



1. Course Overview

CSE 498, Collaborative Design



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S CSE 498

- Collaborative Design
“Senior Capstone”
- Wayne Dyksen
Brian Loomis
Jonathan Eaton
- Lecture
MW, 3:00-3:50pm, ANH 1257
- 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
 - User name: cse498
 - Password: 049805
- 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...

0-7

S Project Specifics (1 of 3)

1. Auto-Owners Insurance
Web-Based Bond Quote Tool
2. Boeing
Enhanced F/A-18 3D Model For Flight Visualization
3. DaimlerChrysler
CFD Mesh Generator GUI/Interface
4. Ford
Integrated Automotive Interface

0-8

S Project Specifics (2 of 3)

5. Microsoft
Peer-to-Peer Discovery/Content Sharing
6. Motorola
Managing Complex Heterogeneous Devices
7. Two Men and a Truck
Mystery Shop Program
8. Union Pacific Railroad
On-Board Locomotive Wireless Network
9. ECE Senior Design Course
Navigation System for NASA Lunar Robot

0-9

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

0-10

S Course Environment

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

0-11

S Team Dynamics

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

0-12

S Project Deliverables

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

0-13

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

0-14

S Meeting Agendas

1. 08-29: Course Overview / Skills Inventory	16. 10-26: Resume Writing & Interviewing
2. 08-31: Technical Specifications / Team Assignments	17. 10-28: Ethics
LD. 09-05: (Labor Day, No Meeting)	18. 11-02: Teams: Progress Reports & Demos
3. 09-07: Project Schedule & Risk	19. 11-04: Teams: Progress Reports & Demos
4. 09-12: .NET Framework	20. 11-09: Teams: Progress Reports & Demos
5. 09-14: Teams: Progress Reports	21. 11-11: Teams: Progress Reports & Demos
6. 09-19: Teams: Technical Specifications / Schedule	22. 11-16: Teams: Progress Reports & Demos
7. 09-21: Teams: Technical Specifications / Schedule	23. 11-18: Teams: Progress Reports & Demos
8. 09-26: Software Tools & Prototyping	24. 11-23: Teams: Progress Reports & Demos
9. 09-28: Developing for the Tablet PC	25. 11-25: Teams: Progress Reports & Demos
10. 10-03: Teams: Progress Reports	26. 11-30: Teams: Progress Reports & Demos
11. 10-05: Service-Oriented Architecture	27. 12-02: Teams: Progress Reports & Demos
12. 10-12: Teams: Prototypes	28. 12-07: Teams: Final Presentations
13. 10-14: Teams: Prototypes	29. 12-09: Teams: Final Presentations
14. 10-19: Teams: Prototypes	30. 12-15: Teams: Final Presentations
15. 10-21: Teams: Prototypes	

0-15

S CSE498 Lab

- 3358 EB
- Door Lock
 - “Pump” Handle (to Generate Electricity)
 - Code = 049805
- Systems
 - Two PC's per Team
 - Server
 - Development Machine
 - Team 100% Responsible
 - Building
 - Maintaining
 - Securing
 - Backing Up
- Books

0-16

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.

0-17

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

0-18

S Grading (1 of 2)

- Team (70%)

– Technical Specification Document	10
– Prototype Demonstration	10
– Progress Reports & Demonstrations	15
– Final Demonstration & Project Video	15
– 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

0-19

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.

0-20

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.

0-21

S VISA

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

0-22

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

0-23

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

0-24