California State University, Los Angeles

Annual Assessment Report

Program: COMPUTER SCIENCE MASTER OF SCIENCE Report Semester/Year: \_ SPRING 2020\_\_ \_\_\_\_\_\_

College/School: \_\_\_ECST\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Assessment Coordinator: \_\_\_\_\_ Dr. Sun \_\_\_\_\_\_\_\_

Specialized Accreditation: 🗹 No ❒ Yes please specify Agency/organization and Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Department Mission:

To graduate well educated computer scientists who are prepared to meet the challenges of a rapidly changing, increasingly complex world. This will be accomplished through:

* A well-qualified faculty who care about students and their success.
* A dynamic, up-to-date curriculum that has an optimal balance between theory and practice.
* Laboratories, computer facilities, and instructional classrooms on par with any computer science program in the nation.
* Unique co-curricular opportunities for students such as participation in student design competitions, professional student organizations, and pre-professional employment.
* Opportunities for undergraduate and graduate students to participate in research and industry-funded design clinic projects.
* Mutually beneficial partnerships with area industry that take advantage of our location in one of the most concentrated high-tech centers in the nation.
* Strong cooperative relationships with local high schools, community colleges, and with other four-year institutions.

Please list all Program Learning Outcomes (PLOs):

The PLO’s have been updated during 2018-2019 cycle after completing a strategic planning initiative.

1. Students will have the ability to write and analyze sophisticated algorithms.
2. Student will have the ability to design, develop, and analyze complex software systems.
3. Students will have acquired advanced knowledge and skills in one or more areas of computer science.
4. Students will be able to communicate effectively both orally and in writing.

SLOS consistency with the IGLOs

*IGLOs: Institutional Learning Outcomes*

1. Demonstrate mastery of major theories, concepts, approaches to inquiry and/or practices relevant to the field of study.

2. Demonstrate information literacy appropriate to the field of study.

3. Identify and evaluate or apply diverse perspectives, assumptions, and conventions within the field of study.

4. Critically examine the power and limitations of quantitative and/or qualitative evidence in the evaluation, construction, and communication of arguments in the field of study.

5. Demonstrate communicative fluency appropriate to the field of study. Communicative fluency can include multiple expressive modes.

6. Articulate how advancing knowledge or practice in their field of study contributes to the public good.

7. Frame and examine a controversy or problem through research, projects, papers, exhibits, or performances in the field of study.

8. Situate the field of study and its relevance within a broader context, including – but not limited to – social, intellectual, and/or applied professional contexts.

9. Apply appropriate ethical standards or practices within the field of study.

**The Computer Science Student Learning Outcomes map to the ILOs as shown below.**

Computer Science graduate students shall demonstrate capabilities and meet all the IGLO’s listed above. This is evidenced by the map of the Student learning Outcomes of the program to the ILO’s.

1. *Students will have the ability to write and analyze sophisticated algorithms.*[IGLO 2, 7, 8]
2. *Student will have the ability to design, develop, and analyze complex software systems. [IGLO 1, 3, 4, 6, 7, 8]*
3. *Students will have acquired advanced knowledge and skills in one or more areas of computer science. [IGLO 6, 7, 9]*
4. *Students will be able to communicate effectively both orally and in writing. [IGLO 5]*

**Alignment of Institutional Learning Outcomes (ILOs) and Program Student Learning Outcomes (see Appendix A for a complete description of each ILO) - Please indicate which of your PLOs best match the following ILOs.**

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| --- | --- |
| Cal State LA Institutional Learning Outcomes | PLO(s) which match this ILO |
| 1. Knowledge: Mastery of content and processes of inquiry | 1, 2, 3 |
| 1. Proficiency: Intellectual skills | 2, 3, 4 |
| 1. Place and Community: Urban and global mission | 2, 3 |
| 1. Transformation: Integrative learning | 3, 4 |

Assessment Results - Describe any assessment activities conducted within the past academic years for each outcome. See Appendix for examples of assessment measures and use of results. *Please attach any additional information as needed.*

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| --- | --- | --- | --- |
| Program Learning Outcome  (List activities for each PLO. Enter “general” for activities that pertain to multiple PLOs) | 1. How and when was this PLO assessed? (For example, which assessments were used, which courses were examined, what were the dates of data collection?) See Appendix B for other examples | 2. What were the results? (For example, how many students reached each level of proficiency on the SLOs assessed?) See Appendix C for other examples | 3. Based on the results, what instructional, programmatic, or curricular improvements were made? |
| General (all PLOs) | 2018-2019: All the PLO’s were evaluated for its “satisfaction” using various constituent (Alumni, Faculty, IAB, Student) surveys. | Students, Alumni, Faculty, Employer and IAB surveys have all been satisfactory | 1. Revise the Learning Outcomes 2. Program Modification to include newer areas of CS |
| PLO 1 | Rubric evaluated in evaluated in CS5035, CS5780, CS5990, CS5996 in Spring semester, 2019 | Satisfactory. (Detailed Assessment Report to be completed in Sprint 2020) | None |
| PLO 2 | Rubric evaluated in evaluated in CS 5035, CS5220, CS5990 in Spring/Fall semester, 2019 | Satisfactory. (Detailed Assessment Report to be completed in Sprint 2020) | None |
| PLO 4 | Rubric evaluated in evaluated in CS5220, CS5990 in Spring/Fall semester, 2019 | Satisfactory. (Detailed Assessment Report to be completed in Sprint 2020) | None |
| PLO 3 | Annual survey of all constituents. | Satisfactory. (Detailed Assessment Report to be completed in Sprint 2020) | None |

**Assessment Plan - In this section, provide a description of assessment plan that specifies assessment activities conducted (and to be conducted) from 2017-2021.**

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| Program Learning Outcome | Academic year/semester when PLO is assessed | What is your tentative plan for assessing this PLO? (For example, which assessments will be used, which courses will examined?) |
| PLO 1 | Annual – Either in Fall or Spring semesters. | * The new program modification, newer courses are identified in the core to assess this outcome. * A common rubric with performance indicators is being developed for CS5035, CS5112, CS5220. * Conduct a survey to evaluate this outcome for its “satisfaction” using various constituent (Alumni, Faculty, IAB, Student) surveys. These constituent surveys are conducted on CSNS. * Discuss assessment of this PLO at department retreats in Spring semester. |
| PLO 2 |  | * The new program modification, newer courses are identified in the core to assess this outcome. * A common rubric with performance indicators is being developed for CS5440, CS5470,CS5780, CS5781. * Conduct a survey to evaluate this outcome for its “satisfaction” using various constituent (Alumni, Faculty, IAB, Student) surveys. These constituent surveys are conducted on CSNS. * Discuss assessment of this PLO at department retreats in Spring semester. |
| PLO 3 |  | * The new program modification, newer courses are identified in the core to assess this outcome. * A common rubric with performance indicators is being developed for CS5550, CS5660, CS5661 * Conduct a survey to evaluate this outcome for its “satisfaction” using various constituent (Alumni, Faculty, IAB, Student) surveys. These constituent surveys are conducted on CSNS. * Discuss assessment of this PLO at department retreats in Spring semester. |
| PLO 4 |  | * The communication rubric is evaluated in CS5990 and a few other courses in the core. * Conduct a survey to evaluate this outcome for its “satisfaction” using various constituent (Alumni, Faculty, IAB, Student) surveys. These constituent surveys are conducted on CSNS.   Discuss assessment of this PLO at department retreats in Spring semester. |