

UC San Diego - WASC Exhibit 7.1

Inventory of Educational Effectiveness Indicators

Academic Program	(2a) What are these learning outcomes? Students graduating with a degree should be able to:	(3) Other than GPA, what data/evidence are used to determine that graduates have achieved stated outcomes for the degree? (e.g., capstone course, portfolio review, licensure examination)?	(4) Who interprets the evidence? What is the process?	(5) How are the findings used?
Department: <i>Mathematics</i> Majors: <i>B.S. in Mathematics</i> <i>B.S. in Applied Mathematics</i> <i>B.S. in Mathematics-Computer Science</i> <i>B.A. in Mathematics-Secondary Education</i> <i>B.S. in Joint Major in Mathematics & Economics</i> <i>B.S. in Mathematics-Scientific Computation</i> <i>B.S. in Probability & Statistics</i> <i>B.S. in Mathematics-Applied Science</i> (1) Have formal learning outcomes been developed? <i>Yes</i> (6) Date of the last Academic Senate Review? <i>2016-2017</i> 02/13/2017	Written Communication Write well-organized and logically sound mathematical arguments.	Written Communication Successful completion of required upper-division courses in mathematical theory.	Written Communication Faculty teaching standard and advanced electives determine a student's competency in and successful retention of the required materials.	Written Communication Individual course instructors use feedback to modify their classes.
	Oral Communication N/A	Oral Communication N/A	Oral Communication N/A	Oral Communication N/A
	Quantitative Reasoning: Demonstrate a good understanding of rigorous mathematical proof.	Quantitative Reasoning Successful completion of MATH 109. Minimum completion of 52 upper-division units in mathematics coursework.	Quantitative Reasoning The Undergraduate Affairs Committee, faculty advisors, and Vice-Chair for Undergraduate Education oversee educational requirements for each of the eight Mathematics majors.	Quantitative Reasoning The department faculty committees adjust requirements and course sequences for the major. EPC reviews and approves any changes to major requirements.
	Information Literacy Demonstrate a solid understanding of at least one additional area of specialization within mathematics.	Information Literacy Successful completion of at least one upper-division mathematical sequence. A sequence is defined as a two or three quarter long progression of related coursework in a specified mathematical field.	Information Literacy Faculty teaching later in the sequence determine a student's competency in and successful retention of the required prerequisite materials from previous courses in the sequence.	Information Literacy Individual course instructors use feedback to modify their classes.
	Critical Thinking Demonstrate a solid understanding of higher level algebra and/or analysis.	Critical Thinking Successful completion of at least one of: MATH 100A, 102, 103A, 140A, 142A, and/or 170A.	Critical Thinking Faculty teaching core coursework determine a student's competency in and successful retention of the required materials.	Critical Thinking Individual course instructors use feedback to modify their classes.
	Demonstrate a solid understanding of differential, integral and multivariable calculus, vector calculus, linear algebra, and differential equations. Students will be able to apply these concepts to a variety of problems.	Successful completion of MATH 18, 20A, 20B, 20C, 20D, and 20E.	Faculty teaching later in the sequence determine a student's competency in and successful retention of the required prerequisite materials from previous courses.	The department reviews and adjusts prerequisite requirements as necessary to promote student success and rapidity through required foundational sequences.
	(2b) Where are the learning outcomes published? https://math.ucsd.edu			