MATH 2250, Fall 2015
LECTURE SCHEDULE

INSTRUCTOR: DANNY KRASHEN

1. **Orientation**: introduction to the ideas of calculus, differentiation, integration, fundamental theorem of calculus. basic ideas of limits and their relevance. common sense definition of limits (recitation).
2. **Limits and limit laws** (Mooculus Ch 1): formal definition of limits, example via definition. limit laws (Mooculus, 1.3), examples.
3. **Limits, continuity, squeeze**
    i. limit laws (1.3) give continuity for polynomials, roots, etc.
    ii. mention that trig functions are continuous (continuity in 2.3).
    iii. examples, group work (radical cancellation!).
    iv. squeeze (1.3.5), sine (1.3.6)
    v. examples, group work (trig stuff)
4. **One sided limits, average rates of change, some difference quotients, derivatives**
    i. warm up: practice with trig function limits etc.
    ii. definition of one sided limits. comparison with limits.
    iii. one-sided limit laws. examples.
    iv. infinite limits and asymptotes (2.1).
    v. average rate of change, examples, group work.
    vi. difference quotients, derivatives
    vii. examples, group work.