

Cincinnati Christian University  
MATH 010 03 Developmental Math  
Fall 2019 | 3 semester non-credit hours  
Mon 7:00-9:40pm

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## Foster School of Biblical Studies, Arts & Sciences

### Course Description

Required of those assigned based on test scores. This course is designed to strengthen a student's computational skills. Topics include operations with whole numbers, fractions, decimals, percentages, rates and ratios, and their practical applications.

### Course Rationale

The mission of Cincinnati Christian University is to provide a Christ-centered, liberal arts education taught with a Christian world-view in the students' chosen fields of study.

Since some understanding of mathematics will enhance the study of every discipline, as well as develop skill in mathematical reasoning and competence in real world situations, this class will be particularly relevant to an informed and aware Christian citizenry.

### Arts & Sciences Departmental Outcomes

CCU's Arts & Sciences program is designed to prepare students to

1. Communicate effectively in both oral and written forms in a variety of rhetorical contexts, including Standard English.
2. Adeptly utilize modern research and writing tools.
3. Identify decisive events and ideas in the human experience and assess their influences on modern culture and thought.
4. Employ critical and creative thinking and mathematic and scientific principles for problem solving, literary and socio-cultural analysis, intercultural understanding, and research in the sciences and humanities.
5. Demonstrate the integration of academic insights and experiences by constructing and employing a personal framework in which ethical decisions can be made in light of societal values and a Christian worldview.

## Course Learning Objectives:

After completing this course, the student should be able to:

1. Perform the four basic operations on whole numbers, fractions, and decimals.
2. Select and apply appropriate operations in order to solve applied problems.
3. Set up and solve rate and percent problems.
4. Translate between fractions, decimals, and percentages.

*All course objectives support A&S outcome #4.*

## Required Text and Technology

Foundations of Math by Knewton-Alta

All students are required to have:

- An online subscription to Knewton-Alta
- A basic calculator (separate from the calculator on a phone)

## Phone Use

Students will have class time to work on homework during most class periods. All homework will be accessed via the online Knewton-Alta program. Students can bring a laptop or use their phones to do the homework in class. Students should refrain from phone use during class time except to do their homework. Phones will be confiscated for the duration of the class should they become a distraction to the learning environment.

Phones will not be permitted in class during tests.

## Grading Policy

Students are expected to learn both the mathematics covered in class and the mathematics in Knewton-Alta. The two are designed to be complimentary. Completing homework in Knewton-Alta is part of the learning experience. Mathematics is learned by doing. Thinking through problems carefully and thoroughly will be emphasized over speed and memorization.

Letter grades will be assigned based on the published grade point system in the CCU Academic Catalog. Grades will be comprised of the following. Note that "assignments" includes any assignments or quizzes in Knewton-Alta and graded class activities.

<b>Assignments</b>	<b>40%</b>
<b>Unit Exams (4 in class on paper, 10% each)</b>	<b>40%</b>
<b>Final Exam (in class on paper)</b>	<b>20%</b>

## Academic Integrity

This class will follow CCU's regulations pertaining to academic integrity. A copy may be found in CCU's Student Handbook.

***Accommodations: Students who require academic accommodations due to a documented physical, psychological, or learning disability may request assistance from the Student Services Department. Students are encouraged to complete this process within the first two weeks of the semester. The Student Services Department is located on the upper level of Presidents Hall. You may also contact the office by phone at 244-8150.***

## Attendance

You are expected to attend **all** class sessions and actively participate in examples and activities, whether in class or on Knewton-Alta. If you *must* be absent due to illness, emergency, or CCU-sponsored activity, you will be responsible to obtain any lecture notes you missed from other students.

If you exceed the absentee policy set forth by CCU [**2 absences for this class**] it will result in a grade of FA (failure due to absences). **Being late two times will equal an absence.** If a student is present for less than half of a class, it will be considered an absence.

## Homework

Homework will be assigned to follow-up every class lecture to allow the student to practice the skills and concepts that were taught. All homework will be done online in Knewton-Alta. A portion of most class periods will be set aside to work on homework assignments. Any homework not completed in class should be done on the student's own time.

## Late Assignments

An assignment will be considered late if it is not submitted by the due date and time. Students who are absent because of extracurricular activities or otherwise should plan to submit assignments early. All assignments for a Unit will be due on the day of the Unit Exam. Assignments for that Unit will not be accepted after midnight on exam day.

Class activities cannot be made up if a student is absent unless the absence was due to an illness, emergency, or CCU-sponsored activity. In addition, a student must have a note from a doctor, the Dean, or a Coach.

## Quizzes

Quizzes help the student measure their progress in understanding the concepts being taught on an ongoing basis. Because topics in mathematics build on each other it is essential to identify any problem areas as soon as possible. There will be a short quiz for each unit topic on

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Knewton-Alta. If a student is struggling with a topic they are encouraged to seek help from the instructor or Learning Center as soon as possible.

## Exams

Exams assess whether the course objectives are being met. There will be an exam following each Unit given in class and on paper. There will also be a Final Exam covering the material from the entire semester.

If a student misses a scheduled exam without making prior arrangements with the instructor, it cannot be made up unless the instructor makes an exception. Even then, a penalty may be given. It is the responsibility of the student to take the exam early or schedule a makeup exam date with the Learning Center within one week of the original test date.

## Course Outline

The course outline follows on the next page. **The instructor reserves the right to change or amend any part of this course plan as deemed necessary and always in the interest of the students.**

**Note that we will not meet for on Labor Day, Sept 2 or Thanksgiving Week, Nov 25.**

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<b>AUG</b>	<b>19</b>	<b>Intro to Course &amp; Knewton-Alta</b> <b>UNIT 1: WHOLE NUMBERS</b> 1.1 Numbers and Terms 1.2 Place Value in Whole Numbers 1.3 Rounding Whole Numbers 1.4 Adding Whole Numbers 1.5 Applications of Adding Whole Numbers
	<b>26</b>	1.6 Subtracting Whole Numbers 1.7 Applications of Subtracting Whole Numbers 1.8 Multiplying Whole Numbers 1.9 Applications of Multiplying Whole Numbers 1.10 Dividing Whole Numbers
<b>SEPT</b>	<b>2</b>	<b>LABOR DAY – NO CLASS</b>
	<b>9</b>	1.11 Dividing with Long Division 1.12 Applications of Dividing Whole Numbers 1.13 Exponents 1.14 Order of Operations <b>REAL LIFE: WHOLE NUMBERS</b>
	<b>16</b>	<b>EXAM UNIT 1: WHOLE NUMBERS</b> <b>**All Unit 1 Assignments and Quizzes Due **</b> <b>UNIT 2: FRACTIONS</b> 2.1 Introduction to Fractions 2.2 Improper Fractions & Mixed Numbers 2.3 Converting Between Mixed Numbers and Improper Fractions
	<b>23</b>	2.4 Ordering Fractions and Mixed Numbers 2.5 Finding Equivalent Fractions 2.6 Simplifying Fractions 2.7 Multiplying Fractions 2.8 Reciprocal Fractions 2.9 Dividing Fractions
	<b>30</b>	2.10 Multiplying Mixed Numbers 2.11 Dividing Mixed Numbers 2.12 Adding Fractions with Common Denominators 2.13 Subtracting Fractions with Common Denominators 2.14 Finding the Least Common Denominator 2.15 Adding and Subtracting Fractions with Different Denominators
<b>OCT</b>	<b>7</b>	2.16 Adding Mixed Numbers with Common Denominators 2.17 Subtracting Mixed Numbers with Common Denominators 2.18 Adding Mixed Numbers with Different Denominators 2.19 Subtracting Mixed Numbers with Different Denominators <b>REAL LIFE: FRACTIONS</b>

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<b>OCT</b>	<b>14</b>	<b>EXAM UNIT 2: FRACTIONS</b> <b>**All Unit 2 Assignments and Quizzes Due **</b> <b>UNIT 3: DECIMALS</b> 3.1 Naming Decimals 3.2 Converting Decimals to Fractions
	<b>21</b>	3.3 Ordering Decimals 3.4 Rounding Decimals 3.5 Operations with Decimals 3.6 Operations with Decimals in a Money Application
	<b>28</b>	3.7 Converting Fractions to Decimals 3.8 Ordering Fractions & Decimals 3.9 Order of Operations with Decimals <b>REAL LIFE: DECIMALS</b>
<b>NOV</b>	<b>4</b>	<b>EXAM UNIT 3: DECIMALS</b> <b>**All Unit 3 Assignments and Quizzes Due **</b> <b>UNIT 4: RATES &amp; PERCENTS</b> 4.3 Writing Rates as Fractions 4.4 Finding Unit Rates and Unit Prices
	<b>11</b>	4.5 Definition of Percent 4.6 Converting Percents to Decimals 4.7 Converting Decimals and Fractions to Percents
	<b>18</b>	4.8 Solving a Percent Equation 4.9 Applications Using the Percent Equation 4.10 Using Percents with Sales Tax and Discount Applications <b>REAL LIFE: RATES &amp; PERCENTS</b>
	<b>25</b>	<b>THANKSGIVING BREAK – NO CLASS</b>
<b>DEC</b>	<b>2</b>	<b>EXAM Unit 4: RATES &amp; PERCENTS</b> <b>**All Unit 4 Assignments and Quizzes Due **</b> <b>SEMESTER REVIEW</b>
	<b>9</b>	<b>FINAL EXAM</b> <i>date is tentative pending final exam schedule</i>