

## COURSE ASSIGNMENTS FOR CSCE/MATH 447

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**Note:** Unless otherwise stated, it is always permissible to use the course software (Matlab or Octave) for calculations. Also, Maple is acceptable for some tasks such as checking (or doing) your symbolic calculations. As a general rule, you are expected to show your work. In particular, if you use software to solve a problem, you are expected to provide a transcript or some output and paste it into a document. Typed documents are preferred; hand written copy will be accepted if it is *neatly* written. Unless otherwise stated, hardcopy is the rule. It is expected that co-collaborators and other sources for the homework will be duly acknowledged. Each assignment will be worth about 45 points.

### ASSIGNMENT 1

Points: 45

Due: September 12

Reading Assignment (this is due August 28): Read the Appendix of the text, “The Definition of Numerical Analysis”, p. 321. Also, read the parts of MatlabLecture-447.pdf not covered in class and work the tutorial.

Do the following exercises from the text: 1.1, 1.3, 2.1, 2.5, 2.6, 3.2, 3.3, 4.1, 4.3, 4.4.

**Assignment Closed**

### ASSIGNMENT 2

Points: 45

Due: October 2

Do the following exercises from the text: 5.1, 5.3, 6.4, 6.5, 7.1, 9.2 (suffices to make a guess for (b) and (c), using Matlab experiments – math grads must prove their answer), 10.2, 10.3

**Assignment Closed**

### ASSIGNMENT 3

Points: 40

Due: October 28

Do the following exercises from the text: 11.3, 12.1, 12.3abd, 13.3, 14.1, 15.1abcd, 15.2, 16.1a

**Assignment Closed**

### ASSIGNMENT 4

Points: 48

Due: November 20

Do the following exercises from the text: 17.1, 18.1, 20.1, 20.3, 21.4, 22.1, 22.2, 23.1

**Assignment Closed**

## ASSIGNMENT 5

Points: 42

Due: December 10

Do the following exercises from the text: 24.2 (non-math grads do only (a), (c)), 26.1 (math-grads), 26.2(a) (non-math-grads), 27.5 (ugrads need only exhibit a nontrivial example that illustrates the claim of the exercise), 28.2 (in part (c), only use  $2 \times 2$  Householders), 29(a),(b),

**Assignment Closed**