**Assessment Plan**

**for Workforce and FOS Programs**

**Program/Track Name: \_\_\_\_\_Computer Science FOS\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Description of Program-Level Learning Outcomes**

Please indicate the Program Learning Outcomes for the degree, degree track, or certificate below:

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| Program-Level Learning Outcomes |
| Program Learning Outcome 1: | Students will demonstrate an understanding of the fundamental concepts of structured programming: data types, control structures, functions/methods, and arrays. |
| Program Learning Outcome 2: | Students will use object-oriented programming techniques to develop executable programs. |
| Program Learning Outcome 3: | Design and develop programs that implement basic data structures. |
| Program Learning Outcome 4: | Students will be able to describe how data are represented, manipulated, and stored in a computer. |

**Section I: Technical Courses**

For **all technical courses** in the program, indicate in the table on the following page whether and/or how the course will support the program learning outcomes. You should include courses outside your discipline area and work collaboratively with those disciplines to determine whether and/or how those course(s) will support the program learning outcomes. **Please note** that it is understandable if courses from outside the discipline do not assess the program-level learning outcomes and serve only to introduce, practice and/or emphasize the program outcomes. It is also possible that technical courses outside of your discipline may not directly support the specific program-level learning outcomes you have identified.

***How to complete the program map:***

For each technical course in your program, please indicate whether any program-level learning outcome is introduced to students (I), practiced by students (P), emphasized for students (E), or formally assessed (A).

For example, if course WXYZ 1234 introduces students to one of the program outcomes, then enter “I” for that specific program outcome in the appropriate column. Please note that a course can be “I”, “P”, “E” and/or “A” in any program outcome. The labels in the following table apply SOLELY to the program level learning outcomes defined above. (It is NOT necessary for every course to address a program level learning outcome, and it is NOT necessary that Assessment or program level learning outcomes occur in every course.)

**Program Map ▼**

I=Introduced P=Practiced E=Emphasized A=Assessed

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Program Courses | Program Learning Outcome 1 | Program Learning Outcome 2 | Program Learning Outcome 3 | Program Learning Outcome 4 | Program Learning Outcome 5 | Program Learning Outcome 6 | Program Learning Outcome 7 | Program Learning Outcome 8 | Program Learning Outcome 9 |
| MATH2413 (Calc 1) |  |  |  |  |  |  |  |  |  |
| MATH2305(Discrete) | I |  |  |  |  |  |  |  |  |
| MATH2414(Calc 2) |  |  |  |  |  |  |  |  |  |
| PHYS2425(Physics 1) |  |  |  |  |  |  |  |  |  |
| PHYS2426(Physics 2) |  |  |  |  |  |  |  |  |  |
| COSC1436 | I,P,E,A |  |  | I,P,E,A |  |  |  |  |  |
| COSC1437 | P,A | I,P,E,A | I,P | P |  |  |  |  |  |
| COSC2436 | P,A | P,E,A | I,P,E,A | P |  |  |  |  |  |
| COSC2325 | I,P,E,A |  |  | I,P,E,A |  |  |  |  |  |

**Assessment Plan for Program Learning Outcomes**

Review existing assessment methods and current practices for collecting/gathering student data to identify direct (and possibly indirect methods of assessment). Remember that the data will need to be gathered, analyzed, and used to support the program’s continuous improvement processes.

**Note:** Because courses from other disciplines already have assessment plans in place, they do not have to be included in this assessment plan. Nonetheless, proposers must work collaboratively with these other disciplines to stay current and up-to-date with the assessment plans in these courses.

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| Program-Level Learning Outcome (e.g. Students will describe the impact of various cultures on American cuisine.) | Assessment Measure(s) and Where Implemented in Curriculum – Description of Instrument(s)/ process(es) used to measure results and indication of where the assessment will be collected in curriculum. (e.g. Essay on Cultural influences on American cuisine in CUIS 1300.) | Targets- Level of Success Expected(e.g. 80% of students score 2.5 or better on rubric for essay on cultures and cuisine.) |
| PLO #1: Students will demonstrate an understanding of the fundamental concepts of structured programming: data types, control structures, functions/methods, and arrays. | The comprehensive exam in COSC 1436-Programming Fundamentals I that covers data types, control structures, functions/methods, and arrays. A specific subset of questions in the comprehensive exam in COSC 1437-Programming Fundamentals II covering data types, control structures, functions/methods, and arrays | Minimum of 70% on comprehensive exam for each of the following components: data types, control structures, functions/methods, and arrays in COSC1436. Minimum of 80% on comprehensive exam for each of the following components: data types, control structures, functions/methods, and arrays in COSC1437. |
| PLO #2: Students will use object-oriented programming techniques to develop executable programs. | Assignment in which students will be required to use object-oriented programming techniques to develop an executable program in COSC 1437-Programming Fundamentals II. A faculty-developed rubric will be used to determine level of success. | 70% of students will earn a grade of 70% or better on indicated measure. |
| PLO #3: Design and develop programs that implement basic data structures. | Assignment in which students will be required to design and develop a program in COSC 2436-Programming Fundamentals III that implements basic data structures. A faculty-developed rubric will be used to determine level of success. | 70% of students will earn a grade of 70% or better on indicated measure. |
| PLO #4: Students will be able to describe how data are represented, manipulated, and stored in a computer. | A subset of exam questions in COSC 2325-Computer Organization focused on assessing data representation, manipulation, and storage within a computer. | 70% of students will earn a grade of 70% or better on indicated measure. |