## EXAM 1 DETAILS

The first exam in MATH 202 is this Friday, February 17. The exam will start promptly at 1:00 pm and be collected promptly at 2:05 pm. (A five minute grace period.) You are not allowed any aids for the exams: no note cards, no calculators, no electronic devices, etc. I will bring scrap paper so it will be available if you want that, but you will be asked to show your work.

The exam covers sections 11.1 - 12.4 in your textbook. Honestly, you need to know *everything* in these sections that we covered in class. An incomplete list of topics includes: vectors, parallel, orthogonal and coplanar vectors, dot products, cross products, triple scalar products, Work, Torque, equations of lines and planes, planes, finding distances, spherical and cylindrical coordinates, vector-valued functions, derivatives and anti-derivatives of vector-valued functions, projections, unit tangent vectors, principal unit normals, position  $\mathbf{r}(t)$ , velocity  $\mathbf{v}(t)$ , acceleration  $\mathbf{a}(t)$ , etc.

Be forewarned, you are expected to use proper mathematical notation in your solutions. Sloppy writing and incorrect notation will be penalized. Part of learning calculus is learning to convey your thinking using mathematical notation carefully and correctly. Statements like 'the scalar  $\vec{a} \times \vec{b}$ ' or 'the vector n' communicate a serious lack of understanding.

On the website is a link to former exams (with solutions) in Calculus III. The best way to study for a mathematics exam is to do problems. Redo all your homework, your quizzes; do review problems from the end of the chapters; take the practice exams under timed circumstances and grade yourself. Just do lots of problems.

Study hard and see you on Friday.