CLASS INFORMATION:
Semester and Year: Spring 2018
Course Number: Math 124
Course Section: 1005/1007
Lecture Times: 0830-0945 MW (Section 1005)
1000-1115 MW (Section 1007)
Lecture Location: CBC C-120 (Section 1005)
CBC C-118 (Section 1007)

INSTRUCTOR INFORMATION:
Name: Bob Ain
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Office Hours: 1300-1400 MTWR, or by appointment
Dept Phone: (702) 895-3567
Dept Web Page: http://www.unlv.edu/math
Other: MyMathLab course number: ain34184 (Section 1005)
        ain10655 (Section 1007)

PLEASE MAKE SURE YOU SIGN UP FOR THE RIGHT SECTION!!!!

COURSE DESCRIPTION:
Equations and inequalities; relations and functions; linear, quadratic, polynomial, exponential, and logarithm functions; systems of linear equations and inequalities; matrices; sequences and series; binomial theorem. 3 credits. Duplicate credits cannot be earned in any two of Math 124/126/128.

PREREQUISITES for the COURSE:
Three years of high school mathematics at the level of algebra and above and a satisfactory score on the Math Placement Test, or a minimum score of 22 on the ACT, or a minimum score of 520 on the SAT, or a C or better in Math 096 or equivalent.

COURSE MATERIALS:
Required Account: Pearson MyLab and Mastering (online account for homework)
Suggested Calculator: A non-programmable, non-graphing scientific calculator is recommended (calculator with trig functions, exponentials and logs). However calculators are not allowed on the tests or final exam; see “calculator policy” for additional details.
SPECIAL NOTE:
During full semesters (fall and spring), students enrolled in Math 095 through Math 182 are required to attend a mandatory presentation regarding the online evaluations, tutor clinic and other tutoring options offered. Your instructor will provide you with specific details.
EVALUATION AND GRADE ASSIGNMENT:

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<thead>
<tr>
<th>Weight</th>
<th>Item</th>
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<tbody>
<tr>
<td>10% -or- 15%</td>
<td>Online Homework</td>
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<tr>
<td></td>
<td>[10% for on-campus classes -or- 15% for distance education classes]</td>
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<tr>
<td>30%</td>
<td>Cumulative Final Exam (given per UNLV finals schedule; see Assignment Summary)</td>
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<tr>
<td>30%</td>
<td>Test One, Test Two, Test Three</td>
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<tr>
<td>24%</td>
<td>Quizzes and other (offline) homework</td>
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<tr>
<td>6%</td>
<td>Portfolio</td>
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* Your final exam will contain assessment questions common to all sections of this course. Formula cards and calculators are not permitted on the final exam.

Letter grades will be assigned according to the following scale: A 93-100, A- 90-92.9, B+ 87-89.9, B 83-86.9, B- 80-82.9, C+ 77-79.9, C 73-76.9, C- 70-72.9, D+ 67-69.9, D 63-66.9, D- 60-62.9, F below 60.

Extra credit will not be permitted on final grades, or the final examination.

TOPICAL OUTLINE:

Just In Time Chapter. Basic Concepts of Algebra
Chapter 1. Graphs, Functions and Models (Sections 1-6)
Chapter 2. More on Functions (Sections 1-4)
Chapter 3. Quadratic Functions and Equations; Inequalities (1-5)
Chapter 4. Polynomial Functions and Rational Functions (Sections 1-3, 6)
Chapter 5. Exponential Functions and Log Functions (Sections 1-6)
Chapter 6. Systems of Equations and Matrices (Sections 1-3)
Chapter 7. Conic Sections (Section 4)
Chapter 8. Sequences, Series and Combinatorics (Sections 1, 7)

LEARNING OUTCOMES:

In addition to the listed outcomes, we expect students to have mastered or continue to hone their expertise in algebraic manipulations. All assessment questions should be considered tests of the appropriate use of these (and prerequisite) algebraic skills. The included outcomes are only a subset of the objectives covered in the course.

Chapter 1

- Given the endpoints of a line segment, find the length of the segment and its midpoint
- Find the domain of a function including rational expressions, square roots, or their composition
- Graph a line given its equation (equation may or may not be in slope intercept form)
- Find the equation of a line given two points
- Find the equation of a line that is parallel [[or perpendicular]] to another through a given point
- Solve a linear inequality (problem may be algebraic only, or given in the context of an application problem)

Chapter 2

- Evaluate a piecewise function for given inputs
- Find the composition of two or more functions, along with its domain
- Identify a given function is even, odd or neither

Chapter 3

- Find the roots of a quadratic equation
- Solve equations that are (or easily become) quadratic in form
• Determine the characteristics of the graph of a quadratic (direction of opening, axis of symmetry, vertex, roots, y intercept) and use this information to graph
• Find the maximum or minimum values given a quadratic application problem
• Solve rational equations
• Solve radical equations
• Given a formula, solve for a specific variable
• Solve linear inequalities with absolute value

Chapter 4
• Determine what happens to a given polynomial as the independent variable tends to positive and/or negative infinity (a.k.a. end behavior)
• Use long or synthetic division to find the result of a polynomial divided by  \( x - c \)
• Solve a polynomial inequality
• Solve a rational inequality

Chapter 5
• Find the inverse of a given function or relation
• Convert an exponential equation to its equivalent logarithmic form, or visa-versa
• Solve an exponential equation
• Solve a log equation
• Find half life or doubling time given context of model
• Given equation, find half life or doubling time

Chapter 6
• Solve a system of two [[or three]] linear equations with two [[or three]] unknowns
• Identify the solution(s) for an augmented matrix in row-echelon form

Chapter 7
• Solve a nonlinear system of equations

Chapter 8
• Write the terms of a recursive sequence given as a formula

SAMPLE PROBLEMS/TEST and FINAL EXAM HINTS:
A topical outline can be found online
(https://faculty.unlv.edu/bellomo/CourseInfo/CourseInfo.html). This includes hints for the tests and final exam. You are strongly encouraged to review these handouts.

COURSE SCHEDULE:
The course schedule for your class is a separate handout and is only a projected pacing of the course. However, be aware that the major assessments should be expected with only minor variances. See Assignment Summary.

CLASS POLICIES:
ATTENDANCE:
Attendance is a mandatory component of all on-campus classes, and will be taken daily. Be in class and be on time.

CALCULATOR/TECHNOLOGY:
Calculators will not be permitted on the tests and final exam. Calculators will be needed for some parts of the course, and allowed for classwork and other evaluations, but will not be emphasized. The primary focus of this course is to be able to think well. At no time during classroom
instruction or assessments may you use cell phones, laptops, ipods (or similar such devices), nor are you permitted to share a device with another student.

ACADEMIC INTEGRITY:
Academic integrity is a legitimate concern for every member of the campus community; all share in upholding the fundamental values of honesty, trust, respect, fairness, responsibility and professionalism. By choosing to join the UNLV community, students accept the expectations of the Student Academic Misconduct Policy and are encouraged when faced with choices to always take the ethical path. Students enrolling in UNLV assume the obligation to conduct themselves in a manner compatible with UNLV’s function as an educational institution. An example of academic misconduct is plagiarism. Plagiarism is using the words or ideas of another, from the Internet or any source, without proper citation of the sources. See the Student Academic Misconduct Policy (approved December 9, 2005) located at: http://studentconduct.unlv.edu/misconduct/policy.html.

While the UNLV Department of Mathematical Sciences encourages students to collaborate with peers, there is a distinction between verbal collaboration and copying. Specifically – it is not acceptable to “divide” work, and it is not acceptable to use another persons’ hard work (current or former student, teaching assistant, or tutor) as your own. Further, if you feel you are being misguided, it is your responsibility to report this to your instructor before testing, so they can correct the situation and give you proper clarification.

Academic dishonesty will not be tolerated; the College of Sciences emphasizes zero tolerance for academic dishonesty. All acts of academic dishonesty may result in: automatic zero on the assignment, F in the course, disciplinary review, revoking of degree, probation, expulsion, etc.

HOMEWORK:
Homework will be assigned and graded using Pearson MyLab and Mastering (online account). The necessary account information is included with new textbooks. Students who purchase used textbooks may purchase an access code at http://www.pearsonmylabandmastering.com/. The Course ID for this course is noted under "Instructor Information" at the top of this document. Offline homework assignments are due as indicated on the Assignment Summary. Textbook homework assignments are listed on my website, and will be evaluated by homework quiz on review days prior to exams. Other homework will be assigned, always with adequate time between assignment and due date.

MAKE-UP POLICY:
Late work is not generally accepted; if it is, expect a points penalty. Make-up exams may or may not be given at the discretion of the instructor.

TESTING:
Test days you will arrive on time, and minimize the amount of clutter you bring into the classroom. Leave all electronic devices in your home or automobile; if it is necessary to carry them for emergency purposes, they should be turned OFF before the assessment begins. If you create a disturbance with an electronic item (even in vibrate mode) you may receive a zero on that assessment. Bring a photo id to all tests (especially the final exam), you may be asked to provide proof of identification. Formula cards and calculators are not permitted on tests and the final exam. Tests are scheduled for 07 Feb, 14 Mar, and 11 Apr. Final exam will be at 1010 on 07 May for Section 1007, and at 0800 on 09 May for Section 1005.
TUTORING:
Tutoring through the Department of Mathematical Sciences is available for this course – this includes a walk in tutoring clinic held in CDC-7. For more information including location and hours please call (702) 895-3567 or email math@unlv.edu. Additional free and pay tutoring is available in the Academic Success Center, http://academicsuccess.unlv.edu/tutoring. Students are highly encouraged to exploit the opportunities afforded by these tutoring programs.

UNIVERSITY POLICIES:
(1) The UNLV Disability Resource Center (SSC-A 143, http://drc.unlv.edu/, 702-895-0866) provides resources for students with disabilities. If you feel that you have a disability, please make an appointment with a Disabilities Specialist at the DRC to discuss what options may be available to you. If you are registered with the UNLV Disability Resource Center, bring your Academic Accommodation Plan from the DRC to the instructor during office hours so that you may work together to develop strategies for implementing the accommodations to meet both your needs and the requirements of the course. Any information you provide is private and will be treated as such. To maintain the confidentiality of your request, please do not approach the instructor in front of others to discuss your accommodation needs.

(2) Any student missing class quizzes, examinations, or any other class or lab work because of observance of religious holidays shall be given an opportunity during that semester to make up missed work. The make-up will apply to the religious holiday absence only. It shall be the responsibility of the student to notify the instructor no later than the end of the first two weeks of classes of his or her intention to participate in religious holidays which do not fall on state holidays or periods of class recess. For additional information, please visit: http://catalog.unlv.edu/content.php?catoid=6&navoid=531.

(3) Copyright – The University requires all members of the University Community to familiarize themselves with and to follow copyright and fair use requirements. You are individually and solely responsible for violations of copyright and fair use laws. The university will neither protect nor defend you nor assume any responsibility for employee or student violations of fair use laws. Violations of copyright laws could subject you to federal and state civil penalties and criminal liability, as well as disciplinary action under University policies. Additional information can be found at: http://www.unlv.edu/provost/copyright.

(4) By policy, faculty and staff should e-mail students’ Rebelmail accounts only. Rebelmail is UNLV’s official e-mail system for students. It is one of the primary ways students receive official university communication such as information about deadlines, major campus events, and announcements. All UNLV students receive a Rebelmail account after they have been admitted to the university. Students’ e-mail prefixes are listed on class rosters. The suffix is always @unlv.nevada.edu. Emailing within WebCampus is acceptable.

(5) One-on-one or small group assistance with writing is available free of charge to UNLV students at the Writing Center, located in CDC-3-301. Although walk-in consultations are sometimes available, students with appointments will receive priority assistance.

Appointments may be made in person or by calling 895-3908. The student’s Rebel ID Card, a copy of the assignment (if possible), and two copies of any writing to be reviewed are requested for the consultation. More information can be found at: http://writingcenter.unlv.edu/.

(6) The grade of I – Incomplete – can be granted when a student has satisfactorily completed three-fourths of course work for that semester/session but for reason(s) beyond the student’s control, and acceptable to the instructor, cannot complete the last part of the course, and the instructor believes that the student can finish the course without repeating it. The incomplete work must be made up before the end of the following regular semester for undergraduate courses. Graduate students receiving “I” grades in 500-, 600-, or 700-level courses have up to one calendar year to
complete the work, at the discretion of the instructor. If course requirements are not completed within the time indicated, a grade of F will be recorded and the GPA will be adjusted accordingly. Students who are fulfilling an Incomplete do not register for the course but make individual arrangements with the instructor who assigned the I grade.

(7) The University requires that **final exams** given at the end of a course occur at the time and on the day specified in the final exam schedule. See the schedule at: [http://www.unlv.edu/registrar/calendars](http://www.unlv.edu/registrar/calendars)

**GUIDELINES FOR COURTESY AND RESPECT:**
I would like to welcome all students into an environment that creates a sense of community pride, courtesy, and respect; we are here to work cooperatively and to learn together.

In order to create a smooth and harmonious learning community, please make every attempt to **come to all the class sessions**, to come to class on time, and to **stay** until the end of the meeting. There may be a time when you are unavoidably late for class. In that case, please come into the room quietly and choose a seat closest to the entrance. Once the class session has begun, please do not leave the room and then re-enter unless it is an emergency.

It is important that we are all able to stay focused on the class lecture/discussion. For this reason, only **one person at a time** in the class should be speaking. Side conversations are distracting for surrounding students and for the professor. All **electronic devices should be turned off BEFORE entering the room**. You must have instructor permission for use of a laptop, and it is only to be used for instructional purposes.

As you can see, simple norms of courtesy should be sufficient to have our class run in the best interests of all. Any student considered to be a distraction to the learning environment may be asked to leave the classroom at any time. Any student who is continually a distraction to the learning environment may be administratively dropped. Thank you in advance for your cooperation.

**OTHER INSTRUCTOR POLICIES:**
Bring your textbook to class every day. A positive attitude is expected in this class daily.

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