

MATH 300: MATH EDGE

Originator

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Co-Contributor(s)**Name(s)**

Sagara, Reid

Justification / Rationale

This course will form the Math portion of the new EDGE program.

Effective Term

Fall 2022

Credit Status

Noncredit

Subject

MATH - Mathematics

Course Number

300

Full Course Title

Math Edge

Short Title

MATH EDGE

Discipline**Disciplines List**

Mathematics

Modality

Face-to-Face

100% Online

Hybrid

Catalog Description

Students taking this course will review mathematical concepts and skills necessary for success in mathematics courses required for their general education and/or degree(s). They will also learn about the mathematics courses College of the Desert offers to help inform their future decisions. Students will also be guided in their transition from high school to college mathematics.

Schedule Description

This course combines a review of mathematical concepts and skills, an introduction to mathematics course offerings at College of the Desert, and guidance in the transition from high school to college mathematics.

Non-credit Hours

36

Lecture Units

0

Lab Units

0

In-class Hours

36

Out-of-class Hours

0

Total Course Units

0

Total Semester Hours

36

Override Description

Noncredit

Required Text and Other Instructional Materials**Resource Type**

Web/Other

Open Educational Resource

Yes

Year

n/a

Description

The MyOpenMath mathematics program is free for both students and faculty to use.

Class Size Maximum

24

Course Content**Mathematics Concepts and Skills**

1. Importance of reading carefully
 - a. Every word matters (e.g., "less than" and "is less than" are different)
 - b. Mathematics-specific definitions (e.g., solve, simplify, and rationalize are all general English words but have specific uses in mathematics)
2. Fractions, appropriate terminology (e.g., integer, solve, simplify, distribute), and applications integrated into every topic
3. Conversion between fractions, percents, and decimals
4. Expressions vs. equations
 - a. Combining like terms
 - b. Solution sets
5. Using the Zero Product/Factor Property
6. Function basics
7. Number lines and the Cartesian coordinate system
 - a. Scale
 - b. Intervals
 - c. Graphs as collections of points
 - d. Non-standard critical thinking problems involving the Cartesian plane (e.g., given the coordinates of two opposite vertices of a rectangle, what are the coordinates of the other two vertices?)
 - e. Slope & lines
 - f. Various characteristics and behaviors of graphs (e.g., parabolas that open up or down, exponential growth vs. decay, etc.)

Transition to College Mathematics

1. Training on how to best use web-based mathematics programs, such as MyOpenMath
2. How to take advantage of office hours and the Math/Science Study Center
3. The lecture/lab format
4. Calculators

- a. How to use them (e.g., if operations are entered in the wrong order, then the result will be incorrect)
- b. When it is appropriate/inappropriate to use them
- c. Different courses allow/require different calculators (none, scientific, graphing, and/or online such as Desmos)

Mathematics Course Offerings

1. The different pathways
 - a. Basic Skills: 65, 54, 45 or 65, 54, 49
 - b. STEM Calculus: 5, 12, 15, 1A, 1B, 2A, 2B, 2C
 - c. Business: 10, 9 or 16
 - d. Education: 11
 - e. Statistics: 14
 - f. Other: 13

Course Objectives

	Objectives
Objective 1	Read and summarize information and directions in mathematics contexts.
Objective 2	Recall basic mathematics concepts and demonstrate basic mathematics skills such as converting numerical values into various forms, simplifying expressions, and solving equations.
Objective 3	Recall intermediate-level mathematics concepts and demonstrate intermediate-level mathematics skills such as identifying and describing functions, using number lines, and using the Cartesian coordinate system in two dimensions.
Objective 4	Explore and become familiar with web-based mathematics programs through the use of MyOpenMath.
Objective 5	Describe resources available to mathematics students at College of the Desert.
Objective 6	Identify and compare mathematics course offerings at College of the Desert.

Student Learning Outcomes

	Upon satisfactory completion of this course, students will be able to:
Outcome 1	Recall and demonstrate a variety of mathematics concepts and skills.
Outcome 2	Describe mathematics resources and courses available at College of the Desert.

Methods of Instruction

Method	Please provide a description or examples of how each instructional method will be used in this course.
Technology-based instruction	Students will complete problem sets on MyOpenMath and receive feedback (automated and/or from professor).
Individualized Study	Students will receive advice and instruction based on their various needs as shown through diagnostic quizzes and interviews.
Tutorial	Students will read, watch, and/or listen to material presented and explained through various media.
Participation	Students will learn about mathematics resources and courses available at College of the Desert through interactive discussion and compiling notes on videos, reading, and other media.

Methods of Evaluation

Method	Please provide a description or examples of how each evaluation method will be used in this course.	Type of Assignment
Student participation/contribution	Students will complete 24 hours of participation by discussing concepts with the professor and/or classmates, working on problem sets, and compiling notes.	In Class Only
Tests/Quizzes/Examinations	Students will complete repeatable short quizzes on mathematics courses and resources available at College of the Desert.	In Class Only

Assignments

Other In-class Assignments

None.

Other Out-of-class Assignments

None.

Grade Methods

Pass/No Pass Only

Distance Education Checklist

Include the percentage of online and on-campus instruction you anticipate.

Online %

100

What will you be doing in the face-to-face sections of your course that necessitates a hybrid delivery vs a fully online delivery?

Although the course can be offered entirely online, it may also be offered hybrid to take advantage of collaboration activities that are more suited to in-person interaction or due to student preference.

Instructional Materials and Resources

If you use any other technologies in addition to the college LMS, what other technologies will you use and how are you ensuring student data security?

MyOpenMath is a secure mathematics program that integrates with Canvas.

If used, explain how specific materials and resources outside the LMS will be used to enhance student learning.

Professors can use MyOpenMath to assign pre-written or instructor-created problems that are more complicated than what can be done in Canvas while still providing students with instantaneous feedback.

Effective Student/Faculty Contact

Which of the following methods of regular, timely, and effective student/faculty contact will be used in this course?

Within Course Management System:

Discussion forums with substantive instructor participation
Online quizzes and examinations
Private messages
Regular virtual office hours
Timely feedback and return of student work as specified in the syllabus
Weekly announcements

External to Course Management System:

Direct e-mail
Posted audio/video (including YouTube, 3cm mediasolutions, etc.)
Synchronous audio/video
Telephone contact/voicemail

For hybrid courses:

Orientation, study, and/or review sessions
Scheduled Face-to-Face group or individual meetings

Briefly discuss how the selected strategies above will be used to maintain Regular Effective Contact in the course.

Faculty will regularly contact students individually and as a group through Canvas messages and/or COD email. Students will also receive regular announcements with information about the course, COD as a whole, or other relevant information. In discussions and through other lab assignments, students will communicate with each other and their professor regularly and frequently.

If interacting with students outside the LMS, explain how additional interactions with students outside the LMS will enhance student learning.

Students may prefer to contact their professor via email or on the phone, which allows for an improved experience for those who communicate better in those contexts. The professor may direct students to access free supplemental resources as well.

Other Information

MIS Course Data

CIP Code

27.0101 - Mathematics, General.

TOP Code

493014 - Study Skills

SAM Code

E - Non-Occupational

Basic Skills Status

Basic Skills

Prior College Level

Not applicable

Cooperative Work Experience

Not a Coop Course

Course Classification Status

Other Non-credit Enhanced Funding

Approved Special Class

Not special class

Noncredit Category

Elem/Secondary Basic Skills

Program Status

Program Applicable

Transfer Status

Not transferable

Allow Audit

No

Repeatability

Yes

Repeatability Limit

NC

Repeat Type

Noncredit

Justification

The course is designed to allow students to learn, re-learn, and/or practice material that is fundamental to mathematics study. Students may repeat this course to improve both skills and confidence.

Materials Fee

No

Additional Fees?

No

Approvals

Curriculum Committee Approval Date

02/01/2022

Academic Senate Approval Date

03/10/2022

Board of Trustees Approval Date

03/18/2022

Chancellor's Office Approval Date

04/27/2022

Course Control Number

CCC000630868

Programs referencing this course

EDGE Certificate of Completion (<http://catalog.collegeofthedesert.eduundefined/?key=359>)