HIGH SCHOOL MATHEMATICS COURSE CODES
GRADES 9-12

High school (grades 9-12) courses in Mathematics require 120 student engagement hours per credit.

Course Code	Course Name	Recommended Grade Levels & Prerequisites	Math Content Standards***	Description	Credit Limit*	Licensure Required**
11031	Algebra I	8 **(see note)**, 9-12	**This course must meet or exceed the following North Dakota** Math Content Standards ▪ 9-12.MA.P; 9-12.MA.C; 9-12.MA.R ▪ 9-10.NO.1; 9-10.NO.2; 9-10.NO.3; 9-10.NO.4; 9-10.NO.5 ▪ 9-10.AR.1; 9-10.AR.2; 9-10.AR.3; 9-10.AR.4; 9-10.AR.5; 9-10.AR.6; 9-10.AR.7; 9-10.AR.8; 9-10.AR.9; 9-10.AR.10; 9-10.AR.11; 9-10.AR.F.1; 9-10.AR.F.2; 9-10.AR.F.3; 9-10.AR.F.4; 9-10.AR.F.5; 9-10.AR.F.6; 9-10.AR.F.7; 9-10.AR.F.8; 9-10.AR.F.9; 9-10.AR.F.10; 9-10.AR.F.11; 9-10.AR.F.12 ▪ 9-10.GM.27 ▪ 9-10.DPS.1; 9-10.DPS.2; 9-10.DPS.3; 9-10.DPS.4	Learners will continue to develop a foundational understanding of the number system, operations and computational fluency. They will look for, generate, and make sense of patterns, relationships, and algebraic symbols to represent mathematical models. Individuals will further their understanding of functions. They will collect, organize, display, and analyze relevant data. ***NOTE: Use this course when credit is awarded for the full school year. For 8th grade learners, this course code should only be used if the learner is receiving high school credit.***	1	License Code: 11010– Mathematics 5-12 or 9-12 11011-Algebra I 5-12
11120	Geometry	9-12	**This course must meet or exceed the following North Dakota** Math Content Standards ▪ 9-12.MA.P; 9-12.MA.C; 9-12.MA.R ▪ 9-10.NO.4*; 9-10.NO.5 ▪ 9-10.AR.2 ▪ 9-10.GM.1; 9-10.GM.2; 9-10.GM.3; 9-10.GM.4; 9-10.GM.5; 9-10.GM.6; 9-10.GM.7; 9-10.GM.8; 9-10.GM.9; 9-10.GM.10; 9-10.GM.11; 9-10.GM.12; (+)9-10.GM.13; 9-10.GM.9-10.GM.14; 9-10.GM.15; 9-10.GM.9-10.GM.16; 9-10.GM.17; 9-10.GM.18; (+)9-10.GM.19; 9-10.GM.20*; (+)9-10.GM.21*; 9-10.GM.22; (+)9-10.GM.23; (+)9-10.GM.24; 9-10.GM.25; 9-10.GM.26; 9-10.GM.27; 9-10.GM.28; 9-10.GM.29; 9-10.GM.30*; 9-10.GM.31; 9-10.GM.32; 9-10.GM.33; 9-10.GM.34; 9-10.GM.35*; 9-10.GM.36*	Geometry, with a focus on an abstract and formal approach to its study, covers the properties of planes and solid figures. It involves both inductive and deductive reasoning methods, incorporating logic. Geometry is treated as an axiomatic system, encompassing the examination of postulates, theorems, and formal proofs. The curriculum includes the concepts of congruence, similarity, parallelism, perpendicularity, and proportion, along with the study of transformations and rules for angle measurement in triangles.	1	License Code: 11010– Mathematics 5-12 or 9-12

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11032	Algebra II	9-12, and have completed Algebra I	**This course must meet or exceed the following North Dakota** Math Content Standards ▪ 9-12.MA.P; 9-12.MA.C; 9-12.MA.R ▪ 11-12.NO.1; 11-12.NO.2; 11-12.NO.3; 11-12.NO.4; 11-12.NO.5; 11-12.NO.6; 11-12.NO.7; 11-12.NO.8; 11-12.NO.9 ▪ 11-12.AR.1; 11-12.AR.2; 11-12.AR.3; 11-12.AR.4; 11-12.AR.5; 11-12.AR.6; 11-12.AR.7; 11-12.AR.8; 11-12.AR.9; 11-12.AR.11; 11-12.AR.12; 11-12.AR.13; 11-12.AR.14; 11-12.AR.15; 11-12.AR.16; 11-12.AR.17; 11-12.AR.F.1; 11-12.AR.F.2; 11-12.AR.F.3; 11-12..AR.F.4; 11-12.AR.F.5; 11-12.AR.F.6; 11-12.AR.F.7; 11-12.AR.F.8; 11-12.AR.F.9; 11-12.AR.F.10; 11-12.AR.F.12; 11-12.AR.F.13; 11-12.AR.F.14; 11-12.AR.F.15; 11-12.AR.F.16; 11-12.AR.F.17 ▪ 11-12.GM.1; 11-12.GM.2; 11-12.GM.3 ▪ 11-12.DPS.1; 11-12.DPS.2; 11-12.DPS.3; 11-12.DPS.4; 11-12.DPS.10	Learners will expand their understanding of the number system, operations, and computational fluency. They will look for, generate, and make sense of patterns, relationships, and algebraic symbols to fluently represent mathematical models. Individuals will expand their knowledge of functions and use them to model relationships between quantities. Learners will ask and answer questions by analyzing data.	1	License Code: 11010– Mathematics 5-12 or 9-12
11034	College Algebra	10-12, and have completed Algebra II	**This course must meet or exceed the following North Dakota** Math Content Standards ▪ 9-12.MA.P; 9-12.MA.C; 9-12.MA.R ▪ 11-12.NO.1; 11-12.NO.2; 11-12.NO.3; 11-12.NO.4; 11-12.NO.5; 11-12.NO.6; 11-12.NO.7; 11-12.NO.8; 11-12.NO.9; (+)11-12.NO.10; (+)11-10.NO.11; (+)11-12.NO.12; (+)11-12.NO.13; (+)11-12.NO.19 ▪ 11-12.AR.1; 11-12.AR.2; 11-12.AR.3; 11-12.AR.4; 11-12.AR.5; 11-12.AR.6; 11-12.AR.7; 11-12.AR.8; 11-12.AR.9; (+)11-12.AR.10; (+)11-12.AR.11; 11-12.AR.12; 11-12.AR.13; 11-12.AR.14; 11-12.AR.15; 11-12.AR.16; 11-12.AR.17; (+)11-12.AR.18; (+)11-12.AR.19; (+)11-12.AR.20; 11-12.AR.F.1*; 11-12.AR.F.2*; 11-12.AR.F.3*; 11-12.AR.F.4*; 11-12.AR.F.5*; 11-12.AR.F.6*; 11-12.AR.F.7*; 11-12.AR.F.8*; 11-12.AR.F.9*; 11-12.AR.F.10; (+)11-12.AR.F.11; 11-12.AR.F.12*; 11-12.AR.F.13*; 11-12.AR.F.14*; 11-12.AR.F.15* ▪ 11-12.GM.1, 11-12.GM.2*	College Algebra involves examining and graphing polynomial, logarithmic, exponential, and rational functions. It also covers sequences and series, limits and continuity, the polar coordinate system, equations and graphs of conic sections, and transformations of functions. Matrices are explored in terms of operations, inverses, and solving systems.	1	License Code: 11010– Mathematics 5-12 or 9-12

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11150	Probability and Statistics	11-12, and have completed Algebra II	**This course must meet or exceed the following North Dakota** Math Content Standards ▪ 9-12.MA.P; 9-12.MA.C; 9-12.MA.R ▪ 9-10.DPS.2*; 9-10.DPS.3*; 9-10.DPS.4*;9-10.DPS.5*; 9-10.DPS.6*; 9-10.DPS.7*; 9-10.DPS.8*; 9-10.DPS.9*; 9-10.DPS.10*; (+)11-12.AR.20; 11-12.DPS.1*; 11-12.DPS.2*; 11-12.DPS.3*, 11-12.DPS.4*, (+)11-12.DPS.5*, (+)11-12.DPS.6*, (+)11-12.DPS.7*, (+)11-12.DPS.8*, (+)11-12.DPS.9*; 11-12.DPS.10*; (+)11-12.DPS.11*; (+)11-12.DPS.12*; (+)11-12.DPS.13*; (+)11-12.DPS.14*; (+)11-12.DPS.15*; (+)11-12.DPS.16*; (+)11-12.DPS.17*; (+)11-12.DPS.18*	Probability and Statistics covers the fundamentals of gathering, presenting, and analyzing data using statistical methods. The course explores topics such as probability and probability distributions, confidence intervals, hypothesis testing, linear regression, and correlation. It also involves the examination of likely events and quantitative data analysis, interpretation, and presentation. Key components include basic probability and statistics, discrete probability theory, odds and probabilities, probability trees, populations and samples, frequency tables, measures of central tendency, and the presentation of data through graphs. The curriculum encompasses concepts like the normal distribution and measures of variability.	1	License Code: 11010– Mathematics 5-12 or 9-12

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11181	Precalculus	11-12; and have completed Geometry/ Trigonometry/ Advanced Algebra, **OR** both Algebra II and Geometry	**This course must meet or exceed the following North Dakota** Math Content Standards ▪ 9-12.MA.P; 9-12.MA.C; 9-12.MA.R ▪ (+)11-12.NO.10; (+)11-12.NO.11; (+)11-12.NO.12; (+)11-12.NO.13; (+)11-12.NO.14; (+)11-12.NO.15; (+)11-12.NO.16; (+)11-12.NO.17; (+)11-12.NO.18; (+)11-12.NO.19 ▪ (+)11-12.AR.10; (+)11-12.AR.15; (+)11-12.AR.18; (+)11-12.AR.19; (+)11-12.AR.20; (+)11-12.AR.F.2*; (+)11-12.AR.F.3*; (+)11-12.AR.F.4*; (+)11-12.AR.F.5*; (+)11-12.AR.F.6*; (+)11-12.AR.F.10*; (+)11-12.AR.F.11*; 11-12.AR.F.12*; 11-12.AR.F.13*; 11-12.AR.F.14*; 11-12.AR.F.15*; 11-12.AR.F.16; 11-12.AR.F.17; (+)11-12.AR.F.18; (+)11-12.AR.F.19; (+)11-12.AR.F.20; (+)11-12.AR.F.21; (+)11-12.AR.F.22; (+)11-12.AR.F.23*; (+)11-12.AR.F.24 ▪ 11-12.GM.1; 11-12.GM.2*; 11-12.GM.3; (+)11-12.GM.4 **The following North Dakota** Math Content Standards **may also be included in this course** ▪ 11-12.DPS.1*; 11-12.DPS.2*; 11-12.DPS.4*; 11-12.DPS.10*; (+)11-12.DPS.11; (+)11-12.DPS.13*; (+)11-12.DPS.14*; (+)11-12.DPS.15*; (+)11-12.DPS.16*; (+)11-12.DPS.17*	Precalculus is the exploration of algebraic functions designed to prepare learners for calculus. Key topics involve equations and inequalities, as well as polynomial, rational, exponential, logarithmic, trigonometric, and inverse trigonometric functions, along with their identities and equations. The course also delves into practical applications. Additionally, precalculus covers vectors, the polar coordinate system, conic sections, matrix algebra, sequences and series, and the concepts of limits and continuity.	1	License Code: 11010– Mathematics 5-12 or 9-12
11061	Calculus	11-12; and have completed Precalculus **OR** Trigonometry/ Analytic Geometry **OR** the full combination of Algebra II, Geometry, and Trigonometry	**This course must meet or exceed the following North Dakota** Math Content Standards ▪ 9-12.MA.P; 9-12.MA.C; 9-12.MA.R ▪ 11-12.AR.F.2*; 11-12.AR.F.3*; 11-12.AR.F.12* ***NOTE: Much of the content within this course contains college-level standards exceeding the North Dakota Mathematics Content Standards.***	Calculus encompasses limits, continuity, derivatives, differentiation, integration (both definite and indefinite), and applications of calculus. A prerequisite for this course is a foundation in trigonometry, elementary functions, analytic geometry, and algebra.	1	License Code: 11010– Mathematics 5-12 or 9-12

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11160	Trigonometry	10-12, and have completed Geometry and Algebra II	**This course must meet or exceed the following North Dakota** Math Content Standards ▪ 9-12.MA.P; 9-12.MA.C; 9-12.MA.R ▪ (+)11-12.NO.10; (+)11-12.NO.11 ▪ (+)11-12.AR.F.11*; 11-12.AR.F.16; 11-12.AR.F.17; (+)11-12.AR.F.18; (+)11-12.AR.F.19; (+)11-12.AR.F.20; (+)11-12.AR.F.21; (+)11-12.AR.F.22; (+)11-12.AR.F.23*; (+)11-12.AR.F.24 ▪ (+)9-10.GM.21*; 11-12.GM.3; (+)11-12.GM.4	Trigonometry encompasses angle measurement, trigonometric and inverse trigonometric functions, trigonometric identities and equations, as well as parametric and polar coordinates with general applications. The course also delves into the study of circular functions, their inverses and graphs, relationships among parts of a triangle, solutions of both right and oblique triangles, and the incorporation of complex numbers.	1	License Code: 11010– Mathematics 5-12 or 9-12
11161	Trigonometry/ Analytic Geometry	11-12, and have completed Geometry and Algebra II	**This course must meet or exceed the following North Dakota** Math Content Standards ▪ 9-12.MA.P; 9-12.MA.C; 9-12.MA.R ▪ 11-12.NO.4*; 11-12.NO.5*; 11-12.NO.6; 11-12.NO.7; 11-12.NO.8; (+)11-12.NO.10; (+)11-12.NO.11; (+)11-12.NO.14; (+)11-12.NO.15; (+)11-12.NO.16; (+)11-12.NO.17; (+)11-12.NO.18; 11-12.NO.19 ▪ 11-12.AR.F.4; (+)11-12.AR.F.11*; 11-12.AR.F.16; 11-12.AR.F.17; (+)11-12.AR.F.18; (+)11-12.AR.F.19; (+)11-12.AR.F.20; (+)11-12.AR.F.21; (+)11-12.AR.F.22; (+)11-12.AR.F.23*; (+)11-12.AR.F.24 ▪ (+)9-10.GM.21*; 11-12. GM.1; 11-12.GM.2; 11-12.GM.3; (+)11-12.GM.4	Trigonometry/Analytic Geometry covers trigonometric and circular functions, their inverses and graphs, and trigonometric identities and equations. The course also includes the study of right and oblique triangles, complex numbers, vectors, the polar coordinate system, equations and graphs of conic sections, and rotations, transformations and parametric equations.	1	License Code: 11010– Mathematics 5-12 or 9-12

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11162	Geometry/ Trigonometry/ Advanced Algebra	11-12, and have completed Geometry and Algebra II	**This course must meet or exceed the following North Dakota** Math Content Standards ▪ 9-12.MA.P; 9-12.MA.C; 9-12.MA.R ▪ 11-12.NO.1; 11-12.NO.2; 11-12.NO.3; 11-12.NO.4; 11-12.NO.5; 11-12.NO.6; 11-12.NO.7; 11-12.NO.8; 11-12.NO.9; (+)11-12.NO.10; (+)11-12.NO.11 ▪ 11-12.AR.1; 11-12.AR.2; 11-12.AR.3; 11-12.AR.4; 11-12.AR.5; 11-12.AR.6; 11-12.AR.7; 11-12.AR.8; 11-12.AR.9; 11-12.AR.11; 11-12.AR.12; 11-12.AR.13; 11-12.AR.14; 11-12.AR.15; 11-12.AR.16; 11-12.AR.17; 11-12.AR.F.1; 11-12.AR.F.2; 11-12.AR.F.3; 11-12..AR.F.4; 11-12.AR.F.5; 11-12.AR.F.6; 11-12.AR.F.7; 11-12.AR.F.8; 11-12.AR.F.9; 11-12.AR.F.10; (+)11-12.AR.F.11*; 11-12.AR.F.12; 11-12.AR.F.13; 11-12.AR.F.14; 11-12.AR.F.15; 11-12.AR.F.16; 11-12.AR.F.17; (+)11-12.AR.F.18; (+)11-12.AR.F.19; (+)11-12.AR.F.20; (+)11-12.AR.F.21; (+)11-12.AR.F.22; (+)11-12.AR.F.23*; (+)11-12.AR.F.24 ▪ 9-10.GM.1; 9-10.GM.2; 9-10.GM.3; 9-10.GM.4; 9-10.GM.5; 9-10.GM.6; 9-10.GM.7; 9-10.GM.8; 9-10.GM.9; 9-10.GM.10; 9-10.GM.11; 9-10.GM.12; (+)9-10.GM.13; 9-10.GM.14; 9-10.GM.15; 9-10.GM.16; 9-10.GM.17; 9-10.GM.18; (+)9-10.GM.19; 9-10.GM.20*; (+)9-10.GM.21*; 9-10.GM.22; (+)9-10.GM.23; (+)9-10.GM.24; 9-10.GM.25; 9-10.GM.26; 9-10.GM.27; 9-10.GM.28; 9-10.GM.29; 9-10.GM.30*; 9-10.GM.31; 9-10.GM.32; 9-10.GM.33; 9-10.GM.34; 9-10.GM.35*; 9-10.GM.36*; 11-12.GM.1; 11-12.GM.2*; 11-12.GM.3; (+)11-12.GM.4 ▪ 11-12.DPS.1; 11-12.DPS.2; 11-12.DPS.3; 11-12.DPS.4;11-12.DPS.10	Geometry/Trigonometry/Advanced Algebra covers the properties and operations of real numbers, the evaluation of rational algebraic expressions, solutions and graphs of equations/inequalities, translation of word problems into equations, operations and factoring of polynomials, properties of plane and solid figures, rules of congruence and similarity, and coordinate geometry (lines, segments, circles in a coordinate plane). The curriculum also includes angle measurement in triangles, incorporating the trigonometric ratios.	1	License Code: 11010– Mathematics 5-12 or 9-12

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11579	Advanced Placement Precalculus©	10-12, and have completed Geometry and Algebra II	**This course must meet or exceed the following North Dakota** Math Content Standards ▪ 9-12.MA.P; 9-12.MA.C; 9-12.MA.R ▪ (+)11-12.NO.10; (+)11-12.NO.11; (+)11-12.NO.12; (+)11-12.NO.13; (+)11-12.NO.14; (+)11-12.NO.15; (+)11-12.NO.16; (+)11-12.NO.17; (+)11-12.NO.18; (+)11-12.NO.19 ▪ (+)11-12.AR.10; (+)11-12.AR.18; (+)11-12.AR.19; (+)11-12.AR.F.11*; (+)11-12.AR.F.18; (+)11-12.AR.F.19; (+)11-12.AR.F.20; (+)11-12.AR.F.21; (+)11-12.AR.F.22; (+)11-12.AR.F.23*; (+)11-12.AR.F.24 ▪ (+)11-12.GM.4 ▪ 11-12.DPS.4*; (+)11-12.DPS.5*	AP Precalculus fosters the development of a deep conceptual understanding of polynomial and rational functions, exponential and logarithmic functions, trigonometric and polar functions, parameters, vectors, matrices, and graphic, numeric, verbal, and analytical representations of problems. The course also focuses on the manipulation of functions in a coordinate system and builds functions. This course is the equivalent of a one-semester college precalculus course.	1	License Code: 11010– Mathematics 5-12 or 9-12
11580	Advanced Placement Statistics©	10-12, and have completed Algebra II	**This course must meet or exceed the following North Dakota** Math Content Standards ▪ 9-12.MA.P; 9-12.MA.C; 9-12.MA.R ▪ (+)11-12.AR.20 ▪ 11-12.DPS.1*; 11-12.DPS.2*; 11-12.DPS.3*; 11-12.DPS.4*; (+)11-12.DPS.5*; (+)11-12.DPS.6*; (+)11-12.DPS.7*; (+)11-12.DPS.8*; (+)11-12.DPS.9*; 11-12.DPS.10*; (+)11-12.DPS.11*; (+)11-12.DPS.12*; (+)11-12.DPS.13*; (+)11-12.DPS.14*; (+)11-12.DPS.15*; (+)11-12.DPS.16*; (+)11-12.DPS.17*; (+)11-12.DPS.18*	AP Statistics introduces learners to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. The AP Statistics course explores data, sampling, and experimentation, probability and simulation, and statistical inference. Learners use technology, investigations, problem-solving, and writing to build conceptual understanding. The AP Statistics course is equivalent to a one-semester, introductory, non-calculus-based college course in statistics.	1	License Code: 11010– Mathematics 5-12 or 9-12
11581	Advanced Placement Calculus AB©	10-12, and have completed Algebra II	**This course must meet or exceed the following North Dakota** Math Content Standards ▪ 9-12.MA.P; 9-12.MA.C; 9-12.MA.R ▪ 11-12.AR.F.2*, 11-12.AR.F.3*, 11-12.AR.F.12* ***NOTE: Much of the content within this course contains college-level standards exceeding the North Dakota Mathematics Content Standards.***	AP Calculus AB focuses on the concepts and skills of limits, derivatives, definite integrals, and the Fundamental Theorem of Calculus. Problems are approached graphically, numerically, analytically, and verbally to build connections among representations. AP Calculus AB is designed to be the equivalent of a first semester college calculus course devoted to differential and integral calculus topics.	1	License Code: 11010– Mathematics 5-12 or 9-12

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11582	Advanced Placement Calculus BC©	10-12, and have completed Algebra II	**This course must meet or exceed the following North Dakota** Math Content Standards ▪ 9-12.MA.P; 9-12.MA.C; 9-12.MA.R ▪ 11-12.AR.F.2*, 11-12.AR.F.3*, 11-12.AR.F.12* ***NOTE: Much of the content within this course contains college-level standards exceeding the North Dakota Mathematics Content Standards.***	AP Calculus BC applies the content and skills learned in AP Calculus AB to parametrically defined curves, polar curves, and vector-valued functions; develops additional integration techniques and applications; and introduces the topics of sequences and series. AP Calculus BC is designed to be the equivalent to both first and second semester college calculus courses.	1	License Code: 11010– Mathematics 5-12 or 9-12
11583	Advanced Placement Computer Science A© (Mathematics)	10-12, and have completed Algebra I and Computer Science Programming	**This course must meet or exceed the following North Dakota** Math Content Standards ▪ 9-12.MA.P; 9-12.MA.C; 9-12.MA.R	AP Computer Science A introduces learners to computer science through programming. Fundamental topics in this course include the design of solutions to problems, the use of data structures to organize large sets of data, the development and implementation of algorithms to process data and discover new information, the analysis of potential solutions, and the ethical and social implications of computing systems. The course emphasizes object-oriented programming and design using the Java programming language. AP Computer Science A is equivalent to a first-semester, college-level course in computer science. ***NOTE: This course can be taught for Mathematics credit only. For Computer Science credit, Advanced Placement Computer Science A© can be found under Computer Science.***	1	License Code: 11010– Mathematics 5-12 or 9-12 **AND** 23000 Computer Science 5-12 or 9-12

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11041	Integrated Mathematics for Computer Science and Information Technology (Mathematics)	10-12, and have completed Algebra I and Computer Science Programming	**This course must meet or exceed the following North Dakota** Math Content Standards ▪ 9-12.MA.P; 9-12.MA.C; 9-12.MA.R ▪ 11-12.NO.4*; 11-12.NO.5*; (+) 11-12.NO.19 ▪ 11-12.AR.1*; 11-12. AR.3*; 11-12.AR.7*; 11-12.AR.8*; 11-12.AR.9*; 11-12.AR.16; 11-12.AR.F.1*; 11-12.AR.F.5; 11-12.AR.F.7*; 11-12.AR.F.9* ▪ 11-12.DPS.10*; (+)11-12.DPS.11*; (+)11-12.DPS.12*; (+)11-12.DPS.13*; (+)11-12.DPS.14*; (+)11-12.DPS.15*; (+)11-12.DPS.16*; (+)11-12.DPS.17*; (+)11-12.DPS.18*	This course is computer science with a major focus on math. Course topics are divided into six areas: sets, functions, and relations; basic logic; proof techniques; counting basics; graphs and trees; and discrete probability. Mathematical topics are interwoven with computer science applications to enhance the learner's understanding of the introduced mathematics while learners develop the ability to see computational problems from a mathematical perspective. Topics also include the study of properties and operations of the real number system, evaluating rational algebraic expressions, solving, and graphing first-degree equations and inequalities, translating word problems into equations, operations with and factoring of polynomials, and solving simple quadratic equations. Algorithms in both mathematics and computer science contexts will be explored in depth. ***NOTE: This course can be taught for Mathematics credit only. For Computer Science credit, Integrated Mathematics for Computer Science/Information Technology can be found under Computer Science. For Career and Technical Education credit, Integrated Mathematics for Computer Science/Information Technology can be found under Information Technology.***	1	License Code: 11010– Mathematics 5-12 or 9-12 **AND** 23000 Computer Science 5-12 or 9-12

11042	Advanced JAVA Programming (Mathematics)	9-12	**This course must meet or exceed the following North Dakota** Math Content Standards ▪ 9-12.MA.P; 9-12.MA.C; 9-12.MA.R	The Advanced JAVA Programming (Math) course will present concepts similarly covered by Advanced Placement Computer Science and is comparable to an introductory sequence of courses for computer science majors offered in college and university computer science departments. Learners completing the course will be able to design and implement computer-based solutions to problems in several application areas; learn, organize, and process well-known algorithms and data structures; be able to develop and select appropriate algorithms and data structures to demonstrate problem-solving; design strategies and methodologies; analyze potential solutions, and understand the ethical and social implications of computing. The course emphasizes object-oriented and imperative problem-solving and design using Java language, representing proven approaches for developing solutions that can scale up from small, simple problems to large, complex ones. Learners will be able to code fluently in a well-structured fashion using the programming language JAVA and read and understand a large program and a description of the design and development process leading to such a program.	1	License Code: 11010– Mathematics 5-12 or 9-12

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11051	Integrated Mathematics I	9-10	**This course must meet or exceed the following North Dakota** Math Content Standards ▪ 9-12.MA.P; 9-12.MA.C; 9-12.MA.R ▪ 9-10.NO.1; 9-10.NO.2; 9-10.NO.3; 9-10.NO.4; 9-10.N0.5 ▪ 9-10.AR.1; 9-10.AR.2; 9-10.AR.3*(linear and exponential only); 9-10.AR.4; 9-10.AR.5; 9-10.AR.6; 9-10.AR.7*; 9-10.AR.8; 9-10.AR.9; 9-10.AR.F.1; 9-10.AR.F.2*; 9-10.AR.F.3*; 9-10.AR.F.4* ▪ 9-10.GM.1; 9-10.GM.2; 9-10.GM.3; 9-10.GM.4; 9-10.GM.5; 9-10.GM.6; 9-10.GM.7 ▪ 9-10.DPS.1*; 9-10.DPS.2*; 9-10.DPS.3*; 9-10.DPS.4*; 9-10.DPS.10 (only construct and interpret two-way tables; conditional probabilities are optional for this course)	Integrated Mathematics I formalizes and extends middle school mathematics, deepening learners' understanding of linear relationships. The course begins with a review of relationships between quantities, building from unit conversion to a study of expressions, equations, and functions. Learners contrast linear and exponential relationships, including analyzing sequences and applications such as growth and decay. Learners review one-two and multi-step equations, formally reasoning about each step using properties of equality. Learners extend this reasoning to systems of linear equations. Learners use descriptive statistics to analyze data before focusing on transformations and the relationship between Algebra and Geometry on the coordinate plane.	1	License Code: 11010– Mathematics 5-12 or 9-12

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High school (grades 9-12) courses in Mathematics require 120 student engagement hours per credit.

11052	Integrated Mathematics II	9-12; and have completed Integrated Mathematics I **OR** Algebra I	**This course must meet or exceed the following North Dakota** Math Content Standards ▪ 9-12.MA.P; 9-12.MA.C; 9-12.MA.R ▪ 11-12.NO.1; 11-2.NO.2; 11-12.NO.3; 11-12.NO.4*; 11-12.NO.5*; 11-12.NO.6; 11-12.NO.7; 11-12.NO.8 ▪ 9-10.AR.10; 9-10.AR.3* (including quadratics); 9-10.AR.11; 9-10.AR.F.6*; 9-10.AR.F.7*; 9-10.AR.F.8*; 9-10.AR.F.10; 9-10.AR.F.11; 9-10.AR.F.12; 11-12.AR.1*; 11-12.AR.2; 11-12.AR.3*; 11-12.AR.4*; 11-12.AR.7*; 11-12.AR.8*; 11-12.AR.10; 11-12.AR.17; 11-A2.AR.F.3*; 11-12.AR.F.7*; 11-12.AR.F.8*; 11-12.AR.F.9*; 11-12.AR.F.12* ▪ 9-10.GM.8; 9-10.GM.9; 9-10.GM.10; 9-10.GM.11; 9-10.GM.12; (+)9-10.GM.13; 9-10.GM.14; 9-10.GM.15; 9-10.GM.16; 9-10.GM.17; 9-10.GM.18; 9-10.GM.20; 9-10.GM.22; (+)9-10.GM.23; (+)9-10.GM.24; 9-10.GM.25; 9-10.GM.27; 9-10.GM.28; 9-10.GM.29; 9-10.GM.30*; 9-10.GM.31; 9-10.GM.32; 9-10.GM.33; 9-10.GM.34; 9-10.GM.35*; 9-10.GM.36* ▪ 9-10.DPS.5*; 9-10.DPS.6*; 9-10.DPS.7*; 9-10.DPS.8*; 9-10.DPS.9*; 9-10.DPS.10*; 11-12.DPS.10*	Integrated Mathematics II begins with a brief exploration of radicals and polynomials before delving into quadratic expressions, equations, and functions, including a derivation of the quadratic formula. Learners then embark on a deep study of probability applications and develop advanced reasoning skills by analyzing similarity, congruence, and proofs of mathematical theorems. Learners explore right triangles with an introduction to right triangle trigonometry before turning their attention to the geometry of circles and making informal arguments to derive formulas for the volumes of various solids.	1	License Code: 11010– Mathematics 5-12 or 9-12

11053	Integrated Mathematics III	9-12; and have completed Integrated Mathematics II **OR** both Algebra I and Geometry	**This course must meet or exceed the following North Dakota** Math Content Standards ▪ 9-12.MA.P; 9-12.MA.C; 9-12.MA.R ▪ 11-12.NO.9; (+)11-12.NO.13 ▪ 9-10.AR.F.5*; 9-10.AR.F.9*; 11-12.AR.5; 11-12.AR.6; 11-12.AR.7*; 11-12.AR.8*; 11-12.AR.9*; 11-12.AR.12; 11-12.AR.13; 11-12.AR.14; 11-12.AR.15; 11-12.AR.16; 11-12.AR.F.1*; 11-12.AR.F.2*; 11-12.AR.F.4*; 11-12.AR.F.5*; 11-12.AR.F.6*; 11-12.AR.F.7*; 11-12.AR.F.7*; 11-12.AR.F.8*; 11-12.AR.F.9; 11-12.AR.F.10* (a, b, and c only); 11-12.AR.F.13*; 11-12.AR.F.14*; 11-12.AR.F.15*; 11-12.AR.F.16; 11-12.AR.F.17 ▪ (+)9-10.GM.19; (+)9-10.GM.21; 9-10.GM.26; 11-12.GM.1; 11-12.GM.2*; 11-12.GM.3 ▪ 11-12.DSP.1*; 11-12.DSP.2*; 11-12.DPS.3*; 11-12.DPS.4*	Integrated Mathematics III synthesizes previous mathematical learning in four focused areas of instruction. First, learners relate visual displays and summary statistics to various data types and probability distributions, focusing on drawing conclusions from the data. Then, learners begin an in-depth study of polynomial, rational, and radical functions, drawing on concepts of integers and number properties to understand polynomial operations and the combination of functions through operations. This section of instruction builds on the Fundamental Theorem of Algebra. Learners then expand the study of right triangle trigonometry they began in Mathematics II to include non-right triangles and developing the Laws of Sines and Cosines. Finally, learners model an array of real-world situations with all the types of functions they have studied, including work with logarithms to solve exponential equations. As they synthesize and generalize what they have learned about a variety of function families, learners appreciate the usefulness and relevance of mathematics in the real world.	1	License Code: 11010– Mathematics 5-12 or 9-12

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High school (grades 9-12) courses in Mathematics require 120 student engagement hours per credit.

11037	Linear Algebra	11-12, and have completed Precalculus	**This course must meet or exceed the following North Dakota** Math Content Standards ▪ 9-12.MA.P; 9-12.MA.C; 9-12.MA.R ▪ (+)11-12.NO.14; (+)11-12.NO.15; (+)11-12.NO.16; (+)11-12.NO.17; (+)11-12.NO.18; (+)11-12.NO.19 ▪ (+)11-12.AR.18; (+)11-12.AR.19 ***NOTE: Much of the content within this course contains college-level standards exceeding the North Dakota Mathematics Content Standards.***	Linear Algebra includes a study of matrices, vectors, tensors, and linear transformations and is typically intended for learners who have attained pre-calculus objectives.	1	License Code: 11010– Mathematics 5-12 or 9-12
11039	Abstract Algebra	11-12, and have completed Precalculus	**This course must meet or exceed the following North Dakota** Math Content Standards ▪ 9-12.MA.P; 9-12.MA.C; 9-12.MA.R ▪ 11-12.NO.3; 11-12.NO.6; 11-12.NO.7; 11-12.NO.8; 11-12.NO.9; (+)11-12.NO.10; (+)11-12.NO.11; (+)11-12.NO.12; (+)11-12.NO.13; (+)11-12.NO.14; (+)11-12.NO.15; (+)11-12.NO.16; (+)11-12.NO.17; (+)11-12.NO.18; (+)11-12.NO.19 ▪ (+)11-12.AR.11 ***NOTE: Much of the content within this course contains college-level standards exceeding the North Dakota Mathematics Content Standards.***	Abstract Algebra includes a study of the properties of the number system from an abstract perspective, including such topics as number fields (i.e., rational, real, and complex numbers), integral domains, rings, groups, polynomials, and the fundamental theorem of algebra. Abstract Algebra is typically geared towards learners who have attained pre-calculus objectives.	1	License Code: 11010– Mathematics 5-12 or 9-12
11033	Discrete Mathematics	11-12, and have completed Algebra II	**This course must meet or exceed the following North Dakota** Math Content Standards ▪ 9-12.MA.P; 9-12.MA.C; 9-12.MA.R ▪ (+)11-12.AR.20; (+)11-12.AR.F.14* ▪ 11-12.DPS.10*; (+)11-12.DPS.11*; (+)11-12.DPS.12*; (+)11-12.DPS.13*; (+)11-12.DPS.14*; (+)11-12.DPS.15*; (+)11-12.DPS.16*; (+)11-12.DPS.17*; (+)11-12.DPS.18* ***NOTE: Much of the content within this course contains college-level standards exceeding the North Dakota Mathematics Content Standards.***	Discrete Mathematics encompasses sets, relations and functions, combinatorics, logic, proof methods, Boolean Algebra, difference equations, recursion, mathematical induction, and an introduction to graph theory.	1	License Code: 11010– Mathematics 5-12 or 9-12

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High school (grades 9-12) courses in Mathematics require 120 student engagement hours per credit.

11121	Analytic Geometry	11-12, and have completed Geometry and Algebra II	**This course must meet or exceed the following North Dakota** Math Content Standards ▪ 9-12.MA.P; 9-12.MA.C; 9-12.MA.R ▪ 11-12.NO.4*; 11-12.NO.5*; 11-12.NO.6; 11-12.NO.7; 11-12.NO.8; (+)11-12.NO.10; (+)11-12.NO.11; (+)11-12.NO.14; (+)11-12.NO.15; (+)11-12.NO.16; (+)11-12.NO.17; (+)11-12.NO.18 ▪ 11-12. GM.1; 11-12.GM.2; 11-12.GM.3; (+)11-12.GM.4	Analytic Geometry is an extension of Algebra and Geometry that explores the characteristics and intersections of lines and planes in space. This includes the examination of vectors, the polar coordinate system, equations and graphs of conic sections, rotations and transformations, as well as parametric equations.	1	License Code: 11010– Mathematics 5-12 or 9-12
11118	College Ready English and Math- College Learning Lab-Math 12	11-12	**This course must meet or exceed the following North Dakota** Math Content Standards ▪ 9-12.MA.P; 9-12.MA.C; 9-12.MA.R ▪ 9-10.NO.1; 9-10.NO.2; 9-10.NO.3; 9-10.NO.4*; 9-10.NO.5 ▪ 9-10.AR.1; 9-10.AR.2; 9-10.AR.3*, 9-10.AR.4*, 9-10.AR.5; 9-10.AR.6; 9-10.AR.7*; 9-10.AR.8; 9-10.AR.9; 9-10.AR.10; 9-10.AR.11; 9-10.AR.F.1; 9-10.AR.F.2*; 9-10.AR.F.3*; 9-10.AR.F.4*; 9-10.AR.F.5*; 9-10.AR.F.6*; 9-10.AR.F.7*; 9-10.AR.F.8*; 9-10.AR.F.9*; 9-10.AR.F.10*; 9-10.AR.F.11*; 9-10.AR.F.12 ▪ 9-10.GM.27; 9-10.GM.29 ▪ 9-10.DPS.1*; 9-10.DPS.2*; 9-10.DPS.3*; 9-10.DPS.4*	College Learning Lab-Math prepares learners for an introductory (credit-bearing) college level math course. Learners will be engaged in educational experiences regarding mathematical methods for solving equations and applying mathematical knowledge to real-life scenarios. The aims to review fundamental concepts to include equations, number systems, algebra, geometry, and analytical reasoning. ***NOTE: This course code is designed to be used exclusively with the Pearson MyMathTest platform through the College Ready English and Math (CREAM) programs.***	1	License Code: 11010– Mathematics 5-12 or 9-12

11115	Mathematics GED Equivalent	9-12	Because this course code is used to issue credit for learners that have passed the math portion of the GED assessment, it is aligned to standards that can be found in the GED Assessment Guide for Mathematical Reasoning.	GED Equivalent Math is intended for learners who earn the required credits for graduation by passing the math GED exam, as allowed by NDCC 15.1-21-02.2 (2) and NDCC 15.1-21-02.3 (2). This course is intended for learners that are significantly behind in the required credits in math for graduation. This course can be used as either preparation to take the math GED exam for high school credit or to award high school credit upon completion of the math GED exam. This course CANNOT be used as preparation for a GED exam for purposes of obtaining a GED certificate. School board approval is required for schools to award credit for this course.	3	License Code: 11010– Mathematics 5-12 or 9-12
11030	Prealgebra	9-12	**This course must meet or exceed the following North Dakota** Math Content Standards ▪ 6-8.MA.P; 6-8.MA.C; 6-8.MA.R ▪ 8.NO.NS.1; 8.NO.NS.2; 8.NO.NS.3; 8.NO.O.1; 8.NO.O.2 ▪ 8.AR.EE.1; 8.AR.EE.2; 8.AR.EE.3; 8.AR.EE.4; 8.AR.EE.5; 8.AR.EE.6; 8.AR.EE.7; 8.AR.EE.8; 8.AR.F.1; 8.AR.F.2; 8.AR.F.3; 8.AR.F.4; 8.AR.F.5 ▪ 8.GM.AV.1; 8.GM.GF.2.; 8.GM.GF.3; 8.GM.GF.4; 8.GM.GF.5; 8.GM.GF.6 ▪ 8.DPS.D.1; 8.DPS.D.2; 8.DPS.D.3; 8.DPS.D.4; 8.GM.GF.1	Learners will develop their knowledge of the number system and computational fluency. Individuals will develop foundational knowledge of functions. Learners will use visualization and spatial reasoning to solve problems involving volume of geometric figures, to investigate the characteristics of figures, perform transformations, and construct logical arguments. Individuals will ask and answer questions by collecting, organizing and displaying relevant data, drawing inferences and conclusions, and making predictions.	1	License Code: 11010– Mathematics 5-12 or 9-12 11011-Algebra I 5-12

HIGH SCHOOL MATHEMATICS COURSE CODES
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High school (grades 9-12) courses in Mathematics require 120 student engagement hours per credit.

11035	Algebra I Semester 1	9-12	**This course must meet or exceed the following North Dakota** Math Content Standards ▪ 9-12.MA.P; 9-12.MA.C; 9-12.MA.R ▪ 8.NO.NS.1; 8.NO.O.2; 9-10.NO.1; 9-10.NO.3; 9-10.NO.4; 9-10.NO.5 ▪ 6.AR.RP.1; 7.AR.RP.2; 7.AR.RP.3; 7.AR.RP.4; 8.AR.EE.1; 8.AR.EE.3; 8.AR.EE.4; 8.R.EE.5; 8.AR.EE.6; 8.AR.EE.7; 8.AR.EE.8; 8.AR.F.1; 8.AR.F.2; 8.AR.F.3; 8.AR.F.4; 8.AR.F.5; 9-10.AR.1; 9-10.AR.2; 9-10.AR.3; 9-10.AR.5; 9-10.AR.6; 9-10.AR.11; 9-10.AR.F.1; 9-10.AR.F.2; 9-10.AR.F.3; 9-10.AR.F.4; 9-10.AR.F.5 ▪ 9-10.GM.27 ▪ 9-10.DPS.1; 9-10.DPS.2	Learners are continuing to build their foundational skills for Algebra I in this course. They continue to increase their computational fluency. Individuals advance their understanding of real number systems and learn to represent linear relationships. Learners will develop foundational knowledge of functions. ***NOTE: This class is designed for a block class or a class supplemented with a math lab.***	½	License Code: 11010– Mathematics 5-12 or 9-12 11011-Algebra I 5-12
11036	Algebra I Semester 2	9-12	**This course must meet or exceed the following North Dakota** Math Content Standards ▪ 9-12.MA.P; 9-12.MA.C; 9-12.MA.R ▪ 9-10.NO.1; 9-10.NO.2; 9-10.NO.3; 9-10.NO.4; 9-10.NO.5 ▪ 9-10.AR.1; 9-10.AR.2; 9-10.AR.3; 9-10.AR.4; 9-10.AR.5; 9-10.AR.6; 9-10.AR.7; 9-10.AR.8; 9-10.AR.9; 9-10.AR.10; 9-10.AR.11; 9-10.AR.F.1; 9-10.AR.F.2; 9-10.AR.F.3; 9-10.AR.F.4; 9-10.AR.F.5; 9-10.AR.F.6; 9-10.AR.F.7; 9-10.AR.F.8; 9-10.AR.F.9; 9-10.AR.F.10; 9-10.AR.F.11; 9-10.AR.F.12 ▪ 9-10.GM.27 ▪ 9-10.DPS.1; 9-10.DPS.2; 9-10.DPS.3; 9-10.DPS.4	Learners will continue to develop a foundational understanding of the number system, operations and computational fluency. They will begin to represent, evaluate, and solve different types of mathematical sentences, including expressions, equations and inequalities representing linear and non-linear situations. Individuals will further their understanding of functions. They will organize, display, and analyze relevant data. ***NOTE: This class is designed for a block class or a class supplemented with a math lab.***	½	License Code: 11010– Mathematics 5-12 or 9-12 11011-Algebra I 5-12

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High school (grades 9-12) courses in Mathematics require 120 student engagement hours per credit.

11119	Applied Geometry	9-12	**This course must meet or exceed the following North Dakota** Math Content Standards ▪ 9-12.MA.P; 9-12.MA.C; 9-12.MA.R ▪ 9-10.NO.4*; 9-10.NO.5 ▪ 9-10.AR.2 ▪ 9-10.GM.1; 9-10.GM.2; 9-10.GM.3; 9-10.GM.5; 9-10.GM.6; 9-10.GM.9; 9-10.GM.10; 9-10.GM.11; 9-10.GM.12; (+)9-10.GM.13; 9-10.GM.14; 9-10.GM.15; 9-10.GM.17; 9-10.GM.20*; (+)9-10.GM.21*; 9-10.GM.22; (+)9-10.GM.23; (+)9-10.GM.24; 9-10.GM.25; 9-10.GM.27; 9-10.GM.29; 9-10.GM.30; 9-10.GM.32; 9-10.GM.33; 9-10.GM.34; 9-10.GM.35*; 9-10.GM.36*; 11-12.GM.3	Applied Geometry prioritizes fundamental facts and characteristics pertaining to points, lines, planes, parallel and perpendicular lines, triangles, polygons (with a focus on quadrilaterals), circles, and three-dimensional figures. Problem-solving will involve using the application of formulas such as distance, midpoint, slope, area, volume, the Pythagorean Theorem, and trigonometric ratios. The emphasis will be on establishing connections between geometry and real-world scenarios to solve problems related to algebra, everyday life, navigation, architecture, and art. These concepts will be explored using tools such as a ruler, compass, protractor, calculator, and geometric software.	1	License Code: 11010– Mathematics 5-12 or 9-12
11122	Informal Geometry	10-12	**This course must meet or exceed the following North Dakota** Math Content Standards ▪ 9-12.MA.P; 9-12.MA.C; 9-12.MA.R ▪ 9-10.GM.1; 9-10.GM.2; 9-10.GM.3; 9-10.GM.4; 9-10.GM.5; 9-10.GM.6; 9-10.GM.7; 9-10.GM.8; 9-10.GM.9; 9-10.GM.10; 9-10.GM.11; 9-10.GM.12; 9-10.GM.14; 9-10.GM.15; 9-10.GM.16; 9-10.GM.17; 9-10.GM.18; 9-10.GM.20; 9-10.GM.25; 9-10.GM.27; 9-10.GM.29; 9-10.GM.30; 9-10.GM.32; 9-10.GM.33; 9-10.GM.36*	Informal Geometry prioritizes a practical approach to the study of geometry while downplaying the emphasis on an abstract and formal methodology. It covers various topics, including the characteristics and manipulation of plane and solid figures. The curriculum incorporates inductive methods of reasoning and the application of logic. Additionally, it explores concepts to include congruence, similarity, parallelism, perpendicularity, proportion, and rules for angle measurement in triangles.	1	License Code: 11010– Mathematics 5-12 or 9-12

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High school (grades 9-12) courses in Mathematics require 120 student engagement hours per credit.

11170	STEM Seminar (Mathematics)	9-12	**This course must meet or exceed the following North Dakota** Math Content Standards • 9-12.MA.P; 9-12.MA.C; 9-12.MA.R	STEM Seminar offers learners a comprehensive, project-driven immersion in Science, Technology, Engineering, and Mathematics (STEM) to collaboratively address and potentially solve real-world challenges using the Engineering Design Process. The curriculum draws from Mathematics, Science, Language Arts, and Social Studies, aligning with state standards while fostering the skills listed in the ND Learning Continuum. It is worth noting that this course counts for Mathematics credit exclusively; for Technology and Engineering credit, consider enrolling in STEM Seminar (Tech-Ed), and for Science credit, opt for STEM Seminar (Science). ***NOTE : This course can be taught for Mathematics credit only. For Technology and Engineering credit, use STEM Seminar (Tech-Ed) under Technology and Engineering. For Science credit, use STEM Seminar (Science) under Science.***	2	License Code: 11010– Mathematics 5-12 or 9-12

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High school (grades 9-12) courses in Mathematics require 120 student engagement hours per credit.

11191	Occupationally Applied Math	9-12	**This course must meet or exceed the following North Dakota** Math Content Standards ▪ 9-12.MA.P; 9-12.MA.C; 9-12.MA.R ▪ 9-10.NO.3; 9-10.NO.4*; 9-10.N0.5 ▪ 9-10.AR.3*; 9-10.AR.4*; 9-10.AR.6; 9-10.AR.7*; 9-10.AR.8; 9-10.AR.F.1; 9-10.AR.F.2*; 9-10.AR.F.3*; 9-10.AR.F.4*; 9-10.AR.F.5*; 9-10.AR.F.6*; 9-10.AR.F.7*; 9-10.AR.F.8*; 9-10.AR.F.10*; 9-10.AR.F.11* ▪ 9-10.GM.1; 9-10.GM.2; 9-10.GM.3; 9-10.GM.5; 9-10.GM.6; 9-10.GM.9; 9-10.GM.10; 9-10.GM.12; 9-10.GM.15; 9-10.GM.17; 9-10.GM.36* ▪ 9-10.DPS.1*; 9-10.DPS.2*; 9-10.DPS.3*; 9-10.DPS.4*; 9-10.DPS.5*; 9-10.DPS.6*; 9-10.DPS.7*; 9-10.DPS.8*; 9-10.DPS.9*; 9-10.DPS.10*	Occupationally Applied Math extends and applies algebra, geometry, and statistics and uses these skills in a primarily occupational context.	1	License Code: 11010– Mathematics 5-12 or 9-12
11190	Applied Mathematics	9-12, and have completed General Mathematics	**This course must meet or exceed the following North Dakota** Math Content Standards ▪ 9-12.MA.P; 9-12.MA.C; 9-12.MA.R ▪ 6.NO.NS.1; 6.NO.NS.2; 9-10.NO.3 ▪ 6.AR.EE.2; 6.AR.EE.5; 6.AR.EE.6; 6.AR.RP.1; 6.AR.RP.2; 6.AR.RP.3; 6.AR.RP.4; 6.AR.RP.5; 7.AR.RP.1; 7.AR.RP.2; 7.AR.RP.3; 7.AR.RP.4; 8.AR.F.4 ▪ 6.GM.GF.2; 6.GM.GF.3; 7.GM.AV.1; 7.GM.AV.2; 7.GM.AV.3; 7.GM.GF.2; 8.GM.AV.1; 8.GM.GF.1; 8.GM.GF.5; 8.GM.GF.6 ▪ 6.DPS.D.1; 6.DPS.D.2; 6.DPS.D.3; 6.DPS.D.4; 7.DPS.D.1; 7.DPS.D.2; 7.DPS.P.1; 7.DPS.P.2; 8.DPS.D.4; 9-10.DPS.1*; 9-10.DPS.D.2*; 9-10.DPS.3*; 9-10.DPS.D.4*	Applied Mathematics is designed to help learners develop and refine job-related math skills. Emphasis is on the ability to apply functional mathematics to solve authentic problems.	1	License Code: 11010– Mathematics 5-12 or 9-12

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High school (grades 9-12) courses in Mathematics require 120 student engagement hours per credit.

11145	Consumer Mathematics	10-12	**This course must meet or exceed the following North Dakota** Math Content Standards ▪ 9-12.MA.P; 9-12.MA.C; 9-12.MA.R ▪ 7.NO.NS.2; 8.NO.O.2 ▪ 6.AR.EE.2; 6.AR.EE.6; 6.AR.RP.1; 6.AR.RP.3; 6.AR.RP.4; 7.AR.RP.1; 7.AR.RP.2; 7.AR.RP.3; 7.AR.RP.4; 8.AR.EE.2; 8.AR.F.2; 8.AR.F.3; 8.AR.F.4; 8.AR.F.5; 9-10.AR.F.8* ▪ 7.DPS.P.1; 7.DPS.P.2	Consumer Math reinforces mathematical understanding and applies these skills to develop personal and business financial literacy.	2	License Code: 11010– Mathematics 5-12 or 9-12
11111	General Mathematics	9-12	**This course must meet or exceed the following North Dakota** Math Content Standards ▪ 9-12.MA.P; 9-12.MA.C; 9-12.MA.R ▪ 6.NO.NS.1; 6.NO.NS.2; 6.NO.O.1; 6.NO.O.4; 7.NO.NS.2; 8.NO.NS.1; 8.NO.NS.2; 8.NO.NS.3; 8.NO.O.2 ▪ 6.AR.EE.1; 6.AR.EE.5; 6.AR.EE.6; 7.AR.EE.1 ▪ 6.GM.AV.1; 6.GM.AV.2; 6.GM.GF.1; 6.GM.GF.3; 7.GM.GF.2	General Math reinforces and expands learners foundational math skills, such as arithmetic operations using rational numbers; area, surface area, and volume of geometric figures; angle relationships; creating equivalent expressions; solving simple equations and inequalities; and expands their knowledge of the real number system.	1	License Code: 11010– Mathematics 5-12 or 9-12
11112	Particular Topics in Foundational Math	10-12	Math Content Standards for this course are not likely to contain high school level standards. Math standards covered may vary to meet the needs of individual learners.	This course examines particular topics in Foundation Math, such as arithmetic or basic conceptual skills, rather than providing a general overview.	1	License Code: 11010– Mathematics 5-12 or 9-12
11029	Mathematics Intervention	9-12	Math Content Standards for this course are not likely to contain high school level standards. Math standards covered may vary to meet the needs of individual learners.	Mathematics Intervention is designed to assist struggling and/or failing learners in a mathematics course. This course should be provided in conjunction with the regular mathematics course to pre-teach, re-teach, or provide enrichment to the learner to prevent the need to modify the school's existing mathematics curriculum. This course should be a structured class period that will build upon the existing mathematics skills needed for learners to achieve the opportunity for success in their current and/or future mathematics courses.	3	License Code: 11010– Mathematics 5-12 or 9-12

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High school (grades 9-12) courses in Mathematics require 120 student engagement hours per credit.

11010	Remedial Math 9-12	9-12	Math Content Standards for this course are not likely to contain high school level standards. Math standards covered may vary to meet the needs of individual learners.	Sets numeration, operations and properties, mathematical sentences, geometry, measurement, graphing and functions, and probability and statistics.	No credit given, supplemental instruction only	License Code: 11010– Mathematics 5-12 or 9-12

* *High school curricular requirements are spelled out in NDCC 15.1-21-02. Maximum credit refers to the maximum units of credit a learner may earn for a course over four years of high school. (Example: Band - a learner may be enrolled in band all four years of high school -- earning a possible total of four units of credit.)*

** *Please refer to the second page of the teacher's North Dakota Educator's Professional license to verify which subject areas a teacher is qualified to teach. Licenses and endorsements are obtained on a teaching license from the Education Standards and Practices Board (ESPB).*

*** *Content standards marked with "(+)" are considered "plus standards", which are used for advanced skills or concepts. Content standards marked with an asterisk (*) indicates "modeling standards", which help learners apply their understanding in authentic situations. A further explanation of modeling standards can be found in Appendix C of the North Dakota Math Content Standards.*