Computer Science 6400 Section 001
Internet Algorithmics
Tennessee Technological University Department of Computer Science
Spring 2015 (January 19, 2016 – May 5, 2016)
TR 12:00 – 1:20 p.m. in Bruner 404

Instructor: Martha Kosa
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However, if you see the light on in my office at other times, please knock and I will try to help you. You can call or email (preferred) to make an appointment if you wish.


Catalog Description: Lec. 3. Cr. 3. Crawling, searching, caching, and other algorithms for solving major problems on the Internet, with an emphasis on formal techniques.

Purpose: To gain familiarity with the evolving area of Internet Algorithmics.

Prerequisites: CSC 4200/5200 and CSC 4400/5400.

Major Teaching Methods: Lectures, demonstrations, discussions

Course Requirements: Three tests, tentatively scheduled for February 23, March 24, and April 21 (18.75% each), an in-class presentation synthesizing 5 or more research papers (18.75%), and a final project, including an in-class presentation (25%). The final project can be a research paper or a programming project, subject to instructor approval.

Grading Scale: The standard 10-point scale (90+ is an A, etc.).

Attendance Policy: You are expected to attend every class. You are responsible for all assignments and material covered during all class meetings whether you are present or not.

Students with a disability requiring accommodations should contact the Office of Disability Services (ODS). An Accommodation Request (AR) should be completed as soon as possible, preferably by the end of the first week of the course. The ODS is located in the Roaden University Center, Room 112; phone 372-6119.
Projected Course Topics

1. Classical information retrieval (Boolean model, vector space model).
2. Indexing algorithms.
3. Compression algorithms for indices.
4. Web crawling.
5. Web search.
7. HITS method for ranking Web pages.
8. Web caching.

List of Objectives

1. To understand the various algorithms mentioned above, including comparing and constrasting different algorithms to perform the same task.