Department of Mathematics CSCI

ASSESSMENT PLAN: MS in Mathematics

Date Updated: 7/26/25 (AY 25-26, AY 26-27, AY 27-28, AY 28-29, AY 29-30)

PROGRAM MISSION
CSUEB Mission & Vision, CSUEB ILOs + Senate ILOs May 2012

PROGRAM LEARNING OUTCOMES (PLOs)	
Students graduating with a MS degree in Mathematics will be able to:	
PLO 1	Evaluate and create proofs in graduate level mathematics using fundamental definitions and theorems.
PLO 2	Evaluate and create solutions to advanced mathematical problems using analytic solutions and computational methods
PLO 3	Use graduate-level mathematics to analyze and interpret real-world applications.
PLO 4	Effectively communicate mathematical ideas through the use of figures and written and verbal communication.

2025-2026	
1. *Which PLO(s) to assess*	PLO 1
2. *Is it aligned to an ILO?*	Yes
3. *If yes, list ILO.*	Thinking and Reasoning
4. *Course name and number*	MATH 692 Graduate Mathematics Capstone
5. *SLO from course*	692: Students who successfully complete MATH 692 will have mastered the following in at least four areas of graduate level mathematics from the four core required courses. 1. Apply the fundamental definitions and theorems of graduate level mathematics. 2. Apply the techniques of graduate level mathematics to solve problems.
6. *Assessment activity*	Comprehensive Exams
7. *Assessment Instrument*	Re-score comprehensive exam questions using the Readability, Validity and Fluency Rubric
8. *How data will be reported*	Quantitative

9. Responsible person(s)	Math Assessment Committee
10. Time (which semester(s))	Re-score and analyze Spring 2026
11. Ways of closing the loop	Data will be reported in Mathematics Department Annual Report and discussed in faculty meetings to continuously improve the program.
2026-2027	
1. Which PLO(s) to assess	PLO 2
2. Is it aligned to an ILO?	Yes
3. If yes, list ILO.	Thinking and Reasoning: Quantitative Reasoning
4. Course name and number	MATH 692 Graduate Mathematics Capstone
5. SLO from course	692: Students who successfully complete MATH 692 will have mastered the following in at least four areas of graduate level mathematics from the four core required courses. 1. Apply the fundamental definitions and theorems of graduate level mathematics. 2. Apply the techniques of graduate level mathematics to solve problems.
6. Assessment activity	Comprehensive Exams
7. Assessment Instrument	Re-score comprehensive exam questions using the Readability, Validity and Fluency Rubric
8. How data will be reported	Quantitative
9. Responsible person(s)	Math Assessment Committee
10. Time (which semester(s))	Re-score and analyze Spring 2027
11. Ways of closing the loop	Data will be reported in Mathematics Department Annual Report and discussed in faculty meetings to continuously improve the program.
2027-2028	
1. Which PLO(s) to assess	PLO 3
2. Is it aligned to an ILO?	Yes
3. If yes, list ILO.	Specialized Discipline
4. Course name and number	MATH 692 Graduate Mathematics Capstone
5. SLO from course	692: Students who successfully complete MATH 692 will have mastered the following in at least four areas of graduate level mathematics from the four core required courses. 1. Apply the fundamental definitions and theorems of graduate level mathematics. 2. Apply the techniques of graduate level mathematics to solve problems.

6. *Assessment activity*	Comprehensive Exams
7. *Assessment Instrument*	Re-score comprehensive exam questions using the Readability, Validity and Fluency Rubric
8. *How data will be reported*	Quantitative
9. *Responsible person(s)*	Math Assessment Committee
10. *Time (which semester(s))*	Re-score and analyze Spring 2028
11. *Ways of closing the loop*	Data will be reported in Mathematics Department Annual Report and discussed in faculty meetings to continuously improve the program.
2028-2029	
1. *Which PLO(s) to assess*	PLO 4
2. *Is it aligned to an ILO*	Yes
3. *If yes, list ILO*	Communication
4. *Course name and number*	MATH 692 Graduate Mathematics Capstone
5. *SLO from course*	692: Students who successfully complete MATH 692 will have mastered communicating mathematics in at least four areas of graduate level mathematics.
6. *Assessment activity*	Comprehensive Exams
7. *Assessment Instrument*	Re-score comprehensive exam questions using the Readability, Validity and Fluency Rubric
8. *How data will be reported*	Quantitative
9. *Responsible Person*	Math Assessment Committee
10. *Time (which semester(s))*	Re-score and analyze Spring 2029
11. *Ways of closing the loop*	Data will be reported in Mathematics Department Annual Report and discussed in faculty meetings to continuously improve the program.
2029-2030	
1. *Which PLO(s) to assess*	PLO 1
2. *Is it aligned to an ILO?*	Yes
3. *If yes, list ILO.*	Thinking and Reasoning
4. *Course name and number*	Math 692 Mathematics Graduate Capstone
5. *SLO from course*	692: Students who successfully complete MATH 692 will have mastered the following in at least four areas of graduate level mathematics from the four core required courses. 1. Apply the fundamental definitions and theorems of graduate level mathematics. 2. Apply the techniques of graduate level mathematics to solve problems.

6. Assessment activity	Comprehensive Exams
7. Assessment Instrument	Re-score comprehensive exam questions using the Readability, Validity and Fluency Rubric
8. How data will be reported	Quantitative
9. Responsible Person	Math Assessment Committee
10. Time (which semester(s))	Re-score and analyze Spring 2030
11. Ways of closing the loop	Data will be reported in Mathematics Department Annual Report and discussed in faculty meetings to continuously improve the program.