlled, in-class problems that students can be evaluated on. This will ensure that no AI or other resources are used. | |

What college plans are associated with this Objective? (Please select from the list below):

- Ed Master Plan Student Equity Plan Guided Pathways AB 705
 Technology Plan Facilities Plan Strong Workforce Equal Employment Opp.
 Title V

| New Program Planning Initiative (Objective) – Core Topic Only | |
|---|--|
| Title (including number): | <i>CS-2 Use ZCT resources in CS112</i> |
| Planning years: | <i>2026-2027</i> |
| Description: | |
| Using a free textbook for CS112 will further reduce barriers to entry. This will require a major re-write similar to what was done for CS111. | |

What college plans are associated with this Objective? (Please select from the list below):

- Ed Master Plan Student Equity Plan Guided Pathways AB 705
 Technology Plan Facilities Plan Strong Workforce Equal Employment Opp.
 Title V

| New Program Planning Initiative (Objective) – Core Topic Only | |
|---|--|
| Title (including number): | <i>CS-3 Review and updating of student learning outcomes</i> |
| Planning years: | <i>2026-2027</i> |
| Description: | |
| Our outcomes are old and generic. They need a refresh. | |

What college plans are associated with this Objective? (Please select from the list below):

- Ed Master Plan
 Student Equity Plan
 Guided Pathways
 AB 705
 Technology Plan
 Facilities Plan
 Strong Workforce
 Equal Employment Opp.
 Title V

Resource Requests: Please use the Resource Request Excel template located on the Program Review web page to enter resource requests for equipment, supplies, staffing, facilities, and misc. resources needed. Send completed excel document along with completed program view core topic for signature.

| Dept | Program | Source | Year | Initiative (Objective) Reference | Resource Need | Requested Item(s) Please include per item |
|---------|------------------|--------------------------|-----------|----------------------------------|---------------|---|
| English | English Rhetoric | Yearly Planning and Core | 2022-2023 | ER OBJ - 2 | Equipment | /Ideo cameras \$600 each |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

Chairs are still needed. Please see previous program review.









ComputerScienceProgramReview2026

Final Audit Report

2026-06-17

| | |
|-----------------|--|
| Created: | 2026-06-17 |
| By: | Christy Lopez (clopez@hancockcollege.edu) |
| Status: | Signed |
| Transaction ID: | CBJCHBCAABAA9T5QzIXO8VB903bnBICU5hdgThKLtpUW |

"ComputerScienceProgramReview2026" History

-  Document created by Christy Lopez (clopez@hancockcollege.edu)
2026-06-17 - 5:07:23 PM GMT- IP address: 209.129.94.61
-  Document emailed to Sean Abel (sean.abel@hancockcollege.edu) for signature
2026-06-17 - 5:07:47 PM GMT
-  Email viewed by Sean Abel (sean.abel@hancockcollege.edu)
2026-06-17 - 5:09:46 PM GMT- IP address: 104.47.58.126
-  Document e-signed by Sean Abel (sean.abel@hancockcollege.edu)
Signature Date: 2026-06-17 - 5:09:58 PM GMT - Time Source: server- IP address: 209.129.94.61 - Signature Appearance Selected: DRAW
-  Document emailed to Robert Curry (rcurry@hancockcollege.edu) for signature
2026-06-17 - 5:10:00 PM GMT
-  Email viewed by Robert Curry (rcurry@hancockcollege.edu)
2026-06-17 - 8:14:03 PM GMT- IP address: 174.227.180.100
-  Document e-signed by Robert Curry (rcurry@hancockcollege.edu)
Signature Date: 2026-06-17 - 11:16:46 PM GMT - Time Source: server- IP address: 209.129.94.61 - Signature Appearance Selected: IMAGE
-  Agreement completed.
2026-06-17 - 11:16:46 PM GMT