

GREATER LAWRENCE TECHNICAL SCHOOL
57 River Road, Andover, Massachusetts 01810

PROGRAM ADVISORY COMMITTEE
MEETING MINUTES
November 4, 2021

The Greater Lawrence Technical School Program Advisory Committee meeting was held on November 4, 2021, at Greater Lawrence Technical School.

The following members were in attendance:

Facilitator: Panagiota Athinelis	CTE Program: Automation/Robotics
Recorder: Malcolm Paradise	
Materials Manager:	
Dialogue Monitor:	
Timekeeper: Danielle Ahern	
Faculty Present	
Malcolm Paradise	Exploratory Instructor
Danielle Ahern	Sophomore Instructor
Usman Ahmadu	Upper class Instructor
Panagiota Athinelis	CTE Program Coordinator
Advisors Present	Name of Business
Mark Michalski	Board Member SME Educational Foundation/ Ex-Operations Manager at MKS Instruments
David Packard	DMGMORI-Machine Tool MFG
John Henshaw	MWCC
Steve Bedrosian	Mitre Corp. E/O Systems Specialist
Michelle Griggs	Sig Sauer - Director of Recruitment
Jen Stephens	Former instruction and Industry Expert
Joshua Martin	Straumann, Inc.

<p>Agenda Item #1: Call to Order</p> <p>a. Welcome/Introductions</p>

Status report: Danielle Ahern called the meeting to order at 5:45 PM.

Agenda Item #2 Verification of committee members' contact information, phone numbers, and emails.

- a. Please verify the e-mail address for each member.
- b. Please distribute and collect information sheets for new members and members with pending paperwork. Please return the paperwork to Sue Ouellette.
- c. Solicit representation for all **representative populations** listed on the Program Advisory membership forms.

Status Report

- a. Email Addresses have been verified for each member.
- b. Facilitator asked for members to review representative populations and indicate if any apply to them.
- c. Representation for all **representative populations** was verified on the Program Advisory membership forms.

REPORT OF OLD BUSINESS

Agenda Item #3: Minutes

- a. Review minutes from the last advisory meeting, and voice comments, questions, or concerns (Minutes are posted on the GLTS website).
- b. Solicit a motion to approve minutes, 2ND the motion.

Status Report:

- a. Review minutes from the last advisory meeting, and voice comments, questions, or concerns (Minutes are posted on the GLTS website). The following was discussed:
 1. No new equipment has been purchased since Spring meeting
 2. Review standards.
Pangiota Athinelis, CTE Coordinator mentioned that a new standard was in the works from DESE but has not been released for review at this time.
 3. Program Goals were presented by Panagiota Athinelis, CTE Coordinator
 - A. Everyone who graduates from the program will be prepared to enter the workforce in a technician's role.
 - B. Opportunities to go beyond the technical's role will also be provided for those able to meet those challenges.

Recommendation: Approved

Motion: Steve Bedrosian

2nd Motion: Dave Packard

Vote: Unanimously

NEW BUSINESS

Agenda Item #4: CTE Program Facilities Review

- a. **Discuss shop facilities and equipment.**

- i. Update advisory board on the progress and response to previous recommendations.
- ii. Considering the impact of the Pandemic on the Industry and workspaces, please share how the industry has adapted to meet the current safety guidelines and standards.
 - 1. Have day-to-day operations changed?
 - a. Are there any operational adjustments that GLTS should consider implementing?

a. Discuss shop facilities and equipment.

- 1. The program is now using the laboratory in the trades hall and is using room 6006. The Engineering program is breaking off from the STEAM Academy and will become Robotics Automation going forward. Location of the program has not been decided at this point.
- 2. Should we be looking at replacing any capital equipment (\$25,000 or more) within the next 5 years? See budget for details of suggestions here.

Status Report:

- A. **Does the current shop design meet current industry standards?** The program recently received approval from DESE so it meets industry standards that were considered.
 - i. DESE recently reviewed the facility and NIOSH Checklist for program approval

Recommendations:

- MOTION: CREATE A MARKETING PLAN
 - MM motioned that we create a marketing plan to show students projects & applications that are relevant to the students.
 - Motion: Mark Michalski
 - 2nd Jen Stephens
 - Passed Unanimously
- MOTION: TO MAKE SURE ADEQUATE SPACE WAS AVAILABLE FOR ALL THE EQUIPMENT NEEDED FOR THIS PROGRAM
- Comments: JS mentioned that after being here today doing some training, observed that in the present arrangement, space for all the 3 instructor classes wasn't adequate.
 - Motion: Joshua Martin
 - 2nd: Jen Stephens
 - Passed: Unanimously
 -

Agenda Item #5: (FALL ONLY) Reviewing Proposed Budget for the upcoming school year (SY22/23):

a. Review SY21/22 Budget

- i. Review Spring Minutes and Proposed Department Budget (for SY21/22) Is the proposed budget for FY22/23 budget inclusive of equipment and supplies recommended by the Advisory Program Committee at the last Advisory meeting?

Status Report: The size of the rooms for the program was a topic of concern. Members wanted to be sure enough room was available for the equipment we now have before recommending any additional items.

1. Sidebar comment: Be sure to check that E-Stops are installed in all work areas and that they work properly.
2. JS Mentioned that a couple of items on the proposed budget were already in place [had been purchased] and could be deleted.
3. The line item for Vex had 2 options proposed. JM spoke to the fact that the VEX V5 was the way to go. The group agreed and the budget was updated to reflect this. In addition, the expected enrollment was discussed as it will affect the number of robots needed in the program. When it was projected that 20 + students and robots for a competition team were needed, the proposed single kit (consisting of 6 robots) was suggested that we raise that line item to 2 kits (12 robots) to support his population and competition team. The attached budget reflects all these changes.

ii. N/A

Recommendations: Final budget is sufficient for SY22/23 with recommendations above noted.

Motion: Jen Stephens

2nd Motion: Mark Michalski

Vote: Unanimous

Agenda Item #5 (SPRING ONLY) Prepare Budget for the upcoming school year (SY22/23)

- a. Is the program equipped with equipment and supplies that will support preparing students for entry into the industry?
- b. What tools and/or equipment are cost-prohibitive to repair and should be replaced?
- c. What tools and/or equipment should be replaced within the next 5 years?
 - i. If yes, is there a specific manufacturer or model that we should request for equipment recommended?

Status Report:

- a. (Record Discussion)
- b. (Record Discussion)
- c. (Record Discussion)
- d. (Record Discussion)

Recommendations: (Example: “It was recommended by the board that....”)

Motion: (Name of Board Member)

2nd Motion: (Name of Board Member)

Vote: (Motion Carried or Motion Failed)

Agenda Item #6: Curriculum

- a. Is there any new technology or techniques that we should be teaching our students?
- b. Are there any additional certifications that are valuable for students to have in the Industry?

Recommendations:

➤ **MOTION: CREATE ENGAGING PROJECTS**

- MM spoke to the need to make projects engaging. Companies like Boston Dynamics, Amazon, etc. should be approached to be partners with our program.

- DA mentioned that she had shown an Amazon virtual field trip in class this week with a coding project for one of their shipping facility robots. The presentation showed how Amazon is using automation and robots throughout their fulfillment centers.
 - Suggestion was made by JM to create a relationship with the new Amazon Fulfillment center going up in North Andover.
- JM mentioned that there will be a VEX Robotics competition at North Andover High on November 20th. Suggested that we attend. He made a motion that we start and support an after-school Robotics Competition Team. [MP noted that he was already in the process of doing this and had about 8 members already signed up for an afternoon robotics team. But the group isn't quite ready to compete just yet.]

Motion: Joshua Martin

2nd Motion: Mark Michalski

Vote: unanimous

- **MOTION: EXPLORE DIFFERENT TYPES OF ROBOTS TO ENGAGE STUDENTS**
 - It was suggested that different types of robots including drones be brought into the classroom as a way to engage students.
 - Comments: JS too much programming can be boring [disengaging] to the students. So, drones may be nice but be careful not to make all programming and nothing else.

Motion: Steve Bedrosian

2nd Motion: Dave Packard

Vote: Unanimous

Agenda Item #7: Cooperative Education/Industry Trends

1. In thinking about recent and/or new hires at your company or in your industry, what are the skills they are lacking?
2. What is your biggest challenge when hiring new employees?
3. What skills are essential for new hires at your company/in your industry?
4. Have you hired any of our students (coop or recent grads) and if so, what are their strengths and what skills/understandings are they lacking?
5. What should we be doing as teachers to help our students be prepared to be successful at your company and/or in our industry?
6. What other companies in your industry can we partner with to place our students on Coop?

Status Report: In reference to the questions above the following responses were provided by our industry members:

1. Add **Vision Systems** to the curriculum
2. Problem solving skills
3. Teach students to be self-motivated. They should know how to research a problem to fix it or to be able to come up with a solution.
4. MG:
 - a. Evolving though
 - b. Be able to make recommendations
 - c. Be strategic thinkers
 - d. Fearless - not afraid to fail.
5. MM
 - a. Have basic Lean manufacturing Skills (6 Sigma, Black Belt, Statistical Process Control)
6. JM - Not look at failure as a problem

7. AGILE and LEAN philosophies work together and should be part of the program.

Recommendations: To incorporate the above recommendations into the curriculum

Motion: Joshua Martin

2nd Motion: Mark Michalski

Vote: Motion Carried

Agenda Item #8: (FALL ONLY) Elect Advisory Chair:

- a. The General Advisory Meeting will take place on TBD at 5 pm.
- b. Are there any nominations for the Program Advisory Chair for the 2021-2022 school year (take nominations)?
- c. All those in favor?

Status Report:

- a. The General Advisory Meeting will take place on January 18, 2022, at 5 pm.
- a. Jen Stephens was elected Chair
- b. All in Favor

Recommendations: Jen Stephens to be chair

Motion: Jen Stephens

2nd Motion: Mark Michalski

Vote: Motion carried

Agenda Item #9: 5 Year Strategic Plan

GLTS will be looking at creating a 5-year strategic plan for the school. We would like you to consider the following for the program:

- What is the future of the industry and job outlook? (5years, 10 years)
- Is there new technology/equipment that we should be looking at or investing in?
- Will the industry be sustainable in its current practices, or will we need to expand for future industry trends? (Ex- New bays for electric cars)

Status Report: Table for future discussion

Recommendations: None at this time.

Motion: Not needed at this time

2nd Motion:

Vote:

Agenda Item #10: Additional Comments:

Status Report: Folks have not gotten into industry in Automation/Robotics roles. It doesn't seem to be a career vision for people today. It was suggested that as educators, we need to help sell this career field as industry moves away from manual labor and replaces it with Robotics and other forms of automation. [as manual labor approaches \$50 per hour, automation makes sense and then folks are needed to support all forms of automation if this transition is going to work.]

ADJOURNMENT at 7:50 PM.

Motion: Dave Packard moved to adjourn.

2ND: Joshua Martin

VOTE: Unanimous

Next Meeting: April 28, 2022

Respectfully Submitted: Malcolm Paradise