College Algebra

# Fall Term 2016

# Mrs. Bradley

# Phone: (321)276-4797

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I do not use blackboard. – the above contact information is the only way to contact me outside of class

Class times: MAC1105 – crn 12330 Final exam: Thurs. Dec. 15 : 1 - 3:30

 Tues/Thurs. 2:30 -3:45 bldg 8 - 235

Worksheets and lecture outlines can be found at the following link

 <http://frontdoor.valenciacollege.edu/faculty.cfm?uid=dbradley14>

and within webassign. Webassign.com

**Course Description:**

 Credit Hours 3 (3, 0)

 Prerequisite: Minimum grade of C in either MAT 0025C or MAT 1033C or appropriate score on an approved assessment. Course based on the study of functions and their role in problem solving. Topics include graphing, linear, quadratic, and exponential families of functions, and inverse functions. Students will be required to solve applied problems and communicate their findings effectively. Technology tools will be utilized in addition to analytical methods. Gordon rule course. Minimum grade of C required if MAC 1105 is used to satisfy Gordon Rule and general education requirements.

**CLAST Competencies/Valencia Student Core Competencies:**

 Core Competencies of a Valencia Graduate:

 Think, Communicate, Value and Act

 Valencia’s Student Core Competencies are complex abilities that are essential to lifelong success. This course will help you develop and demonstrate the abilities to (1) think clearly, critically, and creatively; (2) communicate with others verbally and in written form; (3) make reasoned value judgments and responsible commitments; and (4) act purposefully, reflectively, and responsibly. Many problems and activities will be presented in the context of an application. These applications will require students to select appropriate information from the problem and communicate effectively how to arrive at an appropriate solution.

**Materials:**

 Textbook: College Algebra with Current Interesting Applications and Facts by Acosta and Karwowski, published by Kendall Hunt . New books include webassign access

 Calculator: Graphing calculator **(TI-83 or TI-83+, TI-84 or TI-84+ permitted)**. The instructor will be using a TI-84**+** for classroom demonstrations. A scientific will be adequate but a graphing calculator will be useful. You should have the calculator with you every class period.

 **Graphing calculators that do symbolic manipulation, such as TI-89 or TI-92 or TI-inspire will not be allowed on tests and should not be used on homework.**

 Other: Ruler, graph paper (optional)

**Evaluation – grading : Your grade will be determined by the better of the following rubrics**

 Homework on webassign: 15% 0%

 4 unit test: 60% or 75%

 Final Exam: 25% 25%

Tests: There are 5 unit tests and a cumulative final



 Missing a test day is a serious problem. Please review the test dates. Conflicts such as family reunions and vacations are NOT an acceptable reason for missing a test. If you have an emergency the day of the test, phone or text or email me **no later than the day of the test** and I will schedule a make up test if it seems reasonable to do so. ONE such emergency is the maximum that is reasonable.

 F**ailure to take the final exam automatically results in a failing grade.**

**Homework:** Homework IS your study guide for tests. You may choose to use webassign and receive credit for the

 work or do problems from the textbook. You are already registered in the webassign course and will have

 received a course id and password with which to log in. You will be asked to enter a 16 digit access code.

 You have 2 weeks in which to do this. Access codes are included with the purchase of a new haroulddcopy

 Textbook. If you receive financial aid purchase the book immediately in the book store with your financial aid.

 DO NOT wait for the cash payment.

 A tentative schedule is attached at the end of the syllabus (it includes relevant problems from the book)

 . The assignment for each section should be done by the next class but will be due in webassign on the following

 Tues. Extensions can be requested but could incur a grade penalty. They are requested through the program

 AFTER the assignment has become past due.

**Attendance:**  Regular attendance and class participation are significant factors that promote student success in this course.

 Students are expected to arrive on time and remain in class for the whole period, unless prior permission to

 leave early has been granted by the instructor. **It is disruptive to arrive or depart while class is in session.**

Attendance is verified through an attendance sign in. Be certain that you sign in each class period.

 Missing classes typically causes an F in the course.

 Changes in the syllabus, course calendar, evaluation procedure, homework assignments although not usual,

 may be made at any time at discretion of teacher. In case you are absent, **it is your responsibility** to find out

 what, if any announcements or changes are made.

 Students are encouraged to participate actively and ask pertinent questions during class. Courtesy will be

 observed at all times.

Cell Phones, Beepers, Watch Alarms, computers: Please turn off all these devices before you come to class. They are a

 huge distraction and will not be allowed during class time.

**Withdrawal:**

 Don’t just stop coming to class! If you decide to withdraw, you must follow the proper procedure (see “Atlas” for details). Students may withdraw themselves up until the withdrawal deadline (Nov. 11,2016) for a grade of W. After this date instructors may withdraw a student.. I do not withdraw for absences unless there is a special need therefore, students who do not withdraw themselves prior to the withdrawal deadline will be assigned their grade for the course as outlined above.

**Tutoring and Support Materials:**

**HELP**

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(Bldg. 4-108) is a great help!

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**NOTE:** Please see me to discuss your individual needs. This is not limited to documented accomodations

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 letter from the Office for Students with Disabilities (OSD) and discuss specific needs

 with the professor, preferably during the first week of class. The Office for Students

 with Disabilities (East: Bldg 5-216) determines accommodations based on appropriate documentation of disabilities.

**Academic Honesty and classroom behavior:**

 All students are expected to be in complete compliance with Valencia Community College’s policies on academic honesty (see Valencia’s website for detailed policies). In no instance will cheating of any type be tolerated in this course. Students who plagiarize or cheat in any way will risk dismissal from class and/or expulsion from the college.

 [http://valenciacollege.edu/generalcounsel/policy/documents/8-11-NF-NN-Academic-Dishonesty.pdf](https://webmail.valenciacollege.edu/OWA/redir.aspx?REF=-rPnbB9BusRNEYPetaOHQYZrIOzxmSxjS0Vm3pZYQN0OfBFa6czTCAFodHRwOi8vdmFsZW5jaWFjb2xsZWdlLmVkdS9nZW5lcmFsY291bnNlbC9wb2xpY3kvZG9jdW1lbnRzLzgtMTEtTkYtTk4tQWNhZGVtaWMtRGlzaG9uZXN0eS5wZGY.)

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 The professor reserves the right to determine the appropriate penalties within Valencia’s Academic Honesty policies.

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| --- | --- | --- | --- | --- |
| date | week | section | topic | assignment |
| 8/30/2016 | 1 |   | class rules |   |
|  |  | 1.1 | linear/intercepts | P 15(1-35) odd |
| 9/1/2016 |  | 1.2 | slope/rate of change- mx + b | P28(1-55) odd |
|  |   | 1.3 | function notation | P 44( 1-13) odd (15 – 18)all (19-43)odd |
|  |   | 1.4 | graphs of functions | P 57: 1-25 odd 26-28 all 32 |
| 9/6/2016 | 2 | 1.5 | Linear functions/models | P.79( 1-64) odd |
| 9/8/2016 |   | 2.1 | systems- graphically | p 144(1-55)odd |
|  |  | 2.2 | systems - analytically | p 162(1-18)all(19-31) odd |
| 9/13/2016 | 3 | 2.2b | 3variable systems | worksheet |
| 9/15/2016 |   | 2.3 | linear inequalities | P174(1-8) all (9-15) odd |
|  |  | 2.4 | systems of linear inequalities | p 186: (1-12) odd ( 13-16) all (17-21)odd |
| 9/20/2016 | 4 | test 1  |   |   |
| 9/22/2016 |   | 3.1 | basic non linear functions | P226 (5-29)all |
|  |   | 5.2 | combinations and compositions | P430(1 – 33,43-47) odd problems |
| 9/27/2016 | 5 | 3.2 | transformations | P251(1-47 odd)55,57 do all graphs without using a graphing calculator then check your graph using the calculator if you wish to. |
| 9/29/2016 |   | 3.3 | piecewise | P 269 (1-12)all (13-19)odd |
|  |  | 3.4 | solvjng absolute value equations/inequalities | P280( 1-55) odd |
| 10/4/2016 | 6 | test2 |   |   |
| 10/6/2016 |  |   | NO CLASS |   |
| 10/11/2016 | 7 | 4.1 | solving quadratics equations | P4-32(1-33)(56 – 61) all - worksheet |
| 10/13/2016 |  | 4.2 | quadradic functions - finding the vertex | P 4-59(1-45) odd /worksheet |
| 10/18/2016 | 8 | 4.3 | quadratic inequalities | P 4-76(6-16) |
| 10/20/2016 |   | 4.5 | circles | p4 - 104 (30 -35) |
|  |  | 4.5 | circles | p 4-104 : (1 -29) odd |
| 10/25/2016 | 9 | test 3 |   |   |
| 10/27/2016 |   | 5.1 | inverse functions | Odd problems P412(1-19) directions - for each function: a. determine if it is one to one b. determine its domain and range c. determine its inverse for each inverse a. state the domain and range b. determine if it is a function c. determine if it is one to one (21-35) find the inverse of the function (37 – 47) sketch the inverse of the function (49 – 52) – all – find the inverse of the function – state any restrictions that need to be imposed on the inverse. (51-61) |
|  |   | 4.4 | Radical functions/rational exponents | P4-91(1-31)odd |
| 11/1/2016 | 10 | 4.4 | quadratic like | p 4-92(42-65) odd (70-73) |
| 11/3/2016 |   | 7.1 | Polynomial functions | P 7 -23(1-10odd)(15 -29 odd)(37-59 odd- use tracing on the word problems)(64 )(65 – 70 odd) |
| 11/8/2016 |  | 7.1 |   | worksheet |
|  |  | 7.1 |   |   |
| 11/10/2016 | 11 | 7.2 | Rational functions | P7-50(1- 27 – replace their directions with the following. find domain for each function. find vertical, horizontal, and slant asymptotes where they exist and write “dne” if they do not exist. find coordinates for any “holes” that exist.  |
| 11/15/2016 | 13 | test 4 |  |  |
| 11/17/2016 | 14 | 5.3 | composition of inverse functions | P440(1-15)note - on 13- 15 part b and c say to “plot the points” this is confusing since they are referring to a single point.- ignore this part of the question – simply find the indicated point |
| 11/22/2016 |  | 6.1 | exponential |   |
|  |  | 6.2 | logarithmic | P 506(1-47)0dd |
| 11/29/2016 |   | 6.3 | base e | p 524(1-18) all (20-34)odd – graph WITHOUT calculator using transformation theory |
| 12/6/2016 |  | sup | laws of logs | worksheet |
|   |  | 6.4 | equations and laws of logs. | P 546(1-24)all (29-60)odd |
|   |  | 4.6 | non linear sysytems |   |
| 12/8/2016 | 15 | test 5 |   |   |
|  |  |  |  |  |

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Tentative schedule