COS 205   State Board Review
Units: 2.0   **Hours:** 1.0 Lecture and 4.0 Laboratory

State Board exam procedures and standards. ADVISORY: Cosmetology 201.

COS 207   Contemporary Styling
Units: 4.5   **Hours:** 8.0 Lecture and 24.0 Laboratory

Studies and techniques in braiding, weaving, glass nails, silk wrap, individual lash and brow tinting, corrective make-up and low lights. This is a 6 week class offered in summer session only. PREREQUISITE: Satisfactory completion of Cosmetology 200. ADVISORY: Eligible for English 250, 260, and Mathematics 430. Intermediate and Advanced cosmetology enrollments only.

COS 220   Scientific Skin Care - Esthetics
Units: 8.0   **Hours:** 4.4 Lecture and 13.3 Laboratory

An introductory course designed to provide the skills necessary to be employed as an Esthetician (Facialist). Skills taught include skin care and treatment, cosmetics, and the use of electrical modalities. REQUIRED: 17 years of age, completed 10th grade or equivalent, as per State Board of Cosmetology.

COS 221   Advanced Scientific Skin Care - Esthetics
Units: 8.0   **Hours:** 4.4 Lecture and 13.3 Laboratory

An advanced in-depth study and training in the care and treatment of skin, cosmetics and manipulative electrical modalities as required by the State Board of Cosmetology. PREREQUISITE: Completion of COS 220 or equivalent.

COS 223   Independent Study
Units: 1.0 OR 2.0   **Hours:**

Designed to afford selected students specialized opportunities for exploring areas at the independent study level. The courses may involve extensive library work, research in the community, or special projects. This course has the option of a letter grade or pass/no pass. REQUIRED: The study outline prepared by the student and the instructor must be filed with the Department and the Area Dean.

COS 290   Occupational Work Experience, Cosmetology
Units: 1.0 TO 4.0   **Hours:** 3.3 TO 16.7 Laboratory

Occupational work experience for students who have a job related to their major. A training plan is developed cooperatively between the employer, college and student. (P/NP grading) 75 hours per semester paid work = 1 unit. 60 hours non-paid (volunteer) work per semester = 1 unit. Student repetition is allowed per Title 5 Section 55253. Minimum 2.00 GPA. REQUIRED: Declared vocational major.

COS 291A   Workplace Skills
Units: 1.0   **Hours:** 1.0 Lecture

Workplace Skills teaches skills vital to workplace success. The topic for 291A is Interpersonal Communication. Need not be taken in sequence. This is a pass/no pass course. Course was previously listed as 191A.

COS 291B   Workplace Skills
Units: 1.0   **Hours:** 1.0 Lecture

Workplace Skills teaches skills vital to workplace success. The topic for 291B is team building. Need not be taken in sequence. This is a pass/no pass course. Course was previously listed as 191B.

COS 291C   Workplace Skills
Units: 1.0   **Hours:** 1.0 Lecture

Workplace Skills teaches skills vital to workplace success. The topic for 291C is Problem Solving. Need not be taken in sequence. This is a pass/no pass course. This course was previously listed as 191C.

DIGITAL MEDIA

DM 6   Webpage Authoring
Units: 3.0   **Hours:** 3.0 Lecture
Transferable: GAV-GE:E2

An introduction to using Hypertext Mark-Up Language (HTML) to create web pages which can be uploaded and displayed on the World Wide Web. Students will use HTML to create web pages with text in various sizes and colors, links to other sites, lists, background color or patterns, graphics, tables and email links. Interactive forms, scripting languages (jQuery for simple animation) and css media queries to make a web page responsive to multiple devices sizes will also be covered. This course has the option of a letter grade or pass/no pass. Also listed as CSIS 6. ADVISORY: CSIS 1 or CSIS 2 or CSIS 3/LIB 3 advised.

DM 7   Web Page Authoring II
Units: 2.0   **Hours:** 2.0 Lecture

This course is a continuation of CSIS 6, Web Page Authoring I. Topics that will be covered include XHTML, frames, advanced tables, forms, scripting languages, image maps, Cascading Style Sheets (CSS), and new trends in web page technology. This course has the option of a letter grade or pass/no pass. This course is also listed as CSIS 7. ADVISORY: CSIS 6

DM 60   Introduction to Animation
Units: 3.0   **Hours:** 2.0 Lecture and 3.0 Laboratory
Transferable: CSU-GE:C1, GAV-GE:C1

Following the fascinating history and culture of animation, the fundamentals, styles, and aesthetics of animation are explored. A variety of production techniques and technology such as Cel Animation, claymation, rotoscoping, stop motion, Telecomics, and finally ending in the use of computers for 3D, modeling and animation are discussed and used for a variety of required projects. Students will have an introduction to modeling, texturizing, rigging, and animation using industry standard software. Useful for those interested in animation for video/film, web, art or game design. This course has the option of a letter grade or pass/no pass. ADVISORY: Basic computer skills.

DM 61   3D Animation
Units: 3.0   **Hours:** 2.0 Lecture and 3.0 Laboratory

This class addresses the fundamentals of 3D animation including character modeling, soundtrack synchronization, advanced shading, lighting, rendering and compositing techniques. May include topics such as particles, dynamics, and scripting. This course has the option of a letter grade or pass/no pass. ADVISORY: DM 60 or equivalent experience.

DM 74   Advanced PhotoShop
Units: 3.0   **Hours:** 3.0 Lecture
Transferable: GAV-GE:C1

This is an intermediate level course in mastering Adobe's Photoshop software. Students will learn advanced strategies in professional digital editing. Students will apply creative techniques for print, video, animation and the web. Students will develop skills in luminance, color and exposure to optimize images with adjustment layers and masks, and cutting-edge selection techniques. There will be a focus in post processing for landscape, portrait and panoramic imaging suited for the artist, photographer and design student. This course has the option of a letter grade or pass/no pass. This course is also listed as CSIS 74. ADVISORY: DM/ART/CSIS 75 PhotoShop I

DM 75   Photoshop I - Adobe PhotoShop
Units: 3.0   **Hours:** 3.0 Lecture
Transferable: GAV-GE:C1

This is an entry level course in mastering Adobe's Photoshop software. Students will learn creative and fundamental processes in professional digital image editing. Hands on lessons provide students with skills to manage today's image libraries. Students will be introduced to Photoshop's Bridge and Camera Raw utilities while crafting state of the art compositions for print, video, animation and the web. There is a focus on basic tonal and color adaptations, digital painting, black and white conversion, special effects, and correction and restoration techniques. This course has the option of a letter grade or pass/no pass. This course is also listed as CSIS 75. ADVISORY: CSIS 124 (Windows Fundamentals), CSIS 2L

DM 76   Digital Illustration
Units: 3.0   **Hours:** 3.0 Lecture
Transferable: GAV-GE:C1

Illustration techniques using computer Bezier curve-based illustration software tools to do diagrams and graphics for use in art, desktop publishing, web graphics, animation, multimedia, and computer presentations. This basic Illustrator course is focused on the technical and historical aspects of digital design and illustration as well as the development of personal artistic expression and visual perception through the use of the digital illustration medium. The course will include lectures and discussions about color, composition and content, computer and illustration program use, printing and presentation techniques. This course has the option of a letter grade or pass/no pass. This course is also listed as CSIS 76. ADVISORY: CSIS 1 or CSIS 2 or equivalent computer experience.

DM 77   Introduction to Digital Media and its Tools
Units: 3.0   **Hours:** 2.0 Lecture and 3.0 Laboratory
Transferable: GAV-GE:C1

An introduction to the field of digital media, including history, social impact, concepts, career options and industry trends. Applying learned visual and aural design principles, students will explore the use of computer-based tools in the design and production of digital media by creating and editing digital images, sounds, video, animation, and text. A comprehensive term project for publication on the web or CD ROM will be required. This course is also listed as CSIS 77. This course has the option of a letter grade or pass/no pass. ADVISORY: CSIS 124, CSIS 1, CSIS 2/2L, CSIS 3, or familiarity using the Macintosh or Windows operating system.

DM 79   Portfolio Development
Units: 1.0   **Hours:** 1.0 Lecture
Transferable: GAV-GE:C1

The planning and production of personal portfolios and self- promotion materials, including online, print, slides, and e-media (CD ROM, DVD) portfolios; cover letters, and resumes. Focuses on self-promotion for jobs, self-employment, or advanced education in the fields of Art, Computer Graphic Design and Digital Media. Students will leave the class with one or more portfolios representing their work. This course has the option of a letter grade or pass/no pass. This course is also listed as CSIS 79. No college credit for those who have passed ART 79.

DM 80   Digital Photography
Units: 3.0   **Hours:** 2.0 Lecture and 4.0 Laboratory
Transferable: GAV-GE:C1

The study of digital photography from digital camera to the computer-based printer or digital media. Artistic, theoretical, and technical aspects will be considered. Topics include information about types and purchasing of digital cameras; theory, mechanics, and art of digital imagery; digital darkroom; eccentricities of digital photo taking; stitching photos for virtual reality; and preparing digital images for print, World Wide Web and other digital media. This course has the option of a letter grade or pass/no pass. This course is also listed as CSIS 80. ADVISORY: CSIS 1 or CSIS 2/2L or ART 8A or equivalent computer experience.

DM 85   Web Development and Design
Units: 3.0   **Hours:** 3.0 Lecture
Transferable: GAV-GE:C1

Basic and intermediate principles of developing and designing web pages using html editor, content management systems, and/or CSS. Emphasis will be on concept development, interface and navigation design, layout principles and the use of a html editor and CSS to execute, develop and maintain professional Web sites. Topics will include enhanced text formatting, styles and forms. This course also includes the integration of multimedia components such as graphics, sound, animation and video. This course is also listed as CSIS 85. This course has the option of a letter grade or pass/no pass. ADVISORY: CSIS 6 or knowledge of HTML/CSS.

DM 98   Special Topics
Units: .5 TO 3.0   **Hours:** .5 TO 3.0 Lecture

Special topics courses examine current problems or issues of interest to students within a specific discipline area. For topical content information, consult with the appropriate department chairperson. For transfer status, check with a counselor. May be repeated for credit with different topics. This course has the option of a letter grade or pass/no pass.

DM 107   Digital Media Design
Units: 3.0   **Hours:** 2.0 Lecture and 3.0 Laboratory

Design for visual, time-based, and interactive media and print documents. Concentrates on graphic/visual design, but also includes basic storytelling, information architecture, and human experience design. Applicable to the design and development of business presentations and print products, interactive media, educational multimedia, animation, web sites, video games, and film/video. This course has the option of a letter grade or pass/no pass. Also listed as CSIS 107. ADVISORY: CSIS 1 or CSIS 2/2L or equivalent computer experience.

DM 108   Digital Media Lab
Units: .5 TO 3.0   **Hours:** 1.5 TO 9.0 Laboratory
Transferable: GAV-GE:C1

Supervised practice and individualized computer assisted learning or software applications and techniques commonly found in the design and production of digital media (e.g., digital art and imaging, digital photography, digital print, digital audio/video, web design design/authoring, DVD/CD ROMs, animation). Supplements lecture courses. Open entry/exit, so may be added anytime during the semester. This is a pass/no pass course. Also listed as CSIS 108. ADVISORY: CSIS 1 or CSIS 2/2L or equivalent computer experience.

DM 110   Interactive Animation: Flash
Units: 3.0   **Hours:** 2.0 Lecture and 3.0 Laboratory
Transferable: GAV-GE:C1

The production of vector graphics, animation, and interactive multimedia in Shockwave-Flash format for web pages and other digital media. Design of highly interactive web site interfaces and animated games using Flash actions (scripting). Useful for web designers/developers, animators, and multimedia authors. This course has the option of a letter grade or pass/no pass. Also listed as CSIS 110. ADVISORY: CSIS 1, CSIS 2/2L, CSIS 124 or basic computer knowledge.

DM 113   Introduction to Digital Video
Units: 3.0   **Hours:** 2.0 Lecture and 3.0 Laboratory
Transferable: GAV-GE:C1

Introduction to the aesthetic and technical aspects of single camera digital video recording, non-linear editing, visual effect generation, and production of video (and associated audio) using the personal computer equipped with specialized production equipment (e.g. High Definition camcorder and DSLRs, lighting, glide cam) plus software such as Final Cut Pro, Motion, and After Effects. Also considered will be the preparation of digital video for distribution in interactive media such as CDs, DVDs, mobile devices, and the World Wide Web. Students will produce a final video project for distribution in various media formats. This course has the option of a letter grade or pass/no pass. ADVISORY: CSIS 1 or CSIS 2/2L or equivalent computer experience.

DM 114   Digital Media Production
Units: 2.0   **Hours:** 2.0 Lecture

A team oriented practicum that focuses on the application of learned skills to the production of digital media and digital print projects, such as web sites, CD ROM, and DVDs. Project development will be accomplished according to team derived master schedules. Lectures will be on project management, work coordination and production techniques, client-team interface, asset management and integration, budget estimates, testing, and copyright infringement. Please note that this is very much a team oriented class. This course has the option of a letter grade or pass/no pass. This course is also listed as CSIS 114. ADVISORY: At least one of the following: ART 75, CGE 2, JOUR 18A, MUS 21, CSIS 7, CSIS 71, OR CSIS 77. or possess equivalent skills from any one of the following areas: digital media, computer graphics, digital print, film, TV/video, journalism (publishing), drawing or illustration, web design/ development, business/marketing, or programming.

DM 117   Visual Effects-Motion Graphics
Units: 3.0   **Hours:** 2.0 Lecture and 3.0 Laboratory

Study of the design of motion graphics and special effects used in digital video and film, web, multimedia, and interactive games. Includes video/graphics compositing techniques, 2D animation, basic 3D animation, and special effects commonly generated in digital post- production. Software such as Adobe After Effects or Apple's Motion will be used. This course has the option of a letter grade or pass/no pass. This course is also listed as CSIS 117. ADVISORY: DM/ART/CSIS 113 or DM/ART/CSIS 140 or DM/ART/CSIS 77 or THEA 17A or basic knowledge of digital video/film editing.

DM 140   Basic Digital Film, Video Production
Units: 1.0   **Hours:** 1.0 Lecture
Transferable: GAV-GE:C1

An on-line self-paced course covering the basics of film/video production and post production (editing) using "easy to use" computer software such as Apple's iMovie. Beneficial for students who are producing a video/film project as a requirement for another college course, extra skills development, or for self interest. Completion of the associated class or personal project in DVD format using either personal video equipment or the equipment in the Digital Media Studio is required. This course has the option of a letter grade or pass/no pass. This course is also listed as CSIS 140.

DM 160   Game Design
Units: 3.0   **Hours:** 3.0 Lecture

Intended for students who want to explore game design and computational media. Compelling successful games are created by developers who have absorbed the fundamental principles of good game design. Students will analyze existing games for their educational and entertainment value, and create their own games using freely available software and game development environments. Key concepts such as game math, textures and materials, geometry and topology, lighting, sound and special effects will be explored. No previous programming experience is necessary. This course has the option of a letter grade or pass/no pass. This course is also listed as CSIS 160.

ECOLOGY

ECOL 1   Conservation of Natural Resources
Units: 4.0   **Hours:** 3.0 Lecture and 3.0 Laboratory
Transferable: CSU-GE:B2, CSU-GE:B3, IGETC:5B, IGETC:5C, GAV-GE:B2, GAV-GE:B3

This course examines the fundamentals of ecology (the study of the relationships between organisms and their environment) with special emphasis on human effects on the environment. Topics of discussion will include ecosystem dynamics, resources, pollution, population growth, and the clash between economic and political policy and the environment. ADVISORY: Eligible for English 250 and English 260.

ECONOMICS

ECON 1   Principles of Macroeconomics
Units: 3.0   **Hours:** 3.0 Lecture
Transferable: CSU-GE:D, IGETC:4B, GAV-GE:D2

Introduction to the principles of macroeconomic analysis, economic institutions, and economic policy; supply and demand, determinants and distribution of output, income, and welfare through the market system; international trade and globalization. Measurement, determinants of, and policies relating to long-run economic growth, business cycle fluctuations, unemployment, and inflation. This course has the option of a letter grade or pass/no pass. (C-ID: ECON 202) PREREQUISITE: MATH 430 or MATH 205

ECON 2   Principles of Microeconomics
Units: 3.0   **Hours:** 3.0 Lecture
Transferable: CSU-GE:D, IGETC:4B, GAV-GE:D2

Introduction to microeconomic principles, theory, and analysis. Topics include scarcity and resource allocation, specialization and exchange, and the determinants and distribution of output, income, and welfare through the market system, as well as elasticity, production and cost theory, and market failure caused by externalities and asymmetric information. Includes consumer choice and utility maximization, as well as profit maximization in various competitive settings. This course has the option of a letter grade or pass/no pass. (C-ID: ECON 201) PREREQUISITE: MATH 430 or MATH 205

ECON 11   Statistics for Business and Economics
Units: 4.0   **Hours:** 4.0 Lecture
Transferable: CSU-GE:B4, IGETC:2A, GAV-GE:B4

The use of probability techniques, hypothesis testing, and predictive techniques to facilitate decision-making. Topics include descriptive statistics; probability and sampling distributions; statistical inference; correlation and linear regression; analysis of variance, chi-square and t-tests; statistical analysis including the interpretation of the relevance of the statistical findings. Applications using data from disciplines including business, social science, psychology, life science, health science, and education. Additional and more extensive case studies from business and economics, emphasizing statistical results that provide guidance for business decisions or suggest solutions to contemporary business and economic problems; use of larger data sets analyzed with computer software programs. (C-ID: MATH 110) PREREQUISITE: Math 233, or Math 233A and Math 233B, or Math 235, or Math 240, or Math 242 with a grade of "C" or better.

ECON 14   Personal Finance
Units: 3.0   **Hours:** 3.0 Lecture

This course is designed to assist individuals to analyze their financial affairs for lifelong decision making. Elements and concepts of financial planning and decision making in the areas of budgeting, taxes, borrowing, money management, insurance, investments, retirement, and estate planning will be examined. This course is also listed as BUS 14. This course has the option of a letter grade or pass/no pass. ADVISORY: Math 400

ENGINEERING

ENGR 1   Graphical Communication and Design
Units: 3.0   **Hours:** 2.0 Lecture and 3.0 Laboratory

An introduction to the graphical and visual communication of the engineering design process. Topics will include the design process, visualization, free-hand sketching, instrument drawing, scales, orthographic projection, section views, auxiliary views, and dimensioning and tolerancing. Computer based drafting will be used in conjunction with traditional methods to highlight the strengths of multiple communication methodologies. ADVISORY: MATH 1A; may be concurrent.