

Part-Time Faculty Positions Available

Located in Sunnyvale, **Cogswell Polytechnical College** is a WASC regionally accredited 4-year institution of higher education with a curriculum that fuses art and engineering and entrepreneurship. It has a distinguished 123-year history in California and has always been associated with best practice in the industries and communities it serves.

Cogswell College offers an intimate and stimulating academic environment that enables its students to earn a BA degree in Digital Art and Animation or Entrepreneurship and Innovation or a BS degree in Digital Arts Engineering, Digital Audio Technology, Computer Engineering or Software Engineering

Instructors are needed to teach the following courses in Digital Art and Animation:

- Drawing Animation I Introduces the principles of animation drawing: gesture, simplified geometric construction for anatomy, technique to capture movement and weight. Methods to maximize expression and movement for animation and methods for using line to convey overlap, form, torque/compression, and the line of action are covered.
- Color Theory Introduction to color theory. Subtractive color principles are addressed through exercises using traditional pigments. Additive color principles are addressed through exercises using image editing software (Adobe Photoshop)
- 2D Design An introduction to the principles of two-dimensional image making with an emphasis on visual communication. Traditional and digital production techniques are covered. Students will learn about the form and function of graphic design various principles of perception and Gestalt theory, and how they relate to graphic design. The course also serves as an introduction to image editing software. (Adobe Photoshop)
- 2D Animation I and 2D Animation II principles of traditional, hand-drawn animation: squash and stretch, anticipation, secondary action, staging, easing in and out, arcs, timing, exaggeration, the study of motion, solid drawing and character appeal. Concepts of keys, in-betweens and breakdowns, recording drawings for playback, pegging, and using exposure sheets.
- Storyboarding This class focuses on principles of Storytelling in a visual medium and concentrates on film or editorial boards used to pre-visualize animation or live action film.
- Figure Drawing I and Figure Drawing II. Life drawing from unclothed models. Students study proportion, volumes, light and shade, simple anatomy of the human form, and develop a basic understanding of the figure in motion.
- Perspective and Rendering In depth study of perspective and the application of light and dark values to geometric forms to convey a sense of form. Students learn to create core shadows and shadow projections to achieve believable grounding in space and they examine the color of shadow and light.
- Intro to Sculpture Explores three-dimensional form. Emphasizes concept development, expression, spatial concepts, and comprehension of 3D space. Students learn techniques and tools used to create 3D artworks. Students work in plasticine.

- Figure Sculpture This course is designed to develop the student's understanding of the gestural, constructive and anatomical structures of the figure.

Qualifications for Digital Arts and Animation instructors:

Desirable:

- MFA or Masters in Digital Arts/Animation or related field from regionally accredited institution

Required:

- Bachelor's Degree in related field from a regionally accredited institution
- Experience teaching collaborative animation courses
- Active record of professional achievement as demonstrated by the following: public release animation, professional practice, publications, grants,
- Preference may be given to the candidate who:
- Teaching experience at an accredited college or university
- Can demonstrate a commitment to undergraduate interdisciplinary teaching

Instructors are needed to teach the following courses in General Education:

- Intermediate Algebra. Intermediate algebra including exponents and polynomials, equations and systems of equations in one and two variables, functions and graphs, and exponential and logarithmic functions.
- Basic Topics in Mathematics. (Survey of Precalculus and Trigonometry) Principles and applications of inequalities, functions and graphs, polynomials and rational functions, systems of equations and inequalities, matrices and determinants. Analytic geometry including conic sections. Trigonometric functions, identities, equations, inverse functions, trigonometric applications including vector definition, operations, and dot product. Students are introduced to the basic concepts for computer graphics.
- Precalculus. Topics include principles and applications of factoring, rational expression, radicals, solutions and graphs of linear, quadratic equations and inequalities; polynomial, rational, exponential, trigonometric, and logarithmic functions; matrices, determinants, complex numbers.

Instructors are needed to teach the following courses in Software Engineering:

- Computer Programming 1: C. Introduction to hardware and software tools. CPU, memory, disks, and files. Program development flow. Introduction to C programming: lexical elements, operators, fundamental data types, flow of controls, functions, recursions, arrays, pointers, strings, bit-wise operators, structures, unions, file manipulation. Students learn structured programming paradigm.
- Computer Programming 2: Java. Primitive types, strings, classes, objects, methods, references, polymorphisms, inheritance, exception handling. Streams and file I/O. Arrays. Vectors. Applets and HTML. Some fundamental data structures in Java. AWT/Swing programming. Introduction to threaded programming. Students are introduced to the object oriented paradigm.

- Programming Environments: UNIX/LINUX. Structure of UNIX/LINUX file systems. Shell programming. Discuss different shells. Filters. UNIX/LINUX system calls. Documentation Preparation. Standard I/O Library. AWK programming language. SED editor. Students practice programming in the UNIX/LINUX environment.
- Data Structures and Algorithms. Data Structures: Stacks. Queues. Linked lists. Circular linked lists. Double linked lists. Circular double linked lists. Binary search trees. Searching and sorting algorithms. Introduction to graph algorithms. Huffman codes, AVL trees. Hashing. B-trees. Students practice concepts of structured programming and discrete mathematical concepts in data structures and analysis of algorithms.
- Computer Programming 3: C++ Programming. Classes. Constructors and destructors. Type Conversions. Friends. Overloading functions and operators. References. Polymorphisms. I/O streams. Multiple Inheritances. Templates. Memory Management. Students practice the object oriented paradigm.

Qualifications for General Education and Software Engineering instructors:

Desirable:

- Ph.D in related field from a regionally accredited institution

Required:

- Master's degree or higher from a regionally accredited institution or substantial professional experience
- Successful college level teaching experience

Course descriptions can be found on the Cogswell website at:

<http://www.cogswell.edu/academics/catalog.php>

Individuals must possess a strong commitment to teaching, to collaborative learning, and to maintaining industry relationships.

Application Materials

Qualified applicants must send the following:

1. Letter of application
2. Resume or c.v.
3. Brief statement of teaching philosophy
4. Names and contact information of three professional references (no letters at this time)
5. DVD or link to website of personal work and examples of student work
6. Self-addressed container/envelope for return of work samples with adequate postage

Send application package to:

employment@cogswell.edu

Human Resources
Cogswell Polytechnical College
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