Annual Academic Assessment Report Cover Sheet
Assessment reports are due the 1st Wednesday after the Fall Term

Program Information:

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<tr>
<th>Program Assessed</th>
<th>Doctor of Philosophy</th>
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<tr>
<td>Department</td>
<td>Computer Science</td>
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<tr>
<td>College</td>
<td>Engineering</td>
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<tr>
<td>Department Chair</td>
<td>Dr. Laxmi Gewali</td>
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<tr>
<td>Assessment Coordinator</td>
<td>Dr. Ajoy Datta</td>
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<tr>
<td>Date Submitted</td>
<td>2/19/15</td>
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Contact Person for This Report

<table>
<thead>
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<th>Name</th>
<th>Ajoy Datta</th>
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Please attach a narrative (not to exceed 4 pages, excluding appendices) addressing the following:

- What are the student learning outcomes? Please provide a numbered list.
- Which learning outcomes were assessed?
- How were they assessed? (Programs must use at least one direct assessment of student learning.)
- Undergraduate programs should assess at least one University Undergraduate Learning Outcome (UULO) each year, which may or may not overlap with a program learning outcome.
- Graduate programs should assess at least one outcome related to one of the following graduate level requirements each year:
  - student engagement in research, scholarship, creative expression and/or appropriate high-level professional practice.
  - activities requiring originality, critical analysis and expertise.
  - the development of extensive knowledge in the field under study.

- What was learned from the assessment results?
- How did the program respond to what was learned?

Please limit the narrative portion of your report to no more than four pages. You may attach appendices with data, tables, charts, or other materials as needed. Please explain the relevant conclusions from any appendices in your narrative. Please contact the Office of Academic Assessment if you have questions or need assistance.
For the PhD degree in computer science we have specified the following student outcomes:

1. Exhibit a breadth of knowledge in the areas of algorithms, programming languages and compilers, theory, operating systems, and computer architecture.

2. Exhibit a depth of knowledge in at least one specialized area of computer science.

3. Conduct a thorough literature survey on a research topic.

The following learning outcomes were assessed:

- Written Dissertation
- Oral defense of the dissertation
- Oral Qualifying examination on Research Topic

They were assessed:

- Written dissertation submitted to a CS faculty committee. The results are collected on how well the dissertation is written and the description of significant research.
- A complete, well-research, well-written dissertation describing a significant research contribution to the field of Computer Science. Must be publishable in a referred journal.
- Students present their dissertation in an oral presentation to the CS faculty and Graduate students. Results are collected on how well the student presents.
- A well-organized oral presentation describing and defending the work done by the student on his/her dissertation. The student must also be able to field and answer questions on the presentation from the audience.
- Student presents his/her topic for dissertation.
- Student will present a dissertation proposal containing a background survey on the problem chosen, a discussion of the research objectives and approach to be used, and a list of references. The proposal will be judged based on its completeness, technical merit, and feasibility.
Assessing Student Engagement in Research

Students research work in Dissertation research was assessed by the student’s dissertation committee. The initial dissertation proposal and its presentation were assessed by the committee. Their published articles were also evaluated. Finally, the committee assessed the final dissertation report and the presentation.

Assessment results:

The outcome is definitely above of what was expected. Our number of Ph D students, have triple. The students are performing very well and making good progress.

Program response:

Based on the assessment outcomes, no program changes will be taken at this time. The responsibility is shared by the CS graduate committee. Any changes are subject to a vote by the CS department tenure faculty. The CS department is alerting and encouraging faculty members to attend workshops on assessment processing both outside and inside UNLV.