James Madison University, Department of Mathematics and Statistics
Math 103: Foundations of Mathematics – The History of Computation, Fall 2010

Section 5: TuTh 9:30-10:45, Burruss 032

Instructor: Dr. Stephen Lucas.
To contact me: In Person: Roop 341, Office Hours: M 2:30-3:20, Tu 8:10-9:15, Th 8:10-9:15 or by appointment. Phone: 568-5104, Email: lucassk@jmu.edu

Textbook: There is no formal textbook for the course. However, course notes (a draft of a textbook) will be available on Blackboard. You will need to use your high school calculator at various times during the course.

Overview of topics: My version of Foundations of Mathematics is the History of Computation. We will start with number representations through the ages, including ancient additive forms, positional notation and different bases for integers, rationals, and reals. We will then move on to the standard operations of addition, subtraction, multiplication and division. After a short interlude on various devices to aid performing arithmetic, from the abacus to analog and digital computers, we will finish by looking at how to perform more advanced arithmetic, like square roots, evaluating trigonometric expressions, and possibly logarithms and exponents, depending on time.

Attendance: While I will not be formally taking attendance, it is one of the most important aspects of any mathematics course. In fact, there is a strong correlation between attendance and success. I will **not** accept any late work (i.e. exams, homeworks, etc.) without an exceptionally good excuse. If you miss an exam without first being excused, you will not be allowed to make it up. While my sympathy is directly proportional to your response speed, I do not guarantee sympathy. You or a family member should contact me as soon as possible if you have an extended illness or other extenuating circumstance.

Course grading: Homework (weekly): 40%, Midterm Exam: 20%, Final: 40% . The final is timetabled for Tuesday December 14, 8:00-10:00.

- Your weighted average (as a percentage) determines your grade for the course on a scale that will be roughly A=85-100, B=65-84, C=50-64, D=40-49. Note that I have scaled the grades so that you have a better idea where you stand during the semester.
- Homework will be assigned weekly, and will be due the following week.

Getting Help: While working in groups is encouraged (one of the best ways of learning something is explaining it to someone else), I encourage you to ask a lot of questions, in lectures, by email or by phone. While classes are reasonably large, they are not so large that I discourage questions! Office hours are also an under-utilized resource that is there for you.

Disability and Special Circumstances: I strongly encourage students who require special arrangements to contact me during the first week of class. Students with disabilities need to register with the Office of Disability Services (ODS). Any discussion of special circumstances will remain confidential except for any necessary communication with ODS in case of a disability.

Academic Integrity: Academic integrity is extremely important. Therefore, we will strictly abide by the honor code found at http://www.jmu.edu/honor/printcode.html. Any breach of the honor code results in failure in this course. I encourage working in groups but not copying in groups. Functionally or logically identical programs are considered violations of the honor code to be prosecuted rigorously. If you have any questions about what does or does not fit under the umbrella of academic integrity, please contact me.