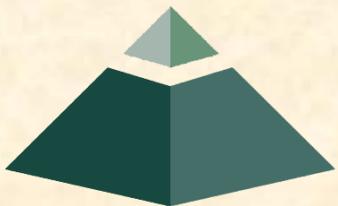# MICHIGAN STATE
U N I V E R S I T Y

10/28:
Design Day and the Project Video

The Capstone Experience

Dr. Wayne Dyksen

Department of Computer Science and Engineering
Michigan State University

Fall 2019

From Students…
…to Professionals

Design Day Overview

- Engineering Building
- Friday, December 6, 6:00 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

- 6:00 a.m. Setup and Breakfast
- 6:30 a.m. All-Hands Photo
- 7:15 a.m. - 12:01 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

MICHIGAN STATE UNIVERSITY

The Capstone Experience, Spring 2019
COMPUTER SCIENCE & ENGINEERING

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

Middle and High School Students

Corporate Clients

CoE Dean and MSU Board of Trustees Member

Design Day Awards

- Awards
  - Auto-Owners Exposition Award
  - MSUFCU Praxis Award
  - TechSmith Screencast Award
  - Urban Science Sigma Award
- 20+ Judges
- Based On
  - Project Plan
  - Project Video
  - Design Day

Team MSU ITS 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 ⬅
  - Acknowledgements
- ~10 Minutes in Length
- Professional
- Lots of Work

**Don't forget.
Like Design Day Booklet.**

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

Project Video How To

To Do…

- Collect Assets
  - Audio
    - Record Voice-Over
    - Background Music (If Any)
  - Video
    - Camtasia
    - Digital Video (with Capstone Camera)
    - Digital Photographs
- Import, Assemble and Edit Assets with Camtasia
  - Put All Assets in One Project Folder
  - Use (At Least) Three Tracks
    - Video
    - Audio for Voiceover
    - Audio for Music
- Produce
  - Test Parts and Pieces in Advance
    - For Look and Feel
    - For Readability
  - Produce Entire Video
    - In Advance
    - 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 a few 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 12 p.m. (noon) on Monday, December 2
  - Via USB3 Device 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
  - Ford
    SYNC Calendar
  - Michigan State University
    SEA: Spartan Experience App
  - Quicken Loans
    Fundamenta: Trust in New Home Construction

What's ahead?

All-Hands Meetings

- W10, 10/29: DD Booklet Edits Due by 11:59pm
- W10, 10/30: Camtasia Demo
               DD Booklet Printed Edits
- W11, 11/04: Intellectual Property
- W11, 11/06: Ethics and Professionalism
- W12, 11/11: Team Status Reports
- W12, 11/12: Team Status Reports

What's ahead?

- All-Hands Meetings
- W13, 11/18: Team Beta Presentations
- W13, 11/20: Team Beta Presentations
- W14, 11/25: Team Beta Presentations
- W14, 11/27: Team Status Reports
- W14, 11/28: Thanksgiving
- W15, 12/02: Project Videos
- W15, 12/04: Project Videos and All Deliverables
- W15, 12/05: Design Day Setup
- W15, 12/06: Design Day
- W16, 12/09: Project Videos

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