Course Title: Topics in Mathematics, Introduction to Mathematical Software, MATH 440 - 71, Spring 2020

Credits: 1

Prerequisite: MATH 221 and either MATH 228 or MATH 226 with a grade of C- or higher, or Admission to an MS or MA program.

Course Description: This course offers an introduction to symbolic computation using Mathematica, one of the leading and powerful analytical and graphical symbolic manipulation programs used today. The course is aimed primarily at math and science majors, and assumes no prior experience with the software. The goals of the course are to: give students a working knowledge of the basics of Mathematica, to give students the ability to use symbolic computation in other courses, and to encourage and enable students to carry out research using this tool.

Instructor: Nelson Castaneda
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Office Hours: Tuesday and Thursday 1:00-3:00 PM, Friday 4:10-5:10 PM. We can arrange to meet at a different time if necessary.


Class Meeting Times: Thursdays from 7:20 to 8:10 PM in MS 310.

Assessment: There will be a few labs and a final project.

The labs are worth 60% altogether, progress and effort throughout the semester is worth 10% The final project is worth 30%

The labs are to be developed during class times but may need to be finished at home.

The final project is on a topic selected by the student and approved by the instructor. You should start as soon as possible the preliminary research to narrow down the problems that you wish your application to solve. In our class meetings we will be discussing ideas that could be incorporated into your projects. A higher degree of sophistication is expected from graduate students in the MA and MS programs. The final projects must be submitted before the last day of classes and must be presented to the class at the end of the semester.

Final Exam: There is no final exam for this course. Instead the students will present the final projects during the final weeks of classes.

Resources: The Mathematica program is available free of charge for students. Please follow the instructions at the math department site to download Mathematica.

Our textbook is your first source of information but the program Mathematica itself is well documented.

The Wolfram site is a very rich source of information.
University Policies:

1. You must take the final examination at the time specified in the university’s Final Exam Schedule: There is no final exam for this course.

2. If you need course adaptations or accommodations because of a disability, if you have emergency medical information to share with me, or if you need special arrangements in case the building must be evacuated, please make an appointment with me as soon as possible. My telephone number and office hours are given above.

   I will need a copy of the accommodation letter from Student Disability Services in order to arrange your class accommodations. Contact Student Disability Services, Willard - DiLoreto Hall, Room W 201, if you are not already registered with them. Student Disability Services maintains the confidential documentation of your disability and assists you in coordinating reasonable accommodations with your faculty.

3. In the event of a weather emergency which requires curtailment or cancellation of classes, listen to WTIC (1080 AM) or call (860) 832-3333 for the “general snow message,” or check the online Cancelation/Delay Information.

4. Students may drop full semester courses up to the last day of the third week of classes in the regular semester. Courses dropped by Monday, February 10 will not appear on the student’s transcript. Please drop the course by February 10 if you think that this course is not appropriate for you. Feel free to stop by my office to discuss your situation.

5. Students withdrawing from a full semester course from February 11 through April 20 (through the 12th week of the semester) may do so by completing a withdrawal form. A notation of “W” will appear on the student transcript. Withdrawals during this time do not require written authorization; however, it would be prudent for the student to discuss this matter with their instructor or/and their academic advisor.

6. Forms to either drop or withdraw from a course may be found on the registrar’s website or obtained in the registrar’s office in Willard - DiLoreto Hall, Room D 202.

7. Cessation of attendance, notice to the instructor, or telephone calls to the Enrollment Center are not considered official notice of a student’s intention to drop the course. After April 20th withdrawals are allowed only under extenuating circumstances, only for students who are passing the course, and require written approval of the course instructor and the department chair.

8. Central Connecticut State University (CCSU) will not tolerate sexual misconduct against students, staff, faculty, or visitors in any form, including but not limited to: sexual assault, sexual exploitation, sexual harassment or stalking, as defined in CCSU policies. For additional information, please consult the website of the Office of Diversity and Equity.

9. You are responsible for understanding and abiding by the University’s policy on academic integrity. Information on the policy may be found at Academic Integrity Policy. This policy is rigorously enforced by the Department of Mathematical Sciences.

10. All students are expected to demonstrate integrity in the completion of their course work. Academic integrity means doing one’s own work and giving proper credit to the work and ideas of others. It is the responsibility of each student to become familiar with what constitutes academic dishonesty and plagiarism and to avoid all forms of cheating and plagiarism. Students who engage in plagiarism and other forms of academic misconduct will face academic and possibly disciplinary consequences. Academic sanctions can range from a reduced grade for the assignment to a failing grade for the course.

   From a disciplinary standpoint, an Academic Misconduct Report may be filed and a Faculty Hearing Board may impose sanctions such as probation, suspension or expulsion.

11. For further information on academic misconduct and its consequences, please consult the Student Code of Conduct and the Academic Misconduct Policy.