

**NAME & Places:** (hometowns, etc)

**Year & Programs:** (3<sup>rd</sup> year MATH/APMA, for example)

**E-Mail (req) & Local Phone (opt):**

**Quantitative Courses:** (term taken & text)

calculus & advanced calculus

linear algebra & analysis

courses with computing

quantitative courses (sciences, economics, etc)

**Matlab & Maple – Experience:** (yes/no)

**Matlab & Maple – Access:** (lab and/or home)

**Other Computing Experience:** (software, programming languages, web design)

**Subjects of Interest:** (specific areas of math, sciences, etc)

**Mathematical Focus:** rank in order of priority (1 = most, 3 = least)

[ ] analysis/theory [ ] applications [ ] computing & graphics

**Personal Course Objectives:** goals for this class & future plans

**Familiarity Scale:** I know it ...

- 5 ... in my sleep
- 4 ... after a bit of thinking
- 3 ... if I can look it up in a book
- 2 ... should I see it in class again
- 1 ... vaguely from a previous exam question I couldn't answer
- 0 ... is something I have never seen before
- 7 ... is a subject to be avoided at all costs

**Mathematical Topics:** use above scale

- CALC: implicit (partial) differentiation
- CALC: multi-variable chain rule & change of variables
- CALC: multiple integrals
- CALC: theorems of Green & Stokes
- LIN ALG: solution methods for systems of linear equations
- LIN ALG: existence & uniqueness of solutions for systems of linear equations
- LIN ALG: matrix eigenvalues & eigenvectors
- LIN ALG: matrix diagonalization of matrices
- LIN ALG: Jordan canonical form
- ODEs: solution methods for  $2^{nd}$ -order linear ODEs
- ODEs: using initial conditions for  $2^{nd}$ -order linear ODEs
- ODEs: linear systems
- ODEs: eigenfunctions
- ODEs: nonlinear ODEs & phase planes
- COMPLEX: complex exponential notation
- COMPLEX: complex contour integration