


THE UNIVERSITY OF TEXAS AT EL PASO  
COLLEGE OF SCIENCE  
DEPARTMENT OF MATH

Course #: M1508  
Course Title: Pre-Calculus  
Credit Hrs: 5  
Term: Spring 2015  
Course Meetings & Location:  
Prerequisite Courses: M0311 or TSI score between 350 – 390 or placement by previous Accuplacer scores.  
Instructor: Dr. Maria Pia Beccar Varela  
Office Location: Bell Hall 216  
Contact Info: 747-8038  
E-mail address: mpvarela@utep.edu  
Emergency Contact 915-747-5761  
(Math Department)  
Office Hrs: Monday 3:00-4:30pm - Thursday 4:00-5:30pm., but stop by anytime you need.  
Textbook(s), Materials: Required: Pre-Calculus by Larson, 9th Edition (available as e-book and hardcover)  
WebAssign Code – May be purchased online with e-text at <http://webassign.net/> . We recommend purchasing one of the Lifetime of Edition option.  
Suggested: Laptop computer  
Graphical Calculator




*Precalculus - 9e* by Larson Prices may vary

-  Lifetime of Edition Access to eBook and Homework (price reflects a **\$7.00 discount** for purchasing these items together now) \$75.00
- MATH 1508 PRECALC: \$65.00  
<http://www.cengagebrain.com/shop/en/US/storefront/US?cmd=CLHeaderSearch&fieldValue=9781285858319>

Course Objectives (Learning Outcomes): Students are expected to have a clear understanding of the ideas of Precalculus as a solid foundation for subsequent courses in mathematics and other disciplines as well as for direct application to real life situations.

The content of the entire course covers topics from basic mathematics and develop them using practical and theoretical tools, building applications and making a strong support for Calculus classes.

A student passing MATH1508 Precalculus course will be able to work with the concepts of functions (functions in general, exponential and logarithmic functions, polynomial and rational functions, trigonometric functions, etc), to solve a system of linear and non-linear equations and inequalities, to make basic operations with matrices, to apply mathematical induction method, to work with trigonometric functions and their properties, and to apply them in problems related to other branches of Science: Calculus, Algebra, Physics, Chemistry, Biology, Pharmacy, Engineering, Statistics, etc.

Course Activities/Assignments: You will find all assignments on <http://webassign.net/> . Please use Mozilla Firefox, , since WebAssign works best with this browser. Unannounced quizzes may be administered in the classroom. Students may have 20 – 30 minute reading assignments due on WebAssign the day of each lecture.

Assessment of Course Objectives: There will be 3 exams. These are departmental exams and are to be taken in the classroom on the assigned date found in the calendar. A WebAssign Retake Exam is administered in the library after each exam.

To register for a retake exam go to <http://mathe.utep.edu/classes/retake>. Each room has 35 seats, when the class is full you will not be allowed to register for that test time. Failure to register means that you may not take this optional exam.

A comprehensive test out exam will be administered after Maymester. A passing grade (70% or greater) on the comprehensive test out exam will replace a failing course grade with a maximum grade of C.

Grading Policy: Your grade will be calculated as follows:

|                       |     |
|-----------------------|-----|
| WebAssign assignments | 10% |
| In Class Quizzes      | 10% |
| Workshops             | 05% |
| Exam 1                | 25% |
| Exam 2                | 25% |
| Exam 3                | 25% |

The grading scale for this course is:

90 – 100 = A

80 – 89 = B

70 – 79 = C

60 – 69 = D

0 – 59 = F.

The Drop Date for this semester is Friday April 6, 2015. No drops will be approved after this date.

Make-up Policy: No makeup exams will be allowed except with proper documentation, i.e. doctor's note, hospital's note, or UTEP excused absence document.

Attendance Policy: Students must attend every class and attend all lectures and workshops. Attendance will be taken. A student will be dropped if he/she misses 3 lectures or 4 workshop sessions. Students are to arrive to class on time. It is the student's responsibility to make up missed assignments as determined by their instructor.

Civility Statement: Please turn off cell phones when you enter class and participate in class, active participation in this class is a vital part of your success.

Disability Statement: If you have a disability and need classroom accommodations, please contact The Center for Accommodations and Support Services (CASS) at 747-5148, or by email to [cass@utep.edu](mailto:cass@utep.edu), or visit their office located in UTEP Union East, Room 106. For additional information, please visit the CASS website at [www.utep.edu/CASS](http://www.utep.edu/CASS). *CASS' Staff are the only individuals who can validate and if need be, authorize accommodations for students with disabilities.*

Academic Integrity Policy: Each student is responsible for notice of and compliance with the provisions of the Regents' Rules and Regulations, which are available for inspection electronically at <http://www.utsystem.edu/bor/rules/homepage.htm>.

All students are expected and required to obey the law, to comply with the Regents' Rules and Regulations, with System and University rules, with directives issued by an administrative official in the course of his or her authorized duties, and to observe standards of conduct appropriate for the University. A student who enrolls at the University is charged with the obligation to conduct himself/herself in a manner compatible with the University's function as an educational institution.

Any student who engages in conduct that is prohibited by Regents' Rules and Regulations, U. T. System or University rules, specific instructions issued by an administrative official or by federal, state, or local laws is subject to discipline, whether such conduct takes place on or off campus or whether civil or criminal penalties are also imposed for such conduct.

Military Statement: If you are a military student with the potential of being called to military service and /or training during the course of the semester, you must contact me as soon as possible **before** you leave.

Webpage's for PreCalculus: Visit our website and read the course information thoroughly at <http://www.math.utep.edu/classes/precalculus/>

or find us on facebook for information and News,  
<http://www.facebook.com/pages/UTEP-PreCalculusCalculus/180583381999326>

Course Schedule:

## Spring 2015

| <b>Material for Exam 1 : chapter 1 and chapter 2 up to 2.5</b> |                      |                          |  |
|--|----------------------|--------------------------|--|
| <b>Date</b>  | <b>Day</b>           | <b>Sections</b>          | <b>Description</b>                                       |
| 1/19/2015  | Monday               | No Classes               |  |
| 1/20/2015  | Tuesday              | Syllabus/1.1             | Rectangular Coordinates                                  |
| 1/22/2015  | Thursday             | 1.1 - 1.2                | Rectangular Coordinates/Graphs of Equations              |
| 1/26/2015  | Monday               | 1.3 - 1.4                | Linear Equations in Two Variables/Functions              |
| 1/27/2015  | Tuesday              | 1.4 - 1.5                | Functions/Analyzing Graphs of Functions                  |
| 1/29/2015  | Thursday             | 1.6 - 1.7                | Library of Parent Functions/Transformations of Functions |
| 2/2/2015   | Monday               | 1.7                      | Transformations of Functions                             |
| 2/3/2015   | Tuesday              | 1.8                      | Combinations of Functions                                |
| 2/5/2015   | Thursday             | 1.9                      | Inverse Functions  |
| 2/9/2015   | Monday               | 2.1                      | Quadratic functions and Models                           |
| 2/10/2015  | Tuesday              | 2.3 - 2.4                | Polynomials and Synthetic Division/Complex Numbers       |
| 2/12/2015  | Thursday             | 2.4                      | Complex Numbers  |
| 2/16/2015  | Monday               | 2.5                      | Zeros of Polynomial Functions                            |
| 2/17/2015  | Tuesday              | Review (13 sections)     |  |
| 2/19/2015  | Thursday             | <b>Exam 1</b>            |  |
| <b>Feb. 27</b>   | <b>Exam1 Retakes</b> | <b>Library 204A or B</b> | <b>Online Testing</b>                                    |

### **Material for Exam 2: Section 2.6; Chapter 3; 7.1 - 7.4 and 8.1 - 8.3**

| <b>Date</b>    | <b>Day</b>          | <b>Sections</b>          | <b>Description</b>  |
|----------------|---------------------|--------------------------|---|
| 2/23/2015      | Monday              | 2.6                      | Rational Functions/Exponential Functions and Their Graphs       |
| 2/24/2015      | Tuesday             | 3.1                      | Exponential Functions and Their Graphs                          |
| 2/26/2015      | Thursday            | 3.2 - 3.3                | Properties of Logarithms/Logarithmic Functions and their Graphs |
| 2/27/2015      | Friday              | Exam 1 Retake            |   |
| 3/2/2015       | Monday              | 3.4                      | Exponential and Logarithmic Equations                           |
| 3/3/2015       | Tuesday             | 3.5                      | Exponential and Logarithmic Models                              |
| 3/5/2015       | Thursday            | 7.1                      | Linear and Nonlinear Systems of Equations                       |
| 3/9/2015       | 3/13/2015           | No Classes               | Spring Break  |
| 3/16/2015      | Monday              | 7.2                      | Two-Var Linear Systems  |
| 3/17/2015      | Tuesday             | 7.3                      | Multivariable Linear Systems                                    |
| 3/19/2015      | Thursday            | 7.4                      | Partial Fractions   |
| 3/23/2015      | Monday              | 8.1                      | Matrices and Systems of Equations                               |
| 3/24/2015      | Tuesday             | 8.2                      | Operations with Matrices  |
| 3/26/2015      | Thursday            | 8.3                      | The Inverse of a Square Matrix                                  |
| 3/30/2015      | Monday              | <b>Exam 2</b>            | <b>April 6 is course drop date</b>                              |
| 3/31/2015      | Tuesday             | No classes               |   |
| 4/2/2015       | Thursday            | 4.1                      | Radian and Degree Measure/ RETURN GRADED EXAM 2                 |
| 4/3/2015       | Friday              | No classes               |   |
| <b>Apr. 10</b> | <b>Exam2 Retake</b> | <b>Library 204A or B</b> | <b>Online Testing</b>   |

## Spring 2015

### Material for Exam 3: chapter 4 and chapter 5, with 6.1 and 6.2

| Date      | Day  | Sections             | Description  |
|-----------|--|----------------------|--|
| 4/6/2015  | Monday   | 4.2                  | Trig Functions: The unit Circle/ <b>COURSE DROP DEADLINE</b> |
| 4/7/2015  | Tuesday  | 4.3                  | Right Triangle Trigonometry                                  |
| 4/9/2015  | Thursday   | 4.4                  | Trigonometric functions of any Angle                         |
| 4/10/2015 | Friday   | Exam 2 Retake        |  |
| 4/13/2015 | Monday   | 4.5                  | Graphs of Sine and Cosine                                    |
| 4/14/2015 | Tuesday  | 4.6                  | Graphs of Other Trig functions                               |
| 4/16/2015 | Thursday   | 4.7 - 4.8            | Inverse Trigonometric functions/Applications and Models      |
| 4/20/2015 | Monday   | 5.1                  | Using fundamental Identities                                 |
| 4/21/2015 | Tuesday  | 5.2                  | Verifying Trigonometric Identities                           |
| 4/23/2015 | Thursday   | 5.3                  | Solving Trigonometric Equations                              |
| 4/27/2015 | Monday   | 5.3                  | Solving Trigonometric Equations                              |
| 4/28/2015 | Tuesday  | 5.4 - 5.5            | Sum and Difference Formulas                                  |
| 4/30/2015 | Thursday   | 5.5                  | Multiple Angle and Product-to-Sum Formulas                   |
| 5/4/2015  | Monday   | 6.1 - 6.2            | Law of Sines/Law of Cosines                                  |
| 5/5/2015  | Tuesday  | Review (15 sections) |  |
| 5/6/2015  | Thursday   | <b>Exam 3</b>        |  |
| 5/7/2015  | Friday   | No Lab - Dead Day    |  |
| 5/11-5/14 | <b>Instructors will schedule a day during finals week to meet with students to return exam 3</b> |                      |  |
| 5/14/2015 | Exam 3 Retake  | Library 204A or B    | Online Testing   |