

**8am daily in 17-102
Item #6392**

**Math 111: College Algebra
Spring 2012**

**11am daily in 17-102
Item #6396**

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<u>Office Hours</u>	9 – 9:50am M - F. The Thursday hour is in the MRC. Also by appt.
<u>home page</u>	http://flightline.highline.edu/dwilson/
<u>WebAssign</u>	https://www.webassign.net/login.html
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Course Description: (5 credits) Applications of functions (linear, quadratic, exponential and logarithmic) in business and social sciences, including total cost revenue and profit; break-even analysis; supply/demand and market equilibrium; exponential growth and decay; fitting curves to data with graphing utilities; theory of matrices; graphical methods for optimization (linear programming problems); and mathematics of finance (arithmetic and geometric sequences and sums).

Course Objectives: *The student will be able to ...*

- Construct, analyze, and interpret linear, quadratic and exponential functions applied to (1) total cost, total revenue, total profit; (2) breakeven analysis; (3) supply/demand and market equilibrium; (4) exponential growth and decay; and (5) fitting curves to data with graphing utilities.
- Accurately describe the important quantities, variables, and relationships (including units of measure) in a given application, using function notation where appropriate.
- Interpret the meaning in everyday language of (1) the breakeven point, (2) the market equilibrium point, (3) function notation, (4) the results of Reduced Row Eschelon form of a matrix, and (5) mathematics of finance.
- Identify elements and dimensions of matrices, perform and interpret the results of matrix operations, including adding and multiply matrices and solving systems of equations.
- Solve optimization (linear programming) problems using graphical methods, matrices, and technology where appropriate.
- Apply geometric sequences to solve finance problems, including solving for future or present value, interest rates, compounding times, lump sums, ordinary annuities and loans.

Text: *Mathematical Applications*, 9th edition, Harshbarger and Reynolds. Because we will be using Enhanced WebAssign for our online homework, a previous edition of the book is acceptable.

Prerequisite: Math 091 or 098 with a minimum grade of 2.0 or COMPASS algebra score of 71.

Calculators: A graphing calculator is required for this course.

- i. The TI-834 is recommended. The use of symbolic calculators such as the TI-89 and TI-92 will not be allowed during exams..
- ii. Calculators may be rented from the math department on a first come first serve basis. To rent a calculator, pay the rental fee at the cashier in building 6 and then take the receipt to the library.

Homework: The format and grading criteria for homework is as follows.

- i. **Enhanced Web Assign:** Graded homework will be administered online thru EWA. The website is: <https://www.webassign.net/login.html>
EWA Class Key: highline.cc.wa 7229 8924 (You can try it out for two weeks).
- ii. **Many submissions:** You may make up to five submissions on most problems.
- iii. **Bonus:** If you complete homework exercises 24 hours in advance of the deadline, you will earn a 5% bonus on the problem.
- iv. **Extensions:** You may request a 24 hour extension on the homework *for the week after the original due date*. There is a 20% penalty on each problem completed using the extension.

Quizzes: See the schedule for the tentative dates and times.

- i. There are no make-up quizzes.
- ii. It is very important that you are on time for group quizzes. If you are more than five minutes late, there will be a penalty. 5 minutes => 5% penalty. 6 minutes => 6% penalty ...
- iii. If you miss a quiz, 80% of your next quiz will be used in its place (you must remind me).
- iv. If you miss a second quiz, a score of 0% will be assigned.
- v. Spoken and written communication as well as sharing of calculators during exams is prohibited.

Tests: There will be tests given during the quarter.

- vi. The exams will be cumulative, but will emphasize the material covered since the last test.
- vii. If you miss a test, a score of 0% will be assigned. All tests must be taken during the scheduled class time. *No make-up tests*.
- viii. Spoken and written communication as well as sharing of calculators during exams is prohibited.

Final Exam: A comprehensive final exam will be held in the regular class meeting room. See the quarterly class schedule for dates and times. The final exam is mandatory and a grade of 0.0 may be assigned at the instructor's discretion to those who fail to take the final exam.

Grading: Homework: 10%, Quizzes: 10%, Tests: 45%, Final Exam: 35%. GPA's will be according to:

95-100%	4.0	%%%	GPA	%%%	GPA	%%%	GPA	%%%	GPA
93-4%	3.9	81%	3.1	73%	2.3	65%	1.5	57%	0.7
91-2%	3.8	80%	3.0	72%	2.2	64%	1.4	56%	0.6
89-90%	3.7	79%	2.9	71%	2.1	63%	1.3	55%	0.5
87-8%	3.6	78%	2.8	70%	2.0	62%	1.2	54%	0.4
85-6%	3.5	77%	2.7	69%	1.9	61%	1.1	53%	0.3
84%	3.4	76%	2.6	68%	1.8	60%	1.0	52%	0.2
83%	3.3	75%	2.5	67%	1.7	59%	0.9	51%	0.1
82%	3.2	74%	2.4	66%	1.6	58%	0.8	0-50%	0.0

Policies and Notes:

- i. **Attendance:** You are responsible for all material covered in class including all announced changes to the schedule and assigned course work. (If you miss class, *you* are still responsible for everything in class).
- ii. **Cell Phones:** The use of cell phones, pagers, and palm pilots in class is strictly prohibited. Failure to comply may result in your removal from the classroom.
- iii. **Math Resource Center:** Cost-free mathematics tutoring is available at the MRC. The MRC is located in building 26, room 319.
- iv. **Academic Dishonesty:** Cheating, plagiarism, and other forms of academic dishonesty are unacceptable at Highline Community College and may result in lower grades and/or disciplinary action. It is both your right and responsibility to be familiar with the document entitled: Student Rights and Responsibilities code WAC 132I-1210 adopted by the Board of Trustees of Community College District 9 on December 13, 2007. This is available in the counseling center.
- v. **Special Concerns:** If you have any special concerns about this class, please talk to me personally in my office. The more I know about you individually, the more I can help you be successful in this course. If you need course adaptations or accommodations because of dis-Ability; if you have emergency medical information to share with me; or if you need special arrangements in case the building must be evacuated, please provide me with the Letter of Accommodation you have received from the Office of Access Services. Access Services is located in Building 99 in the Student Development Center.
- vi. **Emergency Procedures:** In the event of an emergency, follow your instructor's directions. If you are told to evacuate the building, take your valuables because you may not be allowed to re-enter. Do not leave campus until your instructor or another campus official tells you to do so. If you may need assistance evacuating, notify your instructor today. To prepare yourself for an emergency, review the evacuation map on the last page of the emergency placard in your classroom and subscribe to HCC Alert, a text message service for emergencies (<https://bob.highline.edu/hccalerts/>).
- vii. **Important Dates:** The last day to drop without incurring a "W" and the last day to officially withdraw with a "W" are listed in the quarterly.