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# EBIA - Program of Study

***Industry Sector:*** Information and Communication Technologies
**Pathway:** Software and Systems Development (AKA: Computer Science and Design Innovation)

OAKLAND UNIFIED SCHOOL DISTRICT
Community Schools, Thriving Students

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| **Pathway Vision** | EBIA Upper School is a Computer Science and Design Innovation Linked Learning pathway which supports our overall mission, "to prepare a diverse group of students, who reflect the Oakland community, to be successful in college and to be thoughtful, engaged citizens who are leaders and innovators in a 21st century global world"<br>Our focus within the with a pathway is on using Information and Communication Technology (Computer Science) to innovate and create change within our community. This focus allows us to integrate college-prep coursework with CTE (career technical education) and the social and emotional skills students need to be leaders and changemakers. Students learn to be problem solvers and strong advocates who utilize computer science, technology and the design process to create innovative solutions for the issues faced by their community. When students leave EBIA they are ready for college, a career in computer science, and to be leaders in whatever path they choose. | | | | |
| **Pathway COP Meeting Time:** | **9th Grade Program**<br>Grade level meeting time:<br><br>*GLT (Grade level team) meets mondays 7:45-8:30*<br><br>*Advisory Team meets wed 7:345-8:30* | **10th Grade Program**<br>Grade level meeting time:<br><br>*GLT (Grade level team) meets mondays 7:45-8:30*<br><br>*Advisory Team meets wed 7:345-8:30* | **11th Grade Program**<br><br>*GLT (Grade level team) meets mondays 7:45-8:30*<br><br>*Advisory Team meets wed 7:345-8:30* | **12th Grade Program**<br>Grade level meeting time:<br><br>*GLT (Grade level team) meets mondays 7:45-8:30*<br><br>*Advisory Team meets wed 7:345-8:30* | **Graduate Pathway Outcomes (Student Learning Outcomes)** |
| **Academic Core**<br>Student Cohort Integrity | English - English 9<br>History - World History, AP World History<br>Science - Biology | English - English 10, AP Language<br>History - US History, AP US History<br>Science - Physics, AP Physics 1, AP Enviro Sci | English - English 11, AP Language, AP Seminar<br>History - US History, AP US History<br>Science - Physics, AP Physics 1, AP Enviro Sci | English - AP Literature (all 12th graders are taking this)<br>Social Science -<br>US Government (with some UCCI *U.S. Government and Cybersecurity units )*<br>*Economics*<br>Science - Chemistry | -All students (particularly those historically excluded from advanced level courses) have access to courses that will support their college and career readiness.<br><br>-Our anticipated outcome to this pathway development plan is that 100% of students at EBIA will<br>a) fulfill A-G requirements by their 12th grade graduation<br>b) be introduced to the Computer Science for Innovation and Design CTE sequence and the majority of students will complete all years of the course sequence. |
| Math | Algebra I/Alg II | Algebra II/Geometry | Geometry/Statistics/Pre-Calc | Statistics/Pre-Calc./ AP Calc. BC | |
| Technical Core/Theme (CTE Sequence) | Computer Science I<br><br>Art and Design | Computer Science I<br>or<br>Computer Science II<br><br>Art and Design | Computer Science II<br>or<br>AP Computer Science Principles | AP Computer Science Principles<br><br>Introduction to Computer Science in Python (online course from CodeHS, CS3) (optional) | |

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| | | | | | c) take at least one Advanced Placement/community college course<br>d) complete one Industry based internship during their time at the school<br>e) complete 4 capstone projects which connect to the CS, Innovation and Design CTE courses, core curriculum, and Industry/post-secondary/community partners<br><br>-100% of students will self- identify that they have the skill, content knowledge and experience necessary to go to college and be successful in their career of choice.<br><br>-80% or more of students will achieve the college and career goals set for themselves on their above mentioned personalized learning plans (PLPs). |
| Dual Enrollment | Anticipate working with Merritt College to offer dual enrollment options in CS and math | Anticipate working with Merritt College to offer dual enrollment options in CS and math | Anticipate working with Merritt College to offer dual enrollment options in CS and math | Anticipate working with Merritt College to offer dual enrollment options in CS and math | |
| Integrated Projects/ Common Performance Assessments | End of Year Capstone Project - **Videos for Change** - student enter an international film festival that focuses on making and marketing videos which raise awareness around social issues and advocate for change. English, Social Science, Science, Math, SEL, and CS/CTE<br><br>Common Rubrics focused around Knowledge and Thinking, Oral and Written Communication, Agency, Collaboration.<br><br>thematic and skill integration directly into core courses<br><br>Coursework example: Biology/CS - Website or computer game/simulation, video/podcast production (for example on genetic disorders , cell reproduction)<br><br>Art and Design 1/CS - use Scratch and other digital tools to manipulate images and embed them into websites using HTML and CSS | End of Year Capstone Project - **Innovation For Change** - Students create a tech-driven innovation that addresses a need in the world (website, app, software,2-d or 3-d CAD design) - Present solutions to panel of community/experts. English, Social Science, Science,Math, SEL, and CS/CTE<br><br>Common Rubrics focused around Knowledge and Thinking, Oral and Written Communication, Agency, Collaboration.<br><br>thematic and skill integration directly into core courses<br><br>Coursework example:<br><br>Geometry/CS - Students design a roof for a local resident - including 3-D renderings and digital models. Students must present to an architect and contractor and get feedback before sharing the design with customer. | End of Year Capstone Project - **Design for change** - Utilize the Design Thinking Process to address a problem or challenge that includes industry/ postsecondary /community Partnerships and Field Learning Experience. English, Social Science, Science, Math, SEL and CS/CTE<br><br>Common Rubrics focused around Knowledge and Thinking, Oral and Written Communication, Agency, Collaboration.<br><br>thematic and skill integration directly into core courses<br><br>Coursework Example:<br><br>Physics/CS - Use desmos, Logger pro, excel and other digital tools to collect and analyze data. write a program to predict behavior of systems based on that data. | End of Year Capstone Project **Community For Change** - Engage with community partners and create technology driven solutions to their problems/challenges. English, Social Science, Science, Math, SEL and CS/CTE<br><br>Common Rubrics focused around Knowledge and Thinking, Oral and Written Communication, Agency, Collaboration.<br><br>thematic and skill integration directly into core courses<br><br>Coursework example:<br><br>AP Research/ Statistics/CS - Students design a research question and methods in AP Research, then collect data and analyze it using technology tools and statistical methods in Stats. then use that analysis in their final research paper.<br><br>Gov/Econ/CS - create a website and digital campaign for a | |

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| | | | | political platform. County clerk and local politician reps visit and student study voting technology and how advances in technology have influenced politics | |
| Defenses or Capstones | PLP Conferences<br>End of Year Capstone Project | PLP Conferences<br>End of Year Capstone Project | PLP Conferences<br>End of Year Capstone Project<br>AP Capstone Program | PLP Conferences<br>End of Year Capstone Project<br>AP Capstone Program | |
| Other Courses / Electives | Spanish I<br>Advisory<br>ILT (Independent Learning Time) | Art & Design II<br>Spanish II<br>Advisory<br>ILT (Independent Learning Time) | Art & Design I/II<br>Spanish III<br>Advisory<br>ILT (Independent Learning Time) | AP Research<br>AP Studio Art - 2D<br>AP Spanish<br>Advisory<br>ILT (Independent Learning Time) | |
| Other Student Experiences | Intersession (Fall, Winter, Spring) | Intersession (Fall, Winter, Spring) | Intersession (Fall, Winter, Spring) | Intersession (Fall, Winter, Spring) | |
| Work Based Learning | Micro-Internship<br>Independent Study<br>10 year plan<br>College & Career speakers<br><br>Coursework Example:<br>Bio - partner with scientists that use computer modeling to model ecological systems and develop own models<br><br>CS 1 - create a model of a robot, describe key parts, and analyze its impact on current and future industry and society. | Micro-Internship<br>Independent Study<br>10 year plan<br>College & Career Reps<br>Resume Development<br>Mock Interviews<br><br>Coursework Example:<br>AP Env. Sci - partner with scientists who use computer modeling to predict climate change<br><br>Geometry - Students design a roof for a local resident - including 3-D renderings and digital models. Students must present to an architect and | Micro-Internship w. Learning Through Internship Plan/Project<br>Independent Study<br>Career Training<br>Informational Interviews<br><br>Coursework Example:<br><br>AP CS -course and Exam includes sections on the impact of computing on our world, which includes many work-based examples | Micro-Internship w. Learning Through Internship Plan/Project<br>Independent Study<br>Career Training<br>Informational Interviews<br>College & Career Success Portfolio<br><br>Coursework Example:<br>Gov/Econ class creates a website and digital campaign for a political campaign. County clerk and local politician reps visit and student study voting technology and how advances in technology have influenced politics | **Certifications**<br><br>Anticipate partnership with Merritt College to offer dual enrollment and certification options |

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| | | contractor and get feedback before sharing the design with customer. | | |
| Student Leadership | Student Government<br>Student Led Clubs | Student Government<br>Student Ambassadors<br>Student Led Clubs | Student Government<br>Student Ambassadors<br>Wellness Center<br>Student Led Clubs | Student Government<br>Advisory Mentorships with younger grades<br>Capstone Leaders<br>Student Ambassadors<br>Teacher Assistants<br>Student Led Clubs<br>Wellness Center |
| SummerL Learning & Extended Learning (before & after School, inter-session) | Dual Enrollment at Com. College, Credit Recovery & Advancement<br>Micro Internships<br>TeacherOffice Hours - Personalized Support for Student Learning | Dual Enrollment at Com. College, Credit Recovery & Advancement<br>Micro Internships<br>Teacher Office Hours - personalized Support for Student Learning | Dual Enrollment at Com. College, Credit Recovery & Advancement<br>Micro Internships<br>Teacher Office Hours - personalized support for student learning | Dual Enrollment at Com. College, Credit Recovery & Advancement<br>Micro Internships<br>Teacher Office Hours - personalized<br>support for student learning |
| College Exposure | College Planning in SEL Curriculum<br>Career Interest Survey | College Planning in SEL curriculum<br>College Rep Visits<br>Career Interest Survey<br>College Campus Visits<br>Beginning College Search List | College Planning in SEL curriculum<br>College Rep Visits<br>Career Interest Survey<br>College Campus Visits<br>Beginning College Search List<br>College Counseling sessions<br>Support for College Applications, Financial Aid, and Scholarship Essays | College Planning in SEL curriculum<br>College Counselor managed app.s<br>2 college visits<br>Support for College Applications, Financial Aid Applications, and Scholarship Essays |
| Study Tour Destinations | to be determined | to be determined | Individually managed with advisor | Individually managed with advisor |
| Advisory Structure | Meeting Daily<br>SEL curriculum with college and career readiness focus, run by looped advisor | Meeting Daily<br>SEL curriculum with college and career readiness focus, run by looped advisor | Meeting Daily<br>SEL curriculum with college and career readiness focus, run by looped advisor | Meeting Daily<br>SEL curriculum with college and career readiness focus, run by looped advisor |

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| Personalized Supports | ILT (independent learning time) with teacher and advisor led supports<br>Subject specific ed. tech use<br>Dedicated ELA, Math, and General Academic Support Classes | ILT (independent learning time) with teacher and advisor led supports<br>Subject specific ed. tech use<br>Dedicated ELA, Math, and General Academic Support Classes | ILT (independent learning time) with teacher and advisor led supports<br>Subject specific ed. tech use<br>Dedicated ELA, Math, and General Academic Support Classes | ILT (independent learning time) with teacher and advisor led supports<br>Subject specific ed. tech use<br>Dedicated ELA, Math, and General Academic Support Classes | |