

Academic Affairs Assessment of Student Learning Assessment Plan for Academic Years <u>2019-2020</u> and <u>2020-2021</u>

INSTRUCTIONS:

- Please submit a copy of this assessment plan to the Coordinator of Academic Program Assessment (Aaron Settle asettle 1@wvstateu.edu)
- Please be sure to keep a copy of the assessment plan in your department office.

IDENTIFYING INFORMATION:

College: Natural Science & Mathematics Department/Program: Computer Science

Assessment Coordinator's Name: Michael R. Anderson Assessment Coordinator's Email Address: andersmr@wvstateu.edu

Academic Year: 2018-2019

Program Learning Outcomes (Please list)

- 1. Demonstrate conceptual understanding of the fundamentals of computer science.
- 2. Develop software to solve real-world problems and evaluate its efficacy.
- 3. Document software using appropriate symbols and terminology.
- 4. Use standard software design techniques to create efficient programs with easy-to-understand source code.
- 5. Evaluate software for its suitability and validity.
- 6. Demonstrate an understanding of the major branches of computing and the underlying connections between them.

Curriculum Assessment Map (Please provide a curriculum assessment map identifying the course(s) that each PLO is assessed. Make a special note of assessments that the departmental assessment coordinator collects data from to analyze overall learning of the PLO's. (see attachment)

- 1. Outline <u>which learning outcomes</u> and <u>where</u> you expect to conduct measures over the next 2 academic years (falls and springs) Include rationale, e.g., trending data, planned/ongoing follow-up from previous assessments or program review cycle, etc.)
 - Fall **2019**: PLOs 1 and 3 will be measured by the assessment test given in CS 102. PLOs 1-6 will be measured in CS 408, the senior capstone course. This work is part of our ongoing data collection.

- Spring **2020**: PLOs 1 and 3 will be measured by the assessment test given in CS 102. PLOs 1, 3, 5 and 6 will be measured by the assessment test given in CS 250. This work is part of our ongoing data collection.
- Fall **2020:** PLOs 1 and 3 will be measured by the assessment test given in CS 102. PLOs 1-6 will be measured in CS 408, the senior capstone course. This work is part of our ongoing data collection.
- Spring **2021:** PLOs 1 and 3 will be measured by the assessment test given in CS 102. PLOs 1, 3, 5 and 6 will be measured by the assessment test given in CS 250. This work is part of our ongoing data collection.
- 2. How are you planning to measure the learning outcomes (s)? (What object, i.e., test, project, presentation, etc., and with what tool, e.g., rubrics, item analysis, sampling, benchmarks, national norms, exams, juried review, etc.)

The department uses standardized departmental tests and item analysis for measuring PLOs 1, 3, 5, and 6, while student presentations (judged by faculty) are used for PLO 6 and student portfolios are used for PLOs 2, 4 and 6.

3. Who will be responsible for the analysis and how will results be analyzed? When will results be available?

Analysis is done initially by the department's Assessment Committee, then reviewed and discussed by the department. Current analysis involves tracking student performance on particular items and using the rubrics outlined in our assessment plan to measure performance on PLOs through the program, though we are looking for more analysis methodologies. Results are available by the beginning of the term following the measurement.

Curriculum Map for Computer Science (revised Fall 2014)

| | Required Courses | | | | | | | | | |
|----|------------------|----|----|----|----|----|----|----|----|----|
| PL | 10 | 10 | 21 | 23 | 24 | 25 | 31 | 33 | 40 | 40 |
| О | 1 | 2 | 0 | 0 | 0 | 0 | 1 | 6 | 5 | 8 |
| 1 | I | D | D | D | D | D | D | D | D | M |
| 2 | I | D | | | | | D | D | D | M |
| 3 | I | D | | | | | D | D | | M |
| 4 | I | D | | | | | D | D | | M |
| 5 | I | D | | | | D | D | D | D | M |
| 6 | I | D | I | I | I | D | D | D | D | M |

I = Introducing, D = Developing, M = Mastering