CS 270 Introduction to Numerical Computation

Spring 2018 28 classes Tentative Schedule

 Mon Fri

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| Jan 15Syllabus,Ch 1, intro to Linux, simple computer architecture | Jan 19Try out Linux,Ch 2, integers, floating point, character data |
| Jan 22More on Linux, build90, vi and nano editors, alpine,Ch 2, limits of number representations | Jan 26Ch 2, assignment statements, conversion, intrinsic functions, limits of computer arithmetic |
| Jan 29Ch 2, Ch 3,input, output, trebuchet example | Feb 2Ch 3, selection constructs, print script,solving quadratic equations |
| Feb 5solving quadratic equations continued,Ch 4, do loop | Feb 9Ch 4, while loop, for loop |
| Feb 12manipulating character data,power series, review | Feb 16Exam 1 on chapters 1 - 4 and other topics covered in this time period |
| Feb 19power series | Feb 23Taylor's series |
| Feb 26Taylor's series, Fourier series (briefly),Ch 5, formatting, files | Mar 2Ch 5, filessmall group presentations on series |
| Mar 5Spring Breakno class | Mar 9Spring Breakno class |
| Mar 12Ch 5, Files; Ch 6, arrays | Mar 16Ch 7, subroutines |
| Mar 19Ch 7, functions,review | Mar 23Pi Day small group presentations |
| Mar 26Exam 2 especially on Ch 5, 6, and series | Mar 29Easter Breakno class |
| Apr 2Easter Breakno class | Apr 6Systems of linear equations,more on arrays |
| Apr 9Systems of linear equations,LU decomposition | Apr 13Numerical integration techniques |
| Apr 16Library of numerical subroutines, approximating the value of a derivative, solving ordinary differential equations | Apr 20Small group presentations on solving systems of linear equations |
| Apr 23Introduction to eigenvalues and eigenvectors | Apr 27Introduction to eigenvalues and eigenvectors |
| Apr 30Ordinary differential equations, roots of non-linear equations (zeros of functions) using Newton's method and bisection | May 4Small group presentations on integration,review |

Final Exam: Tues, May 8, 4:00 pm - 6:00 pm Last revised: 04/07/18