

Campus Map (</assets/docs/LPC-Campus-Map.pdf>)

Find People (<http://laspositascollege.edu/directory/index.php>)

Faculty & Staff (<http://www.laspositascollege.edu/facultystaff/index.php>)

Student Resource Guide (</resourceguide/index.php>) CLASS-Web (<https://bw11.clpccd.cc.ca.us/>)

Canvas (<http://clpccd.instructure.com/>)

Online Learning (<http://www.laspositascollege.edu/onlinelearning/>)

Library (<http://laspositascollege.edu/library/index.php>) Quick Links ▼



LAS POSITAS
COLLEGE

(</index.php>)



COVID-19 Response: Las Positas College has transitioned to [Online Classes and Services](/onlinecollege/index.php) (</onlinecollege/index.php>). [Details and Resources Here](http://laspositascollege.edu/spring2021/) (<http://laspositascollege.edu/spring2021/>).

The Zone Student Portal is unavailable. However, you can still access [Class-Web](http://banner-web.clpccd.cc.ca.us:700/) (<http://banner-web.clpccd.cc.ca.us:700/>) and [Zonemail](http://stumail.clpccd.edu/) (<http://stumail.clpccd.edu/>).

Mathematics



[Las Positas College \(/\)](#) > [Mathematics \(/math/\)](/math/) > [Mathematics Courses](#)

Mathematics



Mathematics Courses and Support Options

Click [HERE \(/math/assets/docs/pathways/MathPathways.pdf\)](/math/assets/docs/pathways/MathPathways.pdf) to see the Mathematics Pathways Flow Chart Starting Fall 2019.

LISTED BELOW ARE COURSE DESCRIPTIONS FROM THE CURRENT OUTLINE OF RECORD AND ADVISING NOTES.

Transfer-Level Mathematics Courses	Associate's Degree and Foundational Level Courses	Technical Math Courses	Math Jam and Concurrent Support Courses
<ul style="list-style-type: none"> MATH 1 MATH 2 MATH 3 MATH 5 MATH 7 MATH 10 MATH 27 	<ul style="list-style-type: none"> MATH 30 MATH 33 MATH 34 MATH 39 MATH 40 MATH 47 	<ul style="list-style-type: none"> MATH 55 MATH 110 MATH 255 MATH 210 MATH 50 MATH 107 MATH 250 MATH 207 MATH 156 MATH 256 	<ul style="list-style-type: none"> MATH 53 MATH 72 NMAT 261 NMAT 200C/M/ NMAT 262 NMAT 201C/M/ NMAT 263 NMAT 202C NMAT 264 NMAT 210C/M/ NMAT 265 NMAT 255C/M/ MATH 66 MATH 66C MATH 67 MATH 67C MATH 68 MATH 68C

Transfer-Level Mathematics Courses

MATH 1 CALCULUS I - 5 UNITS

An introduction to single-variable differential and integral calculus including: functions, limits and continuity; techniques and applications of differentiation and integration; the Fundamental Theorem of Calculus; areas and volumes of solids of revolution. Prerequisite: MATH 30 with a minimum grade of C, MATH 39 with a minimum grade of C. 90 hours lecture. AA/AS GE. Transfer: CSU, UC*; CSU GE: B4; IGETC: 2A; C-ID# MATH 211, MATH 900 S (if taken with MATH 2). * MATH 1, 33, and 34 combined: maximum UC credit, one course.

Students can place into MATH 1 via:

HSGPA ≥ 3.0 AND passed one full academic year with an A, B, or C of HS Precalculus, or

HS Calculus with A, B, or C, or

Pass Math 30 and Math 39.

Students are also strongly encouraged to take advantage of the many resources available to support them at LPC.

MATH 66 Math Jam for Calculus I, bootcamp Course is offered 1-week *prior* to the start of the semester. *Award-winning!* Offered the week before the Fall and Spring semesters. Proven to increase student success and retention rates.

MATH 66C Concurrent Support for Calculus I, support *during* the semester. *Aligned with your math course* and designed with innovative strategies to provide math and learning support while taking your math class.

MATH 2 CALCULUS II - 5 UNITS

Continuation of single-variable differential and integral calculus. Topics covered include: inverse and hyperbolic functions; techniques of integration; polar and parametric equations; infinite sequences, series, power series and Taylor series; applications of integration. Primarily for mathematics, physical science and engineering majors. Prerequisite: MATH 1 with a minimum grade of C. 90 hours lecture. AA/AS GE. Transfer: CSU, UC; CSU GE: B4; IGETC: 2A; C-ID# MATH 221, MATH 900 S (if taken with MATH 1).

Students can place into MATH 2 via:

Pass MATH 1: Calculus I with a C or better.

With AP AB score 3, 4, or 5.

Students are also strongly encouraged to take advantage of the many resources available to support them at LPC.

MATH 67 Math Jam for Calculus II, bootcamp Course is offered 1-week *prior* to the start of the semester. *Award-winning!* Offered the week before the Fall and Spring semesters. Proven to increase student success and retention rates.

MATH 67C Concurrent Support for Calculus II, support *during* the semester. *Aligned with your math*

course and designed with innovative strategies to provide math and learning support while taking your math class.

MATH 3 MULTIVARIABLE CALCULUS - 5 UNITS

Vector valued functions, functions of several variables, partial differentiation, multiple integration, change of variables theorem, scalar and vector fields, gradient, divergence, curl, line integral, surface integral, Green's Stokes' and divergence theorem, applications. Prerequisite: MATH 2 with a minimum grade of C. 90 hours lecture. AA/AS GE. Transfer: CSU, UC; CSU GE: B4; IGETC: 2A; C-ID# MATH 230.

Students can place into MATH 3 via:

Pass MATH 2: Calculus II with a C or better.

With AP BC score 3, 4, or 5.

Students are also strongly encouraged to take advantage of the many resources available to support them at LPC.

MATH 68 Math Jam for Calculus III, bootcamp Course is offered 1-week *prior* to the start of the semester. *Award-winning!* Offered the week before the Fall and Spring semesters. Proven to increase student success and retention rates.

MATH 68C Concurrent Support for Calculus III, support *during* the semester. *Aligned with your math course* and designed with innovative strategies to provide math and learning support while taking your math class.

MATH 5 ORDINARY DIFFERENTIAL EQUATIONS - 3.5 UNITS

Introduction to differential equations including the conditions under which a unique solution exists, techniques for obtaining solutions, and applications. Techniques include generation of series solutions, use of Laplace Transforms, and the use of eigenvalues to solve linear systems. Generation of exact solutions, approximate solutions, and graphs of solutions using MATLAB. Prerequisite: MATH 3 with a minimum grade of C. 54 hours lecture, 27 hours laboratory. AA/AS GE. Transfer: CSU, UC; CSU GE: B4; IGETC: 2A; C-ID# MATH 240.

MATH 7 ELEMENTARY LINEAR ALGEBRA - 3.5 UNITS

An introduction to linear algebra including: techniques and theory needed to solve and classify systems of linear equations using Gaussian elimination and matrix algebra; properties of vectors in n-dimensions; generalized vector spaces, inner product spaces, basis, norms, orthogonality; eigenvalues, eigenspaces; and linear transformations. Selected applications of linear algebra, including the use of MATLAB™ to solve problems involving advanced numerical computation. Prerequisite: MATH 2 with a minimum grade of C. 54 hours lecture. 27 hours laboratory. AA/AS GE. Transfer: CSU, UC; CSU GE: B4; IGETC: 2A; C-ID# MATH 250.

MATH 10 DISCRETE MATHEMATICS - 4 UNITS

Designed for majors in mathematics and computer science, this course provides an introduction to discrete mathematical structures used in Computer Science and their applications. Course content includes: Propositional and predicate logic; rules of inference; quantifiers; elements of integer number theory; set theory; methods of proof; induction; combinatorics and discrete probability; functions and relations;

recursive definitions and recurrence relations; elements of graph theory and trees. Applications include: analysis of algorithms, Boolean algebras and digital logic circuits. Students who have completed, or are enrolled in, CS 17 may not receive credit. Prerequisite: MATH 1 with a minimum grade of C (May be taken concurrently), CS 1 (/degrees/computerscience-as.php) with a minimum grade of C (May be taken concurrently). 72 hours lecture, 18 hours laboratory. AA/AS GE. Transfer: CSU, UC; CSU GE: B4; IGETC: 2A; C-ID# COMP 152.

MATH 27 NUMBER SYSTEMS FOR EDUCATORS - 3 UNITS

This course focuses on the development of quantitative reasoning skills through in-depth, integrated explorations of topics in mathematics, including real number systems and subsystems. Emphasis is on comprehension and analysis of mathematical concepts and applications of logical reasoning. Prerequisite: MATH 50 with a minimum grade of C or MATH 55 with a minimum grade of C or NMAT 255 with a minimum grade of C or NMAT 250 with a minimum grade of C. 54 hours lecture. AA/AS GE. Transfer: CSU, UC.

MATH 30 COLLEGE ALGEBRA FOR STEM - 4 UNITS

College algebra core concepts relating to Science, Technology, Engineering and Mathematics (STEM) and Business fields are explored, such as: polynomial, rational, radical, exponential, absolute value, and logarithmic functions; systems of equations; theory of polynomial equations; and analytic geometry. Multiple representations, applications and modeling with functions are emphasized throughout. May not receive credit if Mathematics 20 or 45 have been completed. Prerequisite: MATH 55 with a minimum grade of C or MATH 55B with a minimum grade of C or NMAT 255 with a minimum grade of C. 72 hours lecture, 18 hours laboratory. AA/AS GE. Transfer: CSU, UC; CSU GE: B4, IGETC: 2A; C-ID# MATH 151.

Beginning Fall 2019, students are encouraged to enroll directly into a transfer-level course. Students should consider their academic goal, past achievements, and experiences.

Students are also strongly encouraged to take advantage of the many resources available to support them at LPC.

NMAT 265 Math Jam for BSTEM¹ Bootcamp Course is offered 1-week *prior* to the start of the semester. *Award-winning & tuition-free!* Offered the week before the Fall and Spring semesters. Proven to increase student success and retention rates.

NMAT 201C (tuition-free) or **MATH 101C** (1 lab unit) **Concurrent Support for BSTEM¹** support *during* the semester. *Aligned with your math course* and designed with innovative strategies to provide math and learning support while taking your math class.

¹**BSTEM** is **B**usiness, **S**cience, **T**echnology, **E**ngineering, and **M**athematics

MATH 33 FINITE MATHEMATICS - 4 UNITS

Linear functions, systems of linear equations and inequalities, exponential and logarithmic functions and applications, matrices, linear programming, mathematics of finance, sets and Venn diagrams, combinatorial techniques and an introduction to probability. Applications in business, economics and social sciences. Prerequisite: MATH 50 with a minimum grade of C or MATH 55 with a minimum grade of C or MATH 55B with a minimum grade of C or NMAT 250 with a minimum grade of C or NMAT 255 with a minimum grade of C. 72 hours lecture. AA/AS GE. Transfer: CSU, UC*; CSU GE: B4; IGETC: 2A; C-ID# MATH 130. * MATH 1, 33, and 34 combined: maximum UC credit, one course.

Beginning Fall 2019, students are encouraged to enroll directly into a transfer-level course. Students should consider their academic goal, past achievements, and experiences.

Students are also strongly encouraged to take advantage of the many resources available to support them at LPC.

NMAT 264 Math Jam for SLAM² Bootcamp Course is offered 1-week *prior* to the start of the semester. *Award-winning & tuition-free!* Offered the week before the Fall and Spring semesters. Proven to increase student success and retention rates.

NMAT 200C (tuition-free) or MATH 100C (1 lab unit) **Concurrent Support for SLAM²** support *during* the semester. *Aligned with your math course* and designed with innovative strategies to provide math and learning support while taking your math class.

²SLAM is Statistics and Liberal Arts Mathematics.

MATH 34 CALCULUS FOR BUSINESS AND SOCIAL SCIENCES - 5 UNITS

Functions and their graphs; limits of functions; differential and integral calculus of algebraic, exponential and logarithmic functions. Applications in business, economics, and social sciences and use of graphing calculators. Partial derivatives and the method of LaGrange multipliers. Prerequisite: MATH 55 with a minimum grade of C or MATH 55B with a minimum grade of C or NMAT 255 with a minimum grade of C. 90 hours lecture. AA/AS GE. Transfer: CSU, UC*; CSU GE: B4; IGETC: 2A; C-ID# MATH 140. * MATH 1, 33, and 34 combined: maximum UC credit, one course.

Beginning Fall 2019, students are encouraged to enroll directly into a transfer-level course. Students should consider their academic goal, past achievements, and experiences.

Students are also strongly encouraged to take advantage of the many resources available to support them at LPC.

NMAT 265 Math Jam for BSTEM¹ Bootcamp Course is offered 1-week *prior* to the start of the semester. *Award-winning & tuition-free!* Offered the week before the Fall and Spring semesters. Proven to increase student success and retention rates.

NMAT 201C (tuition-free) or MATH 101C (1 lab unit) **Concurrent Support for BSTEM¹** support *during* the semester. *Aligned with your math course* and designed with innovative strategies to provide math and learning support while taking your math class.

¹BSTEM is Business, Science, Technology, Engineering, and Mathematics

MATH 39 TRIGONOMETRY - 4 UNITS

Trigonometry includes definitions of the trigonometric functions and their inverses, graphs of the trigonometric functions and their inverses, trigonometric equations, trigonometric expressions and identities, including proofs, an introduction to vectors, polar coordinates and complex numbers. Applications include solving right triangles and solving triangles using the law of sines and the law of cosines. Prerequisite: MATH 55B with a minimum grade of C or MATH 55 with a minimum grade of C or NMAT 255 with a minimum grade of C. 72 hours lecture, 18 hours laboratory. AA/AS GE. Transfer: CSU; CSU GE: B4; C-ID# MATH 851.

Beginning Fall 2019, students are encouraged to enroll directly into a transfer-level course. Students should

consider their academic goal, past achievements, and experiences.

Students are also strongly encouraged to take advantage of the many resources available to support them at LPC.

NMAT 265 Math Jam for BSTEM¹ Bootcamp Course is offered 1-week *prior* to the start of the semester. *Award-winning & tuition-free!* Offered the week before the Fall and Spring semesters. Proven to increase student success and retention rates.

NMAT 201C (tuition-free) or **MATH 101C** (1 lab unit) **Concurrent Support for BSTEM¹** support *during* the semester. *Aligned with your math course* and designed with innovative strategies to provide math and learning support while taking your math class.

¹**BSTEM** is **B**usiness, **S**cience, **T**echnology, **E**ngineering, and **M**athematics

MATH 40 STATISTICS AND PROBABILITY - 4 UNITS

Descriptive statistics, including measures of central tendency, dispersion and position; elements of probability; confidence intervals; hypothesis tests; two-population comparisons; correlation and regression; goodness of fit; analysis of variance; applications in various fields. Introduction to the use of a computer software package to complete both descriptive and inferential statistics problems. Prerequisite: MATH 55 with a minimum grade of C or MATH 55B with a minimum grade of C or MATH 50 with a minimum grade of C or NMAT 250 with a minimum grade of C or NMAT 255 with a minimum grade of C. 72 hours lecture, 18 hours laboratory. AA/AS GE. Transfer: CSU, UC; CSU GE: B4; IGETC: 2A; C-ID# MATH 110.

Beginning Fall 2019, students are encouraged to enroll directly into a transfer-level course. Students should consider their academic goal, past achievements, and experiences.

Students are also strongly encouraged to take advantage of the many resources available to support them at LPC.

NMAT 264 Math Jam for SLAM² Bootcamp Course is offered 1-week *prior* to the start of the semester. *Award-winning & tuition-free!* Offered the week before the Fall and Spring semesters. Proven to increase student success and retention rates.

NMAT 200C (tuition-free) or **MATH 100C** (1 lab unit) **Concurrent Support for SLAM²** support *during* the semester. *Aligned with your math course* and designed with innovative strategies to provide math and learning support while taking your math class.

²**SLAM** is **S**tatistics and **L**iberal **A**rts **M**athematics.

MATH 47 MATHEMATICS FOR LIBERAL ARTS - 3 UNITS

An introduction to a variety of mathematical concepts for students interested in liberal arts. Intended to cultivate an appreciation of the significance of mathematics in daily life and help develop students' mathematical reasoning. Topics include personal finance, logic, and exponential growth. Prerequisite: MATH 55 with a minimum grade of C or MATH 55B with a minimum grade of C or MATH 50 with a minimum grade of C or NMAT 250 with a minimum grade of C or NMAT 255 with a minimum grade of C. 54 hours lecture, 18 hours laboratory. AA/AS GE. Transfer: CSU, UC; CSU GE: B4; IGETC: 2A.

Beginning Fall 2019, students are encouraged to enroll directly into a transfer-level course. Students should consider their academic goal, past achievements, and experiences.

Students are also strongly encouraged to take advantage of the many resources available to support them at LPC.

NMAT 264 Math Jam for SLAM² Bootcamp Course is offered 1-week *prior* to the start of the semester. *Award-winning & tuition-free!* Offered the week before the Fall and Spring semesters. Proven to increase student success and retention rates.

NMAT 200C (tuition-free) or **MATH 100C** (1 lab unit) **Concurrent Support for SLAM²** support *during* the semester. *Aligned with your math course* and designed with innovative strategies to provide math and learning support while taking your math class.

²**SLAM** is **S**tatistics and **L**iberal **A**rts **M**athematics.

Associate's Degree and Foundational Level Courses

MATH 50 INTERMEDIATE ALGEBRA FOR SLAM² - 4 UNITS and NMAT 250* - (TUITION-FREE)

This course can also be taken tuition-free by registering for NMAT 250. This is an Intermediate Algebra course for students interested in fields of study that require Statistics or Liberal Arts Mathematics (SLAM). Intermediate algebra concepts will be explored in the context of the function. Function concepts covered include: distinction between functions and relations, domain and range, function notation, multiple representation of functions, behavior of functions, operations with functions (including composition), one-to-one functions, and invertible functions. Types of functions considered: polynomial, rational, radical, exponential and logarithmic functions. The course includes an introduction to probability, counting and quantitative data. Standards for mathematical practice, applications of functions, and modeling with functions are emphasized throughout. Strongly Recommended: MATH 110 with a minimum grade of C or MATH 110B with a minimum grade of C or NMAT 210 with a minimum grade of C. 54 hours lecture, 54 hours laboratory. AA/AS GE.

Advising Notes: This Intermediate Algebra level course satisfies an Associate Degree's math requirement. This course engages students in the necessary exploration of intermediate algebra in the context of liberal arts fields, through discovery and conceptual learning, without requiring the same level of rigorous algebraic proficiency as the intermediate algebra for science and economic fields.

Beginning Fall 2019, students with a goal of *transfer* are encouraged to enroll directly into a transfer-level course. Students should consider their academic goal, past achievements, and experiences. This course satisfies an Associate's Degree and provides foundational intermediate algebra content to interested students.

Students are also strongly encouraged to take advantage of the many resources available to support them at LPC.

NMAT 263 Math Jam for Intermediate Algebra Bootcamp Course is offered 1-week *prior* to the start of the semester. *Award-winning & tuition-free!* Offered the week before the Fall and Spring semesters. Proven to increase student success and retention rates.

NMAT 255C (tuition-free) or **MATH 55C** (1 lab unit) **Concurrent Support for Intermediate Algebra** support *during* the semester. *Aligned with your math course* and designed with innovative strategies to provide

math and learning support while taking your math class.

²SLAM is Statistics and Liberal Arts Mathematics.

*NMAT courses are tuition-free, noncredit mathematics courses. Students may enroll as many times as desired.

NMAT 250/255 students may petition to receive credit by examination.

MATH 55 INTERMEDIATE ALGEBRA for BSTEM¹ - 5 UNITS and NMAT 255* - (TUITION-FREE)

This course can also be taken tuition-free by registering for NMAT 255. Intermediate Algebra concepts, in the service of Business, Science, Technology, Engineering and Math fields (BSTEM), will be explored in this course including: an introduction to functions; linear and absolute value functions; absolute value equations and inequalities; compound linear inequalities; rational expressions, functions and equations; radical expressions, functions and equations; rational exponents; complex numbers; quadratic functions and equations; inverse of a function; exponential and logarithmic functions; properties of logarithms; exponential and logarithmic equations; conic sections; and systems of equations and inequalities. Multiple representations, applications and modeling with functions are emphasized throughout. Strongly Recommended: MATH 110 with a minimum grade of C, MATH 110B with a minimum grade of C, or NMAT 210 with a minimum grade of C. 90 hours lecture. AA/AS GE.

Advising Notes: This Intermediate Algebra level course satisfies an Associate Degree's math requirement. This Intermediate Algebra level course is specifically designed to prepare students with the rigorous algebraic foundation required by economics, science, technology, engineering and math fields require.

Beginning Fall 2019, students with a goal of *transfer* are encouraged to enroll directly into a transfer-level course. Students should consider their academic goal, past achievements, and experiences. This course satisfies an Associate's Degree and provides essential intermediate algebra content to students interested in Business, Science, Technology, Engineering and Math fields.

Students are also strongly encouraged to take advantage of the many resources available to support them at LPC.

NMAT 263 Math Jam for Intermediate Algebra Bootcamp Course is offered 1-week *prior* to the start of the semester. *Award-winning & tuition-free!* Offered the week before the Fall and Spring semesters. Proven to increase student success and retention rates.

NMAT 255C (tuition-free) or MATH 55C (1 lab unit) **Concurrent Support for Intermediate Algebra** support *during* the semester. *Aligned with your math course* and designed with innovative strategies to provide math and learning support while taking your math class.

¹BSTEM is Business, Science, Technology, Engineering, and Mathematics

*NMAT courses are tuition-free, noncredit mathematics courses. Students may enroll as many times as desired.

NMAT 250/255 students may petition to receive credit by examination.

MATH 107 PRE-ALGEBRA - 4 UNITS and NMAT 207* - (TUITION-FREE)

This course can also be taken tuition-free by registering for NMAT 207. This course is intended to serve as a bridge between arithmetic and Elementary Algebra. It includes a review of arithmetic, operations involving signed integers, fractions, and decimals, variables and variable expressions, simple linear equations and their graphs, percent and proportion, introduction to statistics, geometry and measurement, and application problems. 54 hours lecture, 54 hours laboratory.

Advising Notes: This Prealgebra level course is a foundational math class with no prerequisites. This course will be offered only in the Emporium mode starting Fall 2019. The content in this class provides any student with a starting point in a math sequence.

Beginning Fall 2019, students with a goal of *transfer* are encouraged to enroll directly into a transfer-level course. Students should consider their academic goal, past achievements, and experiences.

Students are also strongly encouraged to take advantage of the many resources available to support them at LPC.

NMAT 261 Math Jam for Prealgebra Bootcamp Course is offered 1-week *prior* to the start of the semester. *Award-winning & tuition-free!* Offered the week before the Fall and Spring semesters. Proven to increase student success and retention rates.

*NMAT courses are tuition-free, noncredit mathematics courses. Students may enroll as many times as desired.

MATH 110 ELEMENTARY ALGEBRA - 4 UNITS and NMAT 210* - (TUITION-FREE)

This course can also be taken tuition-free by registering for NMAT 210. Elementary algebra concepts, including: real numbers and their properties; algebraic expressions; integer exponents; operations with polynomial expressions; linear and quadratic equations; linear inequalities and set notation; graphs of linear equations and inequalities; slope; systems of linear equations and inequalities; and modeling with linear and quadratic equations. Strongly Recommended: MATH 107 with a minimum grade of C or MATH 107B with a minimum grade of C or NMAT 207 with a minimum grade of C. 72 hours lecture.

Advising Notes: This Elementary Algebra level course is foundational math. Elementary concepts covered in this course are building blocks for every subsequent math class, such as order of operations, evaluating expressions, using formulas, solving linear equations, exponents, factoring and much more.

Beginning Fall 2019, students with a goal of *transfer* are encouraged to enroll directly into a transfer-level course. Students should consider their academic goal, past achievements, and experiences.

Students are also strongly encouraged to take advantage of the many resources available to support them at LPC.

NMAT 262 Math Jam for Elementary Algebra Bootcamp Course is offered 1-week *prior* to the start of the semester. *Award-winning & tuition-free!* Offered the week before the Fall and Spring semesters. Proven to increase student success and retention rates.

NMAT 210C (tuition-free) or MATH 110C (1 lab unit) Concurrent Support for Elementary Algebra support *during* the semester. *Aligned with your math course* and designed with innovative strategies to provide math and learning support while taking your math class.

*NMAT courses are tuition-free, noncredit mathematics courses. Students may enroll as many times as

desired.

MATH 156 GEOMETRY - 3.5 UNITS and NMAT 256* - (TUITION-FREE)

This course can also be taken tuition-free by registering for NMAT 256. Topics include congruence, similarity, right triangles, trigonometry, circles, expressing geometric properties with equations, geometric measurement and dimension, modeling with geometry, conditional probability and the rules of probability, and using probability to make decisions. Prerequisite: MATH 110 with a minimum grade of C or NMAT 210 with a minimum grade of C. 54 hours lecture, 27 hours laboratory.

TECHNICAL MATH COURSES

MATH 53A TECHNICAL INTERMEDIATE ALGEBRA FOR WELDING A - 2 UNITS

This course provides a survey of algebraic processes with an emphasis on applications in welding. Topics covered include, but are not limited to: algebraic expressions, plane geometry, the geometry of solids, and triangle trigonometry. This course may not be used as a prerequisite for any transfer level course.

Prerequisite: MATH 72C with a minimum grade of C or MATH 72D with a minimum grade of C. 36 hours lecture. AA/AS GE.

MATH 53B TECHNICAL INTERMEDIATE ALGEBRA FOR WELDING B - 1 UNIT

This course provides a survey of algebraic processes with an emphasis on applications in welding. Topics covered include, but are not limited to: quadratic equations, functions, and mathematical models. This course may not be used as a prerequisite for any transfer level course. Prerequisite: MATH 72D with a minimum grade of C and MATH 53A with a minimum grade of C. 18 hours lecture. AA/AS GE.

MATH 72A TECHNICAL ELEMENTARY ALGEBRA A - 1 UNIT

This course provides a survey of computational and elementary algebraic processes with an emphasis on applications in the automotive and welding trades. Topics covered include, but are not limited to: computations with real numbers, ratios, and proportions. This course cannot be used as a prerequisite for Math 50 Core Intermediate Algebra or Math 55 Intermediate Algebra. 18 hours lecture.

MATH 72B TECHNICAL ELEMENTARY ALGEBRA B - 1 UNIT

This course provides a survey of computational and elementary algebraic processes with an emphasis on applications in the automotive and welding trades. Topics covered include, but are not limited to: linear equations, the rectangular coordinate system, and linear equations in two variables. This course cannot be used as a prerequisite for Math 50 Core Intermediate Algebra or Math 55 Intermediate Algebra. Prerequisite: MATH 72A with a minimum grade of C. 18 hours lecture.

MATH 72C TECHNICAL ELEMENTARY ALGEBRA C - 1 UNIT

This course provides a survey of computational and elementary algebraic processes with an emphasis on applications in the automotive and welding trades. Topics covered include, but are not limited to: percentages and measurement. This course cannot be used as a prerequisite for Math 50 Core Intermediate

Algebra or Math 55 Intermediate Algebra. Prerequisite: MATH 72A with a minimum grade of C or MATH 72B with a minimum grade of C. 18 hours lecture.

MATH 72D TECHNICAL ELEMENTARY ALGEBRA D - 1 UNIT

This course provides a survey of computational and elementary algebraic processes with an emphasis on applications in the automotive and welding trades. Topics covered include, but are not limited to: the rectangular coordinate system, linear equations in two variables, and systems of linear equations. This course cannot be used as a prerequisite for Math 50 Core Intermediate Algebra or Math 55 Intermediate Algebra. Prerequisite: MATH 72B with a minimum grade of C and MATH 72C with a minimum grade of C. 18 hours lecture.

MATH JAM AND CONCURRENT SUPPORT COURSES

Math Jam Preparation <http://www.laspositascollege.edu/math/mathjam.php>
([/math/mathjam.php](http://www.laspositascollege.edu/math/mathjam.php))

Award winning, 1-week before the semester starts, and tuition free! These courses are *offered the week before* the Fall and Spring semesters. Innovative learning interventions help you prepare for upcoming mathematics courses. Proven to increase student success and retention rates!

Students who attend two NMAT Math Jams can earn a noncredit Certificate of Completion.

NMAT 261 - Math Jam for Prealgebra

Math Jam is a noncredit program designed to help students prepare for their upcoming math class at a community college. Embedded are essential study and life skills to develop each student holistically, including learning skills and career development. Students will be learning arithmetic and Prealgebra material with the goal of preparing them to be successful in their upcoming class. It is strongly recommended that students taking this course be enrolled in a community college math course. 30-60 hours.

NMAT 262 - Math Jam for Elementary Algebra

Math Jam is a noncredit program designed to help students prepare for their upcoming math class at a community college. Embedded are essential study and life skills to develop each student holistically, including learning skills and career development. Students will be learning prealgebra material with the goal of preparing them to be successful in their upcoming class. It is strongly recommended that students taking this course be eligible for and enrolled in a community college math course. 30-60 hours.

NMAT 263 - Math Jam for Intermediate Algebra

Math Jam is a noncredit program designed to help students prepare for their upcoming math class at a community college. Embedded are essential study and life skills to develop each student holistically, including career development. Students will be learning elementary algebra material with the goal of preparing them to be successful in their upcoming class. It is strongly recommended that students taking this course are enrolled in a community college math course. 30-60 hours.

NMAT 264 - Math Jam for SLAM (Statistics, Liberal Arts Math)

Math Jam for SLAM Prep is for students preparing for math courses in Statistics and Probability or Mathematics for Liberal Arts. Math Jam is a FREE noncredit program designed to help students prepare for their upcoming math class at a community college. Embedded are essential study and life skills to develop each student holistically, including career development. Students will be learning prerequisite algebraic and basic probability material with the goal of preparing them to be successful in their upcoming first-level transfer course of Statistics or Math for Liberal Arts class. It is strongly recommended that students taking this course be enrolled in Math 40: Statistics and Probability or Math 47: Mathematics for Liberal Arts at Las Positas College. 30-60 hours.

NMAT 265 - Math Jam for BSTEM (Business Calculus, College Algebra, and Trigonometry)

Math Jam for BSTEM Prep is for students preparing for math courses in College Algebra, Trigonometry, Business Calculus and review prior to Calculus I. Math Jam is a noncredit program designed to help students prepare for their upcoming STEM focused math class at a community college. Embedded are essential study and life skills to develop each student holistically, including career development. Students will be learning pre-transfer level material with the goal of preparing them to be successful in their upcoming class. It is strongly recommended that students taking this course are enrolled in a community college math course. 30-60 hours.

Math 66 - Math Jam for Calculus I. Offered for credit only. 0.5-1 units

Math Jam for Calculus I is a credit course for students preparing for Calculus I. Embedded are essential study and life skills to develop each student holistically, including career development. Students will be learning basic skills and transfer-level material with the goal of preparing them to be successful in their upcoming class. It is strongly recommended that students taking this course are enrolled in a calculus course. 27-54 hours laboratory.

Math 67 - Math Jam for Calculus II. Offered for credit only. 0.5 units

Math Jam for Calculus II is a credit course for students preparing for Calculus II. Embedded are essential study and life skills to develop each student holistically, including career development. Students will be learning basic skills and transfer-level material with the goal of preparing them to be successful in their upcoming class. It is strongly recommended that students taking this course are enrolled in a calculus course. 27 hours laboratory.

Math 68 - Math Jam for Calculus III. Offered for credit only. 0.5 units

Math Jam for Calculus III is a credit course for students preparing for Calculus III. Embedded are essential study and life skills to develop each student holistically, including career development. Students will be learning basic skills and transfer-level material with the goal of preparing them to be successful in their upcoming class. It is strongly recommended that students taking this course are enrolled in a calculus course. 27 hours laboratory.

CONCURRENT SUPPORT COURSES

New! Jam all semester long with RECOMMENDED support during the semester. Offered for credit or tuition-free (noncredit). Aligned with your math course and designed with innovative strategies to provide math and learning support while taking your math class. These classes will help you streamline the time you need to spend outside of a math class studying to be successful. The support course includes assignments to help you prepare for upcoming tests and/or to review a recent test and learn from your mistakes. You will have opportunity to work on what YOU need to learn – whether it is to review prerequisite material that you need to know in order to be successful or to work on the new material covered in your class. The support class does not have any homework.

MATH 66C - Concurrent support for Calculus I. Offered for credit only. 1 unit

This course offers structured support to students who are concurrently enrolled in Calculus I. The support course includes material to prepare students for the rigor of the calculus course by teaching learning skills necessary to succeed in college courses as well as review of relevant prerequisite algebraic, geometric and trigonometric concepts, and more in-depth investigation of core concepts in their concurrent math course. Corequisite: MATH 1. 54 hours laboratory.

MATH 67C - Concurrent support for Calculus II. Offered for credit only. 1 unit

This course offers structured support to students who are concurrently enrolled in Calculus II. The support course includes material to prepare students for the rigor of the calculus course by teaching learning skills necessary to succeed in college courses as well as review of relevant prerequisite algebraic, geometric and trigonometric concepts, and more in-depth investigation of core concepts in their concurrent math course. Corequisite: MATH 2. 54 hours laboratory.

MATH 68C - Concurrent support for Calculus III. Offered for credit only. 1 unit

This course offers structured support to students who are concurrently enrolled in Calculus III. The support course includes material to prepare students for the rigor of the calculus course by teaching learning skills necessary to succeed in college courses as well as review of relevant prerequisite algebraic, geometric and trigonometric concepts, and more in-depth investigation of core concepts in their concurrent math course. Corequisite: MATH 3. 54 hours laboratory.

NMAT 200C or MATH 100C - Concurrent support for SLAM (Statistics, Liberal Arts Math)

Concurrent Support for SLAM Math is for students interested in disciplines that require Statistics and Liberal Arts Mathematics (SLAM) courses. This course offers structured support to students who are concurrently enrolled in a first-level transfer course, such as Statistics and Mathematics for Liberal Arts, and Finite Mathematics. The support course includes material to prepare students for the rigor of the transfer math course by teaching learning skills necessary to succeed in college courses as well as review of relevant prerequisite algebraic and geometric concepts, and more in-depth investigation of core concepts in their concurrent math course. Includes assignments to help you prepare for upcoming tests and/or to review a recent test and learn from your mistakes. You will have opportunity to work on what YOU need to learn. The support class does not have any homework. Corequisite: MATH 40 or MATH 47 or MATH 33. 54 hours. This class is offered for credit (MATH 100C) or for tuition-free noncredit (NMAT 200C).

NMAT 201C or MATH 101C - Concurrent support for BSTEM (Business Calculus, College Algebra, and Trigonometry)

Concurrent Support for BSTEM Mathematics is for students interested in Business, Science, Technology, Engineering and Mathematical fields. This course offers structured support to students who are concurrently enrolled in a first-level transfer course, such as College Algebra, Trigonometry, and Business Calculus. The support course includes material to prepare students for the rigor of the transfer math course by teaching learning skills necessary to succeed in college courses as well as review of relevant prerequisite algebraic and geometric concepts, and more in-depth investigation of core concepts in their concurrent math course. Includes assignments to help you prepare for upcoming tests and/or to review a recent test and learn from your mistakes. You will have opportunity to work on what YOU need to learn. The support class does not have any homework. Corequisite: MATH 30 or MATH 39 or MATH 34. 54 hours. This class is offered for credit (MATH 101C) or for tuition-free noncredit (NMAT 201C).

NMAT 202C

This course is just-in-time concurrent support for students enrolled in a first-level transfer course, such as Statistics, College Algebra, Trigonometry, Business Calculus, Mathematics for Liberal Arts, and Finite Mathematics. The support course is noncredit, open entry/open exit. The content will prepare students for the rigor of the transfer math course by teaching learning skills necessary to succeed in college courses as well as review of relevant basic and secondary education prerequisite algebraic and geometric concepts, and more in-depth investigation of core concepts to their concurrent math course. The course design is to meet the needs of a variety of students, such as students who desire formal, regular ongoing learning supports, students wishing self-place into transfer-level mathematics courses as defined by AB 705, and students who are repeating the course for the second or third time. The support course includes a review of basic and secondary level math relevant to their college-level course, provides study strategies to promote understanding and improve performance, and more in-depth investigation of core concepts that are difficult for students to master and learning skills such as growth mindset, brain research, time management, study skills, test taking, math anxiety and more. Corequisite: MATH 30 or MATH 33 or MATH 34 or MATH 39 or MATH 40 or MATH 47. 1-54 hours.

NMAT 210C or MATH 110C - Concurrent support for Elementary Algebra

This course is concurrent support for Elementary Algebra. The course is designed to provide additional, formal support to students who are currently taking an Elementary Algebra. It includes a review of arithmetic, algebraic and geometric concepts that are relevant to their Elementary Algebra course, study strategies that promote understanding and improve performance, and more in-depth investigation of core concepts that are difficult for students to master. Embedded are learning skills such as growth mindset, brain research, time management, study skills, test taking, math anxiety and more. Includes assignments to help you prepare for upcoming tests and/or to review a recent test and learn from your mistakes. You will have opportunity to work on what YOU need to learn. The support class does not have any homework. Corequisite: MATH 110 or NMAT 210. 54 hours. This class is offered for credit (MATH 110C) or for tuition-free noncredit (NMAT 210C).

NMAT 255C or MATH 55C - Concurrent support for Intermediate Algebra

This course is concurrent support for Intermediate Algebra. The course is designed to provide additional, formal support to students who are currently taking an Intermediate Algebra. It includes a review of arithmetic, algebraic and geometric concepts that are relevant to their Intermediate Algebra course, study strategies that promote understanding and improve performance, and more indepth investigation of core concepts that are difficult for students to master. Embedded are learning skills such as growth mindset, brain research, time management, study skills, test taking, math anxiety and more. Includes assignments to help you prepare for upcoming tests and/or to review a recent test and learn from your mistakes. You will have opportunity to work on what YOU need to learn. The support class does not have any homework. Corequisite: MATH 55 or NMAT 255 or MATH 50 or NMAT 250. 54 hours. This class is offered for credit (MATH 55C) or for tuition-free noncredit (NMAT 255C).

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