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## RED Product Owner and Scrum Master Refresher

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# ERAU NSF RED Advisory Board Meeting

## Department Scrum Projects

March 2022



# Fall and Spring Scrum Projects

- Four teams
  - Program Review Committee
  - Graduate Recruiting Committee
  - Faculty Search Committee
  - Master of Science Unmanned Autonomous System Curriculum Modification Committee
- Pre-Conditions
  - Every member of the faculty SHALL participate in one of the team
  - No member of faculty participate in more than one project at the time



# Program Review Committee (PRC)

- Goals:
  - Develop program review report for four undergraduate degrees and two graduate degrees
  - Respond to follow up questions by the program review committee
- Stakeholders: EECS Department, University Program Review Committee
- Scrum Framework
  - Seven faculty members
  - Two-week sprints
  - Sprint planning, review and demo for each sprint
  - Twice a week standup meeting, and bi-weekly review and retrospective
  - Scrumwise as a tool



# Deliverables (Six Sprints)

- One member was removed from the team due to lack of knowledge about the product (**Product or process**)
  - Faculty was becoming more of an impediment than developer
- One faculty member was a certified product owner and scrum master
- Initial product owner relieved duties to the scrum master
  - Initial product owner became project impediment remover
- Six program review report was completed by the fifth sprint (one sprint early)
- Team conducted peer review during the sixth sprint
- To date, no issue have been raised by the university program review committee



# Graduate Recruiting Committee (GRC)

- Goals:
  - Reach out to an increased number of prospective students and outline the graduate program offerings in the EECS Department
  - Highlight opportunities as a student and prospects after graduation
- Stakeholders: EECS Department, Graduate Admissions Office
- Scrum Framework
  - 4 faculty members
  - Two- and three- week sprints
  - Sprint planning and review
  - Once per week standup meeting
  - Sprint retrospective and lessons learned
  - Use of Scrumwise tool for the process



# Deliverables (4 Sprints)

- Started with three members and added a fourth member after the first sprint
- Scrum master (new faculty) learned process on the task
  - Help was provided with scrum process resources
- Updated EECS Graduate Programs Information Session Presentation and Flyer Announcement
- Updated EECS Graduate Programs Recruiting Flyer
- Strategies for reaching as many ERAU 3<sup>rd</sup> & 4<sup>th</sup> year students as possible
- Participation in state-wide recruiting events
- To date, promising number of applications in the accelerated programs



# Faculty Search Committee (FSC)

- Goals:
  - Find and recommend qualified candidates to fill 3 Assistant Professor faculty lines (2 Cybersecurity Engineering, 1 Systems Engineering)
- Stakeholders: EECS Department, College of Engineering, Human Resource Department, University
- Scrum Framework
  - 4 Faculty members
  - 2 Week Sprints
  - 1-2 Meeting / Week
  - Sprint Retrospective / Lessons Learned (see next slide)
  - Used Scrumwise tool





# Deliverables (3 Sprints)

- One member replaced to increase diversity of the team
- One member left the University and was replaced
- Team decided to revert to traditional process
  - User stories not readily distributed to individual team members
    - Every team member has to review every candidate
    - Every team member has to participate in every interview (schedule permitting)
- Potential for “mixed mode” in the future
  - Reviews and interviews not readily parsed into Agile Scrum
  - Campus interview preparations readily parsed into Agile Scrum
- 3 Candidates had on campus interviews, 3 more scheduled
- One offer made (Systems), one offer recommended (Cyber)



# MSUASE Curriculum Committee (MCC)

- Goals:
  - Prepare a curriculum proposal (AP-04) for the MSUASE
    - Update curriculum based on inputs received from program review
  - Establish advisory board for MSUASE program
- Stakeholders: EECS Department, College of Engineering
- Scrum Framework
  - Four faculty members
  - Two-week sprints
    - End-of-Sprint business and next sprint planning every other week
    - Scrum master translates tentative plan and project backlog into sprint backlog



# Deliverables (5 Sprints)

- After two sprints, during November department meeting, the team briefed the department on the approach being made, limitations/constraints set forth by the department stakeholders, and solicited feedback on potential courses to include
- At the December department meeting, the team presented the revised curriculum for departmental approval
- Starting the first week of February, the team has begun to write the AP-04 change proposal.
- Goals for end of year (by 15 May 2022),
  - Curriculum proposal ready (primary)
  - Establish advisory board (secondary)



# Lessons Learned & Observations - 1

- Perfect Scrum implementation is not possible (has not been achieved) in an academic setting
  - “Scrum-lite” implementation is very well a possibility
- Well trained scrum masters is a MUST for successful implementation of the Scrum project
  - This results to (in) getting “Scrum-lite” closer to real Scrum
- Frequent interactions (“daily scrums”, etc.) help the product delivery and efficient operation
  - Particularly when faculty get sidetracked with other more “important” tasks
- Transparency is very helpful for
  - Allowing people to know who is doing what
  - Requiring people to get things done and not wait until the last minute to deliver



# Lessons Learned & Observations- 2

- Scrum teams built a stronger community of faculty during the COVID
- Little or no extra workload associated with scrum
  - This is not true for product owner
- Perhaps it is not realistic to have every member of the faculty to participate in Scrum implementation
  - None believers could become impediment for the project
- Any observation regarding how good/bad it was replacing team members? (other than the item above)
  - Believers tend to get overloaded and overassigned.

