Aspire Lionel Wilson College Preparatory Academy - Design for Social Change: An Engineering Pathway

Program of Study

Industry Sector: *Engineering and Architecture - Engineering Design Pathway*

Industry Partners: *Workday, Whats App, BioInnovation Advisors, PG&E, Go Green Initiative, Uber, SWA Group, Swim AI, San Francisco MTA, Tesla, Silicon Valley Bank, Ernst and Young, City of Oakland, AutoGrid, SVB, Affirm Inc., California Bank and Trust, UpWork, Docusign, Decision Next, Google, Comcast, America Pacific Group, Zuora, Matrix Partners, Frog Design*

Pathway Vision	**Vision** With the support of the community, the students of Lionel Wilson Prep will develop the skills and mindsets necessary to design an equitable reality for themselves, their families, and their communities. **Mission** At Lionel Wilson Prep, we: - Provide our students with rigorous learning experiences, grounded in Engineering and Social Justice. - Operate with Joy. - Engage our students through work based learning opportunities to prepare them for college and career. - Create an inclusive school community where all students, staff, and families are valued, celebrated, and safe. - Build deep relationships with students to cultivate their advocacy and voice. - Partner with families in all aspects of our students' development. - Develop and continuously refine equitable systems of support and intervention. - Interrogate the impacts of power, privilege, and oppression within our community to dismantle white supremacist culture.

Graduate Pathway Outcomes (Student Learning Outcomes)	**Academic Excellence** Embrace the challenge as an opportunity to improve by working hard and learning from mistakes. Pursues superior, not mediocre, academic achievement on the path toward college and careers of choice. **Independence** Takes initiative to plan and manage own learning; seeks out resources and support. Effectively self-advocates. Develops the life skills needed to ensure physical, emotional, economic, and social well-being. **Local and Global Citizenship**

Welcomes *all* people to the community and is a role model who helps others be their best selves. Analyzes the impact of power, oppression, and privilege locally, nationally, and globally. Creates equitable outcomes for *all* groups and individuals.

Communication and Collaboration

Articulates ideas with confidence, supports with evidence, justifies and defends thinking, and adapts to any audience. Works effectively and honorably in teams to share ideas and responsibilities, solve problems, and define and achieve shared goals.

Critical Thinking and Problem Solving

Is critically literate and able to comprehend, analyze, and critique a wide variety of texts. Applies the *Design Thinking Process* and core content knowledge to solve complex challenges and problems, especially those created by inequity.

Pathway COP Meeting Time:	9th Grade Program Grade level meeting time: Wednesdays 3:45 - 4:30, 2x per month, every Friday 1:30 - 2:00 Content Specific PLCs: Fridays 2:10 - 3:30	10th Grade Program Grade level meeting time: Wednesdays 3:45 - 4:30, 2x per month, every Friday 1:30 - 2:00 Content Specific PLCs: Fridays 2:10 - 3:30	11th Grade Program Grade level meeting time: Wednesdays 3:45 - 4:30, 2x per month, every Friday 1:30 - 2:00 Content Specific PLCs: Fridays 2:10 - 3:30	12th Grade Program Grade level meeting time: Wednesdays 3:45 - 4:30, 2x per month, every Friday 1:30 - 2:00 Content Specific PLCs: Fridays 2:10 - 3:30
Pathway Grade Level Guiding Question	What is the Engineer Design Thinking Process?	What is engineering? How might we use our engineering design knowledge and skills to address challenges in our lives and community?		How might we use the knowledge and skills of engineering design to make a positive impact in our community?
Academic Core Student Cohort Integrity (Replace with course names linked to course descriptions)	Advisory Integrated Math 1 Biology English 1 Ethnic Studies	Advisory Integrated Math 2 Chemistry English 2 US History	Advisory Integrated Math 3 English 3 Word History Art Ethnic Studies	Advisory ERWC Statistics College and Career Readiness Government/Economics
Technical Core/Theme (CTE Sequence)	Build Engineering and Design	Project Lead the Way - Intro to Engineering Design	Intermediate Engineering Design for Social Change	Engineering Design Capstone
Dual Enrollment [Link to Dual Enrollment]	N/A	Counseling 57, POSCI 8 (0ptional) Counseling 57 is a career and life planning college course that aids student in developing the necessary soft skills for job attainingment.	POSCI 35, 36 and 451 OR POSCI 8 POSCI 35, 36, and 451 leads to a certificate of proficiency in violence prevention from College of Alameda	Counseling 24 POSCI 8 (Optional) Counseling 24 is a College Success course that assists with educational goal setting as well as connect students to vital campus resources

		POSCI 8 is an introduction to legal concepts in American democracy.		
Integrated Projects/ Common Performance Assessments	9th Grade Engineering and ELA Project - Students use ArcGIS Engineering software to map community resources while researching development needs in different parts of Oakland Project Description Rubric 9th Grade Bio and Engineering - Students Use Tinkercad	10th Grade Engineering and ELA Project - Students use arduino kits to program simple sensors to detect distance and temperature for pandemic related distancing measures. Students also research the impacts social policies have on people and communities.	11th Grade Design for Social Change Engineering and Humanities Project - Students collaborate with Urban Designers to create a development plan for the Oakland Coliseum site. Project Description and Rubric ------------ 11th Grade Social Change-OpEd Project - Students use the Design Thinking Process to write an Op-Ed about a social change issue that is important to them. Project Description and Rubric Student Work Website ------------ 11th Grade Freelance Artist Project - Students uses the design process to commission a piece of art for a community member. Students create several prototypes and iterate based on feedback from client Project Description Freelance Artist Contract Student Work Website	
Defenses or Capstones	Build Engineering Exhibitions	10th Grade Engineering Exhibition	11th Grade Engineering Exhibition	Senior Engineering Capstone and Portfolio - Students complete a capstone project that requires them to design a building that addresses a social justice issue using AutoDesk Revit. Students also reflect on their growth on the Graduate Profile Competencies and complete extensive career preparation. Example Portfolios from 20-21 -YA

Other Courses / Electives	Art (Drawing, Painting) PE Drama Spanish ½ Spanish 3/AP Off-Site Duel Enrollment Courses through the Peralta System			
Other Student Experiences (post-session, intersession, rituals, class trips, assemblies)	Student Clubs: Taste the Rainbow, Guitar, Girl on the Run, Youth Speaks, Debate Club, Yearbook/Photography, Cheer, Men of Wilson, Robotics, Global Glimpse Athletics: Cross Country, Basketball, Volleyball, Soccer College and Career Real Talks Event LWP Annual Student Retreat Monthly student run grade level meetings Monthly MS/HS Townhalls			
Work Based Learning [WBL Continuum reference document]	Career Awareness Grade 9 Focuses on a foundational framework that connects students to being able to begin the practical careers and career pathways by focusing on the mechanics and terminology of college and career. This grade level Includes a heavy Engineer focus in terms of incorporated speakers and college field trips Activities and opportunities include: ● Guest Speakers ● Career Fairs ● Naviance Career Exploration ● Industry supported projects (co-planned, feedback, presentation guidance, etc.)	Career Exploration Grade 10 makes shift from the basic foundations to a more hands on approach where students begin career research as well as produce their first resume. This grade level will explore various career/career pathways that pique their own interests. Students will also produce career focused group projects that they will share and present. Activities and opportunities include: ● Guest Speakers ● Career Fairs ● Naviance Career Exploration ● Industry supported projects (co-planned, feedback, presentation guidance, etc.) ● Work-place tours	Career Preparation Grade 11 focuses on being changemakers in their community. Students use a social justice lens to explore opportunities to create change in their local communities. This means students will explore civil servant jobs and create plans that allow students to bring needed change. Students will also begin to discuss the idea of job readiness and interview techniques. College/Career Trip will focus on career/career paths that allow students to engineer local and global change. Activities and opportunities include: ● Guest Speakers ● Career Fairs ● Naviance Career Exploration ● Industry supported projects (co-planned, feedback, presentation guidance, etc.) ● Job shadows/Internships	Career Training Grade 12 allows students to gather all the necessary tools to fill their toolbox as they prepare to leave LWP. In this way, students will leave with resume. cover letter, knowledge of community resources, a college/career path and action plan post graduation, as well as other tools necessary to gain an entry level job post graduation. Seniors will know how to research job/careers, and colleges as well as find vital information necessary to college/career choice. Students will demonstrate this knowledge by successfully passing a mock interview and completing an online portfolio Activities and opportunities include: ● resume and cover letter development ● career informational interviews ● mock job interviews ● Career panels ● personal pathway planning ● Job shadows/Internships
Student Leadership			Meet 2x per week ● Community Leadership	Meet 2x per week ● Community Leadership

			● Town hall Presentations ● Fundraising ● Community problem solving ● Community Beautification ● Peer Tutoring and Mentoring	● Town hall Presentations ● Fundraising ● Community problem solving ● Community Beautification ● Peer Tutoring and Mentoring
Summer Learning (Summer Bridge, summer learning, credit recovery)	9th Grade Pathway Orientation Summer School	Summer School	Summer School	Summer School
College Exposure	6 week workshop series that collaborates with advisory SEL ● College Exposure and Readiness ● Career Speakers ● Community Circles	6 week workshop series that collaborates with advisory SEL ● Career Exposure to include speakers and college course ● Resume and Cover Letter ● Community Circles	6 week workshop series that collaborates with advisory SEL ● Social Justice focused to include speakers and college course that leads to certificate of proficiency ● Build College list ● Community Circles	6 week workshop series that collaborates with advisory SEL ● College and Career focused to include speakers and college course ● Finalize college list ● Resume/Cover Letter ● Community and College Resource Guide ● Community Circles
Study Tour Destinations	Students Opt into different trips based on interest. Destinations include: ● UC Davis ● UC Merced ● USF and CCSF ● Canada College ● College of Alameda ● Santa Clara and SF State ● Holy Names and Merritt College ● Stanford Engineering Program ● UC Berkeley Engineering Program ● Laney Engineering Program ● Cal State East Bay Engineering Program ● EDMUD ● Port of Oakland			
Advisory Structure	4x per week with a focus on: ● SEL Development ● Grade and progress conferencing with Advisors ● College/Career exploration and Guest Speakers ● Community Circles Additional Focus Areas:	4x per week with a focus on: ● SEL Development ● Grade and progress conferencing with Advisors ● College/Career exploration and Guest Speakers ● Community Circles Additional Focus Areas:	4x per week with a focus on: ● SEL Development ● Grade and progress conferencing with Advisors ● College/Career exploration and Guest Speakers ● Community Circles Additional Focus Areas:	4x per week with a focus on: ● SEL Development ● Grade and progress conferencing with Advisors ● College/Career exploration and Guest Speakers ● Community Circles

	● 1st years spend time understanding transitions from middle school to high school. Students also spend time learning what it means to transition from high school to college in terms of learning dual enrollment/college terminology and general expectations. Students also learn time management, SMART goal setting, and SEL development	● Career Exploration to include career assessments, job research, and soft interview/job skills	● Career Exploration as it relates to social justice and the service industry. Students focus on ways they can implement change in their community	Additional Focus Areas: ● Senior Seminar where seniors work on online portfolios that demonstrate their SEL/advisory learning over the years. 　○ students will complete a resume, cover letter and demonstrate understanding of how to research jobs, colleges and community resources.
Personalized Supports	**Academic Supports** Designated ELD Math/ELA Intervention Blocks Peer Tutoring Academic/Career Counseling Push-In SPED support in core classes **Mental Health** Counselor and Therapist available as needed and on recurring basis **COST** 4-6 week cycles of support for Tier ⅔ ● individual/group CICO ● skills groups ● targeted mental health support	**Academic Supports** Designated ELD Math/ELA Intervention Blocks Peer Tutoring Academic/Career Counseling Push-In SPED support in core classes **Mental Health** Counselor and Therapist available as needed and on recurring basis **COST** 4-6 week cycles of support for Tier ⅔ ● individual/group CICO ● skills groups ● targeted mental health support **Credit Recovery** Edgenuity/Cyber High Recovery ● During the day ● before/after school ● Peralta system recovery option ● Recovery embedded in school day schedule (re-take courses, supplement alternative A-G Course)		**Academic Supports** Designated ELD Math/ELA Intervention Blocks Peer Tutoring Academic/Career Counseling ● Personalized college application support ● Personalized resume support ● Personalized career research and program review Push-In SPED support in core classes **Mental Health** Counselor and Therapist available as needed and on recurring basis **COST** 4-6 week cycles of support for Tier ⅔ ● individual/group CICO ● skills groups ● targeted mental health support **Credit Recovery** Edgenuity/Cyber High Recovery ● During the day ● before/after school ● Peralta system recovery option ● Recovery embedded in school day schedule (re-take courses, supplement alternative A-G Course

Use of expanded learning time (before or after school)	Teacher Office Hours 2x per week Student Led Conferences After School Program Mentors	Teacher Office Hours 2x per week Student Led Conferences