DEVELOPMENTAL MATH (DEVM)

DEVM F051  Math Skills Review
1 Credit
Offered As Demand Warrants
Develops and reviews basic mathematical terminology, theory and operations as outlined by the Alaska State Mathematics Standards. Mathematics topics focus on reviewing the six basic “strands” of mathematical content: numeration, measurement, estimation and computation, function and relationship, geometry, and statistics and probability. Approaches to problem solving will emphasize the process of mathematical thinking, communication and reasoning. It is an appropriate course for those preparing for the High School Qualifying Exam in Alaska or those needing a review of basic math skills in preparation for a math placement test at UAF. May be repeated for a total of three credits.

Lecture + Lab + Other: 1 + 0 + 0

DEVM F053  SAT/ACT Math Prep and Review
1 Credit
Offered As Demand Warrants
This course will review basic concepts and practice math test taking skills to help prepare for the ACT and SAT tests.

Lecture + Lab + Other: 1 + 0 + 0

DEVM F054  Prealgebra
3 Credits
Basic concepts of prealgebra mathematics. Topics include operations and applications of whole numbers, integers, fractions, decimals, ratios and proportions, percents, geometry and measures, evaluation of algebraic expressions and applications.

Prerequisites: DEVS F111 (may be taken concurrently); and appropriate placement scores.

Lecture + Lab + Other: 3 + 0 + 0

DEVM F054A  Modularized Mastery Math: Prealgebra Module A
1 Credit
This course covers one credit of DEVM F054 Prealgebra and includes the following topics: identifying and solving basic linear equations involving whole numbers, integers, decimals and fractions, solving ratio and proportion problems, solving percent problems, and solving applied problems. Topics are split into mini-modules and worked until mastery is achieved. Some mini-modules may be skipped if a student already demonstrates mastery of them. Computers will be used within a structured and independent learning setting.

Prerequisites: Appropriate placement test score within one calendar year; permission of instructor required.

Lecture + Lab + Other: 1 + 0 + 0

DEVM F054B  Modularized Mastery Math: Prealgebra Module B
1 Credit
This course covers one credit of DEVM F054 Prealgebra and includes the following topics: identifying and solving basic linear equations involving whole numbers, integers, decimals and fractions, solving ratio and proportion problems, solving percent problems, and solving applied problems. Topics are split into mini-modules and worked until mastery is achieved. Some mini-modules may be skipped if a student already demonstrates mastery of them. Computers will be used within a structured and independent learning setting.

Prerequisites: Grade of B or better in DEVM F054A; or appropriate placement test scores taken within one calendar year; permission of instructor required.

Lecture + Lab + Other: 1 + 0 + 0

DEVM F054C  Modularized Mastery Math: Prealgebra Module C
1 Credit
This course covers one credit of DEVM F054 Prealgebra and includes the following topics: identifying and solving basic linear equations involving whole numbers, integers, decimals and fractions, solving ratio and proportion problems, solving percent problems, and solving applied problems. Topics are split into mini-modules and worked until mastery is achieved. Some mini-modules may be skipped if a student already demonstrates mastery of them. Computers will be used within a structured and independent learning setting. Prerequisite courses and/or placement exams must be taken within one calendar year.

Prerequisites: Grade of B or better in DEVM F054B; or appropriate placement test scores; permission of instructor required.

Lecture + Lab + Other: 1 + 0 + 0

DEVM F055  Elementary Algebra
3 Credits
Topics include evaluation and simplifying algebraic expressions, polynomials, factoring, integer exponents, rational expressions, solutions of linear equations and inequalities, quadratic equations and graphs of lines. Special fees apply. Prerequisite courses and/or placement exams must be taken within one calendar year prior to commencement of the course.

Prerequisites: DEVS F111 (may be taken concurrently); and grade of C or better in DEVM F054 or ABUS F155, or appropriate placement scores.

Lecture + Lab + Other: 3 + 0 + 0

DEVM F055D  Modularized Mastery Math: Elementary Algebra Module D
1 Credit
This course covers one credit of the DEVM F055 Elementary Algebra course and includes the following topics: simplifying algebraic expressions, solving linear equations in one variable, solving linear and compound inequalities in one variable, applications of linear equations and solving formulas. Topics are split into mini-modules and worked until mastery is achieved. Some mini-modules may be skipped if a student already demonstrates mastery of them. Computers will be used within a structured and independent learning setting.

Prerequisites: Grade of B or better in DEVM F054, or ABUS F155; or appropriate placement test scores; permission of instructor required; prerequisite courses and/or placement exams must be taken within one calendar year.

Lecture + Lab + Other: 1 + 0 + 0
### DEVM F055E  Modularized Mastery Math: Elementary Algebra Module E
1 Credit
This course covers one credit of the DEVM F055 Elementary Algebra course and includes the following topics: linear equations in two variables, graphing linear equations, find the slope of linear equations, writing equations of lines, exponent rules and operations on polynomials. Topics are split into mini-modules and worked until mastery is achieved. Some mini-modules may be skipped if a student already demonstrates mastery of them. Computers will be used within a structured and independent learning setting.

**Prerequisites:** Grade of B or better in DEVM F055D taken within one calendar year; permission of instructor required.

| Lecture + Lab + Other: 1 + 0 + 0 |

### DEVM F055F  Modularized Mastery Math: Elementary Algebra Module F
1 Credit
This course covers one credit of the DEVM F055 Elementary Algebra course and includes the following topics: factoring polynomials, solving quadratic equations by factoring, simplifying rational expressions, operations with rational expressions, complex fractions, solving rational equations and applications of quadratic and rational equations. Topics are split into mini-modules and worked until mastery is achieved. Some mini-modules may be skipped if a student already demonstrates mastery of them. Computers will be used within a structured and independent learning setting.

**Prerequisites:** Grade of B or better in DEVM F055E taken within one calendar year; permission of instructor required.

| Lecture + Lab + Other: 1 + 0 + 0 |

### DEVM F056  Math Fast Track: Prealgebra/Elementary Algebra Review
1 Credit
Offered WINTERmester MAYmester and Summer
A 20-hour intensive review of math concepts available prior to each semester. Covers prealgebra and elementary algebra topics to prepare qualified students to potentially improve their math course placement. Students should have a history of being successful in equivalent levels of math, although they may not recall enough information to place well on the placement test. Students who are successful in this class have the possibility of advancing through one or two semesters of development math.

**Prerequisites:** Placement into DEVM F055 or DEVM F105.

| Lecture + Lab + Other: 1 + 0 + 0 |

### DEVM F061  Review of Elementary Algebra
1 Credit
Designed to assist students in reviewing material covered by DEVM F055. Individuals who have not previously taken an elementary algebra course are recommended to enroll in DEVM F055. Available via eLearning & Distance Education only.

| Lecture + Lab + Other: 1 + 0 + 0 |

### DEVM F062  Alternative Approaches to Math: Elementary Algebra
3 Credits
Algebraic topics. Includes operations with polynomial expressions, first- and second-degree equations, graphing, integral and relational exponents, and radicals using alternative teaching styles.

**Prerequisites:** Grade of C- or better in DEVM F054; or ABUS F155; or appropriate placement test scores; prerequisite courses and/or placement exams must be taken within one calendar year prior to commencement of the course.

| Lecture + Lab + Other: 3 + 0 + 0 |

### DEVM F065  Mathematics Skills
1-3 Credits
Designed to assist students in reviewing and reinforcing course concepts covered by DEVM F054, DEVM F055, DEVM F062, DEVM F105 and DEVM F105N. Consists of instruction which may include lab instruction, individual student work or group work. May be repeated. Recommended for students who need more time and help to master the material in developmental math courses.

| Lecture + Lab + Other: 1-3 + 0 + 0 |

### DEVM F066  Advanced Math Fast Track: Elementary/Intermediate Algebra Review
1 Credit
Offered WINTERmester and MAYmester
A 20-hour intensive review of math concepts available prior to each semester. Covers elementary and intermediate algebra topics to prepare qualified students to potentially improve their math course placement. Students should have a history of being successful in equivalent levels of math, although they may not recall enough information to place well on the placement test. Students who are successful in this class have the possibility of advancing through one or two semesters of development math.

**Prerequisites:** Placement into DEVM F055 or DEVM F105 or DEVM F105N.

| Lecture + Lab + Other: 1 + 0 + 0 |

### DEVM F068  Math Essentials
4 Credits
Teaches the concepts of basic arithmetic and introductory algebra. Includes operations and properties on real numbers; ratios; proportion; percent; scientific notation; variation; topics from consumer mathematics; evaluation of literal expressions; solution and graphs of linear equations and inequalities; radicals and exponents; polynomials; factoring and special products; fundamental operations with algebraic fractions; solution of quadratic equations; and elementary systems of equations. Geometric formulae are presented on a case-to-case basis as needed. Student success strategies and college readiness skills are emphasized.

**Prerequisites:** Appropriate placement scores required.

| Lecture + Lab + Other: 4 + 0 + 0 |

### DEVM F071  Review of Intermediate Algebra
1 Credit
Course reviews material covered by DEVM F105. Individuals who have not taken an intermediate algebra course on the high-school level are recommended to enroll in DEVM F105. Available via eLearning & Distance Education only.

| Lecture + Lab + Other: 1 + 0 + 0 |

### DEVM F105  Intermediate Algebra
3 Credits
Topics include expressions, equations and applications involving linear, quadratic, rational and radical functions; graphs of linear and quadratic functions; functions and their inverses; introduction to exponential and logarithmic functions; and systems of linear equations. To matriculate to MATH F151X from DEVM F105 a grade of B or higher is required.

**Prerequisites:** Grade of C- or better in DEVM F055, DEVM F062, DEVM F068, or appropriate placement test scores; prerequisite courses and/or placement exams must be taken within one calendar year prior to commencement of the course.

| Lecture + Lab + Other: 3 + 0 + 0 |
DEVM F105G Modularized Mastery Math: Intermediate Algebra
Module G
1 Credit
This course covers one credit of the DEVM F105 Intermediate Algebra course and includes the following topics: solving systems of equations and applications, simplifying radicals and expressions with rational exponents, performing operations on radical expressions, solving radical equations and performing operations on complex numbers. Topics are split into mini-modules and worked until mastery is achieved. Some mini-modules may be skipped if a student already demonstrates mastery of them. Computers will be used within a structured and independent learning setting. Prerequisite courses and/or placement exams must be taken.
Prerequisites: Grade of B or better in DEVM F055 or DEVM F069 or appropriate placement test scores; permission of instructor required.
Lecture + Lab + Other: 1 + 0 + 0

DEVM F105H Modularized Mastery Math: Intermediate Algebra
Module H
1 Credit
This course covers one credit of the DEVM F105 Intermediate Algebra course and includes the following topics: review of solving quadratic equations by factoring, solving quadratic equations that are not factorable, relations and functions, graphs and transformations of functions, quadratic functions and their graphs, performing operations on functions, compositions of functions and applications of quadratic equations and functions. Topics are split into mini-modules and worked until mastery is achieved. Some mini-modules may be skipped if a student already demonstrates mastery of them. Computers will be used within a structured and independent learning setting.
Prerequisites: Grade of B or better in DEVM F105G taken within one calendar year; permission of instructor is required.
Lecture + Lab + Other: 1 + 0 + 0

DEVM F105J Modularized Mastery Math: Intermediate Algebra Module J
1 Credit
This course covers one credit of the DEVM Intermediate Algebra course and includes the following topics: solving absolute value equations and inequalities, solving linear and compound linear inequalities, solving quadratic and rational inequalities, inverse functions, exponential and logarithmic functions, properties of logarithms and solving exponential and logarithmic equations. Topics are split into mini-modules and worked until mastery is achieved. Some mini-modules may be skipped if a student already demonstrates mastery of them. Computers will be used within a structured and independent learning setting.
Prerequisites: Grade of B or better in DEVM F105H taken within one calendar year; permission of instructor required.
Lecture + Lab + Other: 1 + 0 + 0

DEVM F105N Intensive Intermediate Algebra
4 Credits
Includes exponents, radicals, graphing, systems of equations, quadratic equations and inequalities, logarithms and exponentials and complex numbers using alternative teaching styles.
Prerequisites: DEVM F055, DEVM F055F, DEVM F062, DEVM F068, DEVM F105, DEVM F105J, or appropriate placement scores; prerequisite courses and placement scores must be taken within one calendar year.
Lecture + Lab + Other: 4 + 0 + 0