# Math 134, Section 5
## Fall 2014 Syllabus

Instructor:   John Robertson
Office:     Keller 404E
Office Hours:   TBA and by appointment
Email:     johncr@math.hawaii.edu
Website:    http://www.math.hawaii.edu/~johncr.html
Class Meeting:  TR 3:00 – 4:30 p.m. in Kell 302
Prerequisite:   two years of high school algebra, one year of plane geometry.

All major announcements will also be posted to the course website (e.g. exam dates).

Course Description: Algebra review, functions with special attention to polynomial, rational exponential and logarithmic functions, composed and inverse functions, techniques of graphing. Below is a tentative course schedule:

| | Tuesday | Thursday |
|---|---|---|
| Week # 1 | Lines, Linear equations | Absolute values, Interval notation |
| Week # 2 | Factoring, Rational expressions | Discussion session 1 |
| Week # 3 | Key number method | Quiz # 1 <br> Integer exponents |
| Week # 4 | Rational exponents | Discussion session 2 |
| Week # 5 | Rationalizing denominator | Quiz # 2 <br> Circles, Completing squares |
| Week # 6 | Functions: domain, ranges, examples | Discussion session 3 |
| Week # 7 | Linear functions | Quiz # 3 <br> Functions: arithmetic |
| Week # 8 | Functions: compositions | DESMOS 4 |
| Week # 9 | Review Midterm | Midterm |
| Week # 10 | Inverse functions, Quadratic functions | Discussion session 5 |
| Week # 11 | Holiday | Quiz # 4 <br> Polynomial Division, Synthetic Division |
| Week # 12 | Holiday | Discussion session 6 |
| Week # 13 | Graphing techniques I and II | Quiz # 5 <br> Polynomial functions |
| Week # 14 | Rational functions | Holiday |
| Week # 15 | The Logarithm | Exponential equations, exponential graphs |
| Week # 16 | Logarithmic equations | Review |

Text: The .pdf file of the text book is available online on the class website. Everything covered on exams will be from the textbook.

Discussion sessions: The second class of weeks # 2 (Thursday, September 4th) , # 4 (Thursday, September 18th), # 6 (Thursday, October 2nd), # 8 (Thursday, October 16th), # 10 (Thursday, October 30th), # 12 (Thursday, November 13th) will be dedicated to discussion, extra practice and recitation. The software *Desmos* will be introduced, used as needed and will contribute toward the

homework grade. It will be recommended for the students who own a laptop or a tablet to bring it during the class.

Homework: Homework will be assigned each week, at the end of the second class, and will be due by the beginning of the first class of the following week.

Quizzes: There will be 5 short quizzes (about 20 minutes) during the second class of weeks # 3 (Thursday, September 11th), # 5 (Thursday, September 25th), # 7 (Thursday, October 9th), # 11 (Thursday, November 6th), # 13 (Thursday, November 20th).

Midterm Exam : There will be a midterm exam on the second class of week # 9 (Thursday, October 23th). The program will include all the material covered during the first 8 weeks of the semester.

Final Exam: There will be an all-encompassing final exam Thursday, December 18th from 2:15-4:15. By registering for this section, you are accepting the fact that you must be present during the scheduled final exam. Early exams will not be given. If you have a final exam conflict with another course, you must let me know within the first six weeks of class so that we can make an alternate arrangement.

Attendance: Attendance is mandatory. You are allowed 3 absences before you get no credit for attendance.

Grading: Homework counts 15%, quizzes count 45% (each quiz counts 9%), the midterm exam counts 20% , and the final exam counts 20%.

Collaboration: You are free to consult each other, the undergraduate tutors, me, or anyone else on your homework as much as you want. In fact, you are encouraged to do so! Talking about mathematics (and science in general) with other people is one of the best ways to learn it. However, your write-ups and lab work must be your own; copying is cheating. Exams are individual activities, with no collaboration of any kind allowed. The departmental statement of academic expectations applies to all students and can be found on the Math Department web page: www.math.hawaii.edu under the tab Undergraduate.