Biological Sciences Advisory Meeting Minutes

November 7, 2024| 5:00 – 6:30| Rm 21147

LPC Mission Statement

Las Positas College is an inclusive, learning-centered, equity-focused environment that offers educational opportunities and support for completion of students' transfer, degree, and career-technical goals while promoting lifelong learning.

LPC Planning Priorities

❖Equity: Establish a knowledge base and an appreciation for equity; create a sense of urgency about moving toward equity; institutionalize equity in decision-making, assessment, and accountability; and build capacity to resolve inequities.

❖Student Success: Increase student success and completion through change in college practices and processes: coordinating needed academic support, removing barriers, and supporting focused professional development across the campus.

❖Health and Wellness: Establish a knowledge base and appreciation for health and wellness in the workplace; create a sense of urgency about wellness; prioritize wellness in decision-making, assessment and accountability; and build capacity to support wellness.

Committee Name Quorum:

Camille Troup Vivek Sharma
Chandra Khantwal
Dana Nakase Yolanda Fintschenko
Dianna Maar Danielle Bañuelos
George Farquar
Jason Maxwell
Jean O'Neil-Opipari
Jill Carbone
Kai Blaisdell
Josie Sette
Kristen Wolslegal
Linnea Fletcher
Paula Checchi
Nicholas Heredia
Nicole Shapiro
Petter Mattei
Pornima Rao
Robert Saul
Sahar El-ETr
Segal Boaz
Stevan Jovanovich
Sulatha Dwarakanath
Vicki Shipman

Agenda Item

1. **Call to Order**
   Present: Kai Blaisdell, George Farquar, Paula Checchi, Jason Maxwell, Josie Sette, Yolanda Fintschenko, Segal Boaz
2. **Review of Agenda**
3. **Review and Approval of Minutes, May 16, 2024**
4. **Program Report**
   - Enrollment
     - Trending upwards
   - STEAM Building Update
     - Originally, biology was going into a new building; now, biology will stay in the current building (1850), and biology (allied health) will be in the STEAM building on the 1st floor. All of chemistry is going to the new building on the 2nd floor. Physics and Engineering will go to the 1st floor of 1800, while astronomy, geology and geography stay on the second floor. There will be a redesign of the 1800 building. Room for growth for physics. Anatomy and physiology (allied health) will occupy both buildings with increased room. 2 cadavers with room for 6. Shared learning labs with room for 16. Would like a cell culture hood in the 1850 redesign. Possible biotechnology major. Eventually, apply for strategic grant funding. Set to be open Fall 2028
     - Possible environmental science program, bioinformatics. Work across disciplines
     - Interpretation of data, using programing language – getting easier
     - Looking to acquire a new benchtop NMR, ours is 30 years old. Funded through IER.
     - Gritstone declaring bankruptcy and may have equipment to donate. Yolanda will connect Jason with them.
     - Students used a nanodrop
   - Curriculum Changes
     - Common course numbering between UC and CSU, now pressure is on us to adopt the same.
     - Pressure to condense 3 semester botany, zoology and micro into 2 semesters that would look like cell molecular and organismal evolution.

    - Coordinating with Chabot.
  - Forces outside of LPC dropping Bio 30 as a prerequisite to the allied health track. Expecting a dip in enrollment in that class and a bubble in anatomy/physiology and micro classes.
  - new hands-on biotech and bioinformatics modules fully integrated into all 3 of the semesters now
  - May push molecular from the 3rd semester to the 1st
  - Chem as a prerequisite for cell and molecular bio may disappear. Hope that through counseling, all students will either take Bio 1st or Chem 1st
  - Problem in chem as well, students enter with different levels of math
  - Condensed academic calendar, earliest start Fall, 2025
  - Study facilities impact
  - Winter Intersession usually do not offer lab classes
  - Dec 16 to January 15?
  - Waiting for info from the district
  - Do not want overlap of terms, we would not receive full funding in that case
  - Faculty support for condensed calendar outside of STEM
  - Chem faculty found that the fix for not having enough labs, running 2 labs simultaneously and then sharing data, left students with a gap in knowledge
  - Not as much material can be covered
  - Asked for matriculation data, but have not received it
  - 18 to 16 weeks, make up time by extending lab time. Students will end up losing 4 to 8 labs in a semester.
  - A condensed calendar does not have to be 16 weeks; different variations can be considered.
  - Some faculty teach a new topic every class and may not use the extra time per class, some folks teach during the class time and pick up where they left off every class. Labs bigger concern
  - Offer fun classes during intersession.
- Bioinformatics Class
  - Class went well, low enrollment. New way to advertise as part of computational biology certificate
  - Have students use Python in the Google environment or switch to the Jupiter environment? George suggests Jupiter.
  - Josie – may folks taking bioinformatics already have a programming background, so there is no need to also teach programming.
  - At LPC, a mix of students who had knowledge of coding and those who did not.
- Biotech Bootcamp.
  - Switch to non-credit, which made enrollment a problem; enrollment was low, so we did not run the camp last summer. Trying to figure out the best way to enroll camp, through community ed or non-credit. If through non-credit (tuition free), students must concurrently enroll (up to 6 weeks before camp starts), and cannot restrict ages. Through community ed students can enroll as long as there are spaces available and we can indicate ages for camp.
  - Need to understand process better
  - Just wrapped up NSF grant getting the biotech curriculum into the cell molecular biology, zoology, and botany classes. Final report was accepted.

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5. Industry Updates

- Emerging Trends
  - George brought 3D items that were AI generated to share. No skill necessary to create. Technology in workplace and home. All web-based
- Industry Needs

  - Yolanda - Soft skills are really needed in biology, running a series through Start Up Tri Valley on AI
  - The Supreme Court ruled that only a human can file for a patent. Documentation of what was human and what was AI important
- Internship / Employment
  - Many layoffs in bio, chem, physics. Venture money going to AI
  - Important to have a diversity of skills and to train themselves. Different tools, easier to come up to speed
  - Drive to automation is high in the effort to reduce cost. Any repetitive job will be automated in the future
  - Things that previously needed to be sent out can now be done in house.
  - Drive for automation pushing into research.
  - When industry has a need, it is in a short window. Curriculum takes too much time to develop. More streamlined process?
  - Students taking a tour of Buzzkill
  - Address regulatory (FDA) – make data tell a story

6. Recommendations

- Certification Grade Requirements
  - Question being debated - Do you need a C to earn a degree or certification?

7. Good of the Order

8. Adjournment

9. Next Regular Meeting: Thursday, April 24, 2025, 5:00 – 6:30 pm