California State University, Los Angeles

Annual Assessment Report

Program: COMPUTER SCIENCE MASTER OF SCIENCE Report Semester/Year: \_ SPRING 2017\_\_ \_\_\_\_\_\_

College/School: \_\_\_ECST\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Assessment Coordinator: \_\_\_\_\_Dr. Zhu & 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):

1. Students will have the ability to write and analyze sophisticated algorithms.
2. Student will have the ability to design, analyze, and assess advanced software architectures.
3. Students will understand and be able to manage the challenges inherent in the development of complex software systems.
4. Students will have acquired advanced knowledge and skills in one or more specialized areas of computer science.
5. Students will be able to communicate effectively both orally and in writing.
6. Students will embrace lifelong learning and will have the skills to provide leadership in adapting to new environments and technologies.

**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.**

|  |  |
| --- | --- |
| Cal State LA Institutional Learning Outcomes | PLO(s) which match this ILO |
| 1. Knowledge: Mastery of content and processes of inquiry
 | 1, 2, 3, 4 |
| 1. Proficiency: Intellectual skills
 | 1, 2, 3, 4, 5 |
| 1. Place and Community: Urban and global mission
 | 6 |
| 1. Transformation: Integrative learning
 | 6 |

Assessment Results - Describe any assessment activities conducted within the past 2 academic years for each outcome. See Appendix for examples of assessment measures and use of results. *Please attach any additional information as needed.*

|  |  |  |  |
| --- | --- | --- | --- |
| 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? |
| * All the six PLO’s were evaluated. These PLO’s were evaluated both for its “importance” and “satisfaction”.
 | * The PLO’s are evaluated on a 2 year cycle.
* 2014-2016 is the most recent cycle that involved the Quarter to Semester Conversion.
* The main assessment measures are:
1. Various constituent (Alumni, Faculty, IAB, Student) surveys.
2. Performance in “core”
3. Performance in the “culminating experience – thesis/comprehensive exam.
4. Industry Advisory Board Annual Meeting.
 | * The responses to the “importance and “satisfaction” of PLO’s from all constituent surveys are satisfactory.
* The following list of activities were identified:
1. Integrate assessment process/methods into the department adopted Computer Science Network Services (CSNS).
2. Examine curriculum during the Quarter to Semester Conversion.
3. Expand the “core” courses
4. Create an archive of all thesis publications.
5. Re-examine student learning outcomes
 | * The curriculum was rewritten to expand the “core”. (Changed to choosing three areas from the specified five areas)
* The PLO’s were redefined. The first thee PLO’s were revised. The new PLO’s are listed above.
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**Assessment Plan - In this section, provide a description of assessment plan that specifies assessment activities conducted (and to be conducted) from 2015-2019.**

|  |  |  |
| --- | --- | --- |
| 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?) |
| All PLO’s | On a 2 year cycle that spans 2016-2018. | * Conduct constituent surveys by integrating into CSNS.
* Elicit more information from alumni concerning placement and job growth.
* Create an archive for all “thesis” and “comprehensive exam” on CSNS.
* Create rubrics to evaluate “thesis” and “comprehensive exam” on CSNS.
* Discuss the curriculum and assessment of PLO’s in the next annual IAB meeting in Fall 2017.
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With whom do you share your assessment information? (Please check all that apply)

🗹 faculty in the department 🗹 students in the program 🗹 campus administrators

🗹 department alumni ❒ employers ❒ external community members

🗹 Other (please specify) \_Industry Advisory Board

Append A: Cal State LA Institutional Learning Outcomes and Goals

***Institutional Learning Goals***

<https://spcc.calstatela.edu/>

**California State University, Los Angeles students expand and deepen their interdisciplinary and general understanding of the world, enhance their critical skills, and take responsibility for a lifetime of learning, and as graduates become individuals who engage, enhance, and contribute to democratic society**.

***Knowledge: Mastery of content and processes of inquiry***

CSULA graduates have a strong knowledge base in their academic major and can use powerful processes of inquiry in a range of disciplines. They engage contemporary and enduring questions with an understanding of the complexities of human cultures and the physical and natural world and are ready to put their knowledge into action to address contemporary issues.

***Proficiency: Intellectual skills***

CSULA graduates are equipped to actively participate in democratic society. They are critical thinkers who make use of quantitative and qualitative reasoning. They have the ability to find, use, evaluate and process information in order to engage in complex decision-making. They read critically, speak and write clearly and thoughtfully and communicate effectively.

***Place and Community: Urban and global mission***

CSULA graduates are engaged individuals who have contributed to the multi-lingual and multiethnic communities that constitute Los Angeles and the world of the future. They are aware of how their actions impact society and the environment, and they strive to make socially responsible decisions. They are community builders sensitive to the needs of diverse individuals and groups and committed to renewing the communities in which they live.

***Transformation: Integrative learning*** CSULA graduates integrate academic learning with life. They engage in community, professional, creative, research and scholarly projects that lead to changes in their sense of self and understanding of their worlds. Graduates integrate their knowledge, skills and experience to address complex and contemporary issues and act ethically as leaders for the 21st century.

Endorsed by Academic Senate 6/1/10 and approved by the President 6/8/10

Appendix B: Examples of Assessment Measures

The following are common measures used to assess program learning outcomes:

 Capstone course

 Project

 Embedded questions

 Public performance/exhibit

 Portfolio review

 Student survey

 Alumni survey

 Employer survey

 Licensure exam

 Student focus groups

 Observation

 Student interviews

 Case study

 Placement rates

 Graduate level thesis

 Graduate level process

 Exit interviews

 Comprehensive exam

 Peer assessment of student work

 Internship review

 Advisory board feedback

Appendix C: Examples of Use of Assessments Results

The following are examples of the use of assessment results:

Improving department assessment process/methods

Curriculum improvement

Improving instruction

Examining curriculum content coverage

Examining skill development in curriculum

Introducing new pedagogies

Stimulating faculty discussion on student learning

Re-examining student learning outcomes

Engaging students in their own learning