

Lionel Wilson Prep – 12/5 Measure N Implementation Update

In the three years Lionel Wilson Prep has received Measure N funding, we have substantially changed our mindset to integrate our foundation of College for Certain with the promise and relevance of Career Preparation. In the early years, the school significantly amended the site vision, transformed the master schedule, and offered career pathway aligned course offerings. However, during the Spring of 2017, we received feedback stating that our plan for implementing Linked Learning at Lionel Wilson Prep did not meet the intention of the Measure N commission. Specific feedback included:

- Teachers and staff did not have a true understanding of what Linked Learning is or could look like at a high school,
- Students did not understand our pathways or how they connected to careers after college
- Our plan for four pathways could not be implemented with fidelity to or in alignment with the Linked Learning pillars.

With regard to the four pillars of Linked Learning, while we focused heavily on rigorous academics, the feedback from the Measure N commission and staff has helped us identify that we missed the mark on technical skills, work based learning, and full stakeholder engagement. As a response to the feedback, we were encouraged to regroup and reinvest in the fuller concept of Linked Learning who collectively decided on some major changes to our academic program to implement a Linked Learning program with fidelity. Updates on our progress and future plans can be found in the sections below.

Overall Vision of Program: “Give me a reason to care about my learning”

Following the feedback we received, we have worked closely with our Linked Learning consultant PIVOT to bring together meetings of more diverse stakeholders (including teachers, students, families, and industry partners), and to tap into additional expertise to improve our site’s understanding of what Linked Learning is. Different stakeholder groups communicated key insights that have caused a significant redesign of our pathway focus and vision. Visiting OUSD staff and commission members highlighted the strength of our Engineering and Design science classes and electives and recommended reorganizing around a current staff member who has significant experience with project based learning in the Engineering and Design field. This staff member is a leader amongst teachers and has led the way, making this teacher centered work. She is already teaching two levels of engineering classes that are very popular with students and has coached students in creating socially conscience engineering projects for the Alameda County Science Fair. Students voiced that they wanted to understand why what they are doing in High School mattered and how it connects to something they care about or see themselves doing in the future. Family leaders established a shared belief that focused career preparation was valuable enough to consider substantial changes to the original design of the pathway model. Students and staff members communicated a continued passion in social issues and the change needed to make our local, national, and global communities a better place to live for everyone regardless of background or circumstances.

Based on the classes we already offer, the engineering expertise highlighted by the commission, and a reality check about the feasibility of multiple pathways, we have narrowed our original four pathways to one: Engineering. Based on the passion for social change that drives our community, we have decided to further narrow the focus of the pathway to specifically focus on **Engineering for Social Change**. In addition to furthering a core value of the LWP community, framing engineering as a tool to solve social problems is a strategy successfully used by universities like Harvey Mudd to eliminate achievement gaps in their engineering classes by broadening their appeal and making them more meaningful.

Focus on Four Pillars

In order to focus on the Technical Skills and Work Based Learning pillars, we are creating a sequence of core engineering classes from 9th – 12th grade, each focusing on a specific career within the engineering field which we will partially implement in Spring 2018 and fully implement in academic year 2018/2019. We are also going to dedicate resources to ensure all students complete an internship in the local community during their junior year.

Staffing and Master Schedule Changes: All IN on a singular pathway

- We will amend roles to dedicate a full time position as **Engineering Pathway Coordinator** who, in collaboration with the pathways lead administrator, fleshed out an amended scope and sequence of learning for 9th – 12th, coordinate opportunities with college, community, and industry partners, and teach some of the core pathways classes. We are submitting the master schedule for next year which shows schedule and staffing to support ALL high school students in career pathway courses.
- We already have **Grade Level Chairs** in place who oversee grade level culture and events. However, we are going to shift some of their responsibilities to allow for them to also support the pathway coordinator in coordinating guest speakers and college and industry visits. The 12th grade chair will help coordinate internships for seniors.
- Linked Learning Sequence: Beginning in 2018/2019 dependent on full implementation funding, we will implement a core sequence of pathway classes as follows:

Grade	Theme	Learning Experiences
9	Health and Human-centered Design	1. Introduction to Engineering For Social Change (full year)
10	Transportation Systems Design Engineering	1. Principles of Structural Engineering (full year)
11	Human Impacts and Software Engineering	1. Principles of Software Engineering (full year) 2. Engineering Internship (one semester)
12	Habitat Engineering	1. Principles of Civil and Environmental Engineering (full year)

Implementation Adjustments

17-18

- Develop stronger understanding of Linked Learning with staff, students, and other community members through the support of PIVOT
- Multiple team members observed different Linked Learning models at Del Lago High School, High Tech High, Concord High School, and Ygnacio Valley High
- Multiple team members will attend Linked Learning Convention in January through our partnership with PIVOT
- Lead pathways administrator completes School Re-Tool Fellowship offered by the Stanford Design School. He will develop a deeper understanding of the engineering/design process and

work with experts to determine how to apply this thinking more purposefully to our core pathway classes as well as our California A-G required classes.

- 100% of 9th graders complete **Engineering for Social Change** class.
- 100% of 9th graders will complete culminating end-of-year project based on the **Engineering for Social Change** class.
- 100% of 9th graders will participate in Stanford panel with Engineering majors
- 100% of 10th graders will have completed a design challenge using the Design Thinking approach.
- Pathways coordinator to begin building college, community, and industry connections.
- Guest speakers from Planting Justice and Google will speak with the 9th graders.
- 25% of 11th graders will complete internships with their mentor established in iMentor
- 6 brown bag lunches from engineering professionals by the end of the year (Goal:10 by EOY)
- 20% of 11th graders will complete engineering for social change design project for submission to the Alameda County Science fair.
- Develop career advisory with iMentor representatives to support development for work based learning opportunities on-going
- Facilitate a professional development sequence with support of PIVOT
 - Engineering and the Design Thinking Process
 - What is engineering for Social Change?
 - Deep dive into the CTE standards
 - Planning for courses to infuse topics/books/assignments that align to the grade level theme

Summer Before 18-19 School Year

- Syllabi for each core pathway class
- Junior capstone project assignment and rubric
- Senior capstone project assignment and rubric
- Internship opportunities identified for rising 11th graders
- Professional development for pathway teachers at the Stanford Design School
- Hire additional 0.5 Science/0.5 engineering teacher

18-19

- All core pathway classes fully enrolled and implemented
- 100% of juniors complete an aligned internship and junior capstone project
- 50% of classes have integrated projects

19-20

- 6 Pathway aligned COA dual enrollment classes taught on-site
- 100% of seniors complete senior capstone project