

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

PROGRAM ADVISORY COMMITTEE
MEETING MINUTES
November 16, 2023

The Greater Lawrence Technical School Program Advisory Committee meeting was held on November 16, 2023, at Greater Lawrence Technical School.

The following members were in attendance:

Facilitator: Andrew Ciarla	CTE Program: Biotechnology
Recorder: Cheri Lewis	
Materials Manager: Melissa Tobin	
Dialogue Monitor: Scott Cummings	
Timekeeper: Scott Cummings	
Faculty Present	
Cherilee Lewis	
Melissa Tobin	
Scott Cummings	
Advisors Present	Name of Business / Population Represented
Andrew Ciarla	Pfizer
Norline Crossdale-Walker	Genzyme
Elizabeth Villar	Pfizer
Mark Wholley	BioX
Guest Present	
Mariluci Bladen	Middlesex Community College
Derca Rodriguez	Parent
Amber Javier	Student
Diana Melo	Student

Agenda Item #1: Call to Order

- a. Welcome/Introductions

Status report: Ms. Tobin called the meeting to order at 5:49 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. Per DESE recommendations, Program Advisory Boards must be a diverse representation of the communities. Members should respond to the [Google Form](#) (Share link with all members) documenting their attendance and whether they are able to represent the diverse perspectives of our community.

Status Report:

- a. Email Addressed has been verified for each member.
- b. Facilitator asked for outstanding forms; there were no outstanding forms.
- c. Facilitator asked for members to complete google form. CAN'T FIND

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:

- Mr. Wholly mentioned that we discussed the BSC filters, and we need to get them maintained. We have the money in the budget and are scheduling this.
 - DNA gel Doc system has been approved by Mr. Lavoie to purchase for this school year.
 - Plate reader is something we really need and will try to get next school year.
 - Chemical waste was finally disposed of.
 - Reorganization of the equipment and chemicals took place at the end of last school year.
 - Money for maintenance on equipment has been approved by Mr. Lavoie for this year.
 - The micropipettes were all checked, there is a plan to train on metrology for the students.
 - Haven't made item tags for all equipment but there is a plan to work on that with seniors/lab managers.
 - Statistical data still should be a priority.
 - Ms Walker suggested we reach out to biotech companies to help train us to calibrate our pipettes and other equipment.
 - Ms. Villar also mentioned that we can get the validation procedure from companies.
 - Ms. Walker -Metrology is an excellent entry level position for students. This should be a priority for the shop area. This is part of the framework. There is a lot of work in metrology, companies spend a lot of money to maintain their equipment. If it is not precise, they could lose a ton of money to revalidate all of the assays they did using that equipment.

- After consideration of the time of use liquid nitrogen may not be necessary because it would be expensive to maintain. **-80 freezer is still necessary.**

Recommendation: Mr. Wholly recommended making a motion to approve the minutes.

Motion: Ms. Walker moved to approve the minutes of April 13, 2023.

2ND: Ms. Villar

Vote: Unanimous

NEW BUSINESS

Agenda Item #4: CTE Program Facilities Review

a. Review shop facilities and equipment (Tour Shop).

- i. Does the current shop design meet current industry standards?
 - 1. Are there any safety concerns?
 - a. If so, what improvements could be made?
 - i. What are the estimated associated costs to complete the improvements?
 - 2. Are there any repairs needed to the existing infrastructure?
 - a. If so, what improvements could be made?
 - i. What are the estimated associated costs to complete the improvements?
 - 3. Are there any shop area spaces that need to be redesigned for improved layout and/or functionality?
 - a. If so, what improvements could be made?
 - i. What are the estimated associated costs to complete the improvements?
 - 4. Are there any storage issues?
 - a. If so, what improvements could be made?
 - i. What are the estimated associated costs to complete the improvements?
 - 5. Are there any cosmetic renovations or improvements needed to ensure our program is reflective of the current industry styles, trends, and standards?
 - a. If so, what improvements could be made?
 - i. What are the estimated associated costs to complete the improvements?

a. Review shop facilities and equipment.

- i. Does the current shop design meet current industry standards?
 - 1. Safety concerns:
 - a. There are no safety concerns at this time.
 - 2. Repairs:
 - a. Equipment needs to be maintenance.
 - 3. Layout / Functionality:
 - a. Lab looks good.
 - 4. Cosmetic Renovations:
 - a. None that is seen.

Recommendations: No recommendations at this time.

Motion: None needed at this time

2nd Motion:

Vote:

Agenda Item #5: (FALL ONLY) Reviewing the Budget for the upcoming school year and 5 year outlook for equipment needs (SY24/25):

a. Review SY23/24 Budget

- i. Review Spring Minutes and Department Budget (for SY24/25). Consider the trajectory of your industry over the next 5 years when answering the following questions:
- ii. Can you outline the specific types of equipment you/your company plans to invest in over the next 5 years?
 1. What will the benefits be of investing in these items?
 2. Will any existing pieces of equipment be phased out with the implementation of new equipment?
 3. Are there ways we can align our equipment needs with environmentally friendly/sustainable practices?
- iii. How important do you view preventative maintenance for the equipment you plan to purchase?
 1. Do you have a suggestion for how we budget preventative maintenance/repair costs for new and existing equipment?
 2. Are there specific preventative maintenance contracts we should consider, and what key features should we look for?

Status Report:

- i.
 - a. Mr. Ciarla recommended that we get a biolog micro station to identify bacteria. We currently do not have the ability to do this, and it is part of our framework.
 - b. Mr. Wholly recommended that we get tabletop autoclaves and tabletop bioreactors to provide more technical training for entry level positions.
 - c. Computers needed that will be able to interact with the software for equipment including statistical analysis.
 - d. Mr. Ciarla, what about automation? Throughput is very important right now. Introducing robots to students to automate in biotechnology.
 - e. Ms. Villar talked about how important tabletop bioreactors. Bioreactors will allow students to learn how to do biomanufacturing which is an entry level position for our students. We need to build more curriculum for the entry level technical positions. Sartorius is a company that sells these.
 - f. What type of computers do we need? Ms. Rodriquez works for a company that may be able to donate them to the program.

Equipment we need in the future:

- Gel Imaging System
- Sartorius AMBR 250 system.
- Metrology equipment
- Computers capable of running Microsoft Excel and equipment software.
- Bioreactor equipment
- New autoclave, the one we have is very old.

Recommendations: It was recommended by the board that we purchase equipment necessary for biomanufacturing-bioreactors and necessary pieces that go along with it.

Motion: Mark Wholley

2nd Motion: Elizabeth Villar

Vote: Motion Carried

Recommendations: It was recommended by the board that we purchase computers capable of running the software for equipment.

Motion: Ms. Rodriguez

2nd Motion: Ms. Walker

Vote: Motion Carried

Recommendations: It was recommended by the board that we purchase a new autoclave, the one that we have is very old and needs to constantly be maintained.

Motion: Andrew Ciarla

2nd Motion: Mark Wholley

Vote: Motion Carried

Agenda Item #5 (SPRING ONLY) Prepare Budget for the upcoming school year (SY23/24)

- 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. What are new and emerging trends in the industry?
- b. Is there new technology or techniques that we should be teaching our students?
- c. Are there any additional certifications that are valuable for students to have in the industry?

Status Report:

- a. mRNA and LMP technology are an emerging technology.
- b. Biomanufacturing and metrology are not new but should start to teach.
- c. Micro credentials are now available for students to get in many different skills. These are a way.
- d. CLIA- governs clinical lab space.
- e. GMP/GLP certification should be added to the curriculum.

Recommendations: It was recommended that micro credentialing be added to the budget.

Motion: Norline Crossdale-Walker

2nd Motion: Andrew Ciarla

Vote: Motion passed

Agenda Item #7: Cooperative Education/Industry Trends

1. Review current GLTS Co-Op placements.
 - a. What patterns and trends do you notice in the data related to the program placements? (GLTS Coop Report)
2. Have you hired any of our students (coop or recent graduates) and if so, what are their strengths and what skills/understandings are they lacking?
3. What should we be doing as teachers to help our students be prepared to be successful at your company and/or in our industry?

Status Report:

1. Charm, Charles River, PCI, Armi --are all potential co-ops.

Recommendations: It was recommended by the board that we continue pursuing co-op employment at non-traditional biotech companies.

Motion: Mark Wholley

2nd Motion: Andrew Ciarla

Vote: Motion Carried

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

- a. The General Advisory Meeting will take place on January 16, 2024.
- b. Are there any nominations for the Program Advisory Chair for the 2023-2024 school year (take nominations)? (Second, discussion, any opposed, all those in favor?)

Status Report:

- a. Andrew is doing a great job.

Recommendations: The board recommends keeping Andrew as our Advisory Chair.

Motion: Norline Crossdale-Walker

2nd Motion: Elizabeth Villar

Vote: Motion Carried

Agenda Item #9: Comprehensive Local Needs Assessment (CLNA) Review

GLTS completes a CLNA every two years for each career area. This process allows departments to review and identify their needs and potential root causes. In reviewing the CLNA, please provide insights on the following:

- A. What improvements can be made to ensure support for all students, including students identified as non-traditional or special populations?
- B. Is the program curricula aligned to workforce/career needs?
 - a. What changes could the department make to ensure students are employable for entry-level positions?
- C. Is the department layout adequate to support the learning needs of all students?
 - a. Is there adequate room for all students to practice skills to proficiency?
 - b. Are the equipment needs and educational material needs being met?

Status Report: Not discussed at this time

Agenda Item #10: Other

Status Report: None

ADJOURNMENT at 7:30 PM. (Example)

Motion: Mr. Wholley moved to adjourn.

2ND: Mr. Ciarla

VOTE: Unanimous

Next Meeting: April 11, 2024

Respectfully Submitted: (Cherilee Lewis)