

Mathematical Methods for Civil Engineers - MATH 224
Fall 2007

Instructor

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Course web site: <http://www.mast.queensu.ca/~math224/>

Text: MATH224 APPLIED MATHEMATICS FOR CIVIL ENGINEERS, Thomson Publishing

Software: MATLAB Release 2007

- available in JEFF computer labs and most Applied Science labs
- also available for purchase in the Campus Bookstore

Course Description

The course will discuss the application of linear differential equations with constant coefficients, and systems of linear equations within the realm of civil engineering. Additionally, the course will explore relevant data analysis techniques including: graphical and statistical analysis and presentation of experimental data, random sampling, estimation using confidence intervals, linear regression, residuals and correlation.

The course will begin with statistics and data analysis, and then after 5-6 weeks, we will move to the study of differential equations.

Evaluation

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| Assignments: | 25% |
| Statistics Lab Test: | 25% |
| Differential Equations Lab Test: | 25% |
| Final Exam: | 25% |

There will be 11 assignments, and the best 10 will be used to compute your assignment grade. Assignments can be handed in with up to three students per assignment.

The lab tests will be 3 hours long. The statistics test will be in or around week 7, and the differential equations test will be in week 12. These tests will require you to use the MATLAB tools you will have tried in class and/or on the assignments to answer applied problems.

Academic Integrity

Any breaches of academic integrity will be subject to the policies for the Department of Civil Engineering.¹ This applies to both assignments and tests.

¹<http://civil.queensu.ca/academicdishonesty/documents/PoliciesonSubmittedWorkandAcademicDishonesty.pdf>