

# Math 61 – Basic Mathematics

FALL 2015: Session: M-W 4:35 –6:00 p.m. code: 10073,bld:2700, Room:2725  
Instructor: Porfirio Hernandez. Phone:(760) 234-0611, E-mail:pohern@yahoo.com.

**IT IS YOUR RESPONSIBILITY TO DROP THE CLASS, IF YOU CAN'T ATTEND !**  
**LAST DAY TO DROP ANY CLASS IS NOV. 07<sup>TH</sup> (WITH A “W”)OTHERWISE YOU**  
**GRADE WILL BE F.**

Textbook and Software Chapters  
*Book: Basic College Mathematics Package. IVC by Martin gay. Chapters 1-6*

## I. COURSE/CATALOG DESCRIPTION:

An introduction the concepts needed for further study in Mathematics. Topics covered include operations with whole and rational numbers,decimals, percents, ratio and proportions, and their applications.(Nontransferable, non-degree applicable.)

- II. A. PREREQUISITES, if any : none  
B. COREQUISITES, if any: none  
C. RECOMMENDED PREPARATION, if any: none

## III. GRADING CRITERIA:

Letter Grade Only

<u>Grading Scale</u>		<u>Grade Distribution</u>	
A	100 – 90	Homework and quizzes.	15%
B	89 – 80	Tests (4 tests @ 15% each)	60%
C	79 – 70	Final Exam	25%
D	69 – 60		

## Calculators

You will be encouraged to use a calculator, as many of the problems will require them. Problems that require a calculator will be on the tests, but I will not provide you with calculators. A TI-30 is enough for this class. **NO Graphing Calculators, Cell phones, OR iPod type devices will be allowed as calculators. But most of the time you are not going to use calculators.**

## IV. STUDENT LEARNING OUTCOMES:

Upon course completion, the successful student will have acquired new skills, knowledge, and or attitudes as demonstrated by being able to:

Perform the basic operations with whole and non-signed rational numbers. (ILO2)

Perform conversions to and from fractions, decimals, and percents. (ILO2)

Solve application problems involving operations with non-signed rational numbers. (ILO2)

## V.-MEASURABLE COURSE OBJECTIVES AND MINIMUM STANDARDS FOR GRADE OF

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

1. Demonstrate skills working with whole numbers.
2. Demonstrate skills working with fractions.
3. Demonstrate skills working with decimals.
4. Demonstrate skills working with %
5. Solve problems involving sales tax and discounts.

**V1.-CORE CONTENT TO BE COVERED IN ALL SECTIONS:**

**1.- WHOLE NUMBERS.**

A. Place value

B. Addition and subtraction

C. Multiplication and division

D. Rounding

E. Exponents and square roots

F. Applications

**2. Fractions**

A. Prime Factorizations

B. GCF & LCM

C. Mixed numbers and improper fractions

D. Simplifying

E. Multiplication and division

F. Applications

**3. Decimals**

A. Place value

B. Rounding

C. Addition and subtraction

D. Multiplication and division

E. Conversions to and from fractions

F. Applications

**4. Ratio and proportion**

A. Ratios

B. Rates

C. Proportions

D. Applications

**5. Percent**

A. Percents and fractions

B. Percents and proportions

C. Percents and decimals

D. Applications.



**VII.METHOD OF EVALUATION TO DETERMINE IF OBJECTIVES HAVE BEEN MET BY STUDENTS:**

**Class Activity**

**Essay**

**Mid-Term/Final Exam(s)**

**Objective**

**Oral Assignments**

**Problem Solving Exercise**

**Quizzes**

**Skill Demonstration**

**Written Assignments**

**VIII. INSTRUCTIONAL METHODOLOGY:**

**Demonstration**

**Discussion**

**Group Activity**

**Individual Assistance**

**Lab Activity**

**Lecture**

**Simulation/Case Study**

**Audio Visual**

**Computer Assisted Instruction**

**Two (2) hours of independent work done out of class per each hour of lecture or class work, or 3 hours lab, practicum, or the equivalent per unit is expected.**

**IX.ASSIGNMENTS:**

**Out-of-class:**

**A typical out-of-class assignment for this class would include the following: 1.**

**Complete an assigned section (e.g. 2.3) on an online homework program. (e.g. MathXL or MyMathLAB) 2. Read the tutorial as needed.**

**Reading and Writing:**

**1. The student will be require to read a section (e.g. Chap 4.3 - Reducing fractions by find the GCF) 2. Complete the assigned exercises. (e.g. 1-31 odd) The assignment should take the AVERAGE student roughly two hours to complete.**

**X.TEXTBOOK(S) ANTEXTBOOK(S) AND SUPPLEMENT(S):**

**Lial M. (2008). Essentials of Mathematics (3rd/e). Pearson. ISBN: 9780321287427**

**Toby, J. (2009). Essentials of Basic MAtematics (2nd/e). Pearson. ISBN: 9780321703088**

**Bittinger (2009). Fundamental College Mathematics (5th/e). Pearson. ISBN: 9780321690630**

### **Homework and Quizzes (15%)**

Late homework will not be accepted. The homework will be based on the book. Also I'm going to give you a practice test and we are going to solve it in the class before any test or quiz including the final exam.

### **Tests (60%)**

There will be 4 tests, each worth 15%. There will be no makeup exams given. Zeros will be given for all missed tests. Each test will last no more than 55 minutes each.

### **Final Exam (25%)**

The Final Exam will be multiple choice and free response. It will be comprehensive and will be created by the IVC Math Department. The final exam will be in the classroom.

You will need to bring the following items for the Final Exam:

- **Several #2 pencils and erasers**
- **Valid ID AND know your I.V.C. G-number**
- **No calculators**
- **NO cell phones or other electronic devices with calculators will be allowed (i.e. NO iPods, palm pilots, cell phones ...)**

### **Tutoring**

Tutoring is available through [www.mathxl.com](http://www.mathxl.com) and through the Imperial Valley College Math Lab in the 2500 Building and can be reached at 355-6190 or 355-6187. The Math Lab is open: Mon (8am-9pm), Tues (8am-9pm), Wed (8am-9pm), Thurs (8am-9pm), Fri (8am-5pm), and Sat (8am-1pm). or with me after class.

## **CLASSROOM EXPECTATIONS:**

- **TURN OFF YOUR CELLULAR PHONES (or leave them at home). Courtesy please. IF IT RINGS, YOU WILL BE ASKED TO LEAVE AND IT WILL BE MARKED AS AN ABSENCE. YOU WILL NOT BE ALLOWED TO STAY IN CLASS.**
- **Be Prompt!!! Class starts at 4:35 a.m., not 4:40 p.m. You will NOT be allowed to come in if class has already started. DO NOT come in late or leave early from class (it disrupts the flow of the class). If you do, you will be marked as an absence.**
- **Exchange phone numbers (ONLY if you feel comfortable - you DON'T have to) with classmates to assure getting homework and test information accurately. It's hard to do it alone.**
- **Cheating will result in an automatic "F" grade in the class (Cheating = "F" for the semester)**
- **Food or Drink are NOT allowed in class!**
- **Any student who needs special modifications, please see the teacher or call: DSP&S at 355-6312**

- **After 2 absences, you will be dropped from class (It is still your responsibility to drop the class). You will find it is hard to recover if you miss a few classes.**
- **Avoid any uncomfortable situation such as bringing your children to class (IVC policy), making unfair remarks or laughing at other people's questions/remarks.**
- **Avoid to talk or laughing during the class, or you will be asked to leave the class. Second time that you interrupt the class laughing or talking you will be asked to pass to Board and respond some questions or problems if you don't know the subject because you are not paying attention you have to leave the class and the second time you will be dropped.**

## **COURSE CALENDAR :**

### **Session 1: Chapter 1. Real numbers.**

- 1.-Place value and Names for Numbers**
- 2.- Adding Whole numbers and Perimeter**
- 3.- Subtracting Whole Numbers**
- 4.- Rounding and Estimating**
- 5.- Multiplying Whole Numbers and Area**
- 6.- Dividing Whole Numbers**
- Quiz#1**
- 7.- An Introduction to Problem Solving**
- 8.- Exponents ,Square Roots, and Order of Operations.**
- 9.-Test # 1**

### **Session 2 and 3: Chapters 2 & 3 Fractions**

- 1.-Introduction to Fractions and Mixed Numbers**
- 2.-Factors and Prime factorization**
- 3.-Simplest form of a Fraction.**
- 4.-Multiplying Fractions.**
- 5.-Dividing Fractions.**

#### **Quiz #2**

- 6.-Adding and Subtracting like Fractions.**
- 7.-Least Common Multiple.**
- 8.-Adding and Subtracting unlike Fractions.**
- 9.-Fractions and Problem Solving.**
- 10.- Test # 2 Chapters 2 and 3.**

### **Session 4: Chapter 4 Decimals.**

- 1.-Introduction to Decimals.**
- 2.-Order and Rounding.**
- 3.-Adding and Subtracting Decimals.**
- 4.-Multiplying and Dividing Decimals and Circumference of a Circle.**
- 5.-Fractions and Decimals**

**QUIZ # 3**

**Session 5: Chapter 5 Ratio and Proportion**

**1. Ratios.**

**2.-Rates.**

**3.-Proportions.**

**4.-Proportions and Problem Solving.**

**5.-Test # 3 (Chapter 5)**

**Session 6:**

**Chapter 6. Percent.**

**1.-Introduction to Percent.**

**2.-Percent and Fractions.**

**3.-Solving Percent problems using Equations.**

**4.-Solving Percent problems using Proportions.**

**5.-Applications of Percent.**

**6.-Percent and problem solving: Sale tax, Commission and Discount.**

**7.-Percent and problem Solving: Interest.**

**8.-Test # 4.**

**Session 9.- Final Exam Chapters 1 to 6**

**Date: to be assigned**