

Internal Reviewer Review Report – M.S. Computer Science California State Polytechnic University, Pomona

The purpose of this internal review of the M.S. in Computer Science is to provide an unbiased examination of the quality of education and service in the program, and to identify opportunities for improvement and growth. After carefully reviewing the program’s Self Study, we took part in Zoom meeting on Wednesday May 4th with the Computer Science Department to review. This report is divided into sections based on the lines of inquiry and highlights the strengths, challenges, and recommendations.

	<ul style="list-style-type: none"> • Are the Mission, Vision and Values of the department aligned to university and college (Report)? If not, recommend that they review and consider updating their statement to be aligned (Meeting with Department). • As a department, how can you deliberately address the Polytechnic Identify? (i.e., Specific Courses, Co-Curricular Activities (Clubs), Department Activities) (Report and Meeting with Department)
Inclusive Polytechnic Identity	Strengths <ul style="list-style-type: none"> • The Program’s self-study clearly shows the alignment between courses and CPP’s elements of Inclusive Polytechnic Education, which shows that the department deliberately aim to address the Polytechnic Identity.
	Challenges <ul style="list-style-type: none"> • The program’s self-study includes a mission, vision, and values of the university and the colleges. However, the “Mission, Vision, Values” statement for the program is a brief statement where these three elements are not separated. The statement reads as a description of what the program does but does not actually address these elements. In addition, we could not find that statement on the department’s website.
	Recommendation <ul style="list-style-type: none"> • We recommend expanding on the Mission, Vision, and Values of the Program/Department and uploading it into the Department’s website.

	<ul style="list-style-type: none"> ○ What are some key findings from assessment conducted by the program (Report)? What difference has it made (Meeting with Department)? ○ What are the assessment gaps in the program (Report)? How can the institution help narrow this gap (Meeting with Department)? How can the Office of Assessment and Program Review facilitate meaningful support regarding assessment (please note we do not have the ability to provide reassigned time)?
Assessment	Strengths <ul style="list-style-type: none"> • Solid plan to conduct assessment every year. It’s a feasible plan (two SLOs every year). • There is an assessment committee with experience. The current university assessment process has encouraged the MS faculty to be diligent on conducting annual assessments of their program. The department has assessments for the undergraduate program through accreditation and will implement the MS assessment utilizing some practices from the undergraduate program.

	Challenges	<ul style="list-style-type: none"> Although the M.S. faculty has devised a solid assessment plan for the next years, the assessment process has not been implemented yet, and, therefore, the M.S. faculty does not currently have data from previous years to discuss curricular changes to close the loop. The assessment practices will start from the ground up, but the plan to build on undergraduate program assessments will be helpful.
	Recommendation	<ul style="list-style-type: none"> Follow recommendations on the feedback from the Assessment and Review Program Office to M.S. program Annual Assessment reports.

GI 2025	Strengths	<ul style="list-style-type: none"> <i>Not applicable</i>
	Challenges	<ul style="list-style-type: none">
	Recommendation	<ul style="list-style-type: none">

Graduate Programs	Strengths	<ul style="list-style-type: none"> Faculty share the load in teaching graduate courses and supervising thesis projects. Faculty skills are diverse, and students are provided guidance from the faculty whose skills are an appropriate match with their career interests upon completing their advanced degree. The graduate program offers 5 or 6 courses per semester (in addition to Graduate seminar and directed research), which is an upgrade from the 4 courses they used to offer. Additionally, as stated, faculty are matched with students who share an interest in their industry specialty. There are around 85 students in the program, with an average of 23 students per course. Faculty expressed that the number of students with whom they work is manageable.
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	Challenges	<ul style="list-style-type: none"> Some prerequisite courses are not updated, and students need individual permission numbers. The workload cannot be handled by the graduate program coordinator, and there is only one staff member to handle all student needs regarding registration. This is a source of frustration for students, who often complain about their difficulties to register for classes.
	Recommendation	<ul style="list-style-type: none"> The specific situation with permission numbers, while critical, seems to be one for which one can find a practical fix. For example, the staff member could give a large enough number of permission numbers to each faculty member teaching a graduate course, and they can give them out to students. While not ideal, it would help expedite the process by diversifying the efforts. A department with 1100 undergraduate students and 85 graduate students should have another staff member. We recommend the department and the Dean's office devise a solution to allocate an additional staff member, even if shared with another department. Perhaps using Canvas to create an MS CS 'course' to communicate with all graduate students in one group (if not already in place) would help communicate with students more regularly about important items like permission numbers. All MS fa

	As you were writing your program review self-study, were there data gaps which would have provided the department/program with a more useful narrative?	
Technology	Strengths	<ul style="list-style-type: none"> <i>This item was not addressed but the reviewers believe that enough data was shared appropriately.</i>
	Challenges	<ul style="list-style-type: none">
	Recommendation	

	<p>How are the activities within the department aligned to the university and college priorities (i.e., Inclusive Polytechnic Identity, GI2025, Student Learning Outcomes, CLASS's Inclusive Excellence Commitment, etc.) (Meeting)</p> <p>When a new initiative is launched within the department, how does alignment with university, college, and department priorities take place? (Meeting)</p>	
Infrastructural/Organizational	<p>Strengths</p>	<ul style="list-style-type: none"> • The program has clear PEOs and SLOs, and the self-study show the alignment between SLOs and the Program Educational Outcomes, Graduate Institutional Learning Outcomes, and the Strategic vision,
	<p>Challenges</p>	<ul style="list-style-type: none"> • None to mention at this time
	<p>Recommendations</p>	<ul style="list-style-type: none"> • None to mention at this time

Summary

The M.S. in Computer Science is a strong program, providing students with the skills and knowledge needed to be successful in today's industries. Students who complete this program work in private and public sector jobs and for corporations and businesses like NASA, Amazon, Google, Disney, Boeing and as game developers and in cybersecurity. Many of their M.S. students are working professionals and have experience that support their success in completing their degree. To continue to support their M.S. students, faculty are considering a suggestion that came from Laura Massa to offer all courses asynchronously or hybrid to serve students even more efficiently. While this is only a conversation at this time, we as assessment reviewers encourage M.S. faculty to continue their conversations about this opportunity.

Two items to highlight here that is not covered in the report sections above is (1) the programs need for secure workspace for M.S. student projects and (2) the programs need for more powerful workstations that laptops, which are provided. Regarding item one, students currently work in open lab spaces, meaning they must unpack and repack costly items needed for projects because they must be locked up in storage closets or desks. With a secure workspace, student project would be safe remaining in a constructed state, saving time and research efforts. Regarding item two, for individuals working on gaming, for instance, laptops are ill equipped to handle the work necessary for development success. Students need more powerful computers and more computers in general to support their work.

We enjoyed reviewing the programs self-study and meeting with them. We learned so much about the M.S. in Computer Science, which is an extremely valuable program on our campus. Thank you to all faculty for your hard work and dedication to your program, our students, and our campus community.

Sincerely,

Reviewer 1:	<u><i>Kimberley A Miller</i></u>	Signature/Date: <u>05.31.2022</u>
Reviewer 2:	<u>Amàlia Lombart</u>	Signature/Date: <u>05/31/2022</u>