FAIRFIELD UNIVERSITY
MASTER OF SCIENCE PROGRAM IN MATHEMATICS
FALL 2014 SCHEDULE
Registration deadline is August 19th / Classes begin September 2nd

MA 435  Linear Algebra I  73164
This required, two-course sequence provides graduate-level treatment of algebraic structures and linear algebra and includes a detailed survey of algebraic structures: elementary group theory and ring theory. Topics include standard matrix algebra and matrix techniques; solutions of equations and determinants; general vector spaces; basis and dimension; linear transformations; linear operators and the relationship to matrices; inner product spaces and orthonormalization, least squares approximations, Hilbert spaces; diagonalization and other canonical forms for matrices; eigenvalues, eigenvectors, and applications to ordinary differential equations; and Hermitian, unitary, and positive definite matrices. The course also incorporates a discussion of the historical development of abstract and linear algebra, the relationship of linear algebra to analysis, and a coordinated introduction to a symbolic algebra program such as Maple or Mathematica.
Dr. Striuli
Monday
6:30 – 9:00

MA 531  Applied Mathematics I  72431
Topics in this two-course sequence include: mathematical modeling, ordinary differential equations and their solutions; linear differential equations; linear systems; series methods; transform methods; Laplace transforms; partial differential equations; boundary value problems; Fourier series and Fourier analysis.
Dr. Coleman
Tuesday
6:30 – 9:00

MA 550  Classical Financial Mathematics 73174
This course covers the basic mathematics of classical financial investments. It will include the basic formulas for compound interest and effective yields, infinite series and exponential functions, annuities and perpetuities, amortization and sinking funds, time value of money, and bond and stock discounts. Three credits.
Dr. Anderson
Wednesday
6:30 – 9:00

MA 551  Applied Statistical Methods 73165
This course offers a graduate-level treatment of applied statistical methods used in the physical sciences, social sciences, and business. Students examine basic statistical testing including sampling techniques; the theory of estimation and standard hypothesis testing; regression analysis techniques including multivariate regression and model building; correlation techniques; analysis of variance and factorial designs; chi-squared analysis; and other discrete data techniques.
Dr. Fine
Thursday
6:30 – 9:00

MA 577  Numerical Analysis 73166
This course provides a graduate-level treatment of numerical analysis and the numerical solution of mathematical problems and includes an introduction to computer implementation of numerical algorithms.
Dr. Weiss
Monday / Wednesday
5:00 – 6:15