

**COLLEGE MATHEMATICS  
MAT 142 COURSE SYLLABUS  
PARADISE VALLEY COMMUNITY COLLEGE  
SUMMER I 2009**

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TEXT:

*Using and Understanding Mathematics* 4th Edition Bennett, Briggs  
(Course ID: nicoloff01749)

MATERIALS & OTHER RESOURCES:

Texas Instruments TI-83, or TI-84 or suitable Graphing Calculator.

Learning Support Center (LSC) Building E, Room 180

Monday - Thursday 8:00 AM – 7:00 PM

Drop-in and individual Tutoring

MAT 108. This course provides structured tutorial assistance and math study skills to help students achieve success in a mathematics course in which they are concurrently enrolled.

Mathematics study skills are emphasized. This course may be repeated for a maximum of 10 credits.

Co-requisites: Concurrent enrollment in MAT151.

DVDs of each lesson are available for checkout in the library, for on campus viewing in the LSC and for your own copy in the Media Center in the library.

CLASS LOCATION:

Building K, Room 111

CLASS TIMES:

9:50 AM - 12:00 PM

SECTION NUMBER:

17671

COURSE DESCRIPTION:

Working knowledge of college-level mathematics and its applications to real-life problems. Emphasis on understanding mathematical concepts and their applications. Topics include set theory, probability, statistics, finance, and geometry.

**Prerequisites:** Grade of C or better in MAT120, or MAT121, or MAT122, or equivalent, or satisfactory score on District placement exam.

COURSE COMPETENCIES:

Upon Successful completion of this course, you will have mastered the following basic competencies:

- Distinguish between a subset and a proper subset.
- Use Venn diagrams to solve applied problems involving the union, intersection, and complement of sets.
- Distinguish between experimental and theoretical probability, and use each to solve applied problems.
- Use conditional probability to solve applied problems involving dependent events.
- Use probabilities to calculate odds, either in favor of or against a particular event, and vice versa.
- Solve probability problems involving combinations and permutations.
- Organize, analyze, and display data using multiple representations.
- Calculate and interpret measures of central tendency and dispersion.
- Calculate and interpret measures of location (percentiles and quartiles).
- Solve applications using the normal distribution.

- Solve applications involving loans and amortizations.
- Solve applications involving annuities.
- Calculate the annual interest rate given the annual yield and vice versa.
- Solve real-life problems using exponential growth.
- Use appropriate formulas and units of measure for composite geometric shapes and figures from real life problems.
- Apply unit analysis skills to solve applied problems.
- Use dimensional analysis to convert units of measurement between different systems.
- Use written and verbal communication to describe process and results.
- Model and solve real-world problems.

**PVCC MATHEMATICS/COMPUTER SCIENCE DIVISION EXPECTED  
STUDENT BEHAVIOR FOR SUCCESS**

- As a college student you need to discipline yourself as to your study habits and classroom behavior. Get to class at least a couple of minutes early. You are expected to at least be on time for each class and remain seated for the entire class. If you must leave early, it is considered only common courtesy to leave quietly and to have informed your instructor beforehand. Please leave beepers and cell phones off. Inattentiveness, disruptiveness or extensive tardies/absences may affect a student's grade.
- If for some reason you decide to drop this course, you are advised to discuss it first with your instructor. If you are having difficulties, please see your instructor before giving up or dropping the class. You will be dropped for non-attendance or excessive absences. Excessive absences will be considered, missing the equivalent of 2 weeks without instructor knowledge or prior approval. A grade of W will be assigned if you are dropped before 6/12/2009. If you drop after that date your drop grade will reflect your status at that time, you will get a W if you are passing and a Y if you are failing.
- Undergraduate study is time consuming. You can anticipate spending two or more hours of study, reading and research for every hour you spend in the classroom. To earn three hours of academic credit, classes must meet for a minimum of forty-five (45) classroom hours. Take these demands seriously as you plan your academic schedule.
- Have your homework completed before class starts. Please feel free to contact me whenever you run into difficulty, and make use of the LSC.
- Have questions ready from the previous night's homework and be seated when class begins.

- Continuously self test.
- Make it a goal to attend all classes and stay the entire class period. There is a high correlation between regular class attendance, punctuality, and good grades. Even though you are absent for any reason, you are still responsible for all homework and material covered in class. Get notes from another student for classes missed.
- Ask questions – participate, don't wait for someone else to ask questions.
- Be prepared as if you expect a quiz every day.
- It is the student's responsibility to understand and follow all of the policies found in the College Catalog and Student Handbook.
- The student is responsible for all information contained in the syllabus.
- Make note of Article III, Section B, paragraph 15, page 171 in the PVCC Student Handbook regarding the college's policy on the misuse of computer technology.
- Make note of the college's policy on Academic Misconduct Section 2.3.11 found on pages 149 through 150.
- Students with disabilities who believe that they need accommodations in this class are encouraged to contact the Disability Resource Center in the Gina Kranitz Student Center, Room 119 or call 602-787-7170

**ALL PROVISIONS IN THIS SYLLABUS ARE SUBJECT TO REVISION BY THE INSTRUCTOR. SUCH REVISIONS, IF ANY, WILL BE ANNOUNCED IN CLASS AND POSTED ON THE INSTRUCTOR'S WEBSITE AT THE FOLLOWING ADDRESS:**

**<http://www2.pvc.maricopa.edu/~nicoloff/changes.html>**

#### CLASS ATTENDANCE:

Attendance and punctuality is required!! Read the school catalog to become familiar with policies on withdrawals and incompletes. There will be no make-up tests, students must be present on test days.

#### ASSIGNMENTS:

Assignments are required and will be due at the beginning of class. They will be worth 100 pts. toward the final grade. The assignments will consist of the problems on My Math Lab or assigned problems from the text. Late homework will not be accepted. Late homework is defined to be any homework that is completed after the beginning of class on the day it is due.

**TESTING:**

There will be up to 5 unannounced quizzes worth 100 pts. (20 pts. each) There will be 4 - 150 pt. tests during the semester to cover all chapters studied.

**GRADING:**

Quizzes	100	A=90-100%	720-800 pts
Homework	100	B=80-89%	640-719 pts
Tests	600	C=70-79%	560-639 pts
Total	800	D=60-69%	480-559 pts

**TENTATIVE SCHEDULE**

<b>DATE OF CLASS MEETING</b>	<b>SECTIONS TO BE COVERED</b>	<b>TOPICS TO BE COVERED</b>	<b>ASSIGN # DUE DATE</b>
(M) 6/1	Introduction 1A 1B	Introduction Recognizing Fallacies Propositions and Truth Values	#1 6/2
(T) 6/2	1C 1D 1E	Sets and Venn Diagrams Analyzing Arguments Critical Thinking in Everyday Life	#2 6/3
(W) 6/3	10A 10B	Fundamentals of Geometry Problem Solving with Geometry	#3 6/4

<b>DATE OF CLASS MEETING</b>	<b>SECTIONS TO BE COVERED</b>	<b>TOPICS TO BE COVERED</b>	<b>ASSIGN # DUE DATE</b>
(R) 6/4	2A <b>REVIEW</b>	The Problem-Solving Power of Units <b>REVIEW</b>	#4 6/9
(M) 6/8	<b>TEST I</b>	<b>CHAPTERS (1 &amp; 10)</b>	
(T) 6/9	2B 2C	Standardized Units: More Problem-Solving Power Problem-Solving Guidelines and Hints	#5 6/10
(W) 6/10	3A 3B 4B	Uses and Abuses of Percentages Putting Numbers in Perspective The Power of Compounding	#6 6/11
(R) 6/11	4C 4D	Savings Plans and Investments Loan Payments, Credit Cards, and Mortgages	#7 6/15
(F) 6/12	<b>LAST DAY TO WITHDRAW WITHOUT INSTRUCTOR'S SIGNATURE</b>		
(M) 6/15	5A <b>REVIEW</b>	Fundamentals of Statistics <b>REVIEW</b>	#8 6/17
(T) 6/16	<b>TEST II</b>	<b>CHAPTERS (2, 3 &amp; 4)</b>	
(W) 6/17	5B 5C	Should you believe a Statistical Study? Statistical Tables and Graphs	#9 6/18

<b>DATE OF CLASS MEETING</b>	<b>SECTIONS TO BE COVERED</b>	<b>TOPICS TO BE COVERED</b>	<b>ASSIGN # DUE DATE</b>
(R) 6/18	5D 6A	Graphic in the Media Characterizing Data	#10 6/22
(M) 6/22	6B 6C	Measures of Variation The Normal Distribution	#11 6/23
(T) 6/23	7A <b>REVIEW</b>	Fundamentals of Probability <b>REVIEW</b>	#12 6/25
(T) 6/23	<b>LAST DAY TO WITHDRAW WITH INSTRUCTOR'S SIGNATURE</b>		
(W) 6/24	<b>TEST III</b>	<b>CHAPTERS (5 &amp; 6)</b>	
(R) 6/25	7B 7C	Combining Probabilities The Law of Large Numbers	#13 6/29
(M) 6/29	7D 7E	Assessing Risk Counting and Probability	#14 6/30
(T) 6/30	8A	Growth:Linear versus Exponential	#15 7/1
(W) 7/1	<b>REVIEW</b>	<b>REVIEW</b>	
(R) 7/2	<b>TEST IV</b>	<b>CHAPTERS (7 &amp; 8)</b>	

**STUDENT INFORMATION/SYLLABUS ACKNOWLEDGEMENT FORM**

Course Prefix & Number\_\_\_\_\_

Semester\_\_\_\_\_

Lecture Section Number\_\_\_\_\_

Today's Date\_\_\_\_\_

Name (print)\_\_\_\_\_

Phone # (\_\_\_\_)-\_\_\_\_\_

e-mail  
address\_\_\_\_\_

4 Digit Personal ID #\_\_\_\_\_

Previous Math courses	High School	College	Final grade

Why are you taking this course? What is it about this course that you need for your degree program?

What are you going to do to succeed in this class? (*i.e.*: When are you going to do your homework? Will you join a study group? Will you attend every class?)

What would you like me to do to help you succeed in this class?

Other comments:

**SYLLABUS ACKNOWLEDGMENT/RECEIPT**

I have received a copy of the syllabus for this course, and the instructor has discussed the contents of the syllabus. I have read the syllabus and understand the course content, class procedures, and what is expected of me in this class.

\_\_\_\_\_  
Student Signature