



LPC Mission Statement

Las Positas College is an inclusive learning-centered institution providing educational opportunities and support for completion of students' transfer, degree, basic skills, career-technical, and retraining goals.

LPC Planning Priorities

- ❖ Establish regular and ongoing processes to implement best practices to meet ACCJC standards.
- ❖ Provide necessary institutional support for curriculum development and maintenance.
- ❖ Expand tutoring services to meet demand and support student success in Basic Skills, CTE, and Transfer courses.
- ❖ Coordinate available resources to address current and future professional development needs of faculty, classified professionals, and administrators in support of educational master plan goals.

ENGINEERING ADVISORY BOARD

Members:

Ireland, Sean/AccSys Technology
 Parker, Yoko/AccSys Technology
 Brown, Tamia/ACWDB
 Motavalli, Saeid/CSU East Bay
 Lea, Miriam/FormFactor
 Ababseh, Charlie/Gillig
 Do Tri/Lam Research
 Mills, Ryan/Lam Research
 Ng, Daniel/Lam Research
 Ho, Nan/Las Positas College
 Level, Keith/Las Positas College
 Miner, Scott/Las Positas College
 Rhegagen, Robin/Las Positas College
 Shill, Caryl/Las Positas College
 Shipman, Vicki/Las Positas College
 Steffan, Todd/Las Positas College
 Pico, Randy/LLNL
 Souza, Ray/LLNL
 Harris, Melanie/MDC Vacuum
 Wass, Spencer/MDC Vacuum
 Behnke, Anita/National Security Technologies
 Briggs, Tim/Sandia National Labs
 Willis, Alec/Sandia National Labs, Retired
 Kaschmitter, James/SpectraPower
 Collier, Shannon/TopCon
 McCain, Steve/TopCon
 Holtzclaw, Sarah/TriValley OneStop
 Martin, Gary R./UOP

	Agenda Item	
1.	<p>Welcome and Introductions</p> <p>Nan Ho called meeting to order at 4:02pm</p> <p>Members present: Tamia Brown, Alameda County Workforce Development Board; Carlo Dela Cruz, LAM Research; Tri Do, LAM Research; Nan Ho, Las Positas College; Sarah Holtzclaw, TriValley OneStop; Brad Martin, Lawrence Livermore National Security; Saeid Motavallie, CSU East Bay; Robin Rehagen, Las Positas College; Ray Souza, Lawrence Livermore National Security; Todd Steffan, Las Positas College; Spencer Wass, MDC Vacuum; Kelsey Wat, Las Positas College; Sherry Jones, MDC Vacuum; Ashley McHale, Las Positas College; Vicki Shipman, Las Positas College</p>	Dean, MSEPS
2.	<p>Approval of Prior Meeting Minutes</p> <p>Motion: Ashley McHale MSC: Sarah Holtzclaw Approved: Unanimous</p>	Dean, MSEPS
3.	<p>Quick Facts for Advisory Boards</p> <p>Vicki Shipman reviewed the QF to the advisory, thanking them for their valuable time.</p>	CTE Manager
4.	<ul style="list-style-type: none"> • New Technology <p>Spencer Wass, MDC - Advanced manufacturing techniques including clean welding and high speed machining.</p> <p>Brad Martin, LLNL - Additive manufacturing is taking off.</p> <ul style="list-style-type: none"> • Training Needs <p>Spencer Wass, MDC – Recent engineering graduates do not necessarily know how to design, graduates need to have hands-on experience.</p> <p>Ray Souza, LLNL – Students need to have basics such as design drafting in programs such as Solidworks. TriValley needs a local resource for a 2-year design platform in CAD Systems.</p>	Advisory Board Members

- **Hiring Needs**

Ray Souza, LLNL – Next two to three years LLNL will experience a huge retirement crisis; last year alone needed 200 new hires; jobs primarily mechanical & electrical engineering; recruiting from all over US however prefer local candidates; levels of position from hourly to associate type; new hires are a mix of associate and bachelor's degrees; some new hires with bachelor's degrees also have industry experience.

Keith Level, LPC- Asked Ray, "from those that are retiring, how many learned on the job?"

Ray Souza, LLNL – Responded that these are different times now; In the past, LLNL has funds to have side by side mentoring to provide on the job training, not the case now. Also of importance is the evolution of technical documentation; LLNL required increased documentation for all projects therefore writing and communication is paramount.

Tri Do, LAM Research – Electrical and Mechanical Engineering is needed; students need to have knowledge of electronic circuits and nomadics.

Brad Martin, LLNL – Agrees with LAM re Electrical and Mechanical Engineering. Also there is a need for electronics, diagnostics, control system, and their applications. LLNL receiving applicants that have PhD's who know theory but they don't have the hands-on experience required.

Ray Souza, LLNL – LLNL has had success with Vets2Tech program because they have the experience from their aptitude gain while in the military therefore they have strong sense of discipline.

LAM, LLNL, and MDC all in agreement that there is a dire need for new hires based on expansion.

Sherry Jones, MDC – She called 25 candidates this week and is having difficulty recruiting because candidates are sensitive to economy of moving to bay area (too expensive); MDC is looking to hire 100 people within three years. Of

the 100 people, all are technology level, specifically Welding.

Nan Ho, LPC – What is status of Vacuum Technology?

Ray Souza, LLNL – In the past what was taught was assembly skills, terminology, and flow properties to recognize good design to know what was happening in the vacuum lab; if our technicians had the short-term vacuum technology that would be enough.

Brad /LLNL – Agreed, if LPC provided the fundamentals, employers could take it from there; could be potential contract education for the employees for LLNL in vacuum technology.

Ray Souza, LLNL – LLNL has existing systems that they may expand or maintain but that's about it.

Spencer Wass, MDC – Terminology is critical, it is hard to find a manual machinist. ProtoTrak; students need to have the fundamentals of machining prior to CNC.

Ray Souza, LLNL – Machine tool operators are one thing but they can't do it from start to finish; it's the era, in the past, the worker went into an apprenticeship, we don't have that now. There is not one single program that will prepare for what is needed but having options for employees to take different certificates to gain skills would be ideal.

Spencer Wass, MDC – Asked if LPC has project based learning? Shared RC car project that exposed to students to taking things apart. Applied learning is the best way to learn.

Vicki Shipman, LPC – Asked faculty if Project Based Learning is incorporated into the curriculum.

Keith Level, LLNL – Answered that this is a new term to him; maybe incorporate in the future.

- **Industry Outlook**

LAM, LLNL, and MDC all in agreement that there is a dire need for new hires based on expansion.

5.	<p>Faculty Report</p> <ul style="list-style-type: none"> Program Update (Enrollments, Completion) <p><i>Engineering Transfer</i> Keith Level, LPC – Offering 2nd year engineering courses that were not able to offer in the past due to budget cuts; last year 40 transfer students; mission of the engineering program has been transfer; encourages LPC to reach out to HS. Keith says that he sees a lot of students that are tapping into skills that they didn’t know they had (specifically the Veteran’s).</p> <p><i>Engineering Technology</i> Kelsey Wat – Provided information about the 4th cohort – 28 students; 50% Veteran’s; 23 continued into 2nd year from 3rd cohort; awarded 18-20 degrees from the program.</p> New Curriculum Development <p>Nan Ho, LPC shared out information about the current degree and proposed the new degree which is based industry needs. Because the internship component of the degree is such a challenge, the degree will also offer an alternative by offering a Work Experience class so that students will have opportunity to finish their degree. Work Experience may be for any work experience whereas the internship is discipline specific. Other changes in the degree include the new Math 30 class which has been rewritten and designed specifically for STEM majors. A Machining for the Metal Trades is a new class that will be included within the degree by Fall 2018.</p> <p>All advisory board members agreed that this strategy is progressive.</p> <p>Ashley McHale, LPC – Asked the advisory whether or not these students need geometry (shapes, polygon, parameters, etc.)</p> <p>Ray Souza, LLNL – Indicated that Trig is actually important with machining as well as lower level classes that touch on these like in elementary algebra.</p> 	Faculty

	<p>Ashley McHale, LPC – The Math faculty have a concern that the student that take Math 38 won't be able to transfer with this class.</p> <p>Ray Souza, LLNL asked Keith Level, LPC – What is the applicability of having crash geometry with trigonometry? Ashley McHale jumped in saying that Kristy Woods, LPC faculty, agrees that geometry should be woven throughout trigonometry. Ray Souza, LLNL indicated that he definitely doesn't want to see the students waste their time. Keith Level, LPC said he doesn't understand how you can learn Trig if you don't know geometry and that it is definitely important in Engineering 37.</p> <p>Said Motavailli, CUSEB – Asked where do students gain their education in geometry. Ashley McHale responded that they hope students are gaining geometry knowledge in high school.....</p> <p>Ray Souza, LLNL – Based on this discussion, the change to Math 39 is applicable.</p>	
6.	<p>Recommendations from the Advisory Board</p> <p>New AS Degree Changes move to Math 39 Motion: Said Motavalli MSC: Sherry Jones Approved: Unanimous</p> <p>Propose Stackable Certificates No vote. Bring concepts to next meeting.</p> <p>TriValley OneStop – Put certificates on the ETPL.</p>	Advisory Board Members
7.	<p>Other Items None</p>	All
8.	<p>Next Regular Meeting: Late January</p>	Dean, MSEPS
9.	<p>Adjournment Adjourned at 5:30pm</p>	Dean, MSEPS