



One College Drive, Blythe CA 92225  
(760) 921-5500

Course Control Number: CCC000606458		
Course Outline Approval Dates		
Modality	Curriculum Committee	Board of Trustees
Face-to-face	3/14/2019	4/16/2019
Correspondence Ed.		
Distance Ed.		

### COURSE OUTLINE OF RECORD

#### Course Information

Course Initiator: Pr. Sandra Sher & Pr. Paul Shibalovich			
CB01 - Subject and Course #: NBE 098			
CB02 - Course Title: Preparatory Mathematics			
New Course: <input checked="" type="checkbox"/>		Non-Substantial: <input type="checkbox"/>	
		Substantial: <input type="checkbox"/>	
Articulation Request: <input type="checkbox"/> UC		<input type="checkbox"/> CSU	
		<input type="checkbox"/> CSU-GE	
		<input type="checkbox"/> IGETC	
Lecture Hours:		Laboratory Hours: 27	
		Clinical/Field Hours:	
CB06/CB07: Course Units:			
Prerequisites: None			
Co-requisites: None			
Advisories: To be taken concurrently with MAT 095, or MAT 106, or MAT 108, or MAT 110 as mandated by AB 705 or as a stand alone supplementary course.			
CB03 - TOP Code:		1702.00 - Mathematics Skills	
CB04 - Credit Status:		N - Noncredit	
CB05 - Transfer Status:		C - Not Transferable	
CB08 - Basic Skills Status:		B - Course is a basic skills course	
CB09 - SAM Priority Code:		E - Non-Occupational	
CB10 - Cooperative Work:		N - Is not part of Cooperative Work Experience Education Program	
CB11 - Course Classification:		L - Non-Enhanced Funding	
CB13 - Approved Special:		N - Course is not a special class	
CB21 - Prior Transfer Level:		A - One level below transfer	
CB22 - Noncredit Category:		C - Elementary and Secondary Basic Skills	
CB23 - Funding Agency:		Y - Not Applicable	
CB24- Program Status:		2 - Not Program Applicable	
Transfer Request:		C= Non-Transferable	

Please select the appropriate box(s) of the modalities in which this course will be offered, and fill out the appropriate sections for that mode.

- Face-to-Face – Section B
- Correspondence Education – Section C
- Distance Education – Section D

## **JUSTIFICATION OF NEED:**

This course is designed to meet the needs of the students who need concurrent support in transfer level courses as well as for those who need to improve basic math skills.

## **CATALOG DESCRIPTION:**

NBE 098 provides supplementary support for the students taking MAT 095, or MAT 106, or MAT 108, or MAT 110. It covers topics from arithmetic operations to advanced topics in college algebra and statistics.

## **COURSE OBJECTIVES:**

1. Calculate mean, median, and mode.
2. Perform operations with signed numbers.
3. Perform operations with exponents.
4. Factor polynomials.
5. Simplify radicals.
6. Solve and graph inequalities.
7. Solve linear, absolute value, quadratic, radical, and rational equations.
8. Evaluate and graph functions.
9. Solve application problems.
10. Compute determinants.
11. Solve two-by-two and three-by-three systems of linear equations.
12. Perform operations on complex numbers.
13. Find composition of functions and the inverse of a functions.

## **STUDENT LEARNING OUTCOMES:**

1. Demonstrate ability in finding the equation of a line
2. Know how to multiply polynomials
3. Demonstrate ability in dividing complex numbers
4. Know how to work with percent problems

## **A. COURSE OUTLINE AND SCOPE**

### **1. Outline of topics or content:**

1. Find mean, median, and mode.
2. Add and subtract signed numbers.
3. Multiply and divide signed numbers.
4. Solve linear and absolute value equations and inequalities in one variable.
5. Factor the GCF, binomials, trinomials, and polynomials in four terms.
6. Factor the difference of two squares, sum and difference of two cubes.
7. Solve quadratic equations.
8. Perform operations with integral, negative, and rational exponents.
9. Simplify and evaluate radical expressions.
10. Perform operations with radicals.
11. Solve radical equations.
12. Solve two-by-two systems of linear equations and inequalities.
13. Evaluate expressions functions.
14. Solve application problems.
15. Compute two-by-two and three-by-three determinants.
16. Add and subtract complex numbers.
17. Multiply and divide complex numbers.

18. Graph linear, absolute value, and quadratic equations and functions.
19. Find composition of functions and the inverse of a functions.

**2. If a course contains laboratory or clinical/field hours, list examples of activities or topics:**

1. Find mean, median, and mode.
2. Add and subtract signed numbers.
3. Multiply and divide signed numbers.
4. Solve linear and absolute value equations and inequalities in one variable.
5. Factor the GCF, binomials, trinomials, and polynomials in four terms.
6. Factor the difference of two squares, sum and difference of two cubes.
7. Solve quadratic equations.
8. Perform operations with integral, negative, and rational exponents.
9. Simplify and evaluate radical expressions.
10. Perform operations with radicals.
11. Solve radical equations.
12. Solve two-by-two systems of linear equations and inequalities.
13. Evaluate expressions functions.
14. Solve application problems.
15. Compute two-by-two and three-by-three determinants.
16. Add and subtract complex numbers.
17. Multiply and divide complex numbers.
18. Graph linear, absolute value, and quadratic equations and functions.
19. Find composition of functions and the inverse of a functions.

**3. Examples of reading assignments:**

Face-to-face students will use online platform to study material. Correspondence students will use a textbook, handouts and worksheets.

**4. Examples of writing assignments:**

Both face-to-face and correspondence students will take comprehensive exam.

**5. Appropriate assignments to be completed outside of class:**

Face-to-face and correspondence students will work on homework assignments and handouts outside of the classroom.

**6. Appropriate assignments that demonstrate critical thinking:**

Students will be offered applications and problems of medium and high difficulty level to demonstrate critical thinking skills.

**7. Other assignments (if applicable):**

Students taking this course concurrently with MAT 095, or MAT 106, or MAT 108, or MAT 110 will be advised to use course textbook from the aforementioned courses to supplement their studies.

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Check if Section B is not applicable

**B. FACE-TO-FACE COURSE SECTIONS:**

**Face-to-face education**

Is a mode of delivery in which instruction is delivered in a traditional classroom setting, with instructor and students located simultaneously in the same classroom facility.

**1. Describe the methods of instruction:**

Initial assessment will be used to identify areas of weakness. Then, the instructors will assign custom modules to help the student master topics that need attention. Student will work on those modules during the lab with the help of instructor, when needed as well as outside the classroom.

**2. Describe the methods of evaluating of student performance.**

Upon completion of lab hours student will be administered comprehensive exam, and Pass (P) or No Pass (NP) grade will be assigned based on student's performance and completion of the assignments.

**3. Describe how the confidentiality of the student's work and grades will be maintained.**

Instructors shall make reasonable efforts to protect the confidentiality of students' grades and graded work consistent with practices described in the Family Education Rights and Privacy Act (FERPA).

**4. If the course has a lab component, describe how lab work is to be conducted and how student work is to be evaluated.**

The lab will be conducted in the classroom using Hawkes Learning System or My Open Math platform. The platform will provide feedback on the completion of the assignments. Upon the completion of the assignments, students will be administered an exam to measure mastery level.

NOTE: Students will be encouraged by instructors of this course to direct themselves to the College's Disabled Students' Programs and Services (DSP&S) department if they believe they have a learning disability.

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Check if Section C is not applicable

**C. CORRESPONDENCE EDUCATION COURSE SECTIONS (Correspondence, hybrid correspondence)**

**Correspondence education**

is a mode of delivery in which instructional materials are delivered by mail, courier or electronic transmission to students who are separated from the instructor by distance. Contact between instructor and students is asynchronous.

**Hybrid correspondence education**

is the combination of correspondence and face-to-face interaction between instructor and student.

**1. Describe the methods of instruction.**

**2. Describe the methods of evaluating student performance.**

**3. Describe how regular, effective contact between the instructor and a student is maintained.**

**4. Describe procedures that help verify the individual submitting class work is the same individual enrolled in the course section.**

**5. Describe procedures that evaluate the readiness of a student to succeed in a correspondence or hybrid correspondence course section.**

**6. Describe how the confidentiality of the student's work and grades will be maintained.**

**7. If the course has a lab component, describe how lab work is to be conducted and how student work is to be evaluated.**

**8. If the course requires specialized equipment, including computer and computer software or other equipment, identify the equipment, and describe how it is to be accessed by students.**

Note: Students will be encouraged by instructors of this course to direct themselves to the College's Disabled Students' Programs and Services (DSP&S) department if they believe they have a learning disability.

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Check if Section D is not applicable

**D. DISTANCE EDUCATION COURSE SECTIONS (online, ITV, hybrid)**

**Online education**

is a mode of delivery in which all instruction occurs online via the Internet. Student and instructor access to email and the Internet is required. Students are required to complete class work using email, chat rooms, discussion boards and other instructional online venues.

**Interactive television (ITV)**

is a mode of synchronous delivery in which instruction occurs via interactive television (closed circuit).

**Hybrid instruction**

is a combination of face-to-face instruction and online instruction.

**1. Describe the methods of instruction.**

**2. Describe the methods of evaluating of student performance.**

**3. Describe how regular, effective contact between the instructor and a student is maintained.**

**4. Describe procedures that help verify the individual submitting class work is the same individual enrolled in the course section.**

**5. Describe procedures that evaluate the readiness of a student to succeed in an online, ITV or hybrid course section.**

**6. Describe how the confidentiality of the student's work and grades will be maintained.**

**7. If the course has a lab component, describe how lab work is to be conducted and how student work is to be evaluated.**

**8. If the course requires specialized equipment, including computer and computer software or other equipment, identify the equipment, and describe how it is to be accessed by students.**

Note: Students will be encouraged by instructors of this course to direct themselves to the College's Disabled Students' Programs and Services (DSP&S) department if they believe they have a learning disability.

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**E. REPRESENTATIVE TEXTBOOKS AND OTHER READING AND STUDY MATERIALS:**

**List author, title, and current publication date of all representative materials.**

Tyler Wallace, Beginning and Intermediate Algebra, 2010, ISBN #978-1-4583-7768-5  
Hawkes Learning System, Beginning and Intermediate Algebra, 2012 or most recent edition

**SIGNATURES**

**COURSE INITIATOR:** \_\_\_\_\_

**DATE:** \_\_\_\_\_

**DIVISION CHAIR:** \_\_\_\_\_

**DATE:** \_\_\_\_\_

**LIBRARY:** \_\_\_\_\_

**DATE:** \_\_\_\_\_

**CHAIR OF CURRICULUM COMMITTEE:** \_\_\_\_\_

**DATE:** \_\_\_\_\_

**SUPERINTENDENT/PRESIDENT:** \_\_\_\_\_

**DATE:** \_\_\_\_\_