MICHIGAN STATE
U N I V E R S I T Y

10/30:
Design Day and the Project Video

The Capstone Experience

Dr. Wayne Dyksen

Department of Computer Science and Engineering
Michigan State University

Fall 2017

From Students…
…to Professionals

Design Day Overview

- Engineering Building
- Friday, December 8, 6:30 a.m. – 2:30 p.m.
- Exhibits of Design Projects
  - From Entire College of Engineering
  - Open to the Public
  - Visitors Include
    - Faculty
    - Family and Friends
    - Corporate Sponsors
    - Middle and High School Students
- Dress is Business

Design Day Activities

- 6:30 a.m. Setup and Breakfast
- 7:00 a.m. All-Hands Photo
- 7:30 a.m. - 11:45 a.m. Presentations to Judges
  - See Schedule
  - Room 3405
- 7:30 a.m. - 12:30 p.m. Team Exhibits
- 12:00 p.m. Free Lunch
- 12:30 p.m. Tear Down
- 1:15 p.m. Awards Ceremony
- 2:30 p.m. Capstone Gathering
  - All-Hands
  - Families and Friends
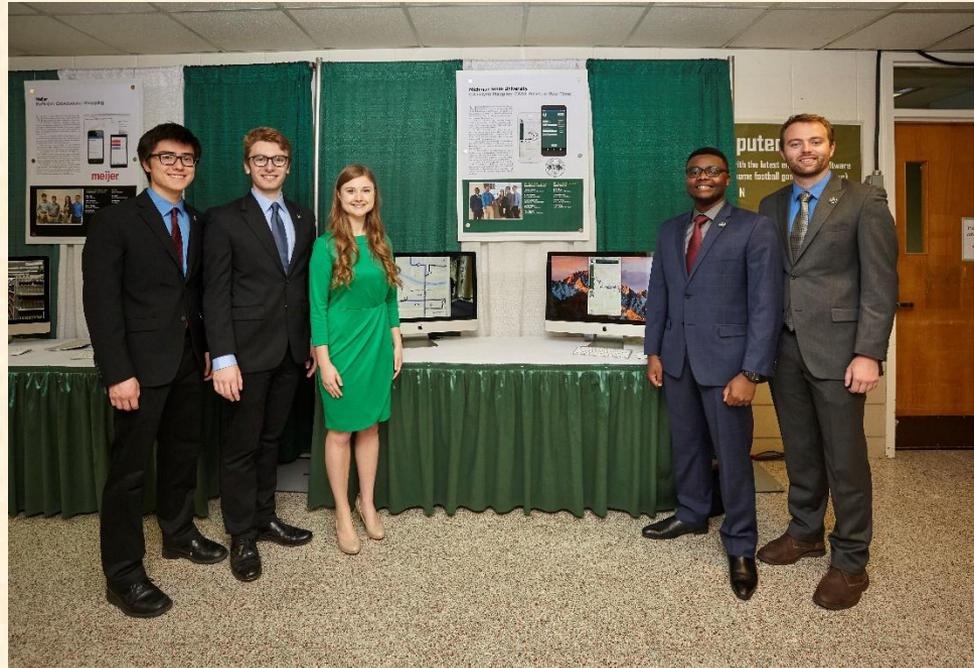 - Judges
  - Corporate Visitors

CSE Capstone Class, Spring 2017

Team Exhibit

- Table
- iMac(s)
  - For Software
  - For Project Video
- Other Device(s)
  - MacBook Pro
  - Tablets
  - Phones
- Poster
  - DD Booklet Page
  - Provided by Dr. D.

Families

Alumni

Middle and High School Students

Corporate Clients

Faculty

MSU Board of Trustees Member

The Media

Design Day Awards

- Awards
  - Auto-Owners Exposition Award
  - MSUFCU Praxis Award
  - TechSmith Screencast Award
  - Urban Science Sigma Award
- ~16 Judges
- Based On
  - Project Plan (Due When?)
  - Project Video
  - Design Day
    - Exposition
    - Presentation to Judges

Presenting to Judges

Presenting to Judges

Team Michigan State University Wins Urban Science Sigma Award

Project Video

- Tells Project Story
  - Your Client
  - The "Problem"
  - Your "Solution"
    - Use Case(s)
    - Avoid "Boring" Stuff
      - Account Creation
      - Login Screen
      - "Boring" Administration Details
      - Every Last Feature and Option
      - Zzz…
    - Technical Details ⬅ **Don't forget.**
Like Design Day Booklet.
  - Acknowledgements
- ~7-10 Minutes in Length
- Professional
- Lots of Work

Project Video How To

- Story Board
  - Plan Video and Audio
  - Very Specific
- Capture Audio (Voice-Over)
  - Write Script
  - Record Using Capstone Microphones
- Capture Video
  - Screen Video or Shots
  - Photographs
  - Digital Video
  - (While Listening to Audio?)

Project Video How To

- Edit
  - Video
  - Audio
  - Use
    - Camtasia
    - Other Software of Your Choice
- Produce
  - .mp4 (Required)
  - .mov (Optional)

Project Video How To

To Do…

- Collect Assets
  - Audio
    - o Record Voice-Over
    - o Background Music (If Any)
  - Video
    - o Camtasia
    - o Digital Video (with Capstone Camera)
    - o Digital Photographs
- Import, Assemble and Edit Assets with Camtasia
  - Put All Assets in One Project Folder
  - Use (At Least) Three Tracks
    - o Video
    - o Audio for Voiceover
    - o Audio for Music
- Produce
  - Test Parts and Pieces in Advance
    - o For Look and Feel
    - o For Readability
  - Produce Entire Video
    - o In Advance
    - o Preview Entire Video Before Submitting

Project Video Hints

- Look at Previous Videos
  - See Archives > Websites By Semester
  - See Design Day > Awards
    - TechSmith Screencast Award
    - Urban Science Sigma Award
- Voiceover
  - TAs have two microphones you can borrow.
  - Record Mary Had a Little Lamb
  - Import into Camtasia
  - Audio Can Be Split and Moved
    - Record with Gaps of Silence
    - If Mistake, Start Over at Previous Gap
- Background Music
  - Make Sure Voice-Over Much Louder
  - Test in Room Settings (Like 1279 AN)
  - Always Err on Side of Too Soft Music
  - (Always a Problem with One Video)

Project Video Hints

- Reading App Text
  - Often a Problem
  - Use Very High Resolution and Pan/Zoom Feature of Camtasia
  - Test In Advance
  - In Room Setting (Like 1279 AN)
- Rendering
  - Try Samples
  - In Advance
  - Takes a Long Time
  - Do NOT Press Render Button One Hour Before Due
- Due
  - By 1pm on Monday, December 4
  - Via USB Stick to Dr. D. in Office
- Posted Immediately for Judges

Project Videos

- See Archives > Websites By Semester

- See Design Day > Awards
  - TechSmith Screencast Award
  - Urban Science Sigma Award

- Examples
  - Meijer
    Mobile Location-Based Product Promotion
  - Whirlpool
    Launder: Laundry Room Tablet Payment System
  - Ford
    SYNC Calendar

What's ahead?

- Week 10
  - M, 10/30: Design Day and the Project Video
  - W, 11/01: Intellectual Property
- Week 11
  - M, 11/06: Camtasia Demo
  - W, 11/08: Ethics and Professionalism

What's ahead?

- Week 12
  - M, 11/13: Beta Presentations
  - W, 11/15: Beta Presentations ⬅

  **Email legitimate conflicts by November 6.
  If you've already emailed me a conflict, <u>email it again</u>.**

- Week 13
  - M, 11/20: Beta Presentations
  - W, 11/22: Team Status Reports

- Week 14
  - M, 11/27: Beta Presentations
  - W, 11/29: Team Status Reports

What's ahead?

- Week 15
  - M, 12/04: Project Videos
  - W, 12/06: Project Videos and All Deliverables
  - W, 12/07: Design Day Setup
  - Fr, 12/08: Design Day
- Week 16
  - W, 12/11: Project Videos

Recall: Meeting Attendance

- Required
  - All-Hands (Class) Meetings
  - Team Triage Meetings
- 5% of Final Grade
- Late == Absent
- Almost No Excuses Accepted
  - One or Two Excused Possible for Interviews
  - Must Provide Information
    - Date, Company, Recruiter Name & Contact Info
    - In Advance
    - To Both Dr. D. and TAs
- Must Attend (No Excuses Accepted)
  - Your Team Presentations
  - All Project Video Viewing
  - Design Day

Do NOT schedule interviews.
Do NOT schedule ANYTHING.
Do NOT buy plane tickets.