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LEARNING IN NEW MEDIA CLASSROOMS (LINC)

<u>LINC 50</u> • TECHNOLOGY IN THE K-12 CLASSROOM I

Units: 1

Hours: 1 lecture per week (12 total per quarter)

Advisory: Basic computer skills and knowledge of Macintosh

or Windows operating systems; familiarity using web browsers, email, bookmarking, searching and downloading; not open to students with credit in LINC 255; students may enroll in LINC 50 or 50B, but not

both, for credit.

Degree and Credit Degree-Applicable Credit Course

Status:

Foothill GE: Non-GE
Transferable: CSU

Grade Type: Letter Grade (Request for Pass/No Pass)

Repeatability: Not Repeatable

Intended for educators, this hands-on overview course addresses the effective integration of technologies for teaching and learning within any standards based curriculum. Students explore the cycle of technology learning; review the issues of technology in schools; discuss the role of technology savvy teachers; analyze online resources, tools, and applications; use online collaboration tools for class communication; evaluate audio-visual and multimedia hardware for classrooms; investigate mobile devices and software; and explore new technologies. Emphasis is given to creating student-centered projects or activities using appropriate educational technologies.

<u>LINC 50A</u> • TECHNOLOGY IN THE K-12 CLASSROOM II

Units: 0.5

Hours: 6 lecture per quarter (6 total per quarter)

This course meets 1 time per quarter.

Advisory: Basic computer skills and knowledge of Macintosh

or Windows operating systems; familiarity using web browsers, email, bookmarking, searching and downloading; not open to students with credit in LINC

255S.

Degree and Credit Degree-Applicable Credit Course

Status:

Foothill GE: Non-GE
Transferable: CSU

Grade Type: Letter Grade (Request for Pass/No Pass)

Repeatability: Not Repeatable

An introductory course about educational hardware technology in the classroom. Intended for educators, this hands-on course demonstrates integration of hardware technologies such as document cameras, interactive white boards, student response systems, tablet devices, smart phones, etc., for teaching and learning with any standards based curriculum. Emphasis is given to creating student-centered activities using appropriate educational hardware technologies.

<u>LINC 50F</u> • INTEGRATING TECHNOLOGY INTO A STANDARDS-BASED CURRICULUM

Units: 2

Hours: 2 lecture per week (24 total per quarter)

Advisory: Basic computer skills and knowledge of Macintosh

or Windows operating systems; familiarity using web browsers, email, bookmarking, searching and downloading; not open to students with credit in LINC

225.

Degree and Credit Degree-Applicable Credit Course

Status:

Foothill GE: Non-GE
Transferable: CSU

Grade Type: Letter Grade (Request for Pass/No Pass)

Repeatability: Not Repeatable

Intended for educators (K-14) and includes hands-on experiences that demonstrate the effective integration of technologies and 21st century skills for teaching and learning with any standards based curriculum. Emphasis is given to developing effective student-centered projects or activities using appropriate educational technologies.

LINC 51C • ARTIFICIAL INTELLIGENCE LITERACY & ETHICS IN EDUCATION

Units: 3

Hours: 3 lecture per week (36 total per quarter)

Degree and Credit Degree-Applicable Credit Course

Status:

Foothill GE: Non-GE
Transferable: CSU

Grade Type: Letter Grade (Request for Pass/No Pass)

Repeatability: Not Repeatable

This course introduces educators to the foundational concepts of artificial intelligence (AI), emphasizing its practical and ethical implications in educational settings. Students will explore the evolution of AI, its current applications in learning environments, and critical ethical issues such as data privacy, bias, and equity. The course combines theoretical learning with case studies and practical exercises to enhance AI literacy among educators. Special emphasis is placed on developing strategies to integrate AI responsibly in education, ensuring alignment with ethical standards and educational equity.

<u>LINC 51D</u> • ARTIFICIAL INTELLIGENCE INTEGRATION IN EDUCATIONAL PRACTICES

Units: 3

Hours: 3 lecture per week (36 total per quarter)

Degree and Credit Degree-Applicable Credit Course

Status:

Foothill GE: Non-GE
Transferable: CSU

Grade Type: Letter Grade (Request for Pass/No Pass)

Repeatability: Not Repeatable

This course focuses on practical applications of artificial intelligence (AI) in education, providing educators with the skills needed to select, implement, and evaluate AI tools within the classroom. Students will analyze and evaluate various AI technologies, including machine learning and natural language processing, and engage in hands-on practice to enhance real-world understanding. Topics covered include designing AI-enhanced curricula that improves teaching effectiveness and student learning experiences, troubleshooting AI technologies, and overcoming institutional barriers to technology integration.

LINC 53 • INTEGRATING TECHNOLOGY INTO MATHEMATICS

Units: 1

Hours: 1 lecture per week (12 total per quarter)

Advisory: Basic computer skills and knowledge of Macintosh

or Windows operating systems; familiarity using web browsers, email, bookmarking, searching and downloading; not open to students with credit in LINC

263.

Degree and Credit Degree-Applicable Credit Course

Status:

Foothill GE: Non-GE
Transferable: CSU

Grade Type: Letter Grade (Request for Pass/No Pass)

Repeatability: Not Repeatable

Overview course for mathematics educators to promote and encourage the use of technology in mathematics instruction at any level to support and enhance mathematics teaching and learning and to increase the use of technology for visualization and multiple representations of math concepts. Other topics include the assessment of technology enhanced math projects, California Mathematics Content Standards, state-approved mathematics textbooks, ISTE Technology Standards, California Technology Standards, and Common Core Standards.

LINC 53B • INTEGRATING TECHNOLOGY INTO MATHEMATICS GRADES 6-8

Units: 0.5

Hours: 6 lecture per quarter (6 total per quarter)

This course meets 1 time per quarter.

Advisory: Basic computer skills and knowledge of Macintosh

or Windows operating systems; familiarity using web browsers, email, bookmarking, searching and downloading; fundamental understanding of content topics in LINC 53; not open to students with credit in

LINC 263T.

Degree and Credit Degree-Applicable Credit Course

Status:

Foothill GE: Non-GE
Transferable: CSU

Grade Type: Letter Grade (Request for Pass/No Pass)

Repeatability: Not Repeatable

This intermediate course for middle grades (6th-8th) mathematics educators promotes and encourages the use of technology in mathematics instruction to support and enhance mathematics teaching and learning and increases the use of technology for visualization and multiple representations of math concepts. Other topics include the assessment of technology enhanced math projects, California Mathematics Content Standards, state-approved mathematics textbooks, ISTE Technology Standards, California Technology Standards, and Common Core Standards.

LINC 57 • DESIGNING LEARNER-CENTERED INSTRUCTION

Units: 1

Hours: 1 lecture per week (12 total per quarter)

Advisory: Basic computer skills and knowledge of Macintosh

or Windows operating systems; familiarity using web browsers, email, bookmarking, searching and

downloading.

Degree and Credit Degree-Applicable Credit Course

Status:

Foothill GE: Non-GE
Transferable: CSU

Grade Type: Letter Grade (Request for Pass/No Pass)

Repeatability: Not Repeatable

Educators will examine the learner-centered approach to teaching in order to create transformative experiences for students. Educators develop the skills and conceptual knowledge for instructional design and creating student-centered learning activities that meet Common Core and content standards. Topics addressed include how learning happens, the role of educational technologies in student engagement, and effective modifications to existing instructional material. Following the learner-centered classroom guidelines, educators will create a multidisciplinary unit of instruction that is aligned to teaching standards and include both formative and summative assessments.

LINC 57A • WELCOMING & ENGAGING STUDENTS IN THE ONLINE ENVIRONMENT

Units: 3

Hours: 3 lecture per week (36 total per quarter)

Degree and Credit Degree-Applicable Credit Course

Status:

Foothill GE: Non-GE
Transferable: CSU

Grade Type: Letter Grade (Request for Pass/No Pass)

Repeatability: Not Repeatable

This course focuses on methods for setting students up for success in an online or blended learning environment. With an understanding of issues of equity and access that affect online participation, students will create dynamic and welcoming introductions to their learning management systems, support systems integrated throughout their virtual classrooms, and ongoing activities to support student engagement in asynchronous settings. Special emphasis is provided on identifying and overcoming barriers to online student success, virtual course and user interface design with an awareness of cognitive load, developing engaging and supportive course home pages, introduction and community-building activities, and establishing equity-based expectations for participation and teamwork.

LINC 57B • CREATING COMMUNITY IN THE ONLINE ENVIRONMENT

Units: 3

Hours: 3 lecture per week (36 total per quarter)

Advisory: Basic computer skills and knowledge of Macintosh

or Windows operating systems; familiarity with web browsers, email, downloading, and uploading; familiarity with online learning management systems.

Degree and Credit Degree-Applicable Credit Course

Status:

Foothill GE: Non-GE
Transferable: CSU

Grade Type: Letter Grade (Request for Pass/No Pass)

Repeatability: Not Repeatable

This course focuses on methods for establishing and maintaining a sense of classroom community in an online environment, with a special focus on equity and cultural responsiveness. Students will practice strategies for supporting the success of online students, including developing a sense of presence in a virtual environment, humanizing communication, celebrating student diversity, developing clear and consistent policies, and managing discussions and group assignments. Special emphasis will be placed on developing an action plan for building equity and culturally responsive teaching practices in the online environment. Identifying and understanding federal and state regulations, as they apply to online teaching and learning, will also be a part of this course.

LINC 58 • GLOBAL PROJECT-BASED LEARNING

Units: 2

Hours: 2 lecture per week (24 total per quarter)

Advisory: Basic computer skills and knowledge of Macintosh

or Windows operating systems; basic skills and knowledge using web browsers, email, bookmarking, searching and downloading; not open to students with

credit in LINC 224.

Degree and Credit Degree-Applicable Credit Course

Status:

Foothill GE: Non-GE
Transferable: CSU

Grade Type: Letter Grade (Request for Pass/No Pass)

Repeatability: Not Repeatable

Intended for educators (K-14) who want to develop understanding and competencies in using the 21st century skills strategy of global project-based learning to create powerful, culturally diverse learning environments. Teachers and students connect globally via internet telecommunications software to work collaboratively on curriculumbased, real-world projects. Participants will create a project that engages students in learning curricular content.

LINC 58A • E-PORTFOLIOS

Units: 1

Hours: 1 lecture per week (12 total per quarter)

Advisory: Basic computer skills and knowledge of Macintosh

or Windows operating systems; familiarity using web browsers, email, bookmarking, searching and downloading; not open to students with credit in LINC

223.

Degree and Credit Degree-Applicable Credit Course

Status:

Foothill GE: Non-GE Transferable: CSU

Grade Type: Letter Grade (Request for Pass/No Pass)

Repeatability: Not Repeatable

Course demonstrates how to build an e-portfolio as an authentic assessment tool. Electronic portfolios can be used for student work as well as for teacher professional development. Reflective practice that deepens learning will be presented. Student e-portfolios will be examined and analyzed. Computer tools that enable students to create powerful e-portfolios will be examined.

LINC 59 • INTEGRATING 21ST CENTURY SKILLS INTO INSTRUCTION

Units: 2

Hours: 2 lecture per week (24 total per quarter)

Advisory: Basic computer skills and knowledge of Macintosh

or Windows operating systems; familiarity using web browsers, email, bookmarking, searching, and

downloading.

Degree and Credit Degree-Applicable Credit Course

Status:

Foothill GE: Non-GE
Transferable: CSU

Grade Type: Letter Grade (Request for Pass/No Pass)

Repeatability: Not Repeatable

Intended for educators at all levels (K-12, college) and trainers of any discipline to develop the knowledge, skills, and attitude necessary to create instructional experiences integrated with 21st century skills, such as critical thinking, creativity and problem solving, collaboration, and communication. Participants examine the skills that business and industry determine to be important for new employees to know in order to succeed in a 21st century global economy. Participants determine the importance of integrating 21st century skills into their courses, and analyze their curriculum content and instructional strategies to determine which 21st century skills they currently teach and which additional skills can be integrated. The final course project is a lesson, unit, or project that requires the participants' students or trainees to use 21st century skills.

LINC 60C • EDUCATIONAL GAME DESIGN

Units: 3

Hours: 3 lecture per week (36 total per quarter)

Advisory: Basic computer skills and knowledge of Macintosh

or Windows operating systems; basic skills and knowledge using web browsers, email, bookmarking,

searching, and downloading.

Degree and Credit Degree-Applicable Credit Course

Status:

Foothill GE: Non-GE
Transferable: CSU

Grade Type: Letter Grade (Request for Pass/No Pass)

Repeatability: Not Repeatable

This course applies a design thinking process to the design and development of an educational game. Students study the foundations and mechanics of game design, explore the use of games in teaching and learning experiences, and analyze tabletop, digital, and alternate reality games for their educational purposes. Following established methodologies, students research, design, develop, and refine an educational game through an iterative process. The final product will be tested with learners and evaluated on its educational impact.

<u>LINC 60E</u> • EDUCATIONAL APPLICATIONS FOR AUGMENTED, ALTERNATE & VIRTUAL REALITY

Units: 3

Hours: 3 lecture per week (36 total per quarter)

Advisory: Basic computer skills and knowledge of Macintosh

or Windows operating systems; basic skills and knowledge using web browsers, email, bookmarking,

searching and downloading.

Degree and Credit Degree-Applicable Credit Course

Status:

Foothill GE: Non-GE
Transferable: CSU

Grade Type: Letter Grade (Request for Pass/No Pass)

Repeatability: Not Repeatable

This course provides a hands-on overview of new and emerging technologies for augmented reality (AR) and virtual reality (VR), as well as alternate reality games (ARGs), from an educational perspective. Students explore AR and VR applications and media and analyze their use for instructional purposes. Issues of equity and accessibility, along with practical strategies for integrating these experiences into the classroom, are centered in discussions throughout the course. Students create projects, media, and environments that support teaching and learning goals using AR, VR, and ARGs.

LINC 60K • GAME-BASED LEARNING

Units: 1

Hours: 1 lecture per week (12 total per quarter)

Advisory: Basic computer skills and knowledge of Macintosh

or Windows operating systems; basic skills and knowledge using web browsers, email, bookmarking, searching, and downloading; not open to students

with credit in LINC 243.

Degree and Credit Degree-Applicable Credit Course

Status:

Foothill GE: Non-GE
Transferable: CSU

Grade Type: Letter Grade (Request for Pass/No Pass)

Repeatability: Not Repeatable

Intended for educators who want to explore computer-based and internet games that engage students in science, engineering, and other content learning. Participants analyze existing games for their educational value, create their own simple educational game, and determine how students learn when they create a game. Participants use a systematic method of game design to identify goals, develop a game, and evaluate the game's effect on learning outcomes.

<u>LINC 62</u> • CLOUD-BASED WORD PROCESSING TOOLS

Units: 1

Hours: 1 lecture per week (12 total per quarter)

Advisory: Basic computer skills and knowledge of Macintosh

or Windows operating systems; basic skills and knowledge using web browsers, email, bookmarking, searching, and downloading; not open to students

with credit in LINC 270.

Degree and Credit Degree-Applicable Credit Course

Status:

Foothill GE: Non-GE
Transferable: CSU

Grade Type: Letter Grade (Request for Pass/No Pass)

Repeatability: Not Repeatable

Provides hands-on experience using cloud-based word processing programs. Topics include: formatting techniques for reports, letters, or creative projects (e.g., flyers, brochures, information graphics); editing tools; using styles; creating section breaks; inserting text boxes, graphic objects, and multimedia; creating tables; working with headers and footers; merging documents; collaboration and other advanced features.

<u>LINC 63</u> • CLOUD-BASED DATA ANALYSIS TOOLS

Units: 1

Hours: 1 lecture per week (12 total per quarter)

Advisory: Basic computer skills and knowledge of Macintosh

or Windows operating systems; basic skills and knowledge of internet technologies, such as using web browsers, email, bookmarking, searching, and downloading; not open to students with credit in LINC

269.

Degree and Credit Degree-Applicable Credit Course

Status:

Foothill GE: Non-GE
Transferable: CSU

Grade Type: Letter Grade (Request for Pass/No Pass)

Repeatability: Not Repeatable

This course covers a variety of powerful cloud-based data analysis tools (e.g., Microsoft Excel, Google Sheets, and Apple Numbers) that can support educators, students, and business professionals in myriad tasks, including analyzing performance data, tracking expenditures, budget development, meeting planning, workflow processes, and database management.

LINC 64 • SLIDE PRESENTATION DESIGN

Units: 1

Hours: 1 lecture per week (12 total per quarter)

Advisory: Basic computer skills and knowledge of Macintosh

or Windows operating systems; familiarity using web browsers, email, bookmarking, searching and downloading; not open to students with credit in LINC

246.

Degree and Credit Degree-Applicable Credit Course

Status:

Foothill GE: Non-GE
Transferable: CSU

Grade Type: Letter Grade (Request for Pass/No Pass)

Repeatability: Not Repeatable

Develop the knowledge and skills to create effective and visually appealing slide presentations. This hands-on course uses software such as Keynote, PowerPoint, Prezi, or Google Presentations; however, primary emphasis is placed on applying visual literacy concepts. Additional topics include typography, inserting audio, applying animation/transition effects, and applying good presentation design.

LINC 66C • SEARCHING & RESEARCHING THE INTERNET

Units: 2

Hours: 2 lecture per week (24 total per quarter)

Advisory: Basic computer skills and knowledge of Macintosh

or Windows operating systems; familiarity using web browsers, email, bookmarking, searching and downloading; not open to students with credit in LINC

208

Degree and Credit Degree-Applicable Credit Course

Status:

Foothill GE: Non-GE
Transferable: CSU

Grade Type: Letter Grade (Request for Pass/No Pass)

Repeatability: Not Repeatable

Intermediate course for those who use the internet for personal research and in their work. Emphasizes using advanced search techniques that incorporate logical reasoning, critical thinking, essential questions, and inquiry-based learning to refine searches, maximize the advantages of different search engines, evaluate websites for credibility, understand the legitimacy of search results, and use search findings ethically.

<u>LINC 66E</u> • CLOUD-BASED PUBLISHING TOOLS

Units: 1

Hours: 1 lecture per week (12 total per quarter)

Advisory: Basic computer skills and knowledge of Macintosh

or Windows operating systems; familiarity using web browsers, email, bookmarking, searching, and downloading; not open to students with credit in LINC

283S

Degree and Credit Degree-Applicable Credit Course

Status:

Foothill GE: Non-GE
Transferable: CSU

Grade Type: Letter Grade (Request for Pass/No Pass)

Repeatability: Not Repeatable

This introductory, hands-on learning course compares the relative advantages and disadvantages of using a variety of cloud- (internet-) based publishing tools for the purpose of group collaboration, an e-portfolio, a social networking space, or information sharing. Emphasis is given to creating a basic collaboration and sharing space for education, business, or personal applications.

<u>LINC 67</u> • DESIGNING WEB-BASED LEARNING PROJECTS

Units: 1

Hours: 1 lecture per week (12 total per quarter)

Advisory: Basic computer skills and knowledge of Macintosh

or Windows operating systems; familiarity using web browsers, email, bookmarking, searching, and

downloading.

Degree and Credit Degree-Applicable Credit Course

Status:

Foothill GE: Non-GE
Transferable: CSU

Grade Type: Letter Grade (Request for Pass/No Pass)

Repeatability: Not Repeatable

Creation of online projects that promote inquiry-based student learning and effective use of cloud-based tools for research. Participants generate ideas for projects and develop their own project with focus and purpose. Participants align their project with academic and skills-based standards requiring students to synthesize information by completing a challenge task.

<u>LINC 68G</u> • TEACHING & LEARNING WITH GOOGLE APPS FOR EDUCATORS

Units: 3

Hours: 3 lecture per week (36 total per quarter)

Advisory: Basic computer skills and knowledge of Macintosh

or Windows operating systems; familiarity with web browsers, email, downloading, and uploading.

Degree and Credit Degree-Applicable Credit Course

Status:

Foothill GE: Non-GE
Transferable: CSU

Grade Type: Letter Grade (Request for Pass/No Pass)

Repeatability: Not Repeatable

Intended for educators seeking to become Google Level 1 Certified, this course covers all Google Applications for Education, including Classroom, Docs, Drive, Sites, Forms, Sheets, Slides, YouTube, Maps, Gmail, Calendar, and Chrome. With a focus on achieving educational outcomes, participants will learn the fundamentals of each application, and will design integrations between multiple applications to create a seamless workflow. Emphasis will be placed on bringing teaching and learning into the online environment, organizing and managing online work, and utilizing application features to expand and improve student learning opportunities. Upon completing the course, participants will be prepared to take the Google Certified Educator Level 1 Examination.

LINC 70 • WEB PAGE DESIGN OVERVIEW

Units: 1

Hours: 1 lecture per week (12 total per quarter)

Advisory: Basic computer skills and knowledge of Macintosh

or Windows operating systems; familiarity using web browsers, email, bookmarking, searching, and downloading; not open to students with credit in LINC 200; students may enroll in LINC 70 or 70B, but not

both, for credit.

Degree and Credit Degree-Applicable Credit Course

Status:

Foothill GE: Non-GE
Transferable: CSU

Grade Type: Letter Grade (Request for Pass/No Pass)

Repeatability: Not Repeatable

Hands-on overview of how to design and create webpages using current online authoring tools, such as Google Sites, Wix, Weebly, or others. Advantages of different online web authoring tools will be analyzed. Techniques covered include building multiple pages; adding images, widgets, videos, banners, social media, calendars, and other features to create a neat, professional looking website. No knowledge of HTML is required.

LINC 70B • WEB PAGE DESIGN II

Units: 1

Hours: 1 lecture per week (12 total per quarter)

Advisory: Basic computer skills and knowledge of Macintosh

or Windows operating systems; familiarity using web browsers, email, bookmarking, searching and downloading; not open to students with credit in LINC 211; students may enroll in LINC 70 or 70B, but not

both, for credit.

Degree and Credit Degree-Applicable Credit Course

Status:

Foothill GE: Non-GE
Transferable: CSU

Grade Type: Letter Grade (Request for Pass/No Pass)

Repeatability: Not Repeatable

Covers more advanced topics of online web authoring tools or services, such as good vs. poor website design, building tables, using styles and addressing accessibility. Appropriate for application in educational, social, or business environments.

<u>LINC 73</u> • ADOBE PHOTOSHOP OVERVIEW

Units: 1

Hours: 1 lecture per week (12 total per quarter)

Advisory: Basic computer skills and knowledge of Macintosh

or Windows operating systems; familiarity using web browsers, email, bookmarking, searching and downloading; students may enroll in LINC 73 or 73B, but not both, for credit; not open to students with

credit in LINC 230.

Degree and Credit Degree-Applicable Credit Course

Status:

Foothill GE: Non-GE
Transferable: CSU

Grade Type: Letter Grade (Request for Pass/No Pass)

Repeatability: Not Repeatable

Explore digital imaging with hands-on experiences that integrate image media with teaching and learning. Emphasis is given to creating student-centered projects or activities using Photoshop. Learn to enhance image color and contrast, touch-up photos, create collages that tell stories, paint with the paint tools, create layouts with text, apply filters and special effects, automate work-flow. Learn to communicate with compelling layouts.

<u>LINC 73H</u> • ADOBE ILLUSTRATOR OVERVIEW

Units: 1

Hours: 1 lecture per week (12 total per quarter)

Advisory: Basic computer skills and knowledge of Macintosh

or Windows operating systems; familiarity using web browsers, email, bookmarking, searching and downloading; students may enroll in LINC 73H or 73J, but not both, for credit; not open to students with

credit in LINC 233.

Degree and Credit Degree-Applicable Credit Course

Status:

Foothill GE: Non-GE
Transferable: CSU

Grade Type: Letter Grade (Request for Pass/No Pass)

Repeatability: Not Repeatable

Adobe Illustrator creates drawings, illustrations, and images for print or web. Use vector graphics; draw objects, stroke outlines and pattern fills; work with brushes, gradients, color blends; design type; and develop graphs. Learn basic procedures of vector drawing to create moderately complex illustrations that can be transferred to collateral design.

LINC 731 • ADOBE ILLUSTRATOR I

Units: 0.5

Hours: 6 lecture per quarter (6 total per quarter)

This course meets 1 time per quarter.

Advisory: Basic computer skills and knowledge of Macintosh

or Windows operating systems; familiarity using web browsers, email, bookmarking, searching and downloading; not open to students with credit in LINC

233S.

Degree and Credit Degree-Applicable Credit Course

Status:

Foothill GE: Non-GE Transferable: CSU

Grade Type: Letter Grade (Request for Pass/No Pass)

Repeatability: Not Repeatable

This course provides hands-on experience with the basic elements and tools of Adobe Illustrator, a software drawing tool, to produce simple vector illustrations. Includes methods of illustration that contribute to digital storytelling.

<u>LINC 75A</u> • INTRODUCTION TO INSTRUCTIONAL DESIGN & TECHNOLOGY

Units: 3

Hours: 3 lecture per week (36 total per quarter)

Advisory: Basic skills using standard computer systems and

internet-based technologies.

Degree and Credit Degree-Applicable Credit Course

Status:

Foothill GE: Non-GE
Transferable: CSU

Grade Type: Letter Grade (Request for Pass/No Pass)

Repeatability: Not Repeatable

This introductory course in instructional design and technology is for students, teachers, educators, and trainers who want to know how to create technology-based educational or training materials and resources for school, college, or business settings. Students will develop foundational knowledge and skills in systematic design processes that guide writing learning objectives, developing learning activities, applying best practices for using technology in instructional settings, and assessing learning outcomes. This is the first course in the Instructional Design and Technology program sequence.

<u>LINC 75B</u> • INSTRUCTIONAL TECHNOLOGY STRATEGIES

Units: 3

Hours: 3 lecture per week (36 total per quarter)

Advisory: It is advised, but not required, that students have the

background knowledge and skill taught in LINC 75A; basic skills using standard computer systems and

internet-based technologies.

Degree and Credit Degree-Applicable Credit Course

Status:

Foothill GE: Non-GE
Transferable: CSU

Grade Type: Letter Grade (Request for Pass/No Pass)

Repeatability: Not Repeatable

This instructional design and technology course builds on the coursework of LINC 75A and focuses on the specific strategies for using technology in the education or training environment. Students develop instructional plans that use technology to meet the needs of a variety of learners; plan for effective use and management of technology for teaching and learning (e.g., laptop carts, mobile devices, bring your own device [BYOD], classroom audio-visual, online technologies and learning systems); and learn to manage instructional design projects. This course is part of the Instructional Design and Technology program sequence.

LINC 75C • DESIGNING ONLINE INSTRUCTION

Units: 3

Hours: 3 lecture per week (36 total per quarter)

Advisory: It is advised, but not required, that students have the

background knowledge and skill taught in LINC 75A and/or 75B; basic skills using standard computer systems and internet-based technologies.

Degree and Credit Degree-Applicable Credit Course

Status:

Foothill GE: Non-GE
Transferable: CSU

Grade Type: Letter Grade (Request for Pass/No Pass)

Repeatability: Not Repeatable

This course advances the knowledge of instructional design and technology taught in LINC 75A and LINC 75B while focusing on the unique design challenges and delivery options of online education or training. Students apply the methods of instruction with web-based technologies to design online learning courses, lessons, activities, and resources. Special emphasis is provided for creating multimedia resources (e.g., screen casting and instructional videos) and for designing online learning with video conferencing, threaded discussions, shared documents and online collaboration used in learning management systems. This course is part of the Instructional Design and Technology program sequence.

LINC 77 • DESIGN THINKING OVERVIEW

Units: 2

Hours: 2 lecture per week (24 total per quarter)

Advisory: Experience with internet software tools, browsers,

hyperlinks, online media resources, and basic skills

using a computer.

Degree and Credit Degree-Applicable Credit Course

Status:

Foothill GE: Non-GE
Transferable: CSU

Grade Type: Letter Grade (Request for Pass/No Pass)

Repeatability: Not Repeatable

Students learn an overview of the design thinking methodology and its applications in education, business, industry, and government. Focus is on introducing all aspects of the design cycle through inquiry-based facilitation and engaging immersive activities to develop understanding of the design thinking process.

LINC 77A • DESIGN THINKING PROCESS

Units: 2

Hours: 2 lecture per week (24 total per quarter)

Advisory: Experience with internet software tools, browsers,

hyperlinks, online media resources, and basic skills

using a computer.

Degree and Credit Degree-Applicable Credit Course

Status:

Foothill GE: Non-GE
Transferable: CSU

Grade Type: Letter Grade (Request for Pass/No Pass)

Repeatability: Not Repeatable

Students delve deeper into design thinking to hone skills in facilitating design thinking methodology when working in groups. Special attention is given to using the design thinking process for exploring how to bring positive disruptions and shifts in mindsets in order to arrive at innovative solutions.

<u>LINC 77B</u> • DESIGN THINKING & TINKERING

Units: 2

Hours: 2 lecture per week (24 total per quarter)

Advisory: Experience with internet software tools, browsers,

hyperlinks, online media resources, and basic skills

using a computer.

Degree and Credit Degree-Applicable Credit Course

Status:

Foothill GE: Non-GE
Transferable: CSU

Grade Type: Letter Grade (Request for Pass/No Pass)

Repeatability: Not Repeatable

Student participants from community, business, and education practice design thinking, a process that innovators, designers, policy makers, and educators are using to develop innovative and collaborative solutions to real world challenges. Participants use the design thinking process as they build low resolution prototype models using both physical and digital materials. Focus is on working individually and in teams, to hone skills of defining problems, collecting information, brainstorming, and developing solutions.

<u>LINC 77C</u> • DESIGN THINKING FOR TEACHERS

Units: 2

Hours: 2 lecture per week (24 total per quarter)

Advisory: Experience with internet software tools, browsers,

hyperlinks, online media resources, and basic skills

using a computer.

Degree and Credit Degree-Applicable Credit Course

Status:

Foothill GE: Non-GE
Transferable: CSU

Grade Type: Letter Grade (Request for Pass/No Pass)

Repeatability: Not Repeatable

Student-participants who are familiar with the design thinking process, originally created by the d.school at Stanford University, develop innovative and collaborative solutions to real world challenges in education. Focus is on developing a project that would be easy to implement in a school environment and allow for immediate engagement in the design process by making and doing.

<u>LINC 77D</u> • DESIGN THINKING CHALLENGES

Units: 2

Hours: 2 lecture per week (24 total per quarter)

Advisory: Experience with internet software tools, browsers,

hyperlinks, online media resources, and basic skills

using a computer.

Degree and Credit Degree-Applicable Credit Course

Status:

Foothill GE: Non-GE
Transferable: CSU

Grade Type: Letter Grade (Request for Pass/No Pass)

Repeatability: Not Repeatable

Student-participants who are familiar with the design thinking process, originally created by the d.school at Stanford University, work in groups to select a real-world issue and create a design challenge project based on it. Focus is on working through the design thinking principles to develop activities that reinforce these principles.

<u>LINC 78A</u> • COMPUTATIONAL THINKING FOR EDUCATORS

Units: 2

Hours: 2 lecture per week (24 total per quarter)

Advisory: Experience with internet software tools, browsers,

hyperlinks, online media resources, and basic skills

using a computer.

Degree and Credit Degree-Applicable Credit Course

Status:

Foothill GE: Non-GE
Transferable: CSU

Grade Type: Letter Grade (Request for Pass/No Pass)

Repeatability: Not Repeatable

Computational thinking is an essential problem-solving skill in the digital age. This course, which is designed for educators, provides instruction in components of computational thinking, including data analysis, abstraction, and algorithms. Students learn how to add computational thinking concepts into many content areas, with a special emphasis on related NGSS and Common Core Math computational thinking practices, including opportunities to integrate these concepts into instructional practices in multiple and interdisciplinary areas within education.

LINC 78B • BLOCK BASED CODING CONCEPTS

Units: 2

Hours: 2 lecture per week (24 total per guarter)

Advisory: Experience with internet software tools, browsers,

hyperlinks, online media resources, and basic skills

using a computer.

Degree and Credit Degree-Applicable Credit Course

Status:

Foothill GE: Non-GE
Transferable: CSU

Grade Type: Letter Grade (Request for Pass/No Pass)

Repeatability: Not Repeatable

This course, designed for educators, provides the foundational computer science concepts using block based computer programming languages, such as Scratch, Blockly, Logo, and others. These concepts illustrate the use of scripts, loops, and arrays in computer science, without the need to type or master the syntax of higher level programming languages.

<u>LINC 78C</u> • PROJECT-BASED TECHNOLOGY PROJECTS

Units: 2

Hours: 2 lecture per week (24 total per quarter)

Advisory: Experience with internet software tools, browsers,

hyperlinks, online media resources, and basic skills

using a computer.

Degree and Credit Degree-Applicable Credit Course

Status:

Foothill GE: Non-GE
Transferable: CSU

Grade Type: Letter Grade (Request for Pass/No Pass)

Repeatability: Not Repeatable

Intended for educators and others, this course will provide opportunities to integrate technology into project-based learning. Covers use of Arduinos, Raspberry Pi, Microbit, or other micro-controllers, and control of these devices using code in text-based languages, such as C++ or Python, to enhance project-based learning.

LINC 78D • PHYSICAL COMPUTING FUNDAMENTALS

Units: 2

Hours: 2 lecture per week (24 total per quarter)

Advisory: Basic computer skills and knowledge of Macintosh

or Windows operating systems; familiarity with web browsers, email, downloading, and uploading.

Degree and Credit Degree-Applicable Credit Course

Status:

Foothill GE: Non-GE
Transferable: CSU

Grade Type: Letter Grade (Reguest for Pass/No Pass)

Repeatability: Not Repeatable

This introductory makerspace-oriented course covers the foundational components of physical computing, specifically as it relates to makerspace projects and activities. Participants will build and use a basic computer by connecting circuits, creating inputs and outputs, writing code, and programming physical devices to interact with users. Computational and design thinking practices will be emphasized throughout. Participants will gain a fundamental knowledge of the form and functions of computers, as well as the ways in which computers can solve simple and complex problems. Practical skills include model construction, circuitry, algorithm design, troubleshooting, debugging, and engineering for design.

LINC 79 • MULTIMEDIA PROJECT PRODUCTION

Units: 2

Hours: 2 lecture per week (24 total per quarter)

Advisory: Basic computer skills and knowledge of Macintosh

or Windows operating systems; familiarity using web browsers, email, bookmarking, searching and downloading; familiarity with multimedia software.

Degree and Credit Degree-Applicable Credit Course

Status:

Foothill GE: Non-GE
Transferable: CSU

Grade Type: Letter Grade (Request for Pass/No Pass)

Repeatability: Not Repeatable

This hands-on, project production course demonstrates how to integrate online multimedia production tools and resources (music, audio, images, video, animation) to produce a variety of artistic or communicative media for use in education, business and personal applications.

LINC 79A • INTRODUCTION TO IMMERSIVE MEDIA IN EDUCATION

Units: 2

Hours: 2 lecture per week (24 total per guarter)

Advisory: Basic computer skills and knowledge of Macintosh

or Windows operating systems; basic skills and knowledge using web browsers, email, bookmarking, searching, and downloading; this course uses VR headsets and hand controllers as part of instruction.

Degree and Credit Degree-Applicable Credit Course

Status:

Foothill GE: Non-GE
Transferable: CSU

Grade Type: Letter Grade (Request for Pass/No Pass)

Repeatability: Not Repeatable

Intended for educators at all levels, this course provides an overview of the emerging field of immersive media (virtual reality, augmented reality, and mixed reality) and examines its current and potential future impact on education. Students explore and evaluate a variety of educational applications and experiences in both virtual and augmented reality, and develop plans for using immersive media as an instructional tool.

LINC 79B • SOCIO-EMOTIONAL LEARNING THROUGH IMMERSIVE MEDIA

Units: 2

Hours: 2 lecture per week (24 total per quarter)

Advisory: Basic computer skills and knowledge of Macintosh

or Windows operating systems; basic skills and knowledge using web browsers, email, bookmarking, searching, and downloading; this course uses VR headsets and hand controllers as part of instruction.

Degree and Credit Degree-Applicable Credit Course

Status:

Foothill GE: Non-GE
Transferable: CSU

Grade Type: Letter Grade (Request for Pass/No Pass)

Repeatability: Not Repeatable

Intended for educators, this course examines the ways in which immersive media technologies (virtual reality, augmented reality, and mixed reality) can support socio-emotional learning (SEL) across subject areas in K-12 classrooms. Special emphasis is placed on the ways in which immersive media can heighten empathy through experiential learning. Students explore and evaluate applications related to mindfulness, empathy, and social interaction, and develop an immersive media project that supports socio-emotional learning.

<u>LINC 79C</u> • EDUCATIONAL EXPLORATION THROUGH IMMERSIVE MEDIA

Units: 2

Hours: 2 lecture per week (24 total per quarter)

Advisory: Basic computer skills and knowledge of Macintosh

or Windows operating systems; basic skills and knowledge using web browsers, email, bookmarking, searching, and downloading; this course uses VR headsets and hand controllers as part of instruction.

Degree and Credit Degree-Applicable Credit Course

Status:

Foothill GE: Non-GE
Transferable: CSU

Grade Type: Letter Grade (Request for Pass/No Pass)

Repeatability: Not Repeatable

Intended for educators at all levels, this course examines the ways in which immersive media (virtual reality, augmented reality, and mixed reality) provides unique opportunities for educational exploration. With an emphasis on historical, geographical, and scientific topics, students explore and evaluate a variety of educational applications and experiences, and design and develop their own educational tours using immersive media.

<u>LINC 79D</u> • COLLABORATION IN VIRTUAL EDUCATIONAL ENVIRONMENTS

Units: 2

Hours: 2 lecture per week (24 total per quarter)

Advisory: Basic computer skills and knowledge of Macintosh

or Windows operating systems; basic skills and knowledge using web browsers, email, bookmarking, searching, and downloading; this course uses VR headsets and hand controllers as part of instruction.

Degree and Credit Degree-Applicable Credit Course

Status:

Foothill GE: Non-GE
Transferable: CSU

Grade Type: Letter Grade (Request for Pass/No Pass)

Repeatability: Not Repeatable

Intended for educators and industry professionals, this course examines the ways in which immersive media technologies (virtual reality, augmented reality, and mixed reality) allow for communication and collaboration within virtual environments. Students explore and evaluate a variety of emerging collaborative environments in virtual and mixed reality, analyzing their potential according to educational frameworks. Additionally, students use immersive media to collaborate on the design and development of an interactive virtual educational environment.

LINC 80 • MULTIMEDIA OVERVIEW

Units: 1

Hours: 1 lecture per week (12 total per quarter)

Advisory: Basic computer skills and knowledge of Macintosh

or Windows operating systems; familiarity using web browsers, email, bookmarking, searching and downloading; not open to students with credit in LINC

251.

Degree and Credit Degree-Applicable Credit Course

Status:

Foothill GE: Non-GE
Transferable: CSU

Grade Type: Letter Grade (Request for Pass/No Pass)

Repeatability: Not Repeatable

An overview of multimedia software and hardware and the multimedia production process. Designed for trainers, educators, and anyone interested in multimedia, the course features hands-on learning with computer-based or internet software authoring tools to design and produce a multimedia project or presentation that integrates text, graphics, animation, sound, and digital video for educational, business, or entertainment purposes.

<u>LINC 80A</u> • MULTIMEDIA IN THE CLASSROOM I

Units: 1

Hours: 1 lecture per week (12 total per quarter)

Advisory: Basic computer skills and knowledge of Macintosh

or Windows operating systems; familiarity using web browsers, email, bookmarking, searching and downloading; not open to students with credit in LINC

252.

Degree and Credit Degree-Applicable Credit Course

Status:

Foothill GE: Non-GE
Transferable: CSU

Grade Type: Letter Grade (Request for Pass/No Pass)

Repeatability: Not Repeatable

Explores the pedagogy and computer-based software tools used to effectively design and manage multimedia in the learning process. Best design practices and hands-on experience with computer-based multimedia authoring tools will be used to produce a student-centered project, such as an audio book, animation, musical slideshow, video composition, or interactive presentation. Course content is appropriate for students, entrepreneurs, media designers, and educators.

<u>LINC 80B</u> • MULTIMEDIA IN THE CLASSROOM II

Units: 0.5

Hours: 6 lecture per quarter (6 total per quarter)

This course meets 1 time per quarter.

Advisory: Basic computer skills and knowledge of Macintosh

or Windows operating systems; familiarity using web browsers, email, bookmarking, searching and downloading; not open to students with credit in LINC

252S.

Degree and Credit Degree-Applicable Credit Course

Status:

Foothill GE: Non-GE
Transferable: CSU

Grade Type: Letter Grade (Request for Pass/No Pass)

Repeatability: Not Repeatable

Explores pedagogy and online multimedia tools for educators who want to use multimedia production for student-centered learning. Features hands-on experience with internet multimedia authoring tools and resources for audio, video, music, animation, and images, to design and produce a student-centered project.

LINC 81 • USING DIGITAL IMAGES

Units: 1

Hours: 1 lecture per week (12 total per quarter)

Advisory: Basic computer skills and knowledge of Macintosh

or Windows operating systems; familiarity using web browsers, email, bookmarking, searching and downloading; not open to students with credit in LINC

257.

Degree and Credit Degree-Applicable Credit Course

Status:

Foothill GE: Non-GE
Transferable: CSU

Grade Type: Letter Grade (Request for Pass/No Pass)

Repeatability: Not Repeatable

An introduction to digital image acquisition, manipulation, use, and storage. Students will learn to find, edit, and use images in any software application for educational, business, or social purposes. Online image storage and sharing services will be evaluated. Students produce a gallery of images based on themes or categories.

LINC 82A • INTRODUCTION TO DESIGNING INSTRUCTIONAL TECHNOLOGY PROJECTS

Units: 3

Hours: 3 lecture per week (36 total per quarter)

Advisory: Basic skills using standard computer systems and

internet-based technologies.

Degree and Credit Degree-Applicable Credit Course

Status:

Foothill GE: Non-GE
Transferable: CSU

Grade Type: Letter Grade (Request for Pass/No Pass)

Repeatability: Not Repeatable

This introductory course in designing and developing instructional projects is for students, educators, and trainers interested in the planning of instructional design and technology projects. Students will acquire the knowledge and technology skills needed to lead the design, creation, and iteration of instructional materials, specifically, basic project management, applying instructional technology principles, and using rapid prototyping models to efficiently design, make, and evaluate instructional projects for education or business learning contexts.

LINC 82B • DEVELOPING INSTRUCTIONAL MATERIALS

Units: 3

Hours: 3 lecture per week (36 total per quarter)

Advisory: Basic skills using standard computer systems and

internet-based technologies; some experience with

multimedia is advised, but not required.

Degree and Credit Degree-Applicable Credit Course

Status:

Foothill GE: Non-GE
Transferable: CSU

Grade Type: Letter Grade (Request for Pass/No Pass)

Repeatability: Not Repeatable

This instructional design and development course builds on the coursework of LINC 82A and focuses on refining the skills needed for making digital media for education or business learning contexts. Students interested in the study of instructional design will rapidly design, develop, and evaluate presentations, infographics, posters, digital resources, multimedia, and websites for particular learning styles. Special emphasis is given for using collaborative tools to facilitate and manage group projects.

<u>LINC 82C</u> • CREATING INTERACTIVE MEDIA FOR INSTRUCTION

Units: 3

Hours: 3 lecture per week (36 total per guarter)

Advisory: Basic skills using standard computer systems and

internet-based technologies.

Degree and Credit Degree-Applicable Credit Course

Status:

Foothill GE: Non-GE
Transferable: CSU

Grade Type: Letter Grade (Request for Pass/No Pass)

Repeatability: Not Repeatable

This advanced course in creating interactive media for instruction continues the coursework of LINC 82A and LINC 82B and provides the depth of skills and knowledge needed for making online learning media that includes interactive components, such as instructional video, multimedia, game-based learning, graphical user interface design, interactive tutorials, embedding collaborative elements in websites or learning management systems. Students interested in the study of instructional design and technology will develop a project for either education or business learning contexts.

LINC 83A • ADOBE PREMIERE

Units: 1

Hours: 1 lecture per week (12 total per quarter)

Advisory: Familiarity with PC or Mac, scanning photos, and

using a digital still and digital video camera; not open

to students with credit in LINC 81CS.

Degree and Credit Degree-Applicable Credit Course

Status:

Foothill GE: Non-GE
Transferable: CSU

Grade Type: Letter Grade (Request for Pass/No Pass)

Repeatability: Not Repeatable

Adobe Premiere provides students with skills necessary to create digital movies. Projects are standards-based and appropriate for classroom use. Students will include text, sound, and the "Ken Burns Effect," as well as other special effects, in their movies.

<u>LINC 83F</u> • INTRODUCTION TO DIGITAL VIDEO EDITING

Units: 1

Hours: 1 lecture per week (12 total per quarter)

Advisory: Basic computer skills and knowledge of Macintosh

or Windows operating systems; familiarity using web browsers, email, bookmarking, searching and downloading; not open to students with credit in LINC

244.

Degree and Credit Degree-Applicable Credit Course

Status:

Foothill GE: Non-GE
Transferable: CSU

Grade Type: Letter Grade (Request for Pass/No Pass)

Repeatability: Not Repeatable

Introductory course covers the skills to create short, digital movies for the web or computer playback using low-cost, internet-based, or free software. Course topics including finding existing video, creating video slideshows, making titles, adding voiceover or music, and creating animation effects. Class projects are designed for use in education, business, and personal applications.

LINC 84 • FUNDAMENTALS OF MAKERSPACE DESIGN & INSTRUCTION

Units: 3

Hours: 3 lecture per week (36 total per quarter)

Advisory: Basic skills using standard computer systems and

internet-based technologies.

Degree and Credit Degree-Applicable Credit Course

Status:

Foothill GE: Non-GE
Transferable: CSU

Grade Type: Letter Grade (Request for Pass/No Pass)

Repeatability: Not Repeatable

This introductory course in makerspace coordination is for students, teachers, educators, and trainers who are interested in becoming makerspace coordinators in schools, libraries, or business settings. Students will develop foundational knowledge and skills in makerspace design, set-up, and management. Practiced skills include the following: designing engaging spaces with learners in mind; developing learning activities that promote creativity, making, and design thinking; creating policies and procedures to ensure safety and accessibility; selecting and maintaining equipment; managing instructional materials. Special emphasis is placed on applying best practices for managing and using makerspaces in instructional settings.

LINC 84A • 3-D DESIGN CONCEPTS

Units: 2

Hours: 2 lecture per week (24 total per quarter)

Advisory: Experience with internet software tools, browsers,

hyperlinks, online media resources, and basic skills

using a computer.

Degree and Credit Degree-Applicable Credit Course

Status:

Foothill GE: Non-GE
Transferable: CSU

Grade Type: Letter Grade (Request for Pass/No Pass)

Repeatability: Not Repeatable

Intended for educators and others, this course provides foundational skills for moving 3-D designs from concepts to finished learning projects. The course focuses on application of finished products to meet specific needs or learning outcomes. Troubleshooting and basic maintenance concepts are covered, to allow students to operate and manage 3-D printers.

LINC 84B • 3-D DESIGN & FABRICATION

Units: 2

Hours: 2 lecture per week (24 total per quarter)

Advisory: Experience with internet software tools, browsers,

hyperlinks, online media resources, and basic skills

using a computer.

Degree and Credit Degree-Applicable Credit Course

Status:

Foothill GE: Non-GE
Transferable: CSU

Grade Type: Letter Grade (Request for Pass/No Pass)

Repeatability: Not Repeatable

Intended for educators and others, this course provides the fundamentals of 3-D design and fabrication concepts. Basic design software and online libraries are used to assist in developing and designing 3-D projects for learning projects by students in grades K-12, business, industry, and/ or governmental. An emphasis is placed on design concepts to meet a specific educational/instructional/project need.

LINC 84D • VECTOR-BASED GRAPHIC DESIGN FOR MAKERSPACES

Units: 1

Hours: 1 lecture per week (12 total per quarter)

Advisory: Basic computer skills and knowledge of Macintosh

or Windows operating systems; familiarity with web browsers, email, downloading, and uploading.

Degree and Credit Degree-Applicable Credit Course

Status:

Foothill GE: Non-GE
Transferable: CSU

Grade Type: Letter Grade (Request for Pass/No Pass)

Repeatability: Not Repeatable

This course provides an overview of web-based graphic design software, with a specific focus on designing for use with makerspace tools. Students will learn the basic procedures of vector design, including drawing objects, adjusting stroke outline and fill patterns, and working with layers. Students will both design new vector graphics and import and adapt existing graphics in order to facilitate their physical production using makerspace tools. Special emphasis will be placed on formatting vector graphics to meet the import requirements of different production tools, including laser cutters, vinyl cutters, CNC machines, and 3-D printers.

LINC 84E • LASER CUTTER FUNDAMENTALS

Units: 1

Hours: 1 lecture per week (12 total per quarter)

Advisory: Experience with basic computer and internet

functions; experience with vector-based graphic design software is recommended, but not required.

Degree and Credit Degree-Applicable Credit Course

Status:

Foothill GE: Non-GE
Transferable: CSU

Grade Type: Letter Grade (Request for Pass/No Pass)

Repeatability: Not Repeatable

Intended for makerspace educators and interested makers, this course provides an overview of the safe use and maintenance of laser cutter machines. Students design and produce projects on the laser cutter, using a variety of materials (cardboard, paper, wood, acrylic, stone, glass, fabric) and serving a variety of functions (flatpack assembly, art, display, engineering solutions). Advanced topics include rotary tools, filtration methods, machine maintenance, and bed installment/changes. Special emphasis will be placed on reinforcing design thinking concepts and the development of laser cutter makerspace projects to meet the needs of a variety of users.

LINC 84F • VINYL CUTTER FUNDAMENTALS

Units: 1

Hours: 1 lecture per week (12 total per quarter)

Advisory: Experience with basic computer and internet

functions; experience with vector-based graphic design software is recommended, but not required.

Degree and Credit Degree-Applicable Credit Course

Status:

Foothill GE: Non-GE
Transferable: CSU

Grade Type: Letter Grade (Request for Pass/No Pass)

Repeatability: Not Repeatable

Intended for makerspace educators and interested makers, this course provides an overview of the safe use and maintenance of vinyl cutter machines, ranging from hobbyist to industrial capacities. Students will design and produce projects on the vinyl cutter, working with a variety of materials, blades, tools, and mats to address different functional needs. Students will use design software to create and import images, separate layers, and determine outcomes based on both hardware and media. Products developed include stickers, pop-up art, t-shirts, mixed media projects, boxes, and large-format vinyl pieces. Special emphasis will be placed on reinforcing design thinking concepts and the development of vinyl cutter makerspace projects to meet the needs of a variety of users.

LINC 86A · VIDEO PODCASTING I

Units: 0.5

Hours: 6 lecture per quarter (6 total per quarter)

This course meets 1 time per quarter.

Advisory: Basic computer skills and knowledge of Macintosh

or Windows operating systems; familiarity using web browsers, email, bookmarking, searching and

downloading.

Degree and Credit Degree-Applicable Credit Course

Status:

Foothill GE: Non-GE
Transferable: CSU

Grade Type: Letter Grade (Request for Pass/No Pass)

Repeatability: Not Repeatable

Introductory course on video podcast production. Using free online or industry-standard editing software, participants will create a basic video podcast or screencast that is for instructional, informative, or persuasive purposes in education, professional, or personal contexts.

LINC 87 • SEMINAR IN TEACHING WITH EDUCATIONAL TECHNOLOGY

Units: 5

Hours: 5 lecture per week (60 total per quarter)

Advisory: Basic computer skills and knowledge of Macintosh

or Windows operating systems; familiarity using web browsers, email, bookmarking, searching, and

downloading.

Degree and Credit Degree-Applicable Credit Course

Status:

Foothill GE: Non-GE
Transferable: CSU

Grade Type: Letter Grade (Request for Pass/No Pass)

Repeatability: Not Repeatable

This seminar is for educators at all levels to develop student-centered learning projects and teaching practices, apply practical educational technology tools and resources, and participate in a collaborative professional development experience. Participants learn to use innovative technologies in their own curriculum content area and best practices for teaching and learning that positively impacts student achievement. Topics include 21st century skills for teaching and learning, visual literacy, media literacy, free online tools and resources for education, educational software training, open education resources, professional learning networks, integrating technology into the curriculum, integrating science and mathematics into any curriculum, assessment strategies for complex learning outcomes, and student-centered learning.

LINC 88 • INTRODUCTION TO COMPUTER OPERATING SYSTEMS

Units: 4

Hours: 3 lecture, 3 laboratory per week (72 total per quarter)

Advisory: Basic computer skills and knowledge of Macintosh

or Windows operating systems, and basic skills and knowledge of internet technologies, such as using web browsers, email, bookmarking, searching, and

downloading.

Degree and Credit Degree-Applicable Credit Course

Status:

Foothill GE: Non-GE
Transferable: CSU

Grade Type: Letter Grade (Request for Pass/No Pass)

Repeatability: Not Repeatable

Introductory course, covering computer operating systems, such as Microsoft Windows 7, Windows 8, Windows 10, and Linux. Students learn to install, configure, and administer a desktop operating system; automate operating system installation; set up and manage user accounts; and configure local file systems. Configure and troubleshoot both local and network printers, manage and troubleshoot access to shared folders, and recover from system failures.

LINC 89 • INTRODUCTION TO MICROSOFT WINDOWS SERVERS

Units: 4

Hours: 3 lecture, 3 laboratory per week (72 total per quarter)

Advisory: Basic computer skills and knowledge of Macintosh or Windows operating systems; familiarity using

or Windows operating systems; familiarity using web browsers, email, bookmarking, searching, and

downloading.

Degree and Credit Degree-Applicable Credit Course

Status:

Foothill GE: Non-GE
Transferable: CSU

Grade Type: Letter Grade (Request for Pass/No Pass)

Repeatability: Not Repeatable

Introductory course, covering the fundamentals of Microsoft Windows server infrastructure, setup, and administration. Topics include managing file systems (including Active Directory Domain Services [AD DS]), networking services, Hyper-V configuration, devices, user accounts, backups, and basic security.

LINC 90B • OPEN EDUCATION RESOURCES

Units: 1

Hours: 1 lecture per week (12 total per quarter)

Advisory: Basic computer skills and knowledge of Macintosh

or Windows operating systems, and basic skills and knowledge of internet technologies, such as using web browsers, email, bookmarking, searching, and downloading; not open to students with credit in LINC

215

Degree and Credit Degree-Applicable Credit Course

Status:

Foothill GE: Non-GE
Transferable: CSU

Grade Type: Letter Grade (Request for Pass/No Pass)

Repeatability: Not Repeatable

Overview of Open Educational Resources (OER) and the use of free public domain materials for teaching and learning. Aims to build participants' knowledge and skills to find, adapt, repurpose, and create accessible OER for use in education and training environments. Course topics include OER terminology, OER quality, copyright and fair use issues, sources and repositories of public domain materials in various disciplines, technical issues regarding accessibility, and uses of Creative Commons. Participants explore and analyze: OER tools and standards available to develop, organize, and disseminate content; public domain learning materials; searching techniques for identifying public domain learning materials; professional collaboration strategies; and criteria for assessing the suitability of public domain learning materials for use in various disciplines. Participants create a lesson, activity, or training module that incorporates OER, or create an OER for an identified purpose.

LINC 90C • ONLINE COLLABORATION TOOLS

Units: 2

Hours: 2 lecture per week (24 total per guarter)

Advisory: Basic computer skills and knowledge of Macintosh

or Windows operating systems; familiarity using web browsers, email, bookmarking, searching and downloading; not open to students with credit in LINC

214.

Degree and Credit Degree-Applicable Credit Course

Status:

Foothill GE: Non-GE
Transferable: CSU

Grade Type: Letter Grade (Request for Pass/No Pass)

Repeatability: Not Repeatable

Features online collaboration tools for educational, business, or personal use. Explore different collaborative technologies and shared documents using the internet with emphasis on how these tools can be integrated with curriculum and student projects; on more effective communication and collaboration for all participants; and on how these tools can be used for planning and evaluating projects.

LINC 91A • INTRODUCTION TO ASSESSING INSTRUCTIONAL TECHNOLOGY

Units: 3

Hours: 3 lecture per week (36 total per quarter)

Advisory: Basic skills using standard computer systems and

internet-based technologies.

Degree and Credit Degree-Applicable Credit Course

Status:

Foothill GE: Non-GE
Transferable: CSU

Grade Type: Letter Grade (Request for Pass/No Pass)

Repeatability: Not Repeatable

This introductory course in assessing instructional technologies is for students, educators, and trainers interested in instructional design and technology. Students develop critical thinking skills and use evaluation processes, resources, and instruments to select and evaluate instructional materials, technologies, resources, and programs that meet specific learning outcomes for educational and training contexts. Coursework includes using technology to conduct survey research and basic data analysis. This course is part of the Instructional Design and Technology program sequence.

LINC 91B • EVALUATING TECHNOLOGY-BASED LEARNING OUTCOMES

Units: 3

Hours: 3 lecture per week (36 total per quarter)

Advisory: It is advised, but not required that students have the

background knowledge and skill taught in LINC 91A; basic skills using standard computer systems and

internet-based technologies.

Degree and Credit Degree-Applicable Credit Course

Status:

Foothill GE: Non-GE
Transferable: CSU

Grade Type: Letter Grade (Request for Pass/No Pass)

Repeatability: Not Repeatable

This instructional design and technology course builds on the coursework of LINC 91A and focuses on evaluating learning outcomes in educational and business training contexts. Students will design and develop technology-based authentic and performance-based assessments, rubrics, needs assessment plans, learner analysis instruments, adaptive testing, and surveys. Coursework includes managing data collection, analyzing results, and reporting findings. This course is part of the Instructional Design and Technology program sequence.

PROGRAMS

Units:

Hours: 3 lecture per week (36 total per quarter)

Advisory: Basic skills using standard computer systems and

internet-based technologies.

Degree and Credit Degree-Applicable Credit Course

Status:

Foothill GE: Non-GE Transferable: CSU

Grade Type: Letter Grade (Request for Pass/No Pass)

Repeatability: Not Repeatable

This advanced course in evaluating instructional technology programs continues the coursework of LINC 91A and LINC 91B and further develops the skills and knowledge students need to measure and evaluate the effectiveness of educational curriculum or training programs. Using analysis skills, students examine the entire process from program design to implementation. Students interested in the study of instructional design and technology will determine and report on the effectiveness of an instructional program or curriculum for either online or classroom delivery in terms of instructor preparation, planning, delivery medium, and effective use of technology. Skill development includes effective use of technology tools for writing, conducting, analyzing, and reporting an instructional program evaluation plan. This course is part of the Instructional Design and Technology program sequence.

LINC 93B • ASSISTIVE TECHNOLOGY & **UNIVERSAL ACCESS**

Units:

Hours: 1 lecture per week (12 total per quarter)

Advisory: Familiarity with PC or Mac; basic internet skills; not

open to students with credit in LINC 221.

Degree and Credit Degree-Applicable Credit Course

Status:

Foothill GE: Non-GE Transferable: CSU

Letter Grade (Request for Pass/No Pass) **Grade Type:**

Repeatability: Not Repeatable

This course reviews current issues and legislation in assistive technology and universal access. Issues of efficacy and appropriateness of accommodations required for parity with peers in an education setting are reviewed and discussed. Tools and issues of design and compliance are demonstrated. Internet resources are explored.

LINC 91C • EVALUATING INSTRUCTIONAL LINC 94 • INTRODUCTION TO COMPUTER **NETWORKS**

Units:

Hours: 3 lecture, 3 laboratory per week (72 total per quarter) Advisory: Basic computer skills and knowledge of Macintosh

or Windows operating systems, and basic skills and knowledge of internet technologies, such as using web browsers, email, bookmarking, searching, and

downloading.

Degree and Credit Degree-Applicable Credit Course

Status:

Foothill GE: Non-GE Transferable: CSU

Grade Type: Letter Grade (Request for Pass/No Pass)

Repeatability: Not Repeatable

Covers fundamental networking concepts and develops the skills and knowledge to set up and maintain small business/home networks. The course is not hardware or vendor specific. Helps students prepare for the "Network +" certification exam, an industry-wide, vendor-neutral certification program developed and sponsored by the Computing Technology Industry Association (CompTIA).

LINC 95B • TECHNOLOGY ETHICS & **EDUCATIONAL LAW**

Units:

Hours: 1 lecture per week (12 total per quarter)

Basic computer skills and knowledge of Macintosh Advisory:

or Windows operating systems; familiarity using Web browsers, email, bookmarking, searching, and downloading; not open to students with credit in LINC

220.

Degree and Credit Degree-Applicable Credit Course

Status:

Foothill GE: Non-GE Transferable:

Grade Type: Letter Grade (Request for Pass/No Pass)

Repeatability: Not Repeatable

Overview of current issues and legislation in computer ethics and cyberlaw. Topics such as copyright, fair use, acceptable use plans, digital divide, accessibility, internet filtering, social media, and cyber bullying are discussed, with emphasis on the implications for the student, classroom teacher, school site, parent obligation, civic government, and broader society.

<u>LINC 95C</u> • ASSESSMENT STRATEGIES FOR TECHNOLOGY INTEGRATION

Units:

Hours: 1 lecture per week (12 total per quarter)

Advisory: Basic computer skills and knowledge of Macintosh

or Windows operating systems; familiarity using web browsers, email, bookmarking, searching, and downloading; not open to students with credit in LINC

260.

Degree and Credit Degree-Applicable Credit Course

Status:

Foothill GE: Non-GE
Transferable: CSU

Grade Type: Letter Grade (Request for Pass/No Pass)

Repeatability: Not Repeatable

This course covers the effectiveness of technology integration for teaching and learning. Students explore various assessment strategies for technology integration when applied to curriculum development, teaching, and student learning. Participants create formative and summative assessments and examine how technology-infused instruction affects teaching practice and facilitates students' use of technology to learn and communicate. Other content topics include 21st century skills, Common Core State Standards, and ISTE NETS Standards.

<u>LINC 96B</u> • HANDHELD DIGITAL MEDIA DEVICES I

Units: 0.5

Hours: 6 lecture per quarter (6 total per quarter)

This course meets 1 time per quarter.

Advisory: Basic computer skills and knowledge of Macintosh

or Windows operating systems; familiarity using web browsers, email, bookmarking, searching and downloading; not open to students with credit in LINC

292A.

Degree and Credit Degree-Applicable Credit Course

Status:

Foothill GE: Non-GE
Transferable: CSU

Grade Type: Letter Grade (Request for Pass/No Pass)

Repeatability: Not Repeatable

This introductory course is for those interested in exploring how handheld devices can be applied in an education or training setting. Provides hands-on experience with hand-held devices such as smartphones and tablet computers. Participants will learn how to operate the hand-held, explore available software for the device, and learn how to use it for educational, training or other projects.

LINC 98 • TEACHING & LEARNING IN THE DIGITAL AGE

Units: 1

Hours: 1 lecture per week (12 total per quarter)

Advisory: Basic computer skills and knowledge of Macintosh

or Windows operating systems; familiarity using web browsers, email, bookmarking, searching and downloading; not open to students with credit in LINC 228; students may enroll in LINC 98 or 98B, but not

both, for credit.

Degree and Credit Degree-Applicable Credit Course

Status:

Foothill GE: Non-GE
Transferable: CSU

Grade Type: Letter Grade (Request for Pass/No Pass)

Repeatability: Not Repeatable

Overview course for those interested in developing and integrating educational technology into the classroom or training environment. Students will analyze learner characteristics; analyze the role of technology in student-centered learning environments; create a design plan for a technology-enhanced learning lesson, project or activity; use collaborative online technologies to support group work and peer feedback; and develop evaluation methods for the course project.

<u>LINC 98A</u> • TEACHING & LEARNING IN THE DIGITAL AGE I

Units: 0.5

Hours: 6 lecture per quarter (6 total per quarter)

This course meets 1 time per quarter.

Advisory: Basic computer skills and knowledge of Macintosh

or Windows operating systems; familiarity using web browsers, email, bookmarking, searching and downloading; not open to students with credit in LINC

228S.

Degree and Credit Degree-Applicable Credit Course

Status:

Foothill GE: Non-GE
Transferable: CSU

Grade Type: Letter Grade (Request for Pass/No Pass)

Repeatability: Not Repeatable

Introduction to integrating educational technology in the classroom for those interested in using technology to effectively deliver curriculum content, engage in professional development, and efficiently manage the classroom or training environment (e.g., online grading, storage, communication with parents, etc.). Participants will examine and set up appropriate technology tools.

LINC 401 • BASIC MAKERSPACE SKILLS I LINC 405 • BEGINNING TECHNOLOGY

Units: 0

Hours: 3-360 hours laboratory total per quarter.

Advisory: Basic computer skills and knowledge of operating

systems; familiarity using web browsers, email, bookmarking, searching and downloading.

Degree and Credit Non-Degree-Applicable Non-Credit Course

Status:

Foothill GE: Non-GE
Transferable: None

Grade Type: Non-Credit Course (Receives no Grade)

Repeatability: Unlimited Repeatability

Introduces students and other individuals to the tools and skills used in makerspaces. These skills include, but are not limited to: basic makerspace safety, basic tool safety, basic prototyping. Students learn independently and in groups to enhance their personal skills in using tools safely and effectively to create and build items for personal and educational uses. After completing the two-course sequence of LINC 401 and 402, students will receive training and badges to safely use each tool at a beginning level. Students will be more prepared for entering STEM and maker career paths in education, community centers, and libraries. This course cannot be taken for credit.

LINC 402 • BASIC MAKERSPACE SKILLS

II

Units: 0

Hours: 3-360 hours laboratory total per quarter.

Advisory: Basic computer skills and knowledge of operating

systems; familiarity using web browsers, email, bookmarking, searching and downloading.

Degree and Credit Non-Degree-Applicable Non-Credit Course

Status:

Foothill GE: Non-GE
Transferable: None

Grade Type: Non-Credit Course (Receives no Grade)

Repeatability: Unlimited Repeatability

Introduces students and other individuals to the tools and skills used in makerspaces. These skills include, but are not limited to: basic machine safety, basic computing concepts, basic electronics. Students learn independently and in groups to enhance their personal skills in using tools safely and effectively to create and build items for personal and educational uses. After completing the two-course sequence of LINC 401 and 402, students will receive badges for each machine/tool in safety and basic use. Students will be more prepared for entering STEM and maker career paths in education, community centers, and libraries. This course cannot be taken for credit.

LINC 405 • BEGINNING TECHNOLOGY SKILLS

Units: 0

Hours: 3-360 hours laboratory total per quarter.

Degree and Credit Non-Degree-Applicable Non-Credit Course

Status:

Foothill GE: Non-GE
Transferable: None

Grade Type: Non-Credit Course (Receives no Grade)

Repeatability: Unlimited Repeatability

This noncredit course introduces students and other individuals to basic technology skills. These skills include, but are not limited to: basic word processing skills; basic spreadsheet skills; basic management and organization of files; saving, downloading, and uploading files; basic email use; mouse/navigation skills; internet search skills. Students learn independently or in small groups to enhance their personal skills in using a computer for basic digital tasks needed to begin Foothill College coursework.

LINC 411 • GOOGLE DRIVE

Units: 0

Hours: 3 lecture per quarter (3 total per quarter)

Advisory: Basic experience with internet software tools,

browsers, hyperlinks, online media resources, and basic skills using a computer; students will need a free

Google account to participate in this course.

Degree and Credit Non-Degree-Applicable Non-Credit Course

Status:

Foothill GE: Non-GE
Transferable: None

Grade Type: Non-Credit Course (Receives no Grade)

Repeatability: Unlimited Repeatability

This noncredit workforce preparation course provides an overview of Google Drive, as part of the G Suite of tools. Skills covered include managing and organizing files and folders in Google Drive, as well as managing sharing settings. This course will prepare students for the Drive portion of the G Suite Certification exam.

LINC 412 • GMAIL

Units: 0

Hours: 3 lecture per quarter (3 total per quarter)

Advisory: Basic experience with internet software tools,

browsers, hyperlinks, online media resources, and basic skills using a computer; students will need a free

Google account to participate in this course.

Degree and Credit Non-Degree-Applicable Non-Credit Course

Status:

Foothill GE: Non-GE
Transferable: None

Grade Type: Non-Credit Course (Receives no Grade)

Repeatability: Unlimited Repeatability

This noncredit workforce preparation course provides an overview of Google's email service, Gmail, as part of the G Suite of tools. Skills covered include personalizing settings, managing and organizing the inbox, and using the contacts features. This course will prepare students for the Gmail portion of the G Suite Certification exam.

LINC 413 • GOOGLE HANGOUTS MEET

Units: 0

Hours: 3 lecture per quarter (3 total per quarter)

Advisory: Basic experience with internet software tools,

browsers, hyperlinks, online media resources, and basic skills using a computer; students will need a free Google account to participate in this course; a computer with a built-in or connected camera and

microphone are necessary for this course.

Degree and Credit Non-Degree-Applicable Non-Credit Course

Status:

Foothill GE: Non-GE
Transferable: None

Grade Type: Non-Credit Course (Receives no Grade)

Repeatability: Unlimited Repeatability

This noncredit workforce preparation course provides an overview of Google's video conferencing service, Hangouts Meet, as part of the G Suite of tools. Skills covered include setting up a Hangout, managing audio and visuals, and handling users. This course will prepare students for the Hangouts Meet portion of the G Suite Certification exam.

LINC 414 · GOOGLE DOCS

Units: 0

Hours: 4 lecture per quarter (4 total per quarter)

Advisory: Basic experience with internet software tools,

browsers, hyperlinks, online media resources, and basic skills using a computer; students will need a free

Google account to participate in this course.

Degree and Credit Non-Degree-Applicable Non-Credit Course

Status:

Foothill GE: Non-GE
Transferable: None

Grade Type: Non-Credit Course (Receives no Grade)

Repeatability: Unlimited Repeatability

This noncredit workforce preparation course provides an overview of Google's cloud-based document service, Google Docs, as part of the G Suite of tools. Skills covered include setting up a document, formatting text, inserting images and tables, and collaborating with other users. This course will prepare students for the Docs portion of the G Suite Certification exam.

LINC 415 • GOOGLE SHEETS

Units: 0

Hours: 5 lecture per quarter (5 total per quarter)

Advisory: Basic experience with internet software tools,

browsers, hyperlinks, online media resources, and basic skills using a computer; students will need a free

Google account to participate in this course.

Degree and Credit Non-Degree-Applicable Non-Credit Course

Status:

Foothill GE: Non-GE
Transferable: None

Grade Type: Non-Credit Course (Receives no Grade)

Repeatability: Unlimited Repeatability

This noncredit workforce preparation course provides an overview of Google's cloud-based spreadsheet service, Google Sheets, as part of the G Suite of tools. Skills covered include cell management, formatting spreadsheets, using functions, and managing data. This course will prepare students for the Sheets portion of the G Suite Certification exam.

LINC 416 • GOOGLE SLIDES

Units:

Hours: 3 lecture per quarter (3 total per quarter) Advisory: Basic experience with internet software tools,

> browsers, hyperlinks, online media resources, and basic skills using a computer; students will need a free

Google account to participate in this course.

Degree and Credit Non-Degree-Applicable Non-Credit Course

Status:

Foothill GE: Non-GE Transferable: None

Grade Type: Non-Credit Course (Receives no Grade)

Unlimited Repeatability Repeatability:

This noncredit workforce preparation course provides an overview of Google's cloud-based presentation service, Google Slides, as part of the G Suite of tools. Skills covered include presentation design, formatting text, inserting images and videos, arranging objects, and sharing presentations. This course will prepare students for the Slides portion of the G Suite Certification exam.

LINC 417 • G SUITE CERTIFICATION **PREPARATION**

Units:

Hours: 3 lecture per quarter (3 total per quarter)

Basic experience with internet software tools, Advisory:

> browsers, hyperlinks, online media resources, and basic skills using a computer; students will need a free Google account to participate in this course; a computer with a built-in or connected camera and microphone are necessary for this course; it is recommended that students have completed

LINC 411, 412, 413, 414, 415, and 416 before beginning

this course.

Degree and Credit Non-Degree-Applicable Non-Credit Course

Status:

Foothill GE: Non-GE Transferable:

Grade Type: Non-Credit Course (Receives no Grade)

Repeatability: Unlimited Repeatability

This noncredit workforce preparation course provides an overview of the G Suite Certification exam. Topics covered include exam question types, test strategies and review of G Suite tools. Students will practice with sample exam guestions and performance tasks. This course will prepare students for the format and expectations of the G Suite Certification exam.