

MATH 311, Section 504
Topics in Applied Mathematics
Spring 2008

Instructor: Yaroslav Vorobets

Time: MWF 11:30–12:20 p.m.

Location: *Milner 216* (relocated from ZACH 223A!)

Web page: <http://www.math.tamu.edu/~yvorobet/MATH311/>

Office: Milner 004 (phone: 845–0849, e-mail: yvorobet@math.tamu.edu)

Office hours: Monday and Wednesday 1:00–2:30 p.m., and by appointment.

Text: Richard E. Williamson and Hale F. Trotter, *Multivariable Mathematics*, 4th ed., Pearson Prentice Hall, Upper Saddle River, N.J., 2004.

Prerequisites: MATH 221, 251 or 253 (multivariable calculus); MATH 308 (differential equations) or concurrent enrollment therein.

Course content: This is an advanced course in linear algebra with applications to vector calculus, series, and differential equations. Topics to be covered include: matrices, determinants, systems of linear equations, eigenvalues, eigenvectors, diagonalization of symmetric matrices, inner product spaces, orthogonal functions, Bessel functions.

Grading system: There will be 2 in-class tests and the final comprehensive exam. The first test is worth 80 points (or 20% of the final grade) while the second test and the final exam are worth 100 points (or 25% of the final grade) each. Extra credit can be earned by solving bonus problems. Also, there will be homework assignments which will account for another 120 points (or 30% of the final grade). The final grades will be assigned according to the 90–80–70–60% scale, that is, A for 360+ pts, B for 320–359 pts, C for 280–319 pts, D for 240–279 pts, and F for less than 240 pts.

The *tentative* dates for the 2 tests are February 13 and March 26. The final exam is scheduled for Wednesday, May 7, 10:30 a.m.–12:30 p.m.

I will assign and collect homework about once per week. Late homework will be accepted only for legitimate reasons and may be penalized if circumstances warrant.

Make-ups: Make-ups for missed tests will only be allowed for a university approved excuse in writing. Wherever possible, students should inform the instructor before a test is missed. Consistent with University Student Rules, students are required to notify the instructor by the end of the next working day after missing a test. Otherwise, they forfeit their rights to a make-up.

Academic integrity: Although students are encouraged to discuss homework problems, each student is expected to write his/her own solutions. Copying another student's work is dishonest and academically worthless.

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Students with disabilities: The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact the Department of Student Life, Disability Services Office, in Room B116 of Cain Hall or call 862–4570.