Instructor: Slobodan Simić

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Course web page: http://www.math.sjsu.edu/simic/Spring06/CAMCOS06/camcos06.html

Textbook: There will be no required course textbook. We will cover some sections from M. W. Hirsch, S. Smale, and R. L. Devaney, *Differential Equations, Dynamical Systems, and an Introduction to Chaos*, Elsevier/Academic Press, 2nd edition, 2004, mostly on discrete dynamical systems. Our research will start off with a paper of Scargle and Young on the so called Dripping Handrail Model (DHR) in accretion systems (see the class web page). I will give class handouts that you will be expected to read, study, and understand. Additionally, as this is a graduate level research course, you are expected to spend a significant amount of time at the library or on-line exploring questions and topics relevant to the course.

Prerequisite: Instructor’s consent.

Office hours: By appointment.

Grading: The course is graded on a CR/NC basis. All students applied for permission to take this research course, and so are expected to take a serious interest in the course and perform at an A level in order to receive credit.

Course information: This is a team project. All students are therefore expected to give full and equal participation. The first couple of weeks will be just like an ordinary class, where I will lecture on dynamical systems
and “chaos”. Dr. Jeff Scargle, our NASA-Ames liaison, will meet with us and teach us some astronomy and the DHR model. After that, you are expected to continue meeting regularly as a team, do research independently, and report your findings (as well as questions). Meetings with both me and the liaison will be scheduled throughout the semester.

Project reports and updates will be integral to the process. You will need to keep me, the CAMCOS director (Prof. Tim Hsu) and the liaison well apprised of the progress. You will give an oral presentation to the university community and the liaison at the end of the semester. You will present a final written report to the mathematics department and the liaison before the end of the semester.

University Policies

**Academic integrity statement:** From Office of Judicial Affairs: “Your own commitment to learning, as evidenced by your enrollment at San Jose State University, and the University’s Academic Integrity Policy requires you to be honest in all your academic course work. Faculty are required to report all infractions to the Office of Judicial Affairs. The policy on academic integrity can be found at [http://www2.sjsu.edu/senate/S04-12.pdf](http://www2.sjsu.edu/senate/S04-12.pdf).”

**Policy on disabilities:** If you need course adaptations or accommodations because of a disability, or if you need special arrangements in case the building must be evacuated, please make an appointment with me as soon as possible, or see me during office hours. Presidential Directive 97-03 requires that students with disabilities register with DRC to establish a record of their disability.

For more details, see the course web page.