ME 599-1 Mechanics and Control of Human Movement

Course Information Fall, 1995

Professor: Arthur Kuo
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7-2505

Office Hours: T 3 - 5 pm
Th 12 - 1 pm
M 4 - 5 pm (usually)
or by appointment

Class: T Th 10:30-12:00 1005 Dow

Grading: Homework 48%
Midterm exam 20%
Final Exam 32%


Other useful references:

Homework: There will be six homework sets. Homework is due at the beginning of class on the date listed in the syllabus. Homework will be accepted late with a 10% penalty per 24 hours elapsed from the due date.

Exams: A midsemester exam will be given, covering the first half of the course. The final exam will be cumulative, but will concentrate on the second half of the course. Both exams will be open book/open notes.

The purpose of this class is to introduce you to the basic analysis tools that are used in movement biomechanics. Anatomical terms and structures of relevance will be presented, but the course focuses primarily on engineering methods to analyze or simulate biomechanical systems. Biomechanics and motor control are very broad fields, so the course does not address many specific research issues. Rather, it examines some important tools and a few results which are useful to a broad spectrum. Many of the topics are relevant to robotics, dynamics, and control as well.

There is no ideal textbook for the course. The required text, Muscles, Reflexes, and Locomotion, covers a significant portion of the material. The rest will be presented in lecture and in handouts. Because this is the first offering of the course, there is not yet a course pack containing papers, figures, and summaries. This means that it is important to either attend lecture or to know someone who will! A spirit of cooperation is encouraged. An eventual coursepack will spring from students’ notes.