

NAME & Places: (hometowns, etc)

Year & Program: (1st year APMA-grad, for example)

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

Quantitative Courses: (years taken & text)

linear algebra & analysis

classes with ODEs & PDEs

courses with computing

quantitative science courses

Matlab & Maple – Experience: (yes/no)

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

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

Subjects of Interest: (specific maths, sciences, etc)

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

[] analysis/theory [] applied modelling [] computing & graphics

Personal Course Objective: 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 google (or even, a real book!)
- 2 ... should I see it in class again
- 1 ... vaguely from a past life
- 0 ... is something I have never seen before
- 7 ... is a subject to be avoided at all costs

Mathematical Topics: use above scale

- linear algebra of matrices & vectors
- theorems of Green & Stokes
- ODEs: 2^{nd} -order linear
- ODEs: linear systems
- ODEs: eigenfunctions
- ODEs: Green's functions
- ODEs: nonlinear systems
- ODEs: special functions (Bessel, Airy, etc)
- ODEs: computing methods
- complex contour integration
- Fourier series
- PDEs: characteristics
- PDEs: 2^{nd} -order linear (elliptic, parabolic, hyperbolic)
- PDEs: separation of variables
- PDEs: Fourier transforms
- PDEs: Green's functions
- PDEs: nonlinear PDEs
- PDEs: computing methods
- variational principles
- perturbation & asymptotic methods