Software to Support ABET Criterion 3
April 3 (Friday) 11:00-11:50am
Zoom Meeting
Meeting ID: 448 262 412, Password: 012780,
URL: https://zoom.us/j/448262412?pwd=RUY0UmsyeVBGZkpIbFFTcDVhQTBQQT09

Attendees:

Justin Bak, Business Analyst, JBak@mtech.edu
Kaleb Bausch, Business Analyst, KBausch@mtech.edu
Diedrich Brush, Business Analyst, DBrush1@mtech.edu
Carson Fiechtner, Business Analyst, CFiechtner@mtech.edu
Lorri Birkenbuel, Safety, Health & Industrial Hygiene, LBirkenbuel@mtech.edu,
Phil Curtis, Science Mine, PCurtis@mtech.edu
Marcus Frisbee, Business Analyst, MFrisbee@mtech.edu
Celia Schahczenski, Manager, CSchahcenski@mtech.edu
Sue Schrader, Petroleum, SSchrader@mtech.edu
Glen Shaw, Geological Engineering, GShaw@mtech.edu
Larry Smith, Geological Engineering, LSmith@mtech.edu
Jacob Vesco, Business Analyst, JVesco1@mtech.edu

11:00 Review last meeting — Jacob Vesco

- Changes due to COVID-19
  - Last meeting cancelled
  - Next meeting is more of a final presentation
- Comments/suggestions on analysis of last meeting?
- Threw out "Select PI/CO"
- Updated Activity Diagram (see below)
- Updated "Create metric" use case (see below)

Clients had no objections with the review of the last meeting.

- Reminder - support for development

Phil plans to draft a proposal to begin development of ACID. If development is funded, he hopes that clients will trial the emerging system and continue to provide feedback.

Phil is also hoping for support letters from clients for the proposal, along with feedback on the proposal. Once a proposal is drafted, Celia will send it to the clients in the hopes of feedback and support letters.

Larry and Celia reported that they are in support of development of ACID.

The clients were asked how they name metrics.

Following is an example of metrics from Geological Engineering:

1	an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics	
	1.1 - Apply non-GEOE general engineering knowledge	
		i. Metric 1: Level I, II, and III ETS Math proficiency exam scores (average of all 3)
		ii. Metric 2: selected exam questions and lab exercises in GEOE 410W.

SO

PI

Metrics

From Petroleum Engineering:

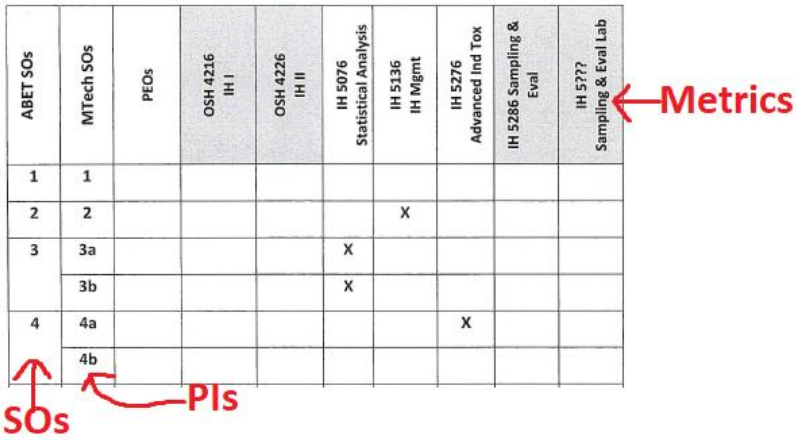
1. The student demonstrates an ability to identify, formulate, and solve complex engineering		
Performance indicators	Courses	Method of assessment
1. Can choose a mathematical or statistical model to solve an engineering problem	PET 410 PET 372 PET 404	Performance on select questions on final exam, midterm, final project or homework
2. Understands limitations of models and checks solutions for reasonableness	PET 410 PET 499	History matching assignment, senior design modeling component
3. Can relate scientific concepts to engineering problems	PET 372 PET 404	Performance on select homework and exam questions

SO

PIs

Metrics

From Industrial Hygiene:



At the March 6th meeting, associating a metric with multiple items (PIs, Co, etc.) was discussed and it was decided that scoring a metric should be relative to the metric association, not the metric itself.

In this case possibly a phrase such as "Level I, II and III ETS Math proficiency exam scores (average of all 3)" can identify the metric before it has been associated with a PI and/or a CO. Once the metric has been associated with a PI and/or a CO, a short identifier such as 1, 2, … or 4a, 4b,… could be used.

The clients were asked how they name PIs.

It is assumed that PIs only relate to a single SO, so short identifiers should work.

A data model showing the relation between the items in the data requirements was requested.

11:20 Prioritization of requirements Justin Bak

The following prioritization, where high priority indicates early development and low priority means develop last, was shown:

High Priority:	**Medium Priority:**	**Low Priority:**
1. Create metric 2. Update metric 3. List metrics 4. Associate metric 5. Score metric association 6. Delete metric association 7. Generate report 8. List course offerings 9. View SO 10. List SO 11. View PI 12. List PIs 13. View CO 14. List COs 15. Create course offering 16. View course offering	1. Delete metric 2. Create PI 3. Update PI 4. Delete PI 5. Create CO 6. Update CO 7. Delete CO 8. Score SO 9. Update course offering 10. Delete course offering 11. View Course 12. List Courses 13. Associate PI with SO 14. Score PI 15. Associate Course with SO 16. Associate CO with SO 17. Associate CO with Course 18. Score CO 19. Associate course offering with Course	1. Export report to csv 2. Create SO 3. Update SO 4. Delete SO 5. Create Course 6. Update Course 7. Delete Course 8. Create report template 9. Edit report template 10. Import report template 11. Select source data 12. Print report 13. Select report

It was clarified that SOs, PIs, courses, CO and their associations could be prepopulated into the system, so the use cases for entering and updating these items would not need to be implemented immediately.

11:30 Associate and describe metric use case Carson Fiechtner

Clients agreed that there is not a need to multiple associations from the same metric to the same PI/CO.

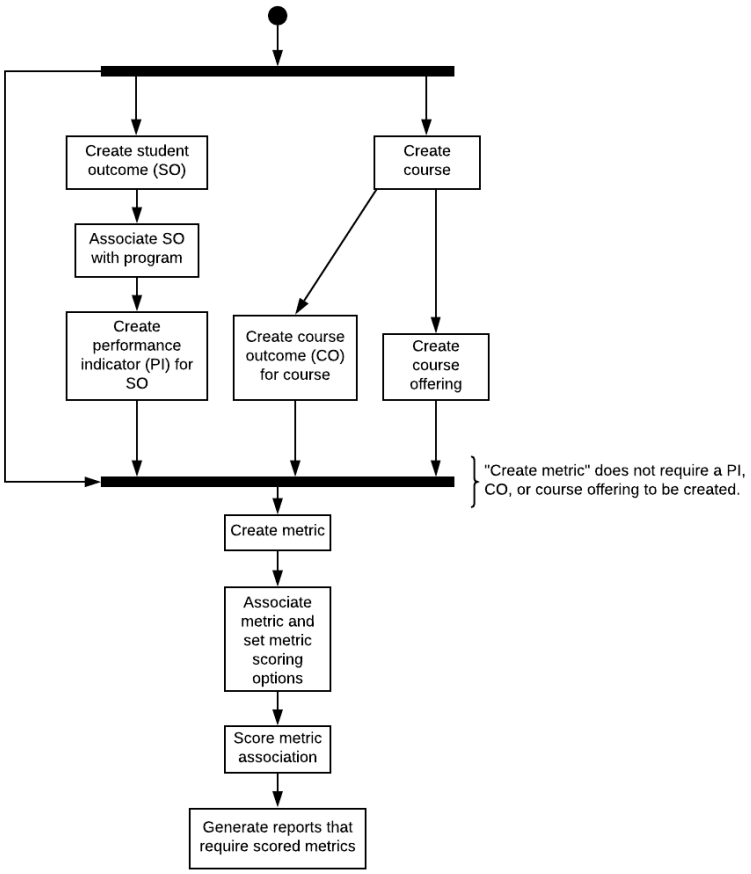
11:40 Score metric use case — Diedrich Brush

Clients requested that, in those cases where lots of inputs are given, such as the “Score metric use case”, the interface should give a preview of the changes, before they are submitted. Also, there should be a way to “undo” or “reset” changes. This is especially important when a csv file is uploaded. They user needs to be able to preview what was uploaded before changes are made to the system.

11:50 Next Meeting – presentation – April 17 — Jacob Vesco

It was requested that the slides be sent to the clients.
One client commented that they could see the intent of the design but that it is hard to comment on specific aspects.

Updated Activity Diagram:



Portion of updated “Create metric” use case:

Create metric

Created By:	Celia Schahczenski	Last Updated By:	Class
Date Created:	Feb 17, 2020	Date Last Updated:	April 2, 2020
Actors:	Department ABET Coordinator, Department Admin, Faculty Member		
Description:	User creates a metric.		
Preconditions:	User is logged in and has permission to do this action.		
Postconditions:	Unless the user exits this use case early, the new metric has been created and the audit log is updated		
Normal Flow:	**1.0 Create metric** 1. User indicates desire to create a metric 2. An ‘enter metric’ interface appears that allows the user to enter a phrase that describes the metric and to submit the data 3. The user is informed that the metric has been created		