

MATH 0584 - MATH SUCCESS- OVERCOMING MATH ANXIETY

Catalog Description

Hours: 18 lecture

Description: Designed to assist students to recognize common fears and misconceptions of mathematics and develop personal strategies to overcome math and test anxiety. Specific study skills and strategies are discussed. Individual math learning styles are analyzed. (not degree applicable)

Course Student Learning Outcomes

- CSLO #1: Analyze a math related scenario and implement a successful learning strategy.
- CSLO #2: Identify individual attitudes towards mathematics and apply student specific learning strategies and study techniques.
- CSLO #3: Identify and apply techniques to address math anxiety and assess effectiveness.
- CSLO #4: Demonstrate fluency in mathematical communication.

Effective Term

Spring 2021

Course Type

Credit - Nondegree-applicable

Contact Hours

18

Outside of Class Hours

36

Total Student Learning Hours

54

Course Objectives

1. Explain how learning college math is different from learning other subjects and high school courses.
2. Assess individual math learning styles.
3. Analyze and create personal student math learning profiles and styles.
4. Recognize and explain math and test anxiety.
5. Create strategies and plans to overcome math and test anxiety.
6. Create self-help strategies to improve individual math study skills.

General Education Information

- Approved College Associate Degree GE Applicability
- CSU GE Applicability (Recommended-requires CSU approval)
- Cal-GETC Applicability (Recommended - Requires External Approval)
- IGETC Applicability (Recommended-requires CSU/UC approval)

Articulation Information

- Not Transferable

Methods of Evaluation

- Projects
 - Example: 1. Each student will be given several journal assignments/entries throughout the semester. These journal entries are reflections on what the students are studying. They will be asked to apply these concepts to their own lives. It is also a way for the instructor and student to interact on a more personal way, one on one. The journal assignment will be due the next class day after it has been assigned. Each journal entry is worth 10 points. The points are earned for completing the assignment. Your instructor will not grade them for content other than that you responded to the question. Some journal topics will be the following: Topic #1: What has been your experience in math classes? Use specific examples to strengthen your descriptions. Then, how have these experiences affected your attitude toward learning math? Topic #2 On a scale of 10 to 1, (1 = very low anxiety and 10 = anxiety that keeps you from functioning normally), where are you? Why? Topic #3: Describe what happens when you get anxious about math. If you do not get anxious about math, describe another situation in college that makes you anxious. If you are not anxious about anything in college, explain why. Topic #4: What is your initial reaction when someone says "math test?" Does this reaction keep you from studying for the test as you should? If so, what can you do to overcome this? Topic #5: Describe your routine for studying math. When do you study? Where? How long? What do you do when you study math? Topic #6: What are your personal challenges to managing time on a weekly basis? What can you do to overcome them? Give specific concrete activities that you can do. Grade based on participation. 2. Students will create a group project showcasing the important messages learned from specific Growth Mindset articles, and TED Talk videos. Students will read the Educational Leadership article, The Significance of Grit: A Conversation with Angela Lee Duckworth; and watch her TED Talk on GRIT; along with Jo Boaler's TED Talk, Brain Science and the Myths about Mathematics. Rubric grading.
- Other
 - Example: Rubric grading.

Repeatable

No

Methods of Instruction

- Lecture/Discussion
- Distance Learning

Lecture:

1. Lecture/Discussion:
2. After an instructor lecture on using the power of positive self-talk to overcome destructive negative self-talk messages, students will write three affirmations about themselves. (An Affirmation is a motivational statement about yourself that will motivate you to be strong and do well, no matter the circumstances. For example: "I am smart and can do what I desire to do."). Students will practice saying these positive messages to themselves, especially right after they hear/feel a negative self-talk message. Students will then reflect in their journals how it felt to say the affirmations as a response to their negative self-talk messages. To follow up, there will be a class discussion on

the impact affirmations have on building a growth mindset and self-confidence. (Objective 5)

- When students examine their own tests they become more aware of the common mistakes that they make. These errors can be computational, conceptual or comprehension errors. Students can learn to analyze their test results and become more aware of their mistakes for better test outcomes. A simple class activity will allow them to do this. Have students bring in tests or test reviews completed in their math classes. Instructor will explain to them what computational, conceptual, and comprehension mistakes are. Take a simple math exam and give the students examples of each error. Use different colored highlighters to indicate what type of error they will encounter. For example, all blue marks indicate computational errors, yellow indicates concept errors, pink indicates comprehension or reading errors, etc. After the demonstration, have students examine their own tests or reviews. They can indicate by color the mistakes on the test or on a separate sheet of paper. Then have the students break into small groups and discuss their findings. This activity not only shows them what and why they have missed particular problems, but it helps them understand the errors they have made. It also gives them a feeling of success and control over their testing outcomes. (Objective 6)

Distance Learning

- After an instructor video on using the power of positive self-talk to overcome destructive negative self-talk messages, students will post three affirmations about themselves. (An Affirmation is a motivational statement about yourself that will motivate you to be strong and do well, no matter the circumstances. For example: "I am smart and can do what I desire to do."). Students will practice saying these positive messages to themselves, especially right after they hear/feel a negative self-talk message. Students will then reflect in their journals how it felt to say the affirmations as a response to their negative self-talk messages. To follow up, there will be a class discussion on the impact affirmations have on building a growth mindset and self-confidence. (Objective 5)
- When students examine their own tests they become more aware of the common mistakes that they make. These errors can be computational, conceptual or comprehension errors. Students can learn to analyze their test results and become more aware of their mistakes for better test outcomes. A simple activity will allow them to do this. Have students bring post tests or test reviews completed in their math classes. Instructor will explain to them what computational, conceptual, and comprehension mistakes are. Take a simple math exam and give the students examples of each error. Use different colored highlighters to indicate what type of error they will encounter. For example, all blue marks indicate computational errors, yellow indicates concept errors, pink indicates comprehension or reading errors, etc. After the demonstration, have students examine their own tests or reviews. They can indicate by color the mistakes on the test or on a separate sheet of paper. Then have the students break into small virtual groups and post their findings. This activity not only shows them what and why they have missed particular problems, but it helps them understand the errors they have made. It also gives them a feeling of success and control over their testing outcomes. (Objective 6)

Typical Out of Class Assignments Reading Assignments

- Read the article, 5 Famous People Who Failed Their Way to Success, and answer the following questions and be prepared to discuss in class: 1. Who did you select and why? 2. Was there anything you learned about this person from this article that you did not know? 3. How does it make you feel now that you know this very successful person did not start out that way? 2. Read Carol Dweck's article, Brainology, and be prepared to discuss your answers to the following questions: 1. What is the difference between a Fixed Mindset and a Growth Mindset? 2. How does Praise relate to creating a Fixed Mindset and a Growth Mindset? 3. According to Carol Dweck, what is the connection between a Growth Mindset, Motivation, and Grades? 4. Would you say you have more of a Fixed Mindset or a Growth Mindset? Give reasons.

Writing, Problem Solving or Performance

- Journals: Journal entries are ways to reflect on what students are studying and apply these concepts to their own life. It is also a way for the student and instructor to interact in a more personal way, one on one. Sample: Describe what happens when you get anxious about math. If you do not get anxious about math, describe another situation in college that makes you anxious. If you are not anxious about anything in college, explain why. 2. Problem Solving: Each student will take the Learning Styles & Modalities Survey. Upon completion of this survey, each student will analyze and create an individual plan of action.

Other (Term projects, research papers, portfolios, etc.)

Portfolios: Each portfolio contains personal information that will aid students to overcome math anxiety. The portfolio will contain journal entries, learning profiles, answers to questions taken from reading assignments, notes and all pertinent information to overcoming math anxiety.

Required Materials

- Winning at Math
 - Author: Paul Nolting, Ph.D.
 - Publisher: Academic Success Press, Inc.
 - Publication Date: 2019
 - Text Edition: 7th
 - Classic Textbook?: No
 - OER Link:
 - OER:

Other materials and-or supplies required of students that contribute to the cost of the course.