MATH 2405H – Math in a Computational Context  
CRN 89249, Fall 2015

Instructor:  Dr. Julianne Chung  
Email: jmchung@vt.edu  
Office: McBryde 450  
Office Hours: MW 9:00am-10:00am, Tuesday 9:15am-10:00am and by appointment  
McBryde 455 (Commons room) will be available for group work Mon-Thurs 9am-10am  
Phone: 540-231-6531  

TA: Naya Zafira, njz@vt.edu

Lectures:  MW 8:00am-8:50am, McBryde 126  
TR 8:00am-9:15am, McBryde 126

Textbooks:  

Software: MATLAB is required for this course. Engineering students will have MATLAB in their software bundle. All other majors need to purchase MATLAB from the Software Distribution Office that is located in 3240 Torgersen Hall, see Student Software Distribution for more information: http://www2.ita.vt.edu/software/student/. The estimated cost is $44 and this MATLAB license will be valid for as long as you are enrolled at Virginia Tech. This license also includes annual updates at no extra charge. Note that MATLAB is available on the computers at the Math Emporium.

Course Webpage and Resources: All course related material and announcements will be posted on the MATH 2405H Scholar site (http://scholar.vt.edu). Check this site regularly for announcements and materials posted in the resources folder (this includes checking your VT email).

Prerequisite: Credit for two semesters of Calculus equivalent to MATH 1225 and 1226.

Course Content: Vector and matrix algebra, systems of linear equations, linear independence, bases, orthonormal bases, rank, linear transformations and diagonalization. Ordinary linear homogeneous differential equations, implementation with contemporary software.

Grading: The final grade will be determined by  
5% Attendance  
15% Quizzes  
15% Homework  
45% Tests (15% each)  
20% Final Exam

An average grade of 90% guarantees at least A-, 80% at least B-, 70% at least C-, and 60% at least D-.

Quizzes: There will be 10 in-class quizzes on the following dates:  

The lowest quiz score will be dropped.
Tests: There will be 3 in-class tests on the following (tentative) dates:

September 24, October 22, and November 19

Make-Up Exams/Quizzes: There will be no make-up exams or quizzes, under any circumstance. If you miss an exam or quiz, your score will be zero unless the reasons for your absence are serious, unavoidable and beyond your control. In this case, contact the instructor as soon as possible, and no later than 36 hours after the exam or quiz was taken. The instructor will decide how to handle this exam or quiz after consultation with you. No additional work to receive a better grade will be granted.

Final Exam: The final exam is cumulative and will be on Wednesday, December 16, 2:05pm-4:05pm
The final exam is a required class meeting that will not be rescheduled for discretionary reasons, including conflicts with work schedules and with classes and exams at other colleges.

Homework: Homework will be assigned during each class, be posted on Scholar, and will be collected on Thursdays at the beginning of the class. No late homework will be accepted. Selected problems will be graded. No late assignments will be accepted. Two students, i.e. a team of two, may turn in one joint-homework. In this case, both students will receive the same grade for the corresponding homework. The names of both students must appear on the homework assignment. Homework submissions requiring MATLAB code must be submitted via Scholar and as a printout.

Grade Appeals:
Grading disputes-points totaled incorrectly, partial credit appeals, missing grades on Scholar, etc. should be brought to my attention within 1 week of return. Appeals outside of this time frame will not be considered.

Academic Integrity: For graded homework assignments, you may discuss solutions with other students, but students must do individual, independent write-ups to turn in. Direct copying of solutions or parts of solutions from any source is a violation of the honor code, as is sharing your solutions with others. All exams are to be done without any assistance from anyone else. Your work here is at all times governed by the Virginia Tech Undergraduate Honor System as stated in the Virginia Tech Undergraduate Catalog. Failure to follow these restrictions, and giving or receiving unauthorized aid or assistance are Virginia Tech Honor System violations and cases will be filed.

Special Needs:
Any student with special needs or disabilities should schedule a time to see me as soon as possible and before the end of the second week of classes.

Attendance Policy:
Attendance will be taken during each class and is based on your attendance at 8:00 A.M (You will be considered absent if you are late for class). It is your responsibility to initial the attendance sheet.

If you miss a class, it is your responsibility to get the class notes and assignments from fellow students. You are also responsible for any announcements made during class.

Electronic Devices:
Laptop and tablet computers are permitted during class provided they are used in the flat-on-the-desk position. Open laptops are a distraction to others and are not permitted. Calculators are not allowed on any quiz or exam. You must silence AND put away all cell phones before class begins.