

PMP 2 Midpoint Lecture

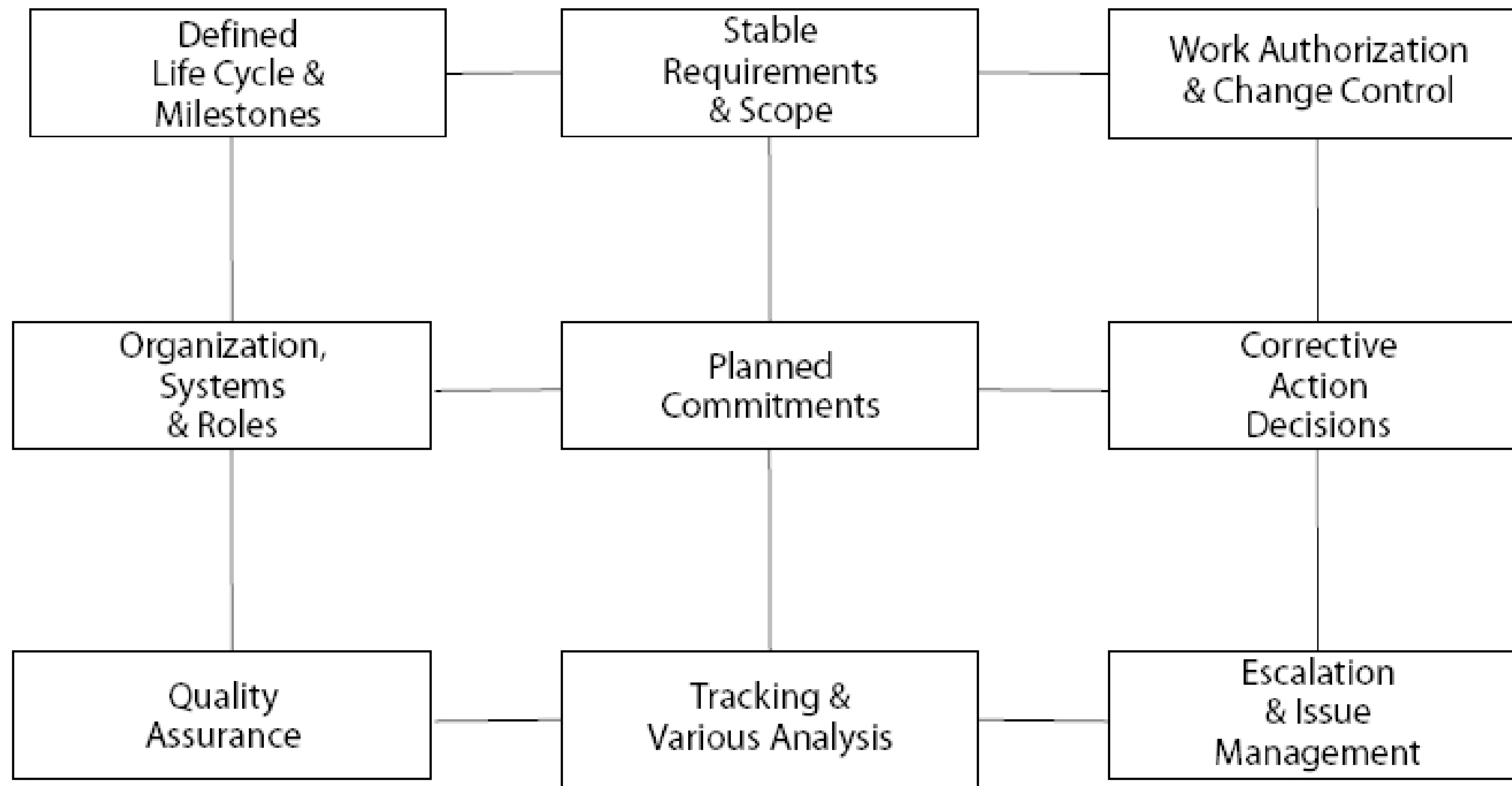
CSCI 5050: Professional Master's Project (2 of 2)

Lecture 2

Topics for today

- Kanban
- Class Deliverables Review

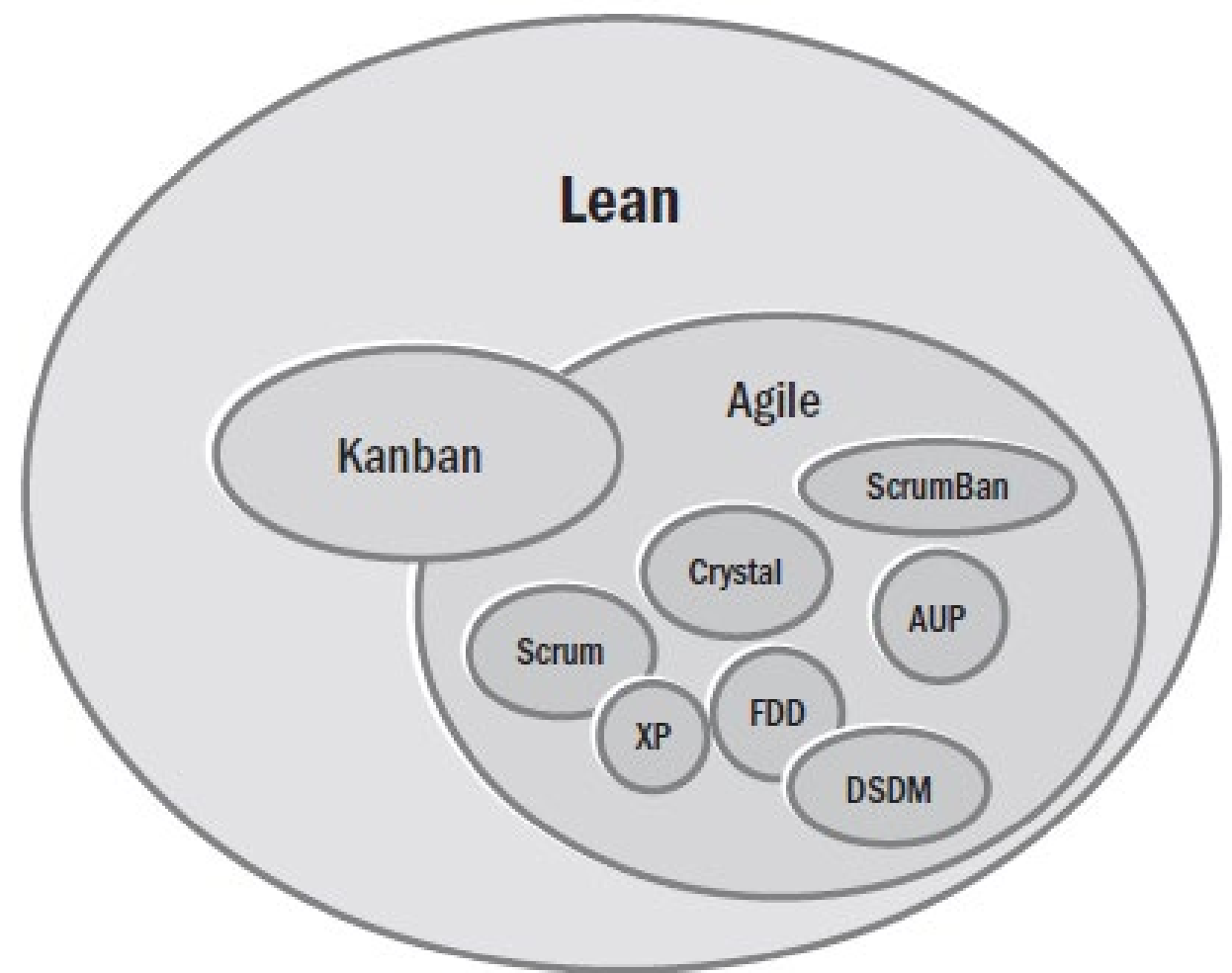
Nine Elements to Project Success



- <https://www.pmi.org/learning/library/best-practices-effective-project-management-8922>

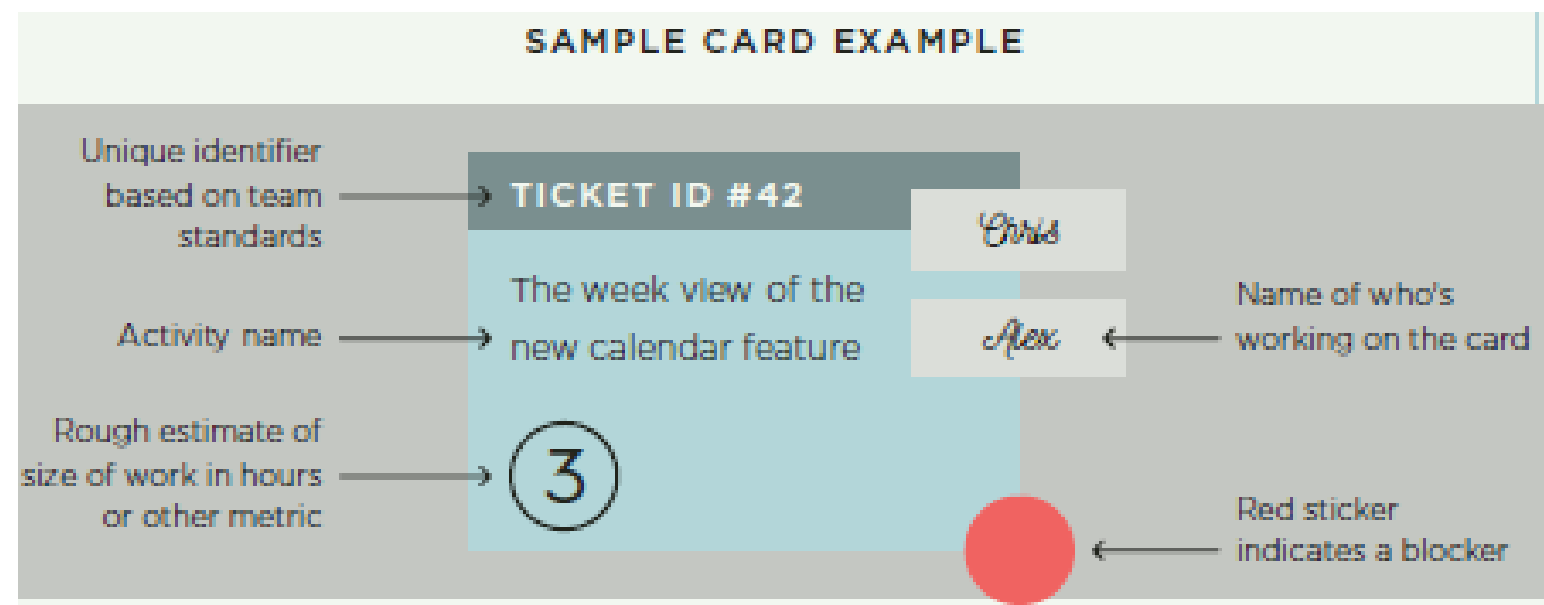
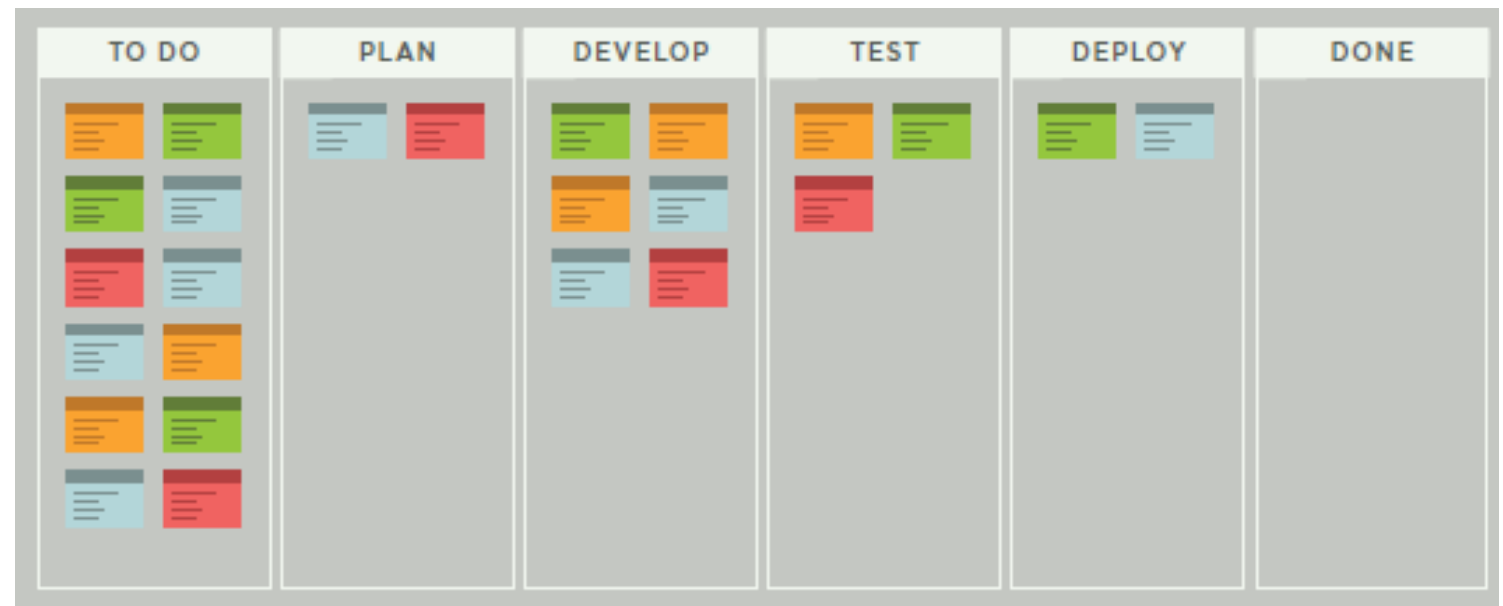
Agile Methods we've discussed

- Many different processes in the category of Agile
- Most common are Scrum and Kanban
- FDD Feature Driven Development
- DSDM Dynamic Systems Development Method
- Image from PMI Agile Practice Guide, 2017



Kanban

- Developed initially as a lean method for a factory floor flow control system at Toyota – tasks are tracked on a Kanban board with daily reviews
- Individual work items are tracked on cards – Cards include estimated work, who's working on it, and whether the work is blocked
- A key to making Kanban work is enforcing work in process limits



More on Kanban

- Four key principles
 - Visualize all work
 - Focus on flow
 - Limit work in progress
 - Continuous improvement
- Standups (daily)
 - Walk the board
 - “What do we need to do to advance this work item or card?”
 - Wrap-up questions
 - Is anyone working anything not on the board?
 - What do we need to finish as a team?
 - Can we see any impediments to the flow of work?
- Still can hold regular retrospectives and task planning reviews (like Scrum sprints)
- Ten best practices
 - Block scheduling
 - Use status in Slack
 - Pick no-meeting days
 - Take turns leading standups
 - Evolve standup questions
 - Encourage focused meetings
 - Process sharing and clarity
 - Keep boards up to date
 - Keep a running list of “someday” items
- Many available tools

Kanban vs. Scrum

Scrum

- Public view of work (stories)
- Regular fixed length sprints (ie, 2 weeks)
- Release at the end of each sprint
- Roles: Product owner, scrum master, development team
- Key metrics - Velocity
- Teams should not avoid changes during the sprint
- Planning and retrospectives each sprint
- Open to continuous improvement

Kanban

- Public view of work (cards)
- Continuous flow
- Continuous delivery
- No required roles – whole team responsible
- Key metrics - Lead time, cycle time, WIP
- Change can happen at any time
- Planning and retrospectives as needed
- Open to continuous improvement

Using Kanban? Your option.

- I had planned to shift teams to Kanban at the mid-semester point
- However, I can see that most of the teams working in a Scrum rhythm are doing it effectively now
- I don't want to disrupt the work for the last half of the semester as you come into deliveries
- Therefore, **I am making use of Kanban optional**
- Your team can switch to a Kanban rhythm if you like OR stay in your Scrum rhythm for the remainder of the semester
- If you plan to make the change, and you need help, let me know and I can meet with your team to help you make the move
- In either case, you'll still provide bi-weekly status report updates through the end of the semester

PMP 2 Class Focus – No Changes

- In class
 - Lectures – not so much
 - I am planning just a couple lectures this semester, your focus will be outside of class – today, a Kanban review, and a wrap-up
 - I have posted topic lectures from last semester in a Canvas folder at Files/5040 Lecture Files
 - Speakers – approximately 5 speaker visits?
 - You will be required to attend
- Outside class
 - Your project work
 - You're expected to put in approximately 12 to 15 hours of work per week on the projects
 - **Have story deliverables defined individually and see that they complete!**
 - Review and discussion of project work and processes; help with work, teams or sponsors
 - You'll meet with Preethi and I at the Scrum wrap-up/planning meetings for your teams (bi-weekly not weekly as before, but ping us if you need any assistance)
- Primary goal remains
 - Your team's success in the design, development and delivery for your sponsor's software project
 - Your continuing experience development

Project Deliverables and Grading

Grade Points	Assignment
50	Attendance (team meetings, speaker sessions)
50	Piazza discussion participation (roughly weekly)
70	7 2-week Timesheets
210	3 Scrum Sprint Reports
50	Midterm self-assessment
50	Midterm instructor/GSS assessment
50	Midterm sponsor assessment
100	Midterm status report/presentation
120	2 Kanban or Scrum Status Reports
50	Final self-assessment
50	Final instructor/GSS assessment
50	Final sponsor assessment
100	Final status report/presentation
1000	Total grade points

Project Expectations

- Make sure you're aligned with your sponsor on communication and work plans – let them know quickly if anything changes
- Set a scheduled time for Sprint Close/Sprint Planning
 - Invite me or Preethi to the sessions (work with us on dates/times)
 - **Required Reviewer change:**
 - Preethi (was Bruce) – Edwards, Trimble, Status Chatbot, Status Predictor
 - Bruce (was Preethi) – Helping, Inspiring, Double Helix, Inovonics
 - The team should reach out to the reviewers to set up appointments
 - All team members should attend these reviews
- Ensure role assignments and responsibilities
 - Technical lead
 - Project lead
 - Test/Quality lead
 - Source control/review lead
 - Documentation/delivery lead
 - May vary by project
- At midterm – focus is a thorough plan for final delivery
- At final – focus is the delivery and project retrospectives

Timesheets

- Track your time for each two week period, turn in when due
 - Target is 12 to 15 hours per week
 - Should not be substantially over or under this
- See Timesheet Form in Excel in class files
 - Update the dates as needed
 - Start tracking on Sat 1/16
- **Do not claim time you haven't spent!**
- 10 points each

CSCI 5050 Timesheet				
Student Name:				
Project Team:				
Day	Date	Hours Worked	Stories/Tasks	Comments
Sat	16-Jan			
Sun	17-Jan			
Mon	18-Jan			
Tue	19-Jan			
Wed	20-Jan			
Thur	21-Jan			
Fri	22-Jan			
Sat	23-Jan			
Sun	24-Jan			
Mon	25-Jan			
Tue	26-Jan			
Wed	27-Jan			
Thur	28-Jan			
Fri	29-Jan			
Total Hours		0		

Sprint Reports

- Generally, after each Sprint or Two-week Kanban cycle
- **Must be detailed and complete**
- Must include sprint story details
- Comments from review and from retrospectives (there should always be comments)
- I will review the first submissions quickly to discuss any needed changes
- 70 points each for Scrum
- 60 points each for Kanban (will change slightly)

CSCI 5050 PMP Project

Sprint Summary Report

Bruce Montgomery

Sprint Description

Sprint Start Date:

Sprint End Date:

Project:

Team Members:

Sprint #:

Focus of Sprint:

Burndown Summary

Story points planned to complete:

Story points completed:

Story points added:

Sprint Backlog (stories list): (Story – Owner – Estimate – Actual – Status)

- Code review for Preethi's card sorting module – Bruce – 3 – 2 – Done
- Code review for Bruce's card ordering module – Preethi - 1 – 3 - Done

Comments on Sprint Review (from Team and/or Sponsor):

Sponsor Reviewed: Yes / No

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Top 4 Sprint Retrospective Comments/Actions (Good or bad)

1

2

3

4

Overall PMP2 Schedule

- Week 1: 1/14 (today)
 - This lecture, schedule scrum standups and meetings, reestablish sponsor contact
- Week 2: 1/18
 - Start Scrum Sprint 1
- Week 3: 1/26
 - Finish Scrum Sprint 1, Scrum Sprint Report 1, Timesheet
- Week 4: 2/1
 - Start Scrum Sprint 2
- Week 5: 2/8
 - Finish Scrum Sprint 2, Scrum Sprint Report 2, Timesheet
- Week 6: 2/15 (note: Wellness day on Wed 2/17)
 - Start Scrum Sprint 3
-  Week 7: 2/22
 - Finish Scrum Sprint 3, Scrum Sprint Report 3, Timesheet
 - Moved up the Kanban lecture
- Week 8: 3/1
 - Start Scrum Sprint 4
- Week 9: 3/8
 - Finish Scrum Sprint 4, Midterm Status Report/Presentation, Timesheet, Assessments
 - No midterm exam

Overall PMP2 Schedule

- Week 10: 3/15
 - Kanban Process (Sprint 1) or Scrum Sprint 5
- Week 11: 3/22 (Wellness day on Thur 3/25)
 - Kanban status report or Scrum Sprint Report, Timesheets
- Week 12: 3/29
 - Kanban (Sprint 2)
- Week 13: 4/5
 - Kanban status report or Scrum Sprint Report, Timesheets
- Week 14: 4/12
 - Kanban (Sprint 3)
- Week 15: 4/19
 - Final Status Report/Presentation, Timesheets
- Week 16: 4/26
 - Assessments, Final report outs in class, Wrap-up deliveries to sponsors
 - No final exam

Participation/Attendance

- We will track Attendance at Scrum/Kanban planning meetings and Speaker sessions
 - 50 points for semester
- Piazza Participation:
<https://piazza.com/colorado/spring2021/csci5050/home>
 - Please try to respond to each topic posting within one week
 - Approximately 10 over semester
 - Grade based on response ~~timing and~~ quality
 - 50 points for semester
- Please do use Piazza to ask questions of me and Preethi as well!
 - If you have a question, others likely do too
 - Use anonymous or private posts as needed

Midterm Assessments

- I will post Self Assessment forms for each team to fill out
 - I'll post these around 3/4 to give you a week to do them, they'll be due 3/12
- Preethi and I and your sponsors will also be providing assessments

Midterm Status Presentation

- You'll provide a PowerPoint presentation to both Bruce and your sponsors
- You should plan to review the slides with your sponsor in one of your face to face meetings briefly within a week of providing the update
- Content of presentation – similar to last semester final presentation
 - Title/team members/sponsoring company and sponsors
 - Summary statement of current project scope/goals
 - Up to Date Architectural Design
 - High-level view of the solution you're building
 - Detailed Activity Review (Current Status)
 - Deliverables provided to date
 - Primary activities of each team member
 - Primary accomplishments so far
 - Lessons Learned Summary
 - Positive or negative issues you ran into, how you dealt with them
 - Progress Assessment
 - Where your team (and sponsor) thought you would be by now vs. where you are
 - Detailed Plan to Delivery
 - Describe the expected functional deliverables from the remaining three sprints
 - Describe the final delivery plan – code, tests, documentation, etc.

Next Steps

- At the timing of your choosing, switch your wrap-up/planning reviews between Preethi and I as presented:
 - **Required Reviewer change:**
 - Preethi (was Bruce) – Edwards, Trimble, Status Chatbot, Status Predictor
 - Bruce (was Preethi) – Helping, Inspiring, Double Helix, Inovonics
 - The team should reach out to the reviewers to set up appointments
- Be prepared to provide your midterm status presentation (no Scrum Sprint report for that sprint) – due to turn in 3/12, share with sponsor within a week of completion
- Assessment forms will be posted and announced
- I'm behind on sprint report grading (admissions) – I'll catch up this weekend – you will be allowed to correct grade penalties
- Mandatory attendance for sprint reviews and industry speakers
 - 3/4 – Zayo
 - 3/11 – AT&T Labs
 - More coming
- No further lectures planned. Use the class Zoom link from 5:30 PM – 6:30 PM for office hours when no speakers scheduled – next on 3/2 and 3/9
- We will meet the last week of class for final presentations – more later