

EYP/® minutes

To:	Attendees	Date of meeting:	June 11, 2019
Project Name:	Bull Run Hall Addition	Time of meeting:	10:45-12:00
Project No.:	1019004.01	Location of meeting:	Sci Tech, IABR, Conf Rm 1004
		Meeting Number:	2.6

Meeting Purpose: Programming for Mechatronics

Attendees:

George Mason University:

- Oscar Barton, VSE
- Joyce Rose, VSE
- Ramin Bighamian, VSE ME
- Shari Ross, Bio-E
- Amanda Jervis, MIX-OEI
- Ben Allen, ITS
- Laura Manno, Provost/Planning
- Colby Grant, Sci Tech Admin
- Debbie Brady, Facilities
- Virginia Steele, Facilities
- Joy Staulcup, Facilities
- LeAnn Pittman, CaLT/Learning Space Design

EYP:

- Melissa Burns, Academic Planner
- Brian Tucker, Lab Planner
- Rebecca Ross, Planner/Architect

Minutes:

General Comments:

The group met on George Mason University's SciTech campus. The purpose of the meeting was to discuss each functional space type in more detail and to identify the following for each space:

- Number of students
- Type and style of teaching
- Timing of courses (Fall/Spring/Summer, Frequency, Time)
- Key adjacencies,
- Prep/Storage needs
- Major equipment

1. **Introductions:** Laura Manno introduced the meeting and provided a brief project overview to the group for new attendees that were not in the last programming meeting. She explained the process and purpose of the building and that there will be ongoing conversations on scheduling, logistics and budget. There were diagrams on the wall which were presented at the last building committee meeting and were the starting point for this set of interviews.

Instructional Dry Labs / Support

Mechatronics

- Controls
- Bioinstrumentation
- Circuits
- Robotics
- Cybersecurity

Human Performance

- Exercise Science
- Athletic Training

Forensic

- Forensic Science

Support

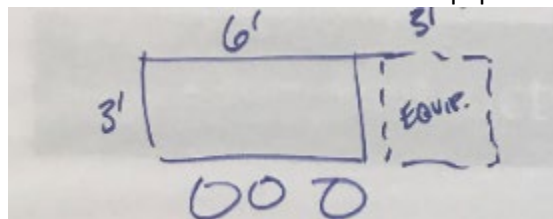
- 3d Printing
- Storage

The green bar represents a typology in the building and the gold groups represent a function of the type followed by a list of uses. The function could be representative of one or more spaces and are a way to think holistically and collaboratively about space within the building.

2. In a previous session, Physics added Characterization to this typology. Physics was not able to come to this session. Many of Physics characterization activities could happen in a dry space such as this.

3. **Mechatronics:**

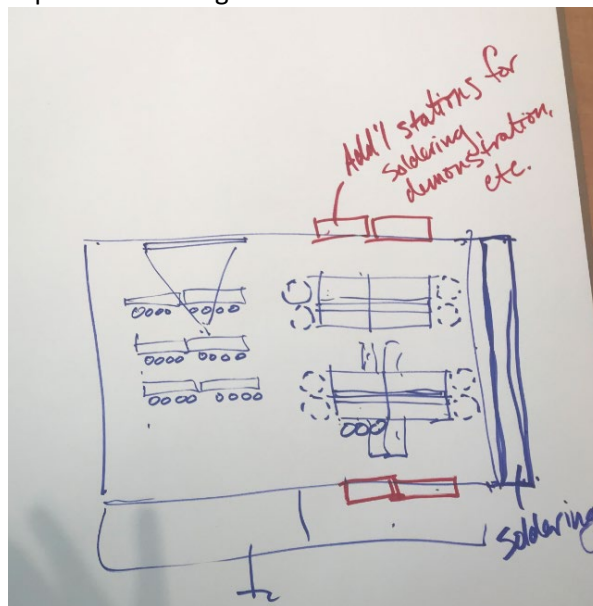
- a. # of Students: 24 students
 - 8 workstations; teams of 3 students
 - 2 hour 45 min lab time
 - Prep time, 2 hours
- b. Workstations:
 - 6' x 3' table/workstation
 - 3' x 3' area next to workstation for equipment. Equipment varies on the lab.



- c. Lecture in the space, usually first half of the class.
 - Currently starting in a classroom and then moving to the lab.
- d. EYP talked about a “class-a-tory” setup which seemed to work for everyone. This setup combines traditional classroom type space with electronics type lab space.
- e. Courses: Each course has two sections
 - Mechatronics
 - EE330
 - Controls
 - Auto Controls
 - Electrical Circuits
 - Industrial Electronics
 - Potential to add Bioengineering courses down the road.
 - Cybersecurity (**Homework:** Joyce will find out course sections)

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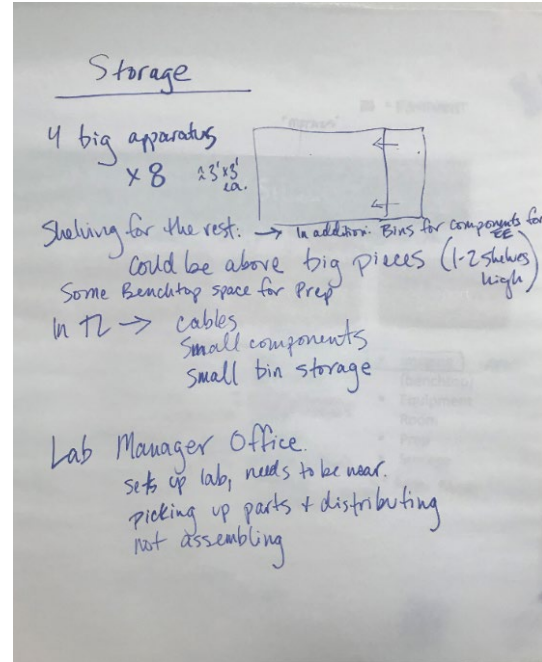
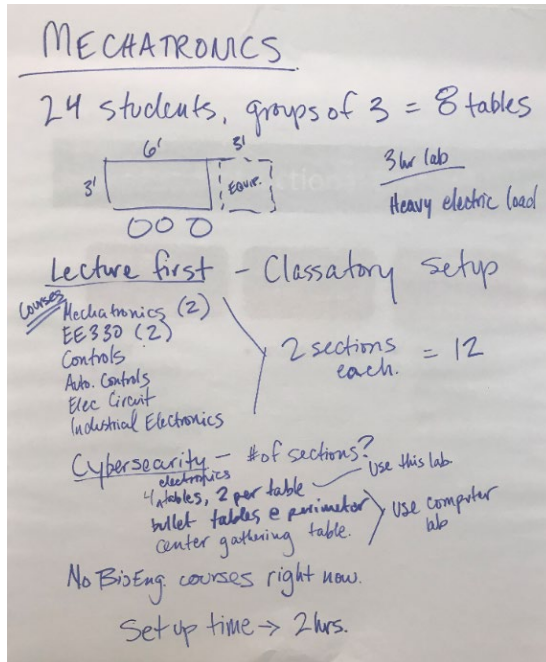
- f. Cybersecurity will have a similar set up and could use the Mechatronics Lab for their classes.
- g. Storage:
 - Storage space adjacent to the lab.
 - Store the larger equipment on the floor
 - Other materials stored on shelves (x8 benches)
 - Bins for smaller parts (in teaching lab, readily available)
 - Benchtop space to preassemble and disassemble labs
- h. Need a Lab Manager
- i. Oscar asked EYP to describe spaces that we are working on for other Universities.
 - Brian replied that EYP's experience is that everyone is using the set up GMU is talking about. Some Universities are going away from using some of the equipment and supplementing with software. But most are still teaching the "old school" way.
- j. Melissa drew a diagram with easy sight line for the instructor. She noted adding separate soldering stations or additional electronics benches for more flexibility.



- k. The idea of having a separate bay / space in the Fab Lab for Mechatronics was brought up. This would allow for clean work related to student projects.
 - Include soldering station
 - Oven
 - Electronics Station

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Notes from Meeting:



End of Meeting

The above constitutes my understanding of the items discussed and the decisions reached. If there are any additions or corrections, please, contact the undersigned.

Signed: Rebecca Ross / Brian Tucker

Cc: Attendees

Date: June 26, 2019