Name: Dr. Gerard Awanou

Email: awanou@math.uic.edu

Course Webpage: http://www.math.uic.edu/~awanou/MCS471

Office hours: M 01:00 pm – 01:50 pm in SEO 430 (MSLC) and F 01:00 pm – 01:50 pm in SEO 1221, and by appointments.

Office information: SEO 1221, phone (312) 413-2167

Biography: I’m an associate professor in the department of Mathematics, Statistics, and Computer Science. I received my Ph.d in mathematics in 2003 from the University of Georgia and spent two years as a postdoctoral associate at the Institute for Mathematics and its Applications, University of Minnesota. I then worked at Northern Illinois University for seven years before coming to UIC in 2012. My research interests are primarily in the numerical analysis of partial differential equations. In 2009, I was awarded a Sloan fellowship.

Course information: M W F 2:00 pm - 2:50 pm TH 312


Prerequisite: Basic computer science, multivariable calculus and matrix algebra.

Credit hours: 3 or 4

Course goal and objectives: Discuss and present methods for solving mathematical problems with computers. Students learn how to implement and present solution to problems arising in science and engineering applications.

Drop and Withdrawals: All drops of or withdrawals from courses must be accomplished before the applicable deadline indicated in the Schedule of Classes, F October 28.

Homework due dates: C stands for Computer problem.

Hwk 1 Due F Sept 9. Section 0.1 #3, C1. Section 0.3 #3, 10. Section 0.4 #1, 4, C1, C3. Section 1.1 #6, C2. Section 1.2 #6. Section 1.4 #8, C2. Section 1.5 C1.
Hwk 2  Due F Sept 30. Section 2.2 #2(a,b), 4, C1, C2. Section 2.4 #4 a. Section 2.5 C2, C3, C4.

Hwk 3  Due F Oct 21. Section 3.1 #18. Section 3.2 #4. Section 5.1 #8, C2. Section 5.2 #2, C2.

Hwk 4  Due F Nov 4. Section 6.1 #3(a–b). Section 6.2 #1(a–b). Section 6.4 #5. Section 7.1 #3.

Late homework will be accepted only under special circumstances and with prior approval and will be discounted by 50%.

Homeworks with a coding component should be done in Matlab and the final output in readable form should be attached to the body of the homework. In addition you may be asked to email the m-files. You must follow the template given here:


Exams: There will be one midterm exam and a final exam. If you expect to miss any of the exams and have a reasonable excuse (for example illness or university business), notify me as far in advance of the exam as possible. If you do not have a reasonable excuse, your grade on a missed exam will be zero.

Grade distribution: 400 points homework, 200 points midterm, 400 points final.

Tentative schedule: No class M Sept 5 and F Nov 25. Midterm F Oct 14. Final exam W Dec 7 1:00 pm–3:00 pm. Instruction ends F Dec 2.


Attendance policy: Students are expected to attend each lecture and participate in the discussions.

Academic Honesty and Civility in the Classroom: Academic honesty and mutual respect (student with student and instructor with student) are expected in this course. Mutual respect means being on time for class and not leaving early, (if you have to leave, arrange to sit near the door and leave quietly), being prepared to give full attention to class work, not reading newspapers or other material in class, not using cell phones, pagers or other electronic devices during class time, no sleeping, no eating, not bringing children to class, not talking to classmates outside of group work, not copying the solutions of the home works from unnamed sources and not
looking at another student’s work during exams. Academic misconduct and incivility in the classroom, as defined by the Student Disciplinary Policy, will not be treated lightly.

**Disability services:** If you have any condition, such as a physical or learning disability, which will make it difficult for you to carry out the work as I have outlined it or which will require academic accommodations, please notify me within the first two weeks of class.

**Disclaimer:** This syllabus provides a general guide for the course: deviations may be necessary. Deviations from the textbook should be expected.