MATH R051S: ALGEBRA SUPPORT FOR MATH R101

Originator
mdean

College
Oxnard College

Discipline (CB01A)
MATH - Mathematics

Course Number (CB01B)
R051S

Course Title (CB02)
Algebra Support for MATH R101

Banner/Short Title
Alg Support for R101

Credit Type
Credit

Honors
No

Start Term
Fall 2023

Catalog Course Description
This corequisite support course is to be taken concurrently with MATH R101, Mathematics for the Liberal Arts Major. Emphasis is placed on foundational skills which are necessary for a student to successfully complete MATH R101. This course offers support for College Algebra topics along with study skills development.

Taxonomy of Programs (TOP) Code (CB03)
1701.00 - Mathematics, General

Course Credit Status (CB04)
S (Support Course - Credit - Not Degree Applicable)

Course Transfer Status (CB05) (select one only)
C (Not transferable)

Course Basic Skills Status (CB08)
N - The Course is Not a Basic Skills Course

SAM Priority Code (CB09)
E - Non-Occupational

Course Cooperative Work Experience Education Status (CB10)
N - Is Not Part of a Cooperative Work Experience Education Program

Course Classification Status (CB11)
Y - Credit Course

Educational Assistance Class Instruction (Approved Special Class) (CB13)
N - The Course is Not an Approved Special Class

Course Prior to Transfer Level (CB21)
A - One level below transfer

Course Noncredit Category (CB22)
Y - Credit Course

Funding Agency Category (CB23)
Y - Not Applicable (Funding Not Used)

Course Program Status (CB24)
2 - Not Program Applicable

General Education Status (CB25)
Y - Not Applicable

Support Course Status (CB26)
S - Course is a support course

Field trips
Will not be required

Grading method
(P) Pass/No Pass Grading

Does this course require an instructional materials fee?
No

Repeatable for Credit
No

Is this course part of a family?
No

Units and Hours

Carnegie Unit Override
No

In-Class

Lecture
Minimum Contact/In-Class Lecture Hours
17.5
Maximum Contact/In-Class Lecture Hours
17.5

Activity

Laboratory

Total in-Class

Total in-Class
Total Minimum Contact/In-Class Hours
17.5
Total Maximum Contact/In-Class Hours
17.5

Outside-of-Class

Internship/Cooperative Work Experience

Paid

Unpaid

Total Outside-of-Class

Total Outside-of-Class
Minimum Outside-of-Class Hours
35
Maximum Outside-of-Class Hours
35

Total Student Learning

Total Student Learning
Total Minimum Student Learning Hours
52.5
Total Maximum Student Learning Hours
52.5

Minimum Units (CB07)
1
Maximum Units (CB06)
1

Corequisites
MATH R101

Requisite Justification

Requisite Type
Corequisite

Requisite
MATH R101

Requisite Description
Other (specify)

Specify Other Requisite Description
Support course

Level of Scrutiny/Justification
Content review

Student Learning Outcomes (CSLOs)

	Upon satisfactory completion of the course, students will be able to:
1	Factor binomials and trinomials.
2	Add, subtract, and multiply polynomials.
3	Solve quadratic equations by factoring, the square root method, and the quadratic formula.

Course Objectives

	Upon satisfactory completion of the course, students will be able to:
1	Simplify expressions with positive and negative exponents.
2	Solve systems of two (2) and three (3) equations.
3	Add, subtract, and multiply polynomials.

4	Factor binomials and trinomials.
5	Solve quadratic equations by factoring, the square root method, and the quadratic formula.
6	Simplify radical expressions, including those with rational exponents.
7	Solve linear equations, radical equations, absolute value equations and rational equations.
8	Solve and graph linear inequalities.
9	Graph linear functions.
10	Graph elementary exponential and logarithmic functions.
11	Solve elementary exponential and logarithmic equations.

Course Content

Lecture/Course Content

I. Linear Equations and Inequalities
A. Solving and graphing linear equations
B. Solving and graphing linear inequalities
II. Systems of Equations
A. Solve systems of two (2) equations algebraically (Substitution/Addition)
B. Solve systems of three (3) equations algebraically
III. Exponents
A. Laws of exponents
B. Negative exponents
IV. Polynomials
A. Addition, subtraction, multiplication of polynomials
B. Factoring techniques (e.g. common factor, grouping, reverse FOIL)
V. Quadratic Equations
A. Square root method
B. Factoring method
C. Quadratic Formula
VI. Rational Expressions and Equations
A. Addition, subtraction, multiplication and division of rational algebraic expressions
B. Solving elementary rational equations
VII. Radicals
A. Simplifying radical expressions
B. Rational exponents
VIII. Exponential and Logarithmic Functions
A. Graph exponential and logarithmic functions
B. Solve elementary exponential and logarithmic functions
IX. Topics related to developing effective learning skills
A. Study skills: organization and time management, test preparation and test-taking skills
B. Self assessment: using performance criteria to judge and improve one's work, analyzing and correcting errors on one's test
C. Strategies for identifying and using resources (e.g. peer study groups, computer, lab, tutoring, counseling)

Laboratory or Activity Content

None.

Methods of Evaluation

Which of these methods will students use to demonstrate proficiency in the subject matter of this course? (Check all that apply):
Problem solving exercises

Methods of Evaluation may include, but are not limited to, the following typical classroom assessment techniques/required assignments (check as many as are deemed appropriate):
Computational homework

Group projects
Individual projects
Problem-solving exams
Quizzes

Instructional Methodology

Specify the methods of instruction that may be employed in this course

Class activities
Class discussions
Distance Education
Group discussions
Lecture

Describe specific examples of the methods the instructor will use:

Instructors will provide just in time remediation such as factoring quadratic functions for Math R101 and will facilitate group projects and activities to help students demonstrate mastery.

Representative Course Assignments

Writing Assignments

n/a

Critical Thinking Assignments

1. Solve quadratic equations by factoring, the square root method, and the quadratic formula.
2. Factor binomials and trinomials.
3. Solve logarithmic and exponential functions.
4. Solve systems of equations.

Reading Assignments

1. Textbook readings of definitions, rules, properties, and processes for completing various types of application problems.

Problem-Solving and Other Assignments (if applicable)

1. Mathematical problem solving, for example: "Solve the system of equation: 4x-6y=-32, 6x-9y=-46."

Outside Assignments

Textbooks and Lab Manuals

Resource Type

Textbook

Description

Blitzer, Robert (2018). *College Algebra 7th edition* . Pearson.

Library Resources

Sufficient Library Resources exist

Yes

Distance Education Addendum

Definitions

Distance Education Modalities

Hybrid (1%–50% online)
Hybrid (51%–99% online)
100% online

Faculty Certifications

Faculty assigned to teach Hybrid or Fully Online sections of this course will receive training in how to satisfy the Federal and state regulations governing regular effective/substantive contact for distance education. The training will include common elements in the district-supported learning management system (LMS), online teaching methods, regular effective/substantive contact, and best practices.

Yes

Faculty assigned to teach Hybrid or Fully Online sections of this course will meet with the EAC Alternate Media Specialist to ensure that the course content meets the required Federal and state accessibility standards for access by students with disabilities. Common areas for discussion include accessibility of PDF files, images, captioning of videos, Power Point presentations, math and scientific notation, and ensuring the use of style mark-up in Word documents.

Yes

Regular Effective/Substantive Contact

Hybrid (1%—50% online) Modality:

Method of Instruction	Document typical activities or assignments for each method of instruction
Asynchronous Dialog (e.g., discussion board)	Students will post a discussion board topic on the process of finding the maximum height of a projectile, and they will respond to other classmates with the intent of dialogue.
Other DE (e.g., recorded lectures)	Students will watch recorded, instructional videos.
Video Conferencing	Video tools such as ConferZoom may be used to provide live synchronous or asynchronous sessions with students. ADA compliance will be upheld with Closed Captioning during the session or of the recorded session. Student-to-student group meetings will also be encouraged.
E-mail	Responses to specific email questions.

Hybrid (51%—99% online) Modality:

Method of Instruction	Document typical activities or assignments for each method of instruction
Asynchronous Dialog (e.g., discussion board)	Students will post a discussion board topic on the process of finding the maximum height of a projectile, and they will respond to other classmates with the intent of dialogue.
Other DE (e.g., recorded lectures)	Students will watch recorded, instructional videos.
Video Conferencing	Video tools such as ConferZoom may be used to provide live synchronous or asynchronous sessions with students. ADA compliance will be upheld with Closed Captioning during the session or of the recorded session. Student-to-student group meetings will also be encouraged.
E-mail	Responses to specific email questions.

100% online Modality:

Method of Instruction	Document typical activities or assignments for each method of instruction
Asynchronous Dialog (e.g., discussion board)	Students will post a discussion board topic on the process of finding the maximum height of a projectile, and they will respond to other classmates with the intent of dialogue.
Other DE (e.g., recorded lectures)	Students will watch recorded, instructional videos.
Video Conferencing	Video tools such as ConferZoom may be used to provide live synchronous or asynchronous sessions with students. ADA compliance will be upheld with Closed Captioning during the session or of the recorded session. Student-to-student group meetings will also be encouraged.
E-mail	Responses to specific email questions.

Examinations

Hybrid (1%–50% online) Modality
On campus
Online

Hybrid (51%–99% online) Modality
On campus
Online

Primary Minimum Qualification
MATHEMATICS

Review and Approval Dates

Department Chair
09/20/2022

Dean
09/21/2022

Technical Review
09/28/2022

Curriculum Committee
09/28/2022

DTRW-I
11/10/2022

Curriculum Committee
11/23/2022

Board
12/13/2022

Control Number
CCC000599726

DOE/accreditation approval date
MM/DD/YYYY