



WEST VIRGINIA STATE UNIVERSITY

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Academic Affairs Assessment of Student Learning Assessment Plan for Academic Years 2019-2020 and 2020-2021

INSTRUCTIONS:

- Please submit a copy of this assessment plan to the Coordinator of Academic Program Assessment (Aaron Settle – asettle1@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: Mathematics.

Assessment Coordinator's Name: Michael R. Anderson

Assessment Coordinator's Email Address: anderrsmr@wvstateu.edu

Academic Year: 2019-2020

Program Learning Outcomes (Please list)

1. Demonstrate conceptual understanding and integration of the fundamentals in mathematics.
2. Formulate mathematical models to represent physical situations and evaluate their efficacy.
3. Effectively use the terminology and symbols of mathematics in communication.
4. Think critically and analytically using precise definitions as well as mathematical reasoning and arguments.
5. Evaluate the validity of inferences arising from quantitative and visual data.
6. Utilize technological tools in solving mathematical problems.
7. Demonstrate an understanding of the major branches of mathematics and the underlying connections between them.
8. Organize, describe, analyze and draw inferences from data.

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 which learning outcomes and where 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 1-4 and 6 will be measured by the assessment test given in Math 206. PLOs 1-4 will be measured by the assessment test given in Math 208. This work is part of our ongoing data collection.

Spring 2020: PLOs 1-4 and 6 will be measured by the assessment test given in Math 206. PLOs 1-4 will be measured by the assessment test given in Math 208. PLOs 1-8 will be measured in Math 408, the senior capstone course. This work is part of our ongoing data collection.

Fall 2020: PLOs 1-4 and 6 will be measured by the assessment test given in Math 206. PLOs 1-4 will be measured by the assessment test given in Math 208. This work is part of our ongoing data collection.

Spring 2021: PLOs 1-4 and 6 will be measured by the assessment test given in Math 206. PLOs 1-4 will be measured by the assessment test given in Math 208. PLOs 1-8 will be measured in Math 408, the senior capstone course. 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 1-4 and 8, while student presentations (judged by faculty) are used for PLOs 5-7.

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 Mathematics (revised Fall 2014)

PLO	Required Courses								
	205	206	207	208	222	307	308 or 404	402	408
1	D	D	D	D	D	D	D	D	M
2		D	D	D	D			D	M
3	D	D	D	D	D	D	D	D	M
4	I	I				D	M		M
5					I				M
6		I	D	D	D	D		D	M
7	I	I	D	D	I	I	I	D	M
8					I				M

I = Introducing, D = Developing, M = Mastering