

# ACT R016: COMPUTER AIDED LEARNING MATH

**Originator**

ptrujillo

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

Cowan, Patricia (pcowan)

**College**

Oxnard College

**Discipline (CB01A)**

ACT - Assistive Computer Technology

**Course Number (CB01B)**

R016

**Course Title (CB02)**

Computer Aided Learning Math

**Banner/Short Title**

Computers and Math

**Credit Type**

Credit

**Start Term**

Fall 2021

**Catalog Course Description**

Students with learning disabilities will be able to take this course while currently enrolled in any basic math course at Oxnard College to use computers to aid with their retention and learning of mathematics.

**Taxonomy of Programs (TOP) Code (CB03)**

4930.32 - Learning Skills, Learning Disabled

**Course Credit Status (CB04)**

C (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)**

S - The Course is an Approved Special Class

**Course Prior to Transfer Level (CB21)**

Y - Not Applicable

**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)**

N - Course is not a support course

**Field trips**

Will not be required

**Grading method**

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**

8.75

**Maximum Contact/In-Class Lecture Hours**

8.75

**Activity**

**Laboratory**

**Minimum Contact/In-Class Laboratory Hours**

26.25

**Maximum Contact/In-Class Laboratory Hours**

26.25

**Total in-Class**

**Total in-Class**

**Total Minimum Contact/In-Class Hours**

35

**Total Maximum Contact/In-Class Hours**

35

## Outside-of-Class

### Internship/Cooperative Work Experience

Paid

Unpaid

### Total Outside-of-Class

#### Total Outside-of-Class

##### Minimum Outside-of-Class Hours

17.5

##### Maximum Outside-of-Class Hours

17.5

## 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

### Advisories on Recommended Preparation

Concurrent enrollment in MATH R001 or LS R016A or LS R016B

## Student Learning Outcomes (CSLOs)

**Upon satisfactory completion of the course, students will be able to:**

- |   |   |
|---|---|
| 1 | Student will demonstrate mastery of various math concepts through successful passing of quizzes.  |
| 2 | Students will utilize computer programs and accessories on the computer as measured by observation and checklist.                         |
| 3 | Students will demonstrate the ability to utilize the computer to complete math work, as measured by successful completion of assignments. |

## Course Objectives

**Upon satisfactory completion of the course, students will be able to:**

- |   |   |
|---|---|
| 1 | Use the computer to successfully navigate their math homework   |
| 2 | Use computer math skills building programs to work on basic math functions  |
| 3 | Find and use common programs and accessories on a computer, such as word processing, spreadsheets, and calculations |

## Course Content

### Lecture/Course Content

- Basic Addition
- Basic Subtraction
- Basic Division
- Basic Multiplication
- Understanding a four function calculator
- Addition, Subtraction, Division, and Multiplication with Fractions

G. Addition, Subtraction, Division, and Multiplication with Decimals

H. Percents

### Laboratory or Activity Content

A. Students will use a basic calculator and understand its use on the computer

B. Students will use basic mathematical computer programs to understand basic math

C. Students will learn to use the computer to assist with their math homework from outside courses

## 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

Oral presentations

Other (specify)

Problem-Solving Assignments

Quizzes

### Other

Khan Academy

## Instructional Methodology

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

Computer-aided presentations

Collaborative group work

Distance Education

Instructor-guided use of technology

Lecture

**Describe specific examples of the methods the instructor will use:**

1. Instructor will work 1:1 with students on areas of weakness, or break students into pairs or small groups to focus on a specific aspect of fractions, or any other mathematics topic.
2. Instructor will place students in small groups to have them help one another to ask/answer questions regarding the work they are doing.
3. Instructor will model how to utilize the online computer aided programs to enhance math skills. Students will follow along on their computers.
4. Instructor may record videos of how to solve particular types of math problems and place them in the online learning portal for easy access by students
5. Instructor will provide strategies for students to recall basic facts, formulas, and the order of operations.

## Representative Course Assignments

### Critical Thinking Assignments

1. Students will demonstrate how to solve various math equations step by step

### Reading Assignments

1. Math Anxiety readings

### Skills Demonstrations

1. Students will demonstrate how to solve various math equations step by step
2. Students will practice skills by taking quizzes
3. Students will work in small groups to collaborate and share strategies to solving math problems

**Other assignments (if applicable)**

1. Basic Math Equations
2. Completion of assignments from their concurrent math class
3. Students will familiarize themselves with various math support technology related resources

**Outside Assignments****Representative Outside Assignments**

1. Students will complete homework, and will participate in online discussion boards. Students will read assigned articles, and will work on assignment corrections as needed. Students will study for upcoming quizzes and tests in their corresponding math class. Khan Academy practice using the Khan Academy software.

**Textbooks and Lab Manuals****Resource Type**

Software

**Description**

Khan Academy. Khan Academy.

**Resource Type**

Other Resource Type

**Description**

Students will use the textbook from their corequisite math course..

**Distance Education Addendum****Definitions****Distance Education Modalities**

Hybrid (51%–99% online)

Hybrid (1%–50% 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)	Discussion board online for students to respond to questions/prompts and to reply to classmates.
Synchronous Dialog (e.g., online chat)	Online classes held on LMS, and also recorded for future use.

Other DE (e.g., recorded lectures)	Lectures recorded and included in the LMS for introduction of new material. Recorded lectures for tips and strategies to assist in completing various assignments.
Face to Face (by student request; cannot be required)	Meeting with student individually to review assignments or answer questions, can take place on LMS system.
E-mail	Sending out reminders and communication. Students may contact instructor for help or 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)	Discussion board online for students to respond to questions/prompts and to reply to classmates.
Synchronous Dialog (e.g., online chat)	Online classes held on LMS, and also recorded for future use.
Other DE (e.g., recorded lectures)	Lectures recorded and included in the LMS for introduction of new material. Recorded lectures for tips and strategies to assist in completing various assignments.
E-mail	Sending out reminders and communication. Students may contact instructor for help or questions.
Telephone	Instructor may call students to assist and to keep in contact.
Video Conferencing	Instructor may use video conferencing to go over work, to provide assistance, and to hold small study groups. Students may use this means to meet with one another to work on group assignments.

**100% online Modality:**

Method of Instruction	Document typical activities or assignments for each method of instruction
Asynchronous Dialog (e.g., discussion board)	Discussion board online for students to respond to questions/prompts and to reply to classmates.
Synchronous Dialog (e.g., online chat)	Online classes held on LMS, and also recorded for future use.
Other DE (e.g., recorded lectures)	Lectures recorded and included in the LMS for introduction of new material. Recorded lectures for tips and strategies to assist in completing various assignments.
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Telephone	Instructor may call students to assist and to keep in contact.
Video Conferencing	Instructor may use video conferencing to go over work, to provide assistance, and to hold small study groups. Students may use this means to meet with one another to work on group assignments.

**Examinations****Hybrid (1%–50% online) Modality**

Online  
On campus

**Hybrid (51%–99% online) Modality**

Online  
On campus

**Primary Minimum Qualification**

COMPUTER TECHNOLOGY (ADAPTED), DSPTS

## Review and Approval Dates

**Department Chair**

09/16/2020

**Dean**

09/18/2020

**Technical Review**

10/28/2020

**Curriculum Committee**

10/28/2020

**DTRW-I**

MM/DD/YYYY

**Curriculum Committee**

12/09/2020

**Board**

MM/DD/YYYY

**CCCCO**

MM/DD/YYYY

**Control Number**

CCC000566384

**DOE/accreditation approval date**

MM/DD/YYYY