

William Paterson University
College of Science and Health - Department of Computer Science

Fall 2015 – Spring 2017 Assessment Cycle
Analysis of the Program's Student Outcome Assessment Data

Program's Student Outcome: S8:

Demonstrate an understanding of the major programming domains and the knowledge of the most appropriate programming language for each domain.

ABET's Related Student Outcomes: (b), (i).

Curriculum Committee Subgroup: Programming Languages

Members: John Najarian, Gilbert Ndjatou (Chair)

Date: November 21, 2017

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A. Analysis of the Assessment Data

For the assessment period fall 2015 to spring 2017, this student outcome was assessed in CS3820 with 9, 11, and 22 students taking the course respectively. From these students, 14 (which represent 27% of those students) did have less than adequate ability. Although 27 is very close to our threshold of 25%, it is still a cause for concerns because students usually to well with this student outcome. We would like also to note the lack of consistency in the results as presented: in spring 2016, more than half of the students had a very good grasp of this concept whereas in fall 2016, almost half of the class did not, and in spring 2017, it is almost split in the middle. We therefore have to monitor the next few years to figure out what pattern will remain consistent.

B. Suggestions for Improvement

- No suggestion yet.

C. Improvement Implemented

N/A.

D. List all the “performance level/frequency/percentage” tables and their sources.

- a. Faculty Course Assessment Report: CS3820, Spring 2016

Data Collected: Each student’s level of performance on questions on a test and the final exam that test their understanding of the major programming language domains.

Method of Collection: Each student is given a numeric score on each of these questions.

Performance Levels	Frequency	Percentage
No Ability	0	0%
Some Ability	3	31.8 %
Adequate Ability	5	22.7 %
More than Adequate Ability	4	18.2 %
High Ability	7	27.3 %

Observations: More than half of the students in this class had a pretty good grasp of the major programming domains and the knowledge of the most appropriate programming language used for each domain.

- b. Faculty Course Assessment Report: CS3820, Fall 2016

Data Collected: Each student’s level of performance on questions on a test and the final exam that test their understanding of the major programming language domains.

Method of Collection: Each student is given a numeric score on each of these questions.

Performance Levels	Frequency	Percentage
No Ability	0	0.0%
Some Ability	4	36.4 %
Adequate Ability	6	54.5 %
More than Adequate Ability	0	0.0 %
High Ability	1	9.1 %

Observations: There was very little motivation and eagerness to learn in this class. The lack of the required background in programming language concepts for many students may also be a factor in these poor results.

c. Faculty Course Assessment Report : CS3820, Spring 2017

Data Collected: Each student's level of performance on questions on a test and the final exam that test their understanding of the major programming language domains.

Method of Collection: Each student is given a numeric score on each of these questions.

Performance Levels	Frequency	Percentage
No Ability	0	0%
Some Ability	7	31.8 %
Adequate Ability	5	22.7 %
More than Adequate Ability	4	18.2 %
High Ability	6	27.3 %

Observations: Almost half of the students in this class had a pretty good grasp of the major programming domains and the knowledge of the most appropriate programming language used for each domain. However, about third of them did not have a decent grasp of this concept.
