


## 1. Course Overview

CSE 498, Collaborative Design



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## S CSE 498

- Collaborative Design  
“Senior Capstone”
- Wayne Dyksen  
Brian Loomis  
Nan Zhang
- Lecture  
MW, 3:00-3:50pm, UPLA 008
- Labs, 3358 EB  
TT, 3:00-4:50pm  
WF, 8:00-9:50am  
WF, 12:40-2:30pm

## S Web Site

- Details
  - URL: [www.cse.msu.edu/~cse498](http://www.cse.msu.edu/~cse498)
  - User name: cse498
  - Password: 040498
- Check it Often for
  - What’s new?
  - Meeting Notes
  - Team Projects
  - Useful Links

## S Course Objectives

- Learn to build a software system (from scratch)
- Learn (modern) tools and environments
- Learn to build and administer systems
- Integrate your computer science knowledge
- Learn to work in a team environment
- Develop your communication skills
- Develop some interview talking points
- Etc...

## S Team / Project Generalities (1 of 3)

- Clients
  - Vary in Size and Type
  - Client contact/mentor is a “volunteer”.
- Team Contact Person
  - Picked By Team
  - Main Point of Contact for Client

## S Team / Project Generalities (2 of 3)

- Project Level of Difficulty
  - Hard Enough
  - But Not too Hard
- Deliverable
  - To the Client
  - By the Due Date
- Documentation
  - System Administration Manual
  - Users Manual

## S Team / Project Generalities (3 of 3)

- Challenges
  - Very Short, Unforgiving Time Line
  - Client Contact
  - Team Dynamics
  - Architecture / Specifications (in Three Weeks)
  - Entirely New...
    - Languages
    - Environments
    - APIs
    - Processes
    - Protocols
  - Project Management
  - Etc...

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## S Project Specifics (1 of 3)

1. Auraria Networks, Inc.  
Implement Session Initiation Protocol (SIP) Proxy
2. Auto-Owners Insurance  
Re-architect Project Tracking System (PTS) in .NET
3. Boeing  
Visualize Blue Angels Flight Performances
4. Identity Alliance  
Predict Spread of Infectious Disease in Cattle
5. Image Space, Inc  
Enhance Game Engine Components
6. MATRIX  
Create an On-Line Publication Editor for MediaMatrix

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## S Project Specifics (2 of 3)

7. MSU Men's Basketball  
Enhance and Extend STATE
8. Motorola  
Build P2P Service on Java's P2P Framework JXTA
9. Two Men and a Truck I  
Integrate Customer Satisfaction Survey Data
10. Two Men and a Truck II  
Create E-Commerce Site for Moving Supplies
11. Universal Map  
Build Visually Impaired Mapping System (VIMS)
12. ECE Senior Design Course  
Develop Navigation System for Lunar Robot

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## S Project Specifics (3 of 3)

- Vary
  - Type
  - Current State of Specificity
- Challenge
  - Connect with Client
  - "Nail Down" the Project
    - Hard Enough
    - Not too Hard
  - Course Feature, Not Bug

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## S Course Environment

- Business-Like
- Team = Startup Company
- Dyksen & Loomis
  - Your
    - Venture Capitalists
    - Board of Directors
  - Expect
    - ROI
    - Results

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## S Team Dynamics

- Remember the freshman seminar?
- Organize as See Fit
  - Really Hard Stuff
  - Really Important Stuff
- Board of Directors...
  - Hires
  - &
  - Fires
- (Be Ready to Discuss During Interviews)

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## S Project Deliverables

- Technical Specification Document
- Prototype Demonstration
- Progress Reports & Demonstrations
- Final Demonstration
- Project Video
- Administrator & User Manuals
- Project Management
- Project Web Site

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## S Class Meetings

- Format
  - Lectures
  - Team Reports & Demonstrations
  - Formal Team Presentations
  - Professional
- Attendance
  - Required
  - No Excuses
  - “On-Time” Not Good Enough (Be Early)
  - Factor (5%) in Grade

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## S CSE498 Lab

- 3358 EB
- Door Lock
  - “Pump” Handle (to Generate Electricity)
  - Code = 040498
- Systems
  - Two (new) PC’s per Team
    - Server
    - Development Machine
  - Team 100% Responsible
    - Building
    - Maintaining
    - Securing
    - Backing Up
- Books

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## S Schedule Lab Times

- No Formal Lab Sessions
- Placeholders for Team Meetings
- Teams may meet at any time.
- Students must be available during their scheduled lab time.

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## S Expectations & Workload

- Extremely High For Both
- Your MSU Career Capstone
- Addition to Your Personal Portfolio
- View Like an Internship
- Interview Talking Points
- Leverage Into a Job Offer

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## S Grading (1 of 2)

- Team (70%)
 

– Technical Specification Document	10
– Prototype Demonstration	10
– Progress Reports & Demonstrations	10
– Final Demonstration	10
– Project Video	10
– Administrator & User Manuals	10
– Project Management	5
– Project Web Site	5
	70
- Individual (30%)
 

– Technical Contribution	10
– Team Contribution	10
– Team Evaluation	5
– Class Meeting Attendance	5
	30

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## S Grading (2 of 2)

- We reserve the right to make changes with sufficient notice.
- No special consideration will be given for final grades including but not limited to
  - status in any academic program including CSE,
  - financial aid,
  - rank in the armed forces,
  - job,
  - graduation,
  - mortgage,
  - marriage, or
  - visa status.

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## S Integrity of Scholarship

- MSU's policies will be enforced.
- Individual and team work must be original.
- Violators...
  - Will be referred to the appropriate deans.
  - May receive a grade of F in the course.

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## S VISA

- Verified Individualized Services and Accommodations
- Let us know **immediately**.
- We will work with you.

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## S Caveat Emptor / Nota Bene

- CSE 491
  - will be different from last semester.
  - will be different than in previous years.
  - will be a work in progress.
- Together we will
  - ...be designing the course "just in time".
  - ...do some things right.
  - ...do some things wrong.
  - ...increase our marketability.
  - ...get to know each other.
  - ...work very hard.
  - ...have fun.

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## S Office Hours

### Your Choice

- Either
  - Any Time...
    - Visit
    - Call
    - Send Email
  - Make Appointment If Necessary
- Or
  - Two Hours Per Week, Period
  - Make Appointment If Necessary

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## S First Assignments

- Check out the Lab
  - See if you can find it.
  - See if you can get in.
- Check out the Web Site
  - See if you can log in.
  - Check out the "Other Links" links.
- Research Clients

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