MATHEMATICS COURSES

Teaching Credential Requirements: A Master's Degree in the discipline is preferred. A Bachelor's degree in the discipline, plus 5 years' experience teaching the specific course at the high school level, or 12 graduate-level credits in the discipline, may be considered. These credentials remain consistent throughout all disciplines unless the course is marked with the "Higher Teaching Credential" or "Additional Teaching Requirement" label.

DEPARTMENT OF MATHEMATICS

MATH 123 Math in Modern Society
(3 Credits, Fall/Spring/Summer)
This survey course provides an opportunity to acquire an appreciation of the nature of mathematics and its relation to other aspects of our culture. The course is rigorous but not rigid and applies mathematics to real-world problems. Topics include deductive and inductive reasoning, personal finance, descriptive and inferential statistics, counting in different bases, problem solving, dimensional analysis, elementary probability, and linear equations and graphing. PREREQ: MATH 085 or satisfactory placement score. *(This CWI course meets Idaho State Board of Education GEM competency requirements for GEM 3 - Mathematical Ways of Knowing.). (3 lecture hours, 0 lab hours, 3 credits)*

MATH 143 Precalculus I: Algebra
(3 Credits, Fall/Spring/Summer)
This course includes fundamental concepts of algebra, equations and inequalities, functions and graphs, systems of equations and inequalities, and polynomial, rational, exponential, and logarithmic functions. Credit hours are not granted in both MATH 143 and MATH 147. PREREQ: MATH 098 or MATH 099, or satisfactory placement score. *(This CWI course meets Idaho State Board of Education GEM competency requirements for GEM 3 - Mathematical Ways of Knowing.). (3 lecture hours, 0 lab hours, 3 credits)*

MATH 144 Precalculus II: Trigonometry
(2 Credits, Fall/Spring/Summer)
This course covers right triangle and circular function approaches to trigonometry, graphs of trigonometry functions, trigonometry identities, conditional equations, right and non-right triangle applications of trigonometry, inverse trigonometry functions, trigonometry of complex numbers, including DeMoivre's Theorem, polar coordinates and equations, and parametric equations. Credit is not awarded in both MATH 144 and MATH 147. PREREQ: MATH 143 with a grade of C or higher, or satisfactory placement score. *(2 lecture hours, 0 lab hours, 2 credits)*

MATH 147 Precalculus
(5 Credits, Fall/Spring/Summer)
This is a single course equivalent to Precalculus I: Algebra (MATH 143) plus Precalculus II: Trigonometry (MATH 144). This course includes fundamental concepts of algebra and trigonometry; equations and inequalities; functions and graphs; polynomial, rational, exponential, and logarithmic functions; systems of equations and inequalities; right triangle and circular function approaches to trigonometry; graphs of trig functions; trig identities; conditional equations; right and non-right triangle applications of trigonometry; inverse trig functions; trigonometry of complex numbers, including DeMoivre's Theorem; polar coordinates and equations; and parametric equations. Credit hours are not granted in both MATH 143 and MATH 147, nor in both MATH 144 and MATH 147. PREREQ: MATH 098 or MATH 099, or satisfactory placement score. *(This CWI course meets Idaho State Board of Education GEM competency requirements for GEM 3 - Mathematical Ways of Knowing.). (5 lecture hours, 0 lab hours, 5 credits)*

MATH 153 Statistical Reasoning
(3 Credits, Fall/Spring/Summer)
This course trains students to think critically as a consumer of scientific and statistical information. Topics include descriptive statistics, data collection, introduction to probability, distributions, confidence intervals, and hypothesis testing. Correlation and regression are also introduced. PREREQ: MATH 085 or satisfactory placement score. *(This CWI course meets Idaho State Board of Education GEM competency requirements for GEM 3 - Mathematical Ways of Knowing.). (3 lecture hours, 0 lab hours, 3 credits)*

MATH 160 Survey of Calculus
(4 Credits, Varies)
This course is designed for students with business, social science, and life science majors. It covers functions, limits, continuity, derivative, maxima-minima, applications of the derivative, exponential and logarithmic functions, functions of several variables, maxima and minima of functions of several variables, integration, and applications of the integral. PREREQ: MATH 143 or MATH 147 with a grade of C or higher, or satisfactory placement score. *(This CWI course meets Idaho State Board of Education GEM competency requirements for GEM 3 - Mathematical Ways of Knowing.). (4 lecture hours, 0 lab hours, 4 credits)*

MATH 170 Calculus I
(5 Credits, Fall/Spring/Summer)
This is the first course in the calculus sequence. It covers algebraic and transcendental functions; rate of change; limits; continuity; differentiation of algebraic, trigonometric, exponential, logarithmic, and hyperbolic functions; differentials; applications of differentiation; definite and indefinite integrals; area between curves; volumes; and other applications of integration, indeterminate forms, and L'Hôpital's rule. PREREQ: MATH 147 (or MATH 143 and MATH 144) with a grade of C or higher, or satisfactory placement score. *(This CWI course meets Idaho State Board of Education GEM competency requirements for GEM 3 - Mathematical Ways of Knowing.). (5 lecture hours, 0 lab hours, 5 credits)*

MATH 175 Calculus II
(4 Credits, Fall/Spring)
This is the second course in the calculus sequence. It covers techniques of integration, improper integrals, Simpson's Rule, Trapezoid Rule, arc length, surface area, and other applications of integration, direction (slope) fields, parametric equations, polar calculus, conic sections, infinite sequences and series, power series, and Taylor's formula. PREREQ: MATH 170 with a grade of C or higher. *(4 lecture hours, 0 lab hours, 4 credits)*