ASSOCIATE IN SCIENCE IN MATHEMATICS FOR TRANSFER

Mathematics is the language of science and is used to describe the real world as well as abstract concepts. It is the basis for all modern technological advances. The Associate in Science in Mathematics for Transfer is designed to prepare students for a seamless transfer into the CSU system to complete a baccalaureate degree in Mathematics or similar major. Priority admission with junior status to the CSU system will be granted. Students completing this degree are exempt from Mendocino College Institutional Requirements. Please check with a counselor for more specific transfer information.

Required Courses – Major

Course Number	Course Name	Units
MTH 210	Calculus and Analytic Geometry I	5
MTH 211	Calculus and Analytic Geometry II	5
MTH 212	Calculus and Analytic Geometry III	5

Plus 7 – 8 additional units selected from the following with at least 3 units from Group A

Course Number	Course Name	Units
MTH 214	Linear Algebra	4
MTH 215	Differential Equations	3

Choose the remaining units (if needed) from Group B

Course Number	Course Name	Units
PHY 220	Physics for Scientists and Engineers I	4
STAT C1000	Introduction to Statistics	4

Total Major Units **22 – 23**
Total Degree Units **60**

Program Level Student Learning Outcomes:

1. Distinguish and execute the rules of differentiation of functions of one or more independent variables.
2. Distinguish functions by type and successfully integrate them with one or more appropriate integration techniques.
3. Select appropriate order and limits of double and triple integrals in various coordinate systems.
4. Calculate and analyze the characteristic equation of a matrix to determine eigenvalues and eigenvectors, or distinguish and utilize various techniques to solve differential equations and systems of differential equations.
5. Model and solve application problems such as related rates, centers of mass, calculations of work along a curve, long-term behavior of difference equations, or analysis of spring-mass systems.

Career Opportunities in MATHEMATICS

A degree in Mathematics prepares students for careers in mathematics and science-related fields, such as: statistics, data science, statistical analysis, cryptanalysis, teaching, accounting, actuarial science, financial analysis, medicine, dentistry, biostatistics, genetics, bioinformatics, research, engineering, forensics, and cybersecurity.

Associate Degree for Transfer Requirements:

- Completion of 60 semester units or 90 quarter units of degree-applicable courses,
- Minimum overall grade point average of 2.0,
- Minimum grade of "C" (or "P") for each course in the major, and
- Completion of Cal-GETC.