

CSE 498:

Advanced Topics in Networking

Spring 2003

Tuesdays/Thursdays 1:10-2:25pm PL258

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<http://www.cse.lehigh.edu/~brian/course/advanced-networking/>

Advanced Topics in Networking

- Seminar course
- No textbook – all papers
- No exams – paper critiques (20%), presentations (20%), participation (20%), and projects (40%)
- Prerequisite:
 - a prior computer networks course

Topics to cover

- Peer-to-peer networks
 - architectures and implementations
- Content networking
 - Web content distribution
 - Scalable services
 - Traffic measurement and modeling
- Classic networking
 - old and new

Initial Course Approach

- Except for today, each paper will have:
 - a student presentation
 - 15 minutes max, 5 slides max
 - a student critic (devil's advocate)
 - 5 minutes to say why the paper should never have been published, or at least why it is not useful now
 - class discussion, followed by a quick vote
 - about 15 minutes

Approach, cont.

- In each class
 - we will plan to present and discuss two papers.
 - you will need to write one review/critique of the paper of your choice.
- The paper presentation and best review will be posted online.

Semester Research Project

- Individual, or groups of two (that will be asked to grade each other).
- Should be the beginning of what could be a publishable project.
- Some networking-oriented topic.
- Write a scientific paper at the end.
 - Publish as a technical report if not more.
- Present project at the end of the semester.

Why read scientific papers?

- Also, how to read scientific papers?

Why review papers?

How to write good papers?

What will networking be like:

- In ten years?
- Twenty?
- What will computers be like?
- Should they be connected using the technologies in today's Internet?

Homework

- Read meta papers for today
- Read two papers for next class
- Write one review (your choice of paper)
 - No length guidelines
 - Technical writing – clear, concise, citations, etc.
 - Assume it will be published – high quality
 - Use historical perspective when appropriate
- Turn in paper copy at next class