Course Syllabus

 MAT 1033C - Intermediate Algebra

Fall Term - 2015

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Office hours: Room 8- 111 MW 10AM – 12

**Class times and locations**: 7 am MWF rm 8 – 240 **Final Exam** Mon 7am -

 (You are registered 8 am MWF rm 8 – 240 Fri. 7 am

to one of these

**Books and supplies**

 **Access to webassign–** **You have already been registered into WEBASSIGN.** Your user id is the portion of your Valencia email address that occurs before the @ sign – this should be identical to your Valencia login name. The college code is “Valencia College”. The password is “student”. It is recommended that you change the password when you log in the first time. You should have received this information via an email from Webassign.

 **MUST purchase code –** It is provided with purchase of a textbook or can be purchased separately online or in the book store. It is purchased like a textbook if you are using financial aid. You will have 2 weeks of free access to the program, starting the first day of class, during which time you MUST register by purchasing the access code. (if you are retaking the course you do not need to repurchase the code but may need to contact the company directly). You cannot access WEBASSIGN until the first day of the term.

 Textbook – Intermediate Algebra – Connecting concepts through applications

 Clark / Alfinson

A **hard copy is not required** – you have access to the textbook through WEBASSIGN -

 **Calculator:** A graphing calculator is recommended for this course. The **TI-84** will be used for all classroom and lab demonstrations. If you choose a different brand or model, you are responsible for learning the appropriate calculator syntax. Calculators with Algebraic Manipulators such as TI 94 and TI inspire Casio f110 may not be used on tests and should not be used for homework. IPOD, computer, phone calculators, etc. cannot be used on tests.

 **Lab manual:** Intermediate Algebra Activities - green booklet – printed by Valencia – you will receive this at your first lab meeting.

 **Other:** A binder, folder, spiral notebook or composition notebook is required. 3x5 notecards may be useful.

**Course Description:**

 INTERMEDIATE ALGEBRA

**Prerequisite**: Minimum grade of C in MAT 0022C or MAT 0028C or appropriate score on an approved assessment

This course presents algebraic skills for MAC 1105. Topics include linear equations and inequalities in two variables and their graphs, systems of linear equations and inequalities, introduction to functions, factoring, algebraic fractions, rational equations, radicals and rational exponents, complex numbers, quadratic equations, scientific notation, applications of the above topics and the communication of mathematics. Applications emphasizing connections with disciplines and the real world will be included.

If you are interested, there is a free course (separate from MAT1033C) available in Blackboard that provides a review of some of the pre-requisite topics. The name of the course is Math Readiness for MAT1033C. If you complete the entire readiness course by Friday January 30 and provide me with a screenshot of your certificate of completion, I will give you an additional 5 points on both Test 1 and Test 2 of our course. I highly recommend that you take advantage of this opportunity! Instructions for self-enrollment in the readiness course are attached to the same email as this syllabus.

**Course Outcomes**:

· The student will be able to understand the properties of exponents, and work with real life applications such

 as scientific notation, and formulas like compound interest.

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 The student will recognize the mathematical function concept and describe relationships between variables in

 real world situations. The student will also be able to use functions expressed verbally, numerically,

 graphically, and symbolically.

· The student will be able to recognize, model, and analyze linear equations in the real world

· The student will be able to recognize, model, and analyze linear inequalities in real world situations

· The student will be able to recognize, model, and analyze systems of linear equations in real world situations

· The student will be able to recognize and analyze polynomials in real world situations

· The student will be able to recognize, model, and analyze rational expressions in real world situations

· The student will be able to recognize and analyze radical expressions in real world situations

· The student will be able to recognize, model, and analyze quadratics in real world situations

· The student will be able to use the graphing calculator to enhance and visualize mathematical concepts

**Valencia Core Competencies:**

Valencia desires their graduates to possess and demonstrate a set of global competencies including the ability to think, communicate, value and act. In an effort to help you acquire and improve upon your ability to demonstrate these competencies this course will include activities that require you to:

1. Think clearly, critically and creatively.
2. Communicate with others in written and verbal form.
3. Make reasoned value judgments and responsible commitments.
4. Act purposefully, reflectively and responsibly.

Due to the nature of these global competencies 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 for the problem.

**Class Policies**

**Attendance:** Attendance is required for class and lab.  Being late to class or leaving early is a disruption to the class and is discourteous to the professor and the other students. You should be on time to each class and lab, complete all assignments, and remain in class for the entire time unless there is an emergency. Scheduling conflicts and celebrations are NOT emergencies.

More than **3 absences** can result in withdrawal from the course.

 **Courtesy:** Cell phones and other electronic devices are a distraction to other people and should be turned off during class. Earplugs should be **removed** as a sign of respect for the professor and your classmates. **Laptop computers should be shut unless you have arranged with the professor to use it for taking notes.**

**Withdrawal: St**udents may withdraw themselves up until the withdrawal deadline (Nov. 13) for a grade of W. Students who do not withdraw themselves prior to the withdrawal deadline will receive a grade as determined by the criteria below. Student’s on Bright Futures Scholarships become responsible for the cost of the course if they are withdrawn from the course and can expect to be withdrawn if excessive absences are causing them to fail the class. If unusual circumstances concerning these provisions occur discuss them with the professor.

**Evaluation(grade)**

**Homework 20%:**  is assigned on Webassign. It SHOULD be completed by the next class meeting and is considered late if it is not (penalties can apply). It MUST be completed BEFORE the test that covers the section. (NOTICE- you cannot pass the class if you do not do the homework).

**Participation 5%:**  is based on attendance, CPS, and a homework journal. A participation grade will be determined for each testing unitl

Attendance: 5pts each class period – points deducted for tardies and leaving early

 CPS: 3 pts each class period. CPS is an electronic device that allows instant evaluation and feedback. There will be a short CPS exercise at the **beginning of the class period** (thus tardies and absences will also adversely affect the grade).

The homework journal should include:

 Warm up problems assigned each class at the beginning of class- dated and

 completed

 Written work for online homework

Every time you do homework you will have a journal entry –

 Start it with the date/time

 Then write any work you do to complete problems.

 Copy (by hand or electronically) any problem you have difficulty with

 End EACH homework session with a statement about something that you

 have learned or a concept that you have a question about or need to

 review for test.

The journal will be graded the day of the test for that unit and is graded by how well you have adhered to the above criteria.

**Lab 10%** : attendance and active participation in weekly lab class are mandatory. (note that if you do not attend lab you cannot earn an A in the class and a B is highly unlikely.

**In Class Tests 50%:** There will be 6 major tests and a comprehensive final exam. Some tests will have a small section where no calculator of any kind will be permitted. A calculator will be permitted on the remainder of the test but not always a graphing calculator. (note: any missed test drops you a letter grade)

**MAKING UP TESTS:** If there is an emergency which necessitates your absence for a scheduled test AND you contact me NO LATER than the day of the test, you will have 1 week in which to make up the test in the testing center. Contact can be a phone message, email, or WRITTEN message sent with a friend. This can be done for ONE test. MISSING a test makes a C average extremely difficult to obtain.

 **Final Exam 15 %:** **Failure to take the final exam will result in an automatic grade of F.** The

 final exam is cumulative.

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| --- | --- |
| **Your final grade will be calculated as follows**:90%-100% “A”80%-89.9% “B”70%-79.9% “C”60%-69.9% “D”\*under 59.9% “F”\* | **\*** These grades will require you to repeat MAT1033C before continuing on in mathematics. |

Your current grade can be viewed on WebAssign at any time. Offline grades such as tests, quizzes and cps scores are graded within a week of taking the test on the related unit and are recorded in the webassign grade book.

**Academic Honesty:** You are expected to do your own work on exams and assignments. Providing information to another student or receiving information concerning exam content is considered cheating. Doing homework for another student, signing into a lab or class for them when they are not present or doing their CPS responses are also cheating. Use of an inappropriate calculator is cheating

 The minimum penalty for dishonesty is a grade of 0. For other possible penalties see Valencia’s Student Code of Contact

**Disclaimer**: Changes in the syllabus, scheduled evaluations, and/or homework assignments may be made at any time at the discretion of the professor. If you are absent, **it is your responsibility** to find out what, if any, changes have been made. It is a good idea to trade phone numbers/emails with a fellow student to enable you to be aware of such changes.

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Phone number/ email of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_fellow student:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Do not wait to get help!**

**What to do if you do not understand or need help** outside of class**:**

* Review your notes. Rework the examples provided in class. See if it still makes sense! If your notes aren’t helping you need to get help on taking better notes.
* Read the textbook **(really)**. The text is well written and has many examples for you to follow.
* **Visit the SPA** in building 4.
* Go to the Math Support Center in the IMC in building 4. Free, walk-up tutoring is available.
* Visit : <http://valenciacollege.edu/math/>
* **Visit** : math help 24/7 on the Valencia website
* Use smarthinking online tutoring service
* Contact me. Arrange for “office hours” or ask your question in an email or on the phone
* Form study groups

**Tentative schedule:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Week | Date-MWF | Date - F | section | Topic |
| 1 | 1/12/2015 | 1/16/2015 | review | Review |
| 1/14/2015 | 1.1 | solve linear equations |
| 1/16/2015 | 1.2 | Scatterplots |
| 2 |   |   |   |
| 1/21/2015 | 1.3 | linear graphing and slope |
| 1/23/2015 | 1/23/2015 | 1.4 | Intercepts |
| 3 | 1/26/2015 | 1.5 | finding linear eqautions |
|   | 1.6 | finding linear models |
| 1/28/2015 | 1.7 | functions/notation |
| 1/30/2015 | 1/30/2015 | test |   |
| 4 | 2/2/2015 | 2.1 | linear systems |
| 2/4/2015 | 2.2 | solving/substitution |
| 2/6/2015 | 2.3 | solving/elimination |
| 5 | 2/9/2015 | 2/6/2015 | 2.4 | solving linear inequalities |
| 2/11/2015 | 2.5 | absolute value solving |
|   | 2.6 | systems of linear inequalities |
| 6 | 2/16/2015 | 2/20/2015 | test |   |
| 2/18/2015 | 3.1 | laws of exponents |
| 2/20/2015 | 3.2 | combining functions |
| 7 | 2/23/2015 | 2/27/2015 | 3.4 | Factoring |
| 2/25/2015 | 3.5 | Factoring |
| 2/27/2015 |   | Review |
| 8 | 3/2/2015 | 3/6/2015 | test |   |
| 3/4/2015 | 8.1 | root functions |
| 3/6/2015 | 8.2 | simplifying combining |
| 10 | 3/16/2015 | 3/20/2015 | 8.3 | multiply/dividing |
| 3/18/2015 | 8.4 | solving radicals |
| 3/20/2015 | 8.5 | complex numbers |
| 11 | 3/23/2015 | 3/27/2015 | test |   |
| 3/25/2015 | 4.4/4.5 | square root property/zero product rule |
| 3/27/2015 | 4.5 b | completing square |
| 12 | 3/30/2015 | 4.6 | quadratic formula |
| 4/1/2015 | 4/3/2015 | 4.1 | quadratics/parabolas |
| 4/3/2015 | 4.2 | graphing/vertexform |
| 13 | 4/6/2015 | 4.7 | graphing - standard form |
| 4/8/2015 | 4.3 | finding quadratic models |
| 4/10/2015 |   | Review |
| 14 | 4/13/2015 | 4/10/2015 | test |   |
| 4/15/2015 | 7.1 | rational functions/variation |
| 4/17/2015 | 7.2 | simplifying rational |
| 7.3 | mult/div rational |
| 15 | 4/20/2015 | 4/17/2015 | 7.4 | add/sub rational |
| 4/22/2015 | 7.5 | solving rational |
| 4/24/2015 | 4/24/2015 | test | final review |
| 16 | 4/27/2015 7 am class at 7 am | 5/1/2015 at regular class time |   | Finals |
|   |   |
| 5/1/2015 8 am class at 7 am |   |

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