

CWU Student Learning Outcome Assessment Plan

Department: Mathematics

Program: Bachelor of Science

Many Student Learning Outcomes for this program are assessed through Course Grades and Portfolios.

For Course Grade based assessment, the Criterion of Achievement is “80% of students pass course with a B or better on 1st or 2nd attempt” referred to as “Grade Criterion” in the table below.

For all Portfolio based assessment, the Criterion of Achievement is “75% of applicable Portfolio artifacts achieve a rating of Exemplary or Proficient” referred to as “Portfolio Criterion” in the table below.

Student Learning Outcomes	Method(s) of Assessment	Who Assessed	When Assessed	Criterion of Achievement
1. Graduates will be able to use differential and integral calculus as well as sequences and series to solve problems.	Course Grades	Students in MATH 172, 173, 272, 273	Quarterly	Grade Criterion
2. Graduates will be able to use concepts of vector subspaces of \mathbb{R}^n and $\mathbb{R}^{n \times m}$ to solve problems.	Course Grades	Students in MATH 265	Quarterly	Grade Criterion
3. Graduates will be to write proofs using contrapositive, contradiction, cases, and mathematical induction.	499S Portfolio	Students in MATH 499S	Winter	Portfolio Criterion
4. Graduates will know standard applications of calculus, linear algebra, and statistics.	499S Portfolio	Students in MATH 499S	Winter	Portfolio Criterion
5. Graduates will be able to apply their understanding of mathematics to fields outside of mathematics.	499S Portfolio	Students in MATH 499S	Winter	Portfolio Criterion
6. Graduates will be able to describe the differences between the following types of mathematics: discrete/continuous, algebraic/geometric, pure/applied, deterministic/stochastic.	499S Portfolio	Students in MATH 499S	Winter	Portfolio Criterion

Student Learning Outcomes	Method(s) of Assessment	Who Assessed	When Assessed	Criterion of Achievement
7. Graduates will be able to communicate mathematical ideas through writing.	499S Portfolio	Students in MATH 499S	Winter	Portfolio Criterion
8. Graduates will be able to communicate mathematical ideas orally.	499S Portfolio	Students in MATH 499S	Winter	Portfolio Criterion