California State University, East Bay

Five-Year Program Review
for
Educational Technology Graduate Program

2023-2024

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1. Summary of the Program

Introduction and Program Overview

The Educational Technology Graduate Program at the Department of Teacher Education at California State University at East Bay is a dynamic and innovative academic program designed to equip educators with the knowledge, skills, and values necessary to excel in the ever-evolving field of educational technology. Our program emphasizes the integration of technology to enhance teaching and learning across diverse educational settings. Through a comprehensive curriculum and hands-on experiences, students will develop expertise in educational technology, equipping them to drive innovation, foster inclusivity, and promote sustainable educational practices. This two-page summary provides an overview of the program, its objectives, curriculum, and the unique features that make it a valuable choice for aspiring educational technologists.

Program Vision

Our vision is to empower students not only to gain technical proficiency but also to foster critical thinking, effective communication, a commitment to diversity, collaborative prowess, and a sense of responsibility towards sustainability. We aspire to prepare our graduates to be proficient in educational technology, critical thinkers, and leaders in the integration of technology in educational settings and to create inclusive, equitable, and sustainable learning environments.

Program Learning Outcomes (PLOs)

Students graduating with a Master of Science (M.S.) in Educational Technology Graduate Program from California State University at East Bay will be able to:

1. Tell the importance and assess the needs of technology to enhance teaching and to support diverse student's learning.
2. identify and investigate educational technology theories and instructional design principles to generate creative ideas, projects, and materials.
3. create and develop effective instructional or E-learning materials by choosing and applying appropriate tools and design theories individually and collaboratively.
4. gather, use, and analyze data, bibliography, and other resources of materials extensively and critically.
5. write and present scholarly findings and projects independently and responsibly.

Program Highlights

Faculty Expertise: The program is led by a dedicated team of experienced faculty members who are experts in the field of educational technology, instructional design, and digital learning.

Hands-On Learning: Our students are encouraged to engage in project-based learning experiences where they design and implement technology-enhanced educational projects which include creating e-learning modules, developing innovative instructional materials, or designing virtual reality simulations. Our students also engage in practical projects, internships, and real-world experiences that enable them to apply their knowledge and skills in authentic inclusive educational settings.

Flexible Learning Options: The program offers hybrid online learning formats including synchronous, asynchronous, and in-person learning options, accommodating the diverse needs of students, including working professionals. Due to the pandemic, the program adapted a totally online learning approach to ensure the safety of the students from March 2020 to Fall 2022. After Spring 2023, our program

continues to remain majority of the courses delivered totally online with two courses offered in hyflex format which allow students to choose to join the class in person or remotely.

Technology Resources: Students have access to state-of-the-art technology resources, including software, such as Adobe Creative Cloud apps, Microsoft Office 365, and Google Suites, to support their coursework and research.

Curriculum

The program is a comprehensive 30-unit program that includes core courses, electives, and a capstone master's project or thesis. The program not only provides a solid theoretical foundation by exploring the history, theories, and key concepts in educational technology, but also train students in creating creative multimedia content, such as videos, animations, and interactive simulations, to enhance learning experiences and engage diverse learners. Here is a brief overview of the curriculum:

- Foundations of Educational Technology: Introduction to the historical, theoretical, and practical aspects of educational technology. (EDUI610, EDUI620, EDUI640)
- Instructional Design and Assessment: Focus on designing effective technology-enhanced learning experiences and critically evaluating their impact. (All EDUI courses)
- Digital Learning Environments: Exploration of online and blended learning environments, with the use of Learning Management Systems, such as Blackboard and Canvas. (All EDUI courses)
- Technology Integration in Curriculum and Instruction: Strategies for integrating technology into subject-specific curriculum and teaching practices. (All EDUI courses)
- Research in Educational Technology: Training in research methods and design, culminating in a thesis or project. (EDUI640, EDUI693)
- Elective Courses: Students can choose from a variety of electives to tailor their specialization to their interests and career goals. Electives cover topics like digital graphical instructional material creation, Artificial Intelligence (AI) enhanced learning, 3D learning, Virtual Reality/Augmented Reality/Mixed Reality learning, game-based learning, mobile learning, and educational app development. (EDUI650, EDUI660, EDUI670, EDUI680)

Admissions and Financial Aid

The program accepts applications from individuals with diverse educational backgrounds. Scholarships, grants, and financial aid options are available to help students pursue their educational goals.

Career Opportunities

Our program is well-prepared for a variety of careers in the field of education and technology, including:

- Educational Technology Specialist
- Instructional Designer
- Technology Integration Coach
- E-Learning Developer
- Educational Consultant
- Educational Technology Manager

In conclusion, the program offers a comprehensive and flexible educational experience that equips students to excel in the field of educational technology. With dedicated faculty, hands-on learning opportunities, and a forward-thinking comprehensive curriculum, this program prepares graduates to make a meaningful impact in the education sector.

2. Self-Study

2.1 Summary of Previous Five-Year Review and Plan

The previous five-year program review and plan for our program focused on re-visioning and enhancing the academic quality of the program. The key plans, the program's progress in implementing the plan, and/or modification to the plan as reported in the past five year's annual reports, included:

1. ***Redesigning curriculum to align with the new guidelines from the California Commission on Teacher Credentialing (CTC) for supplementary teaching credentials in computer science.***
   In Spring 2020, our program re-designed curriculum to align with the new guidelines released from CTC in 2019 for the supplementary teaching credential authorization in computer science (Click here to view the Guideline Book). One example of the re-designed curriculum is to add a block-based visual programming language, Scratch, to EDUI620. This holds great importance in ensuring that EdTech graduates are well-prepared to meet the evolving demands of the education sector and the job market. With the increasing importance of computer science in education, graduates with a supplementary credential in this field are in high demand. An updated curriculum equips teachers with the tools they need to effectively teach computer science concepts, ultimately benefiting students and their educational experience.

   The benefits of the curriculum re-design to comply with the CTC regulations include increased enrollment, positive program reputation in the education sector, potentially leading to partnerships with K-12 schools and districts, and employability. Graduates will have a competitive edge in the job market, with the skills and credentials needed to secure positions as computer science teachers or educators. After the curriculum alignment, lots of our graduates applied for the credential. For example, we had 23 graduates applying for the credential and 8 graduates received it in 2022-2023. Detailed information can be found at the spreadsheet link, EdTech Graduates SA-CS Credential Application Status Chart.

2. ***Grants received.***
   With our success of redesigning the program curriculum to meet the supplementary authorization guidelines from CTC for single subject teaching credentials in computer science and the great need of computer science teachers in CA public K-12 schools, we received three grants from the California State University, Chancellor's Office, three years in a row to support our students' academic success in pursuing the M.S. degree and applying for the supplementary teaching credential. The following table shows the grant amount that we have received and how we support our students in pursuing the degree and the credentials.

Year	Grant Amount Received	How to Spend the Grant	Number of students received the grant
2021-2022	US$ 40,000	Awarded as scholarship for each qualified candidate	9
2022-2023	US$ 20,000	• Awarded as scholarship for each qualified candidate. • Allocated US$2,000 to support candidate's application for the credential.	22
2023-2024	US$ 20,000	• Awarded as scholarship for each qualified candidate. • Allocated US$2,000 to support candidate's application for the credential.	Ongoing

3. Changes in mode of instructional delivery.

In response to the global pandemic which started from March 2020, our program underwent significant changes in its instructional delivery mode, transitioning from a hybrid format to a completely online model. This transformation was driven by the necessity to prioritize the health and safety of students and faculty while ensuring the continuity of education. The key changes and adaptations made to the program include:

- Virtual classrooms: We offered real-time interaction through video conferencing tools like Zoom.
- Course Redesign: Faculty restructured course content to be more conducive to online delivery.
- Enhanced Multimedia Resources: The program invested in multimedia resources such as pre-recorded lectures, instructional videos, and interactive simulations to engage students and support different learning styles.
- Online Assessments: Assessments were adapted to the online environment, with a focus on formative and summative assessments conducted through online quizzes, essays, discussions, and projects.
- Online Collaboration Tools: Various online collaboration tools, such as virtual breakout rooms, discussion boards, and collaborative document editing, were used to foster student interaction, group projects, and peer-to-peer learning.
- Equity and Accessibility: The program took measures to ensure equity and accessibility, addressing issues related to the digital divide, such as encouraging students to borrow needed technology tools offered by the University during March 2020 to May 2021.

By adapting to a fully online instructional delivery mode, our program demonstrated resilience and adaptability during the pandemic, while also leveraging the benefits of online education to enhance accessibility and flexibility for students. These changes have positioned the program to continue offering high-quality education regardless of external challenges.

4. Hiring qualified faculty in the program to support the program's curricular needs.

***Need*:** With Dr. Bijan Gillani's retirement starting from summer 2019, there was only one tenure-track faculty left in our program. At the same time, our program student number increased from 22 in 2018-2019 to 49 in 2019-2020. We are extremely in need of hiring a tenure-track faculty. To meet the increased demand for faculty, we have hired several adjunct faculty members to cover the need. The following table shows the faculty body that we have.

Faculty Name	Degree Received	Rank/Type	Courses Taught	Expertise
Li-Ling Chen	Ph.D.	Full Professor	EDUI610 EDUI670 EDUI693	research; digital learning; online learning instructional design
Karla Prince	Ph.D.	Adjunct Faculty	EDUI640	research; equity learning impacts of computing
Arrash Jaffarzardeh	ABD	Adjunct Faculty	EDUI630 EDUI660 EDUI680	computational thinking; computing practice and programming; STEM curriculum
Howie Chu	M.S.	Adjunct Faculty	EDUI620	Computational thinking; Computing practice and programming

Robert Bergman	M.S.	Adjunct Faculty	EDUI610	Computational thinking; Computing practice and programming

Progress: We successfully conducted a full-time tenure-track faculty search in 2022-2023 and hired a highly qualified full-time faculty to maintain the quality of our program. The new faculty will join our program in Spring 2024.

2.2 Assessment and Curriculum

The five-year curriculum assessment plan for our program includes the following components:

Program's learning outcomes (PLOs)

1. Tell the importance and assess the needs of technology to enhance teaching and to support diverse student's learning. (Aligned courses: EDUI610, EDUI620, EDUI630, EDUI660, EDUI680)
2. Identify and investigate educational technology theories and instructional design principles to generate new ideas, projects, and materials. (Aligned courses: EDUI610, EDUI620, EDUI630, EDUI640, EDUI660, EDUI670)
3. Create and develop effective instructional or eLearning materials by choosing and applying appropriate tools and design theories individually and collaboratively. (Aligned courses: EDUI620, EDUI630, EDUI660, EDUI670, EDUI680)
4. Gather, use, and analyze data, bibliography, and other resources of materials extensively and critically. (Aligned courses: EDUI640, EDUI693)
5. Write and present scholarly findings and projects independently and responsibly. (Aligned courses: EDUI640, EDUI693)

Institutional Learning Outcomes (ILO)

1. **Thinking and Reasoning:** think critically and creatively and apply analytical and quantitative reasoning to address complex challenges and everyday problems.
2. **Communication:** communicate ideas, perspectives, and values clearly and persuasively while listening openly to others.
3. **Diversity:** apply knowledge of diversity and multicultural competencies to promote equity and social justice in our communities.
4. **Collaboration***:* work collaboratively and respectfully as members and leaders of diverse teams and communities.
5. **Sustainability***:* act responsibly and sustainably at local, national, and global levels.

Curriculum map demonstrating the alignment of courses to PLOs and ILOs

Semester	Course Number & Title	Assignment and Assessment	PLO Alignment	ILO Alignment
1 Fall	EDUI610 Web as an Interactive Educational Tool	• Identify, criticize, and evaluate an existing educational website. • Design and develop a website. • Address the ethical consideration of web use in education	1, 2	1, 3
1 Fall	EDUI640 Research in EdTech	• Criticize and evaluate research articles. • Write a literature review. • Write a project proposal. • Conduct peer review	2, 4, 5	1, 3, 4, 5

1 Fall	EDUI660 Digital Graphics	• Design and create effective digital instructional materials. • Present and communicate graphic design principles.	1, 2, 3	1, 2
1 Fall	EDUI680 Current Technologies	• Apply emerging technologies to design and develop effective digital instructional materials. • Design and develop digital storytelling project to advocate life value and social justice.	1, 3	2, 4
2. Spring	EDUI620 Design E-learning Environment	• Create and develop effective eLearning materials with supported theories. • Program and create game-based learning materials.	1, 2, 3	1, 2, 3,
2. Spring	EDUI630 Math, Science & Tech	• Work collaboratively to program and create STEM-based projects. • Present and communicate designed projects.	1, 2, 3	1, 2, 3, 4
2. Spring	EDUI670 Principles of Instructional Design	• Design and create instructional systematic design projects. • Present and communicate designed projects. • Conduct peer review.	2, 3	2, 4
2. Spring	EDUI693 Master Project	• Write a project proposal documentation. • Design and develop a master project. • Present and communicate designed projects. • Conduct peer review	4, 5	1, 2, 5

Assessment measures have been used to measure the PLOs and relevant ILOs

In the previous five years, from 2018-2023, we chose various ILOs to assess our curriculum. The following table presents our program assessment matric including our annual reports, assessment measures for the PLOs and ILOs.

Year	2018-2019	2019-2020	2020-2021	2021-2022	2022-2023
Annual Report	Annual program Report link	Annual Program Report link	Annual Program Report link	Annual Program Report link	Include in the current report
Assessed ILO	Written Communication.	Critical Thinking	Oral Communication	Thinking & Reasoning; Diversity	Sustainability
Assessed PLO	#4, #5	#4, #5	#1, #5	#1, #3	#5
Assessed Assignments	Literature Review, Project Proposal	Master Project Proposal Document	Master Project Presentation	Physical Programming: E-Textiles Project	Master Project Presentation
Assessment	Rubric	Rubric	Rubric	Project Skills &	Rubric

Instrument	See Appendix A	See Appendix B	See Appendix C	Expectation See Appendix D	See Appendix C
Sampled Courses	EDUI640 EDUI693	EDUI693	EDUI693	EDUI630	EDUI693

In addition to the targeted assessment measures reported in the annual report, we also used the following assessment measures to measure PLO #2 and #3.

- ***Course Projects***: Evaluate students' ability to design and implement technology-enhanced lessons or educational materials. (PLO #3; ILO#5)
- ***Peer Review***: Peer evaluation of teaching strategies and instructional materials created by students. (PLO #2, #3; ILO #1)
- ***Cross-Cultural Collaborative Projects***: Evaluate collaboration with peers from diverse backgrounds on educational technology projects. (PLO #1, #2, #3; ILO #3, #4)

These assessment measures help our program ensure that students meet the defined PLOs and align with relevant ILOs, ultimately preparing them for successful careers in the field of educational technology while fostering a well-rounded and socially responsible perspective.

Summary of the findings from the PLO assessed since the last program review and the implemented program improvement actions.

PLO # 1 - Findings:

Assessment of course projects, student learning artifacts, which include projects, videos, and discussion activities indicated that most students had achieved a satisfactory level of creating learning opportunities that meet students' diverse learning needs.

Implemented Program Improvement Actions:

We ensured that all technology used in teaching was accessible to students with disabilities. We implemented universal design principles to make digital resources inclusive for all students.

PLO #2 - Findings:

Assessment of peer review and cross-cultural collaborative projects indicated that most students demonstrated technology integration skills.

Implemented Program Improvement Actions:

We assessed the effectiveness of technology integration in courses, collected feedback from students and faculty regarding their experiences with technology, and made data-driven decisions for improvements.

PLO#3 - Findings:

Assessment of course projects indicated that students had a good understanding of educational theories and technology skills to design and develop sound instructional materials.

Implemented Program Improvement Actions:

We implemented collaborative learning tools and platforms that foster interaction among students, regardless of their learning styles or preferences, and encouraged group work, peer-to-peer learning, and discussions.

PLO #4 - Findings:

Assessment of literature reviews and research proposals indicated that students had met the program's expectations for research and evaluation skills. Over 85% of students produced research work that met or exceeded program standards.

Implemented Program Improvement Actions:

We continued to support students in their research endeavors by providing access to research mentors and resources.

We also explored opportunities for students to present their research at conferences or publish it in academic

journals.

PLO#5 - Findings:
Assessment of oral presentations reflects that students could communicate ideas, perspectives, and values clearly and persuasively while listening openly to others. Students also acted responsibly and sustainably.
Implemented Program Improvement Actions: we encouraged students to present their research in various formats, such as conferences and seminars.

These findings and improvement actions that the program had implemented in the previous five years demonstrate that, overall, the program has been successful in achieving its desired learning outcomes. The program's commitment to ongoing improvement is evident in its efforts to enhance technology integration skills, expand pedagogical knowledge, support research skills, and cultivate ethical and professional behavior among its students.

2.3 Student Success

Student success encompasses various aspects of the graduate student experience, academic achievement, and overall satisfaction within the program. The section is structured to address the following key areas:
Admissions and Enrollment Trends: The program has maintained rigorous admission standards to ensure the quality and equity of incoming students and a stable enrollment rate. Efforts to enhance student recruitment have been successful, particularly in attracting underrepresented minorities.

Graduation Rate: The graduation rates, a way to show student academic progress, for the program remain high, with an average completion time well within the established norms. Although we could not obtain a specific graduation rate from the university database, the following table shows that we have a high ratio of students completed our program based on the collected data shown in Pioneer Insights:

Academic Year	Student Headcount	Degree Awarded	Ratio
2019-2020	49	39	80%
2020-2021	47	41	87%
2021-2022	25	19	76%

Program Satisfaction and Feedback: Regular student course surveys and exit survey indicate a high level of satisfaction with the program. Constructive feedback has been instrumental in making continuous improvements.
Alumni Success: Tracking the career trajectories of program alumni shows that our graduates demonstrated a high level of success in their careers. Many alumni secured positions as K-12 teachers with an emphasis on technology coaches, educational technology specialists, instructional designers, and e-learning developers in both educational and corporate settings. This success is a testament to the program's effectiveness in preparing students for the job market.

2.4 External Comparisons

Our program offers Master of Science degree, core courses, elective courses, and a certificate program. We identify the Instructional Design and Technology Graduate Program at San Fracisco State University (SFSU) for external comparison because of three reasons:

1. SFSU is also one of the campuses under CSU system.
2. SFSU is geographically the closest CSU campus to CSUEB.
3. Both programs share a similar nature of study field in instruction and technology.

Below is the comparison table.

Course Title	California State University, East Bay (CSUEB)	San Francisco State University (SFSU)
	M.S. Educational Technology	M.A, Instructional Design & Technology
Core Courses	**Required 16 units**	**Required 12 units**
Course 1	EDUI610 Web as an Interactive Educational Tool	ITEC800 Theoretical Foundations of Instructional Technologies
Course 2	EDUI620 Theory and Design of E-Learning	ITEC801 Introduction to Learning Design, Design Thinking, and Innovation
Course 3	EDUI630 Math, Science, & Tech	ITEC805 Needs Assessment and Program Evaluation
Course 4	EDUI640 Research in EdTech	**Select one**: ITEC816 Designing Digital Learning Spaces of the Future ITEC830 Design of Learning Environments with Emerging Technologies ITEC850 Design and Management of Training Projects
Elective Courses	**Required 10 Units**	**Required 15 units**
Course 5	EDUI650 Mobile Apps Development	ITEC819 Mobile Application Design and Development
Course 6	EDUI660 Digital Graphics	ITEC740 Computer Design of Instructional Graphics I
Course 7	EDUI670 Principles of Instructional Design	ITEC745 Instructional Web Authoring I
Course 8	EDUI680 Current Technologies	ITEC823 Augmented and Virtual Reality Based Multimedia Development
Course 9	EDUI695 EdTech Internships	ITEC720 Fieldwork in Educational Technology
Course 10	EDUI690 Independent Study	ITEC 899 Independent Study in Instructional Technologies
Course 11		ITEC865 Fundamentals of Designing in Interactive E-Learning Courses
Capstone Courses	**Required 4 units**	**Required 3 units**
	Select one: EDUI693 Master Project EDUI699 Thesis	**Select one:** ITEC894 Creative Work Project ITEC895 Field Study Project

Our findings from the comparison table can be highlighted in three categories:

- ***Core Courses:*** Both programs have a core set of courses, but the M.S. Educational Technology program at CSUEB, requires 16 units of core courses, while the M.A. Instructional Design & Technology program at SFSU requires 12 units.
- ***Elective Courses:*** The M.S. Educational Technology program at CSUEB, requires 10 units of elective courses, while the M.A. Instructional Design & Technology program at SFSU requires 15 units.

- ***Capstone Courses:*** Both programs require students to complete a capstone project, but the M.S. Educational Technology program at CSUEB, requires 4 units for the capstone, whereas the M.A. Instructional Design & Technology program at SFSU requires 3 units.

In summary, while both programs cover core topics in educational technology and instructional design, there are differences in the number of required units for core and elective courses, as well as the capstone project options.

2.5 General Program Discussion:

Student demographics

According to the data from Pioneer Insights dashboard, our program takes immense pride in fostering an inclusive and equitable learning environment, and this diversity is one of our greatest strengths. The vibrant tapestry of backgrounds, experiences, and perspectives that our students bring enriches the educational experience for everyone involved.

- Geographic Diversity: Our graduate program attracts students from all corners of the globe. Our students hail from various countries, regions, and cultural backgrounds, creating a dynamic international community. This geographic diversity enhances cross-cultural understanding and promotes global perspectives in our academic endeavors.
- Age and Life Experience: Our student body spans different age groups and life stages. Few come directly from undergraduate studies, while most students bring years of professional experience. This mix of age and life experiences fosters an environment of mentorship, where students learn from each other's journeys and perspectives.
- Ethnic and Racial Diversity: We are proud to have a diverse student body representing various ethnicities and racial backgrounds. This diversity promotes inclusivity and challenges us to engage in meaningful conversations about equity and social justice, both inside and outside the classroom.

Enrollment By Race/Ethnicity: CEAS Educational Technology					
	Fall 18	Fall 19	Fall 20	Fall 21	Fall 22
Asian	2	7	12	4	9
Black	3	3	1	3	5
International	2	6	4	2	2
Latinx	2	15	10	4	8
Multirace		2	3	5	2
Unknown	13	3	3		4
White		13	14	7	5
Total	22	49	47	25	35

Gender and Identity: Our program embraces individuals of all gender identities and expressions. We are committed to creating a safe and inclusive space where every student feels respected and valued, regardless of their gender identity.

Enrollment By Sex: CEAS Educational Technology					
	Fall 18	Fall 19	Fall 20	Fall 21	Fall 22
Female	10	23	27	17	23
Male	12	26	20	8	12
Total	22	49	47	25	35

Faculty and academic resource allocation

Faculty Composition: Our faculty comprises a diverse group of accomplished educators, researchers, and professionals who bring a wide range of expertise to our institution. The faculty's diversity enhances academic experience, fosters interdisciplinary collaboration, and promotes a global perspective.

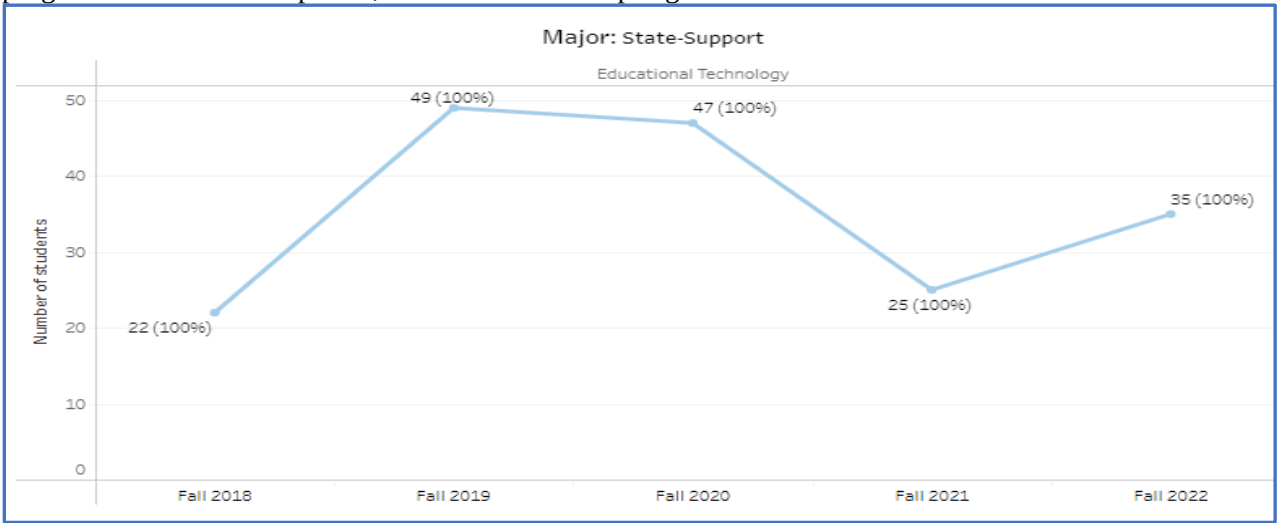
Professional Development: Faculty development programs and opportunities are offered via the University Online Campus, Faculty Development Center, and the CSU System wide trainings for nurturing teaching and research excellence. Evaluating the allocation of resources for professional development, including funding for conferences, workshops, and research grants, is crucial to support our faculty growth.

Mentoring and Support: Providing mentorship and support to junior faculty is critical for their career development

and retention. In the past few years, we hired two new adjunct faculty. For the new faculty to be successful in their first few years of teaching, we found that it is essential for sustaining a thriving academic community.

Enrollment Data:

The following chart adapted from Pioneer Insights shows graduate student enrollment data for our EdTech program over the review period, from Fall 2018 to Spring 2023.



Based on the data, we identify several trends and discuss their potential effects on program quality:

- Fluctuating Enrollment: The enrollment numbers in the program have shown fluctuations over the review period. Enrollment increased from Fall 2018 (22 students) to Fall 2019 (49 students), then decreased to 25 students in Fall 2021, and subsequently increased again to 35 students in Fall 2022.
- Effect on Program Quality: The significant increase in enrollment from Fall 2018 to Fall 2019 might indicate a growing interest in the program, potentially reflecting a positive perception of its quality. However, such rapid growth can also strain resources and raise concerns about maintaining program quality. The subsequent decrease in enrollment to 25 students in Fall 2021 could raise questions about what caused the decline. A self-evaluation for the potential cause is the external factor like the ending of the global pandemic. The increase to 35 students in Fall 2022 may suggest a potential rebound. Our self-study contributes to the reasons behind this increase include the improvements in program quality and the needs of computer teachers in CA public K-12 schools.
- Stability of Enrollment: The program's enrollment seems to have stabilized to some extent in recent years, as there was only a modest increase from Fall 2021 to Fall 2022. This stability can be positive for program planning and resource allocation.
- Impact on Resources and Support: Rapid fluctuations in enrollment can impact program quality by straining resources. If the program has limited faculty or support staff, accommodating many students can lead to challenges in delivering high-quality education, advising, and support services.
- Adaptive Strategies: The program should consider implementing strategies to adapt to changing enrollment trends. This may include adjusting admission criteria, offering online or hybrid options to attract a broader audience, or enhancing marketing efforts.
- Continuous Evaluation: To ensure and improve program quality, it is essential to continuously evaluate and adjust program offerings, curriculum, and support services based on enrollment trends and feedback from students and faculty.

In conclusion, the enrollment trends in the program have shown fluctuations over the review period, which can have both positive and negative effects on program quality. It is crucial for us to carefully analyze these trends, consider the causes, and develop strategies to maintain or enhance program quality while effectively managing resources and student support services.

FDEC Compliance

When evaluating and reviewing the curriculum offered in our program, we incorporated criteria from the Faculty, Diversity & Equity Committee's (FDEC) Diversity Rubric for Five-Year Reviews.

Our curriculum acknowledges diversity in age, ability, class, gender, nationality, race, religion, sexual orientation, first language and other personal social/cultural identities to recognize the multifaceted dimensions of knowledge. For example, all our faculty, including full-time and part-time, are required to complete the Diversity, Equity, and Inclusion training offered by the CSU System.

Our curriculum embraces the lived experiences of students, their jobs, their families, and their communities. For example, students were asked to reflect their teaching and to design and develop meaningful instructional materials to complement their pedagogy and classroom practice in the course projects for EDUI610, EDUI693, EDUI660, and EDUI680.

Our curriculum integrates theories of social justice and constructs of power with technology. For example, in EDUI680 class, students were required to create a digital storytelling project. One of the topics for the project is about bullying. Digital storytelling on bullying can be a powerful educational tool that integrates theories of social justice and constructs of power with multimedia technologies like graphics, audio, and video to address and combat bullying in educational settings. The video highlights the various power dynamics at play in bullying situations. This includes understanding how power imbalances based on factors like gender, race, socio-economic status, and physical abilities can contribute to bullying incidents.

Our curriculum encourages students to investigate and integrate diverse worldviews and practices; employ diverse teaching strategies and create an inclusive learning environment. For example, we discussed on how the application of universal design into the creation of interactive instructional materials and the benefits may bring for the diverse students' needs in EDUI610 course.

2.6 Faculty:

The program continued to benefit from a group of dedicated and knowledgeable faculty including one full-time faculty and four part-time faculty. Faculty members remained active in research, publication, and professional development, contributing to the program's academic excellence and reputation.

The need to hire a new tenured-track faculty stands out as there has been only one tenured track faculty in our program during the past four years. In 2022-2023, we ensured fairness in the hiring process that emphasized representation of underrepresented groups, minoritized communities, and women in the candidate pools. We successfully conducted a tenure-track full-time faculty search. Please see Appendix F for the copy of faculty position description submitted for new tenure-track positions since the last review period.

2.7 Resources:

Teaching Resources and Technology: Although since March 2020, we have moved instruction from hybrid to totally online, providing support for the latest technology and resources for both students and instructors is crucial for effective online teaching and learning. Fortunately, CSUEB continued to invest in state-of-the-art technological resources, providing students with access to the latest tools, software, and equipment needed for hands-on learning and research. Evaluating resource allocation for instructional technology, maintenance, and renovations can enhance the educational experience for students and faculty alike.

Library and Information Resources: Access to a comprehensive library collection and digital resources is vital for research and scholarship. Reviewing resource allocation for library acquisitions and subscriptions ensures that faculty and students have the necessary materials to excel academically.

Community Engagement: The program established strong relationships with local schools and educational organizations, facilitating internships, research collaborations, and opportunities for students to gain practical experience in authentic educational settings.

3. Five-Year Plan

Building on the successes and lessons learned from the previous five years, our program has developed a comprehensive plan for the next five years. Our plans for change and improvement to maintain leadership in the field of educational technology for the next five years will address the recommendations and concerns identified in the Self-Study. Elements of the following five areas will be addressed in the Plan.

3.1 Curriculum

Our program will continue to evaluate and comply with CTC supplementary teaching authorization guidelines in computer science and monitor emerging trends in educational technology and update the curriculum accordingly.

Curriculum aligned with CTC supplementary teacher authorization guidelines in computer science.
The commitment to evaluating and complying with CTC supplementary teaching authorization guidelines in computer science is essential for our program. It ensures that the program remains aligned with state standards, produces high-quality graduates, and continues to meet the evolving needs of the educational technology and computer science fields in California. Specifically speaking, we will continue to introduce the visual programming language, Scratch, in EDUI620 class. In EDUI630 class, students will explore visual programming languages, such as LEGO's Mindstorms Spike Prime to replace with the discontinued EV3, Robolink's Blockly to program drones, and Microsoft MakeCode to program Minecraft robots. C++ will also be introduced to program Arduinos for physical programming. The update of programming languages which applies computational thinking and promotes innovation in science classroom will integrate with the California Computer Science Standards designed for K-12 schools.

AI-enhanced curriculum:
Given the rapid pace of artificial intelligence (AI) development in early 2023, we plan to conduct the following curriculum changes to keep students staying updated with the latest AI technologies and trends in the educational technology field.

- Integration of AI in Teaching and Learning: We plan to have our curriculum include modules that focus on how AI can be integrated into educational settings. This could involve teaching students how to use AI-powered tools for personalized learning, adaptive assessments, and intelligent tutoring systems.
- Ethics and Responsible AI in Education: With the increased use of AI in education, there will be a greater emphasis on ethics and responsible AI practices. We plan to have EDUI610 and EDUI680 courses cover topics such as bias in AI, data privacy, and the ethical implications of AI-driven decision-making in educational contexts.
- Professional Development in AI: As AI continues to evolve, educators themselves may need training in using AI tools effectively. Faculty in our programs will be encouraged to use their annual professional development fund to upskill in AI-related areas.
- Research in AI and Education: We plan to encourage students to conduct research projects that explore the impact of AI in education. This could involve studying the effectiveness of AI-powered teaching methods, evaluating AI-driven educational apps, or investigating AI's role in addressing educational inequalities.

The planned implementation process can be demonstrated in the following table:

Expected action/change	Implementation timeline	Responsible faculty	Anticipated cost
Integration of AI in Teaching and Learning	In Fall 2023, instructors for EDUI660 and EDUI680 will incorporate AI Text to Image technology to design and create	Li-Ling Chen, Ph.D. Arrash Jaffazedah	No additional cost as Adobe Firefly is currently free.

	responsible digital graphics to enhance teaching and learning		Adobe Express is one of the Adobe CC apps bundles which is free for CSUEB students
Ethics and Responsible AI in Education	In Fall 2023, the instructor for EDUI610 and EDUI680 courses will re-design the online discussion activity with a focus on ethics and responsible AI in education. In addition, the instructor will incorporate FDEC Diversity Rubric to evaluate the re-designed curriculum.	Li-Ling Chen, Ph.D.	0
Professional Development in AI	In 2023-2024, EdTech faculty will be encouraged to explore the potential of AI technology in education.	Li-Ling Chen, Ph.D. Earl Aguilera, Ph.D. (expected to be on board in Spring 2024)	$1,500/per year for every tenure-track faculty member
Research in AI and Education	In Fall 2023, the instructor for EDUI640 class will introduce large language AI model, like ChatGPT, to serve as a personal writing tutor.	Li-Ling Chen, Ph.D. Karla Prince Ph.D.	0

3.2 Assessment

Results of the Previous Assessment Cycle:

In our previous five-year assessment cycle, we conducted a comprehensive evaluation of our Program Learning Outcomes (PLOs) and related Institutional Learning Outcomes (ILOs). Here are some key findings:

- PLOs Assessment: We found that most of our PLOs were being met effectively. However, based on the annual programs report, PLO #2 and PLO #3 have not been assessed to its aligned ILOs. We will identify and evaluate our courses and ILO's carefully to assess these two PLOs.
- ILOs Alignment: Our assessment revealed strong alignment between our PLOs and ILOs. This alignment ensured that our program contributed to the broader educational goals of our institution. However, when identifying specific ILOs for annual reviews, we found that ILO #4 has not been specifically assessed. We will assess ILO #4 in the next five-year review circle.

Program's Assessment Plan for the Next Five Years:

Looking ahead, we have developed an assessment plan for the next five years that focuses on continuous improvement and addressing identified areas of concern:

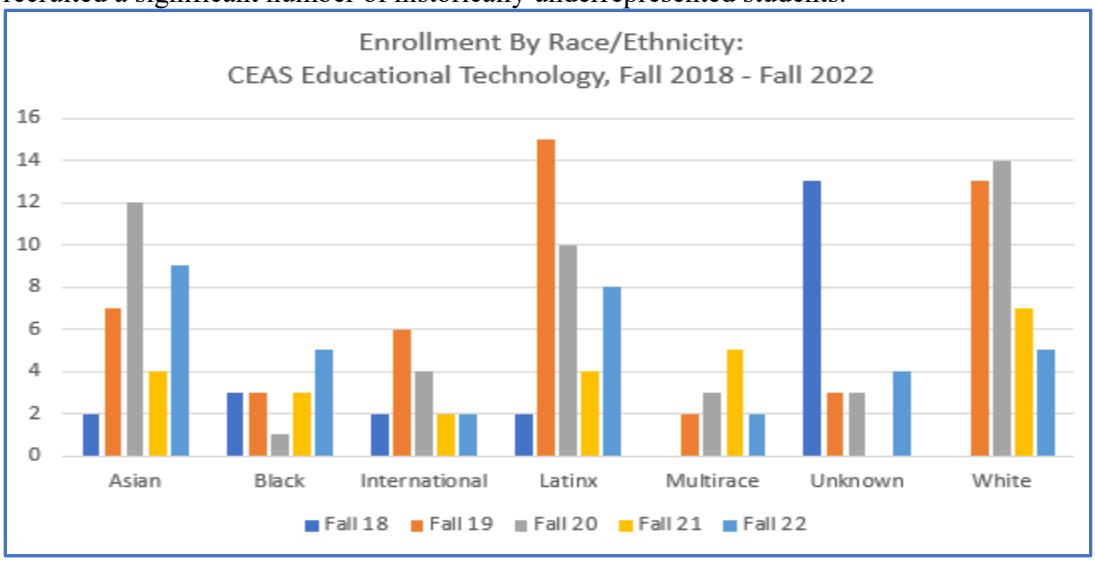
- Assessment Schedule: We have established a regular assessment schedule with semester-based course project evaluation and student course evaluation, the annual program assessments, and program exit assessment. We will continue to review our program regularly to ensure all five PLOs will be assessed and aligned with ILOs.
- Assessment Processes: Our assessment processes will include a combination of direct and indirect measures. We will use faculty-developed rubrics, course project evaluations, student course evaluation, and capstone projects to assess PLOs and related ILOs outcomes. We will also improve the existing program exit survey to assess students' overall feedback on their experiences and identify areas for improvement for the program. The current program exit survey consists of only five general questions which are part of the exit survey used for all students in the Department of Teacher Education. A clear and disciplined specific focus survey will be developed and implemented in the next five years.
- Closing the Loop: Based on assessment results, we will implement targeted improvements. For example, we will identify specific course projects or assignments that are aligned with PLO #2, #3 and ILO #4 for the annual assessment in the upcoming few years. We will offer additional resources, support, or curriculum adjustments to address these concerns if necessary.

In conclusion, our program is committed to a robust and ongoing assessment process to ensure that we provide the highest quality education to our students. We will continue to adapt and refine our PLOs and assessment strategies to meet the evolving needs of the field of educational technology and to align with the mission and goals of our institution.

3.3 Student Success

Recruitment and Retention

According to the self-study on our student demographic for the previous five years, our program successfully recruited a significant number of historically underrepresented students.



The program will continue actively working to enhance diversity and inclusion among students. Initiatives will include targeted recruitment efforts for the next five years.

To address the concerns raised in the self-study regarding the fluctuating enrollment that we had in the past five years, we will target to recruit students' number around 20 to 25 every year in the next five years. Here's a rationale to justify this approach:

- Stabilizing Enrollment Trends: Recruiting a consistent annual cohort of 20-25 students provides our institution with a reliable baseline of enrollment. This stability can help us better predict future enrollments and allocate resources accordingly. Fluctuations in enrollment can lead to resource misallocation, such as overstaffing during peak years and underutilization of resources during low enrollment years. A stable student intake can address this issue by smoothing out these variations.
- Financial Sustainability: Maintaining a stable student population is vital for the financial sustainability of our institution. Fluctuations in enrollment can result in inconsistent revenue streams, making it challenging to budget effectively. By recruiting a consistent number of students each year, we can more accurately project tuition revenue and allocate funds to support our academic programs, faculty, and facilities.
- Quality of Education: A stable student body contributes to a better educational experience for all students. With a consistent number of students admitted each year, we can offer a wider range of courses and academic resources, which enhances the overall quality of education. Faculty members can plan their curriculum more effectively, and students can access a broader array of elective courses, research opportunities, and extracurricular activities.
- Faculty and Staff Morale: Fluctuations in enrollment can negatively impact faculty and staff morale. Sudden increases in enrollment can strain resources and lead to faculty burnout, while

decreases can result in job insecurity. Recruiting a steady annual cohort helps create a more predictable and less stressful work environment, boosting employee morale and retention.

- Enhancing Long-Term Planning: A consistent annual intake of 20-25 students allows for more effective long-term planning. We can align our strategic goals and investments with this predictable enrollment pattern, whether it's expanding campus infrastructure, increasing faculty hires, or developing new academic programs that cater to this steady stream of students.

In conclusion, recruiting a steady annual cohort of 20-25 students addresses the concerns raised in the self-study report regarding fluctuating enrollment. It promotes stability, financial sustainability, quality of education, faculty and staff morale, campus culture, long-term planning, and marketing efforts. By implementing this strategy, our institution can create a more predictable and prosperous future while maintaining our commitment to providing a high-quality education to our students.

Learn and honor students' lived experiences.

We intentionally learn and honor students' lived experiences and value the knowledge that students bring from their experiences in the digital storytelling assignment in EDUI680 Current Technologies class. The assignment recognizes that every student has a unique background and set of experiences that can enrich the educational process. Through the assignment, students can

- share their personal narratives, which may include stories of triumph, challenges, cultural heritage, or unique experiences. By providing a platform for students to express themselves, it acknowledges the value of their lived experiences.
- engage cultural and personal relevance: When students are encouraged to tell stories from their own lives, they are more likely to engage with the subject matter. This approach helps connect the curriculum to their personal experiences, making it more relevant and meaningful.
- empower students to share their stories, to recognize the significance of their own experiences and perspectives. This can boost their self-esteem, sense of identity, and self-worth.
- embrace diverse voices and backgrounds. It encourages an inclusive classroom environment where every student's experiences are valued, regardless of their cultural, social, or economic background.
- build empathy and understanding of others. It helps them understand the challenges and triumphs that their peers may have faced, promoting a sense of community and support.
- develop life skills. Beyond academic benefits, digital storytelling also nurtures life skills such as communication, public speaking, and presentation skills. These skills are invaluable in future endeavors, including careers and personal relationships.

We acknowledge the value of the assignment and will continue to implement a successful and AI-enhanced digital storytelling project that honors students' lived experiences and values their knowledge. Our instructor will create a safe and supportive environment, offer technical and creative guidance, and promote open dialogue about the stories shared in the following five years.

Vary teaching methods to accommodate different learning styles.

Our faculty members often strive to offer a variety of teaching methods to accommodate different learning styles among their students. Recognizing that students have diverse preferences and strengths when it comes to learning, here are some ways faculty adapts their teaching methods:

- Synchronous Zoom instruction or lecture-based instruction: Our faculty use PowerPoint presentations, infographics, and diagrams to aid visual learners in understanding complex concepts and incorporate spoken explanations, discussions, and guest speakers can help auditory learners grasp information more effectively. For synchronous Zoom instruction, our faculty will record the instruction and make the recordings available for all students.

- Project-based learning: our faculty organizes class activities and assignments with projects and a hands-on learning approach that allows students to physically engage with educational technology tools and concepts.
- Self-paced learning: Our faculty provides a range of online resources, including recorded lectures, articles, and interactive modules. This approach allows self-paced learners to explore the material at their own speed.
- Collaborative learning: Our faculty adapts group projects, interactive discussions, and peer reviewing activities to cater to the needs of social learners who thrive in interactive settings.
- Critical thinking: Faculty encourages students to ask and answer questions to stimulate critical thinking. This approach can engage students who enjoy deep intellectual exploration.
- Gamification and simulations: Our faculty designs gamified experiences or simulations that immerse students in educational technology challenges and decision-making scenarios, catering to experiential learners.
- Reflective practice: Assignments that encourage self-reflection, such as journals or e-portfolios, can help reflective learners process and synthesize their learning experiences.
- Flexible assessments: Our faculty offers diverse assessment methods, including written papers, presentations, videos, and practical projects, allowing multi-modal learners to showcase their knowledge and skills in various ways.
- Feedback and adaptation: Our faculty regularly solicit feedback from students to understand their preferences and needs. They can then adapt their teaching methods accordingly to enhance the learning experience.
- Personalized learning paths: Offering options for students to choose topics or projects aligned with their interests can appeal to individualized learners who thrive when given autonomy.

By offering a blend of these teaching methods, faculty members in our program created a more inclusive and effective learning environment, catering to the diverse learning styles and preferences of their students. This approach maximizes student engagement and promotes a deeper understanding of the subject matter. We will continue the same efforts to deliver the instruction with various teaching methods and with the infusion of AI technologies for the next five years.

Accessibility and accommodations

Our faculty are encouraged to be proactive in providing accessible materials and accommodation. Here's the key features to show how this was implemented:

- Incorporation of accommodations information in syllabi: Faculty members are asked to include a section in their course syllabi dedicated to accommodations. This section should clearly state that students with disabilities are encouraged to request accommodation, provide contact information for the university's disability services office, and explain the process for requesting accommodation.
- Training and professional development: Faculty are required to receive annual training and professional development on disability accommodation and accessibility in education offered by the CSU system. In addition, our faculty are also required to get familiar with the accessibility features in the University Learning Management System, Canvas.
- Regular updates and communication: Our faculty stay informed about changes in federal and state laws and university policies related to accommodation. Regular updates and communication from the university's disability services office can help ensure faculty are aware of any policy changes.
- Accessible course materials: Faculty are asked to create course materials that are accessible to all students, including those with disabilities.

For the upcoming five years, we will continue the previous efforts in ensuring that accessibility and accommodations are implemented, and we plan to improve in the following areas:

- Record-Keeping and Documentation: Faculty should maintain records of accommodation requests and approved accommodation for their courses. This documentation can serve as evidence of compliance with university policies.
- Feedback Mechanisms: The program can establish feedback mechanisms for students to report any issues related to accommodation. This allows the program to identify and address any inconsistencies in upholding accommodation policies.
- Collaboration with Disability Services Office: Faculty should collaborate closely with the university's disability services office to ensure that accommodation is implemented effectively. Regular communication and coordination can help address any challenges that may arise.

3.4. Faculty.

In Spring 2024, we will have a new full-time tenure track faculty join our program. His name is Earl Aquilera, Ph.D. He is a highly qualified expert in the field of educational technology. His participation to our faculty group will contribute significantly to the academic excellence, stability, research, reputation, and overall success of the program. We are excited to have him join our program.

3.5. Resources.

Assessing the adequacy of resources to maintain or improve program quality over the next five years is crucial for the program's success. Here is the plan for the resources in the next five years.

- A2E2 fund: In Spring 2023, we requested to have a portion of A2E2 fund to support our graduate students to participate EdTech conferences in the local area. We will ensure that the fund is in place to regularly support our students in professional development.
- Program initiatives: We will identify any new program initiatives, such as interdisciplinary collaborations, online course development, or international partnerships and allocate resources to support these initiatives, including faculty release time, technology investments, and administrative support.
- Student Support Services: We will continue to evaluate the availability of academic advising, career counseling, and support services for graduate students to enhance student support services to improve retention, graduation rates, and the overall student experience.
- Program marketing and recruitment: We will continue to assess the resources allocated for marketing and recruiting prospective graduate students and consider additional resources for marketing efforts, including website development, advertising, and outreach to attract high-quality applicants.
- Financial Aid and Scholarships: We will examine the availability of financial aid and scholarships to attract and retain top-tier graduate students.
- Research Funding: We will evaluate the availability of research grants and funding opportunities for faculty and students and explore options for securing external grants and funding sources to support faculty research and student projects.
- Alumni Engagement: We will try to strengthen alumni engagement to create mentorship and networking opportunities for current students.

A comprehensive assessment of resources is essential to ensure the program's quality and growth over the next five years. Prioritizing needs based on program goals and initiatives will help secure the necessary resources to maintain or enhance program excellence. Additionally, ongoing monitoring and flexibility in resource allocation will be critical to adapting to changing circumstances and program requirements.

In conclusion, the Educational Technology Master Program's next five-year plan aims to build on its successes, adapt to changing educational technology landscapes, and continue preparing students to excel in the dynamic field of educational technology. With a commitment to innovation, research, and student support, the program is poised to meet the evolving needs of students and the educational technology industry in the coming years.

Appendix A: 2018-2019, ILO Assessment Rubric

Instrument(s): We created our own rubric for the Written Communication ILO, using a 1-to-4 scale.

Educational Technology Master Program PLO Written Communication Rubric Description: One of the major writing assignments for Educational Technology Master students is to write a literature review. The following rubric is created to evaluate Educational Technology Master students' written communication skills in writing a literature review.				
Evaluation Area	NA 1	Fair 2	Good 3	Excellent 4
Overall Communication: Follows logical introduction.	Lacks a description on the problems, needs, or issues in the area or topic.	Inconsistently or superficially describes problems, needs, or issues in the area or topic.	Adequately describes and presents problems, needs, or issues in the area or topic.	Constantly, clearly and logically describes and presents problems, needs, or issues in the area or topic.
	Lacks the description on why the topic is important or worth investigating.	Inconsistently or superficially describes why the topic is important or worth investigating.	Adequately describes why the topic is important or worth investigating.	Clearly and logically describes why the topic is important or worth investigating.
	Lacks a purpose/goal statement of a central idea or states central idea inappropriate to the assignment.	Inconsistently or superficially states a central idea, minimally appropriate to the assignment.	Adequately states a purpose/goal statement with a central idea, generally appropriate to the assignment.	Clearly states a purpose/goal statement with a central idea, appropriate to the assignment.
Discipline Specific: Academic Language	Lacks a title page for the literature review assignment.	Includes partial information in the title page. However, there are some APA style errors, yet there are some APA style errors.	Clearly includes a title, fulfillment statement, his/her name, term, and the full name of the university in the title page, yet there are some APA style errors.	Clearly and accurately includes a title, fulfillment statement, his/her name, term, and the full name of the university in the title page. The title page also complies with APA style.
	Lacks an introduction on the organization and structure of the session.	Inconsistently or superficially introduces the organization and structure of the session.	Adequately introduces the organization and structure of the session.	Clearly introduces the organization and structure of the session.
	Lacks to justify what theory can support research or project.	Inconsistently or superficially justifies what theory can support	Adequately justifies what theory can support research or project.	Clearly and logically justifies what theory can support research or

		research or project.		project.
	Lacks to identify and provide definition of terms used in the assignment.	Inconsistently or superficially identify and provide definition of terms used in the assignment.	Adequately identify and provide definition of terms used in the assignment.	clearly identify and provide appropriate definition of terms used in the assignment.
	Lacks to identify three themes from review of literature and elaborate themes with relevant literature support.	Inconsistently or superficially identifies three themes from review of literature and elaborate the themes with relevant literature support.	Adequately identify three themes from review of literature and elaborate the themes with relevant literature support.	Clearly identify at least three themes from review of literature and elaborate the themes with relevant literature support.
	Lacks to apply APA styles for in-text citations in the assignment.	Contains APA style in-text citations errors in the assignment.	Contains only one APA styles error for in-text citations in the assignment.	Accurately apply APA styles for in-text citations in the assignment.
	Lacks a conclusion statement about the findings from literature and the importance of the investigating topic.	Irrelevantly states a conclusion statement about the findings from literature and the importance of the investigating topic.	Accurately states a conclusion statement about the findings from literature and the importance of the investigating topic.	Clearly states and articulates a conclusion statement about the findings from literature and the importance of the investigating topic.
	Lacks to provide at least 7 citations on relevant articles or reports to support the review.	Inadequately provides 7 citations on relevant articles or reports to support the review. Contains APA style citations errors in the assignment.	Adequately provides 7 citations on relevant articles or reports to support the review. Contains APA style citations errors in the assignment.	Accurately and adequately provides 7 or more citations on relevant articles or reports to support the review. All APA style citations are correct.
The logistics of writing: Mechanics, grammar, punctuation, spelling	Contains grammar, spelling, punctuation errors that are highly distracting or often interfere with meaning.	Contains grammar, spelling, punctuation errors that are distracting or occasionally interfere with meaning.	Shows mostly correct use of grammar, spelling, punctuation. May have occasional errors that do not interfere with meaning.	Shows correct use of grammar, spelling, punctuation.

Appendix B: 2019-2020 ILO Assessment Rubric

Instrument(s): We created our own rubric to assess the Critical Thinking ILO, using a 1-to-3 scale.

Educational Technology Master Program
Critical Thinking ILO Assessment Rubric

Description: One of the major assignments which requires Educational Technology master students to exercise critical thinking skills is to write a master project proposal. The following rubric was created to evaluate Educational Technology Master students' critical thinking skills in writing a master project proposal for EDUI693, Master's Project, class.

quality / evaluation area	Poor 1	Good 2	Excellent 3
Explanation of issues	There is no introduction in the proposal to explain issues.	There is an introduction, yet purpose/goal/objectives are not stated, nor the issues are explained.	An introduction sets up the needs, problem, and issues of the project topic very well and purpose/goal/objectives are clearly stated.
Use of evidence in reviewing literature	There is a review of literature in the proposal, yet evidence was not used.	A review of literature is included, yet not including definitions of terms, theoretical framework and little evidence was used to support the discussion.	A review of literature including definitions of terms, theoretical framework and themes related to the topic is well addressed with appropriate use of evidence to support the discussion.
Context, assumptions, and position statement of the project	There is no project description on the context, assumptions, and position statement of the project.	There is a project description, yet the context description is not specific and some required components for the context are missing.	A specific project description with the following context, assumptions, and position statement is included. Potential users' description Potential project carrying out context description Technology tools Used to develop the website. Computer configuration required to view the website. Content description including website screen shots. Site architecture description Interface design description interactivity description Technology-based project with labeled screen shots and description.

Alternative viewpoints on project evaluation	There is no alternative viewpoints provided in the project evaluation.	A project evaluation session is included, yet there is only one or two strategies proposed to provide alternative viewpoints to ensure the validity, reliability, and quality of the website.	A project evaluation session is included, yet there are 4 or more strategies proposed to provide alternative viewpoints to ensure the validity, reliability, and quality of the website.
Conclusions, implications, and consequences	There is no recommendation/ conclusion/ implications. .	The conclusion is weak. The implications and consequences are not well discussed.	A clear conclusion, implications, consequences, and recommendation are drawn from analysis.
The logistics of writing: Mechanics, grammar, punctuation, spelling	Contains grammar, spelling, punctuation errors that are distracting or occasionally interfere with meaning.	Shows mostly correct use of grammar, spelling, punctuation. May have occasional errors that do not interfere with meaning.	Shows correct use of grammar, spelling, punctuation.

Appendix C: 2020-2021, 2022-2023 - ILO Assessment Rubric

Instrument(s): We created our own rubric to assess the Oral Communication ILO in 2020-2021 and Sustainability ILO in 2022-2023, using a 1-to-4 scale with the 4 having the best performance and the 1s having the worst performance.

Educational Technology Master Program
Critical Thinking ILO Assessment Rubric

Description: One of the major assignments which requires Educational Technology master students to exercise Oral Communication skills is to present their master project to all students and faculty members in the program. The following rubric was created to evaluate Educational Technology Master students' oral communication skills in presenting their master project for EDUI693, Master's Project, class.

Quality / Evaluation Areas	Not Acceptable 1	Need Improvement 2	Acceptable 3	Excellent 4
Purpose Purpose may include conveying a key message, central idea/theme, relevant information, or emotion that aligns with the intended audience.	The presenter does notconvey the purpose of the website.	The presenter somewhatconveys the purpose throughout.	Presentation mostly conveys the purpose throughout.	Presentation clearly conveys the purpose throughout.
2. Project use	The presenter forgets to state how his/her website will be used.	The presenter somewhat states how his/her website will be used.	The presenter mostly states clearly how his/her website will be used.	The presenter states clearly how his/her website will be used.
3. Audience of the project / Audience Engagement. Audience engagement is, holding the interest and attention of the intended audience; may include interacting with and listening/respondin g to theaudience.	Presenter does not identify who are the audience nor demonstrates engagement with the intended audience.	Presenter somewhat identifies who will be the audience of the project as well as somewhat demonstrates engagement with the intended audience.	Presentermostly identifies who will be the audience of the project as well as demonstrates engagement with the intended audience.	Presenterclearly identifies who will be the audience of the project as well as demonstrates engagement with the intended audience.
4. Evidence /	The presenter does	The presenter	The presenter	The presenter

Tools Used for developing the project	not indicate the tools used to develop the project, nor examples are provided as evidence to support the purpose.	somewhat indicates the tools used and takes examples as evidence to support the purpose.	mostly indicates the tools used and takes appropriate examples as evidence to support the purpose.	clearly indicates the tools used to design the project and takes great examples as evidence to support the purpose.
5. Content Organization Organization may include logical order, cohesiveness, coherence, effective transitions,and genre.	Content organization does not support the purpose; limited cohesion and/or understandability.	Content organization somewhat supports the purpose; not entirely cohesive, understandable, or easy-to-follow.	Content organization mostly supports the purpose; generally cohesive, understandable, and easy-to-follow.	Content organization clearly supports the purpose; cohesive, understandable, and easy-to-follow.
6. Site architecture	The presenter does not describe how the website was structured.	The presenter somewhat illustrates the site architecture of the project.	The presenter mostly illustrates the site architecture of his/her website with appropriate diagram or graphics.	The presenter clearly illustrates the site architecture of his/her website with appropriate diagram or graphics.
7. Interface design	The presenter does not describe the design principles for the interface of his/her website.	The presenter somewhat describes the interface design of his/her website, yet without the support of appropriate design principles or theories.	The presenter mostly describes the interface design of his/her website with the support of design principles or theories.	The presenter clearly describes the interface design of his/her website with the support of appropriate design principles or theories.
8. Interactivity	The presenter does not indicate the interactive feature that he/she has incorporated in his/her website.	The presenter somewhat points out the interactive features that he/she has incorporated in his/her website.	The presenter mostly points out the interactive features that he/she has incorporated in his/her website.	The presenter clearly points out all the interactive features that he/she has incorporated in his/her website.
9. Conclusion/Recommendation	The presenter does not provide a conclusion or recommendation on his/her project.	The presenter somewhat provides a conclusion or recommendation on his/her project.	The presenter mostly provides a conclusion and recommendation on his/her project.	The presenter clearly provides a conclusion and appropriate recommendation on his/her project.

10. Delivery Delivery may include timing, flow, pace, aesthetics, posture, eye contact, voice, professionalism, movement, gestures, and facial expressions.	The presenter fails to deliver the presentation within the time limits, nor his/her presentation is delivered with clear language and voice.	The presenter somewhat delivers the presentation within the time limits, yet his/her presentation is delivered without clear language and voice.	The presenter mostly delivers the presentation within the time limits and with clear language and voice.	The presenter delivers the presentation within the time limits, in good pace, with clear voice, appropriate academic language, and professionalism,
Total =				**10 points**

Appendix D: 2021-2022 – ILO Assessment

Instrument(s): The instructor created the following expectation chart and used the University Diversity & Equity Committee's Diversity Rubric to assess the ILOs for Thinking and Reasoning, and Diversity.

Project Skills and Expectations Demonstrated Skill	**Project Expectation**
Interactivity	The project responds to the environment and/or the user
Complexity and Software Design	The program goals were accomplished in the least number of steps. Programmatic difficulty in accomplishing the task.
User Experience	The project interface is easy to use
Physical Construction	The construction is neat and tidy
Functionality	The project works as intended and is bug-free.
Creativity	The project is not a replication of an existing project on the web.
"How to" video	The student documents their project in a 3-5 minute "how to" video and presented to the class along with the project.

Appendix E: CSUEB ILO – EdTech Program PLO Assessment Alignment

Name of College: CEAS
Name of Program: Educational Technology, M.S.

PLO #1: Tell the importance and assess the needs of technology to enhance teaching and to support diverse student's learning.

PLO #2: Identify and investigate educational technology theories and instructional design principles to generate new ideas, projects, and materials.

PLO #3: Create and develop effective instructional or E-learning materials by choosing and applying appropriate tools and design theories individually and collaboratively.

PLO #4: Gather, use, and analyze data, bibliographic and other resources of materials extensively and critically.

PLO #5**:** Write and present scholarly findings and projects independently and responsibly.

Institutional Learning Outcomes (Definitions pg.2)		**PLO 1**	**PLO 2**	**PLO 3**	**PLO 4**	**PLO 5**	**Course #**	**Year**	**semester**	**Assignment/ Assessment**
Thinking and Reasoning	Critical Thinking				X	X	EDUI693	2019 - 2020	Fall & Spring	Project proposal/ rubric
	Quantitative Reasoning	X					EDUI630	2021-2022	Spring	Physical Programming: E-Textile Project / rubric
	Creative Thinking									
Communication	Written Communication				X	X	EDUI 640	2018-2019	Fall	literature review/ rubric
						X	EDUI 693	2018-2019	Spring	Project proposal/ rubric
	Oral Communication	X				X		2020-2021	Spring	Master project presentation/ Rubric
	Information Literacy									
Diversity	Diversity	X					EDUI630	2021-2022	Spring	Physical Programming: E-Textile Project /rubric
	Social Justice									
Collaboration	Collaboration and Teamwork									
	Leadership									
Sustainability	Sustainability									
	Social Responsibility Citizenship					X	EDUI693	2022-2023	Spring	Master project presentation/ Rubric
	Ethics									

Appendix F: EdTech tenure-track faculty position announcement

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CALIFORNIA STATE UNIVERSITY, EAST BAY
FACULTY EMPLOYMENT OPPORTUNITY
DEPARTMENT OF Teacher Education
FULL-TIME TENURE-TRACK
Assistant or Associate Professor of Teacher Education: EdTech

THE UNIVERSITY: California State University, East Bay (CSUEB), one of the 23 California State Universities, is a comprehensive university serving the San Francisco Bay Area/Silicon Valley. It is known for award-winning programs, expert instruction, its diverse student body, and a choice of more than 100 career-focused fields of study. With an enrollment of approximately 12,500 students and 900 faculty, the University offers bachelor's degrees in 49 fields, minors in 52 fields, master's degrees in 34 fields, 16 credentials programs, 18 certificate options, and 1 doctoral degree program. Cal State East Bay has three campus locations: the main 342-acre campus in the Hayward hills, the Concord campus, and the downtown Oakland campus.

Cal State East Bay has a mission to support a diverse student body through academically rich and culturally relevant learning experiences. Cal State East Bay is a designated Hispanic-Serving Institution (HSI) as well as an Asian American & Native American Pacific Islander Serving Institution (AANAPISI) which serves a richly diverse, multicultural population of students drawn largely from regional community colleges and high schools. The successful candidate will bring with them expertise or an openness to creating a welcoming and supportive environment for all students, many of whom may be first-generation college students and/or working students.

For more information on Cal State East Bay, please visit: http://www20.csueastbay.edu/ or https://www.csueastbay.edu/about/mission-and-strategic-planning/index.html

THE DEPARTMENT: The Department of Teacher Education invites applications for a full-time, tenure-track appointment at the rank of assistant or associate professor. The department's mission is to prepare teachers who are dedicated to the academic achievement of *all* students, and who demonstrate a commitment to life-long, professional growth and school leadership. The department offers post-baccalaureate and graduate programs to prepare teachers who are committed to improving school practices for California's diverse student populations and who can model such practices in their own classrooms.

DUTIES OF THE POSITION: The person appointed to this position will demonstrate that they are familiar with the current leading trends in the field of equity in technology education. They will demonstrate their ability of bridging the digital divide through teaching or scholarly activities. Candidate's background should align with the CEAS mission of preparing collaborative leaders, committed to professional excellence, social justice, and democracy, who will influence a diverse and interconnected world. Teaching, scholarship and service activities should exemplify the ideals of social justice and democracy. They will teach credential - and graduate level Educational Technology courses and supervise student thesis and other capstone projects. Teaching assignments will include both face-to-face and online courses. Duties may also include site partner classroom supervision, both in-person and remote. In addition to teaching, all faculty have advising responsibilities, assist the department with administrative and/or committee work, and are expected to assume campus-wide committee responsibilities. This position requires the selected candidate to produce scholarship appropriate to the field. **Please note that teaching assignments at California State University, East Bay include courses at the Hayward, Concord, and Online campuses.** The policy and expectation of the California State University is that tenure-track faculty members will perform their duties within the state of California.

RANK AND SALARY: The person selected for this position will begin at the rank of Assistant or Associate Professor. Salary and rank are dependent upon educational preparation and experience. Subject to budgetary authorization.

DATE OF APPOINTMENT: Fall semester 2023

QUALIFICATIONS:

Minimum Qualifications

Candidates must have an earned doctorate degree in Educational Technology or related fields; and demonstrate evidence of effective university teaching, research, and scholarship with experience/expertise in computational thinking development with creative coding, learning analytics, artificial intelligence, virtual reality, and learning apps in education. The candidate's background should address the digital divide and the historically lack of access to current technology to under-served populations. This position will teach credential and masters level courses in both face-to-face and online delivery modality.

- Doctorate required with emphasis in Educational Technology or related fields. ABD considered with completion of the doctorate by the date of appointment.
- College teaching experiences in computational thinking development with creative coding, learning analytics, artificial intelligence, virtual reality, and learning apps in education.
- At least three years of K-12 teaching experience in diverse educational settings.
- Record of or demonstrated potential for scholarly/creative activities.

Preferred Qualifications

- Demonstrates understanding of the seminal and recent literature in technology in education.
- Demonstrates understanding of technology's impact on education.
- Familiar with educational methods to teach technology to emergent/bilingual/multilingual learners.
- Familiar with the use of technology and multimodal approaches to support digital citizenship
- Familiar with content standards

\Candidates should demonstrate experience in teaching, mentoring, research, or community service that has prepared them to contribute to our commitment to diversity and excellence. The University is fully committed to the rights of students, staff and faculty with disabilities in accordance with applicable state and federal laws. For more information about the University's program supporting the rights of our students with disabilities see: https://www.csueastbay.edu/accessibility/ For more information about accommodations for employees, contact: Iris Gallardo, Human Resources, at 510-885-2335 or email: iris.gallardo@csueastbay.edu.

APPLICATION DEADLINE: January 1, 2023, for full consideration.