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ARTS DIVISIONArt Department

ART 10D 2D Foundation	\$28
ART 10E 3D Foundation	\$25
ART 15 Introduction to Drawing for Majors	\$25
ART 20G Introduction to Printmaking and Drawing	\$80
ART 20H Introduction to Sculpture and Public Art	\$78
ART 20I Introduction to Photography	\$80
ART 20J Introduction to Drawing and Painting	\$56
ART 20K - Intro to Digital Media	\$55
ART 26 - Introduction to Printmaking	\$70
ART 80D Fundamentals of Photography - Non Majors	\$25
ART 102 Interactive Arts	\$90
ART 103 Interactive Art: Object, Interface, Robotics	\$90
ART 105 Alchemy: 3D Design/Rapid Prototyping/3DPrinting/CNC Milling/Laser Cutting	\$14
ART 106C Stop Motion Animation	\$100
ART 106E 3D Graphics and Modeling	\$45
ART 108 New Media and Social Practice Artmaking	\$50
ART 110 Intermediate/Advanced Drawing	\$40
ART 111 Figure Drawing	\$58
ART 112 Mixed Media Works on Paper	\$40
ART 113 Illustrating History	\$50
ART 119 Special Topics in Drawing	\$50
ART 120 Intermedia	\$32
ART 121 Intermedia II	\$32
ART 122 Intermedia: Conceptual & Process Oriented Approaches	\$32
ART 124 Material Metaphr: Creating Meaning in Form	\$20
ART 125 Environmental Art Studio	\$55
ART 127 Architectural Design	\$40
ART 128 Picturing Identity: Document & Culture	\$65
ART 129 Special Topics in Intermedia	\$32
ART 130 Intermediate/Advanced Painting	\$50
ART 132 Figure Painting	\$50
ART 133 Abstract Painting	\$50
ART 138 Facture and Meaning	\$50
ART 139 Special Topics in Painting	\$50
ART 147T Design Studio: Costume	\$25
ART 150 Darkroom Practices	\$85
ART 152C View Camera Photography	\$85
ART 151 Digital Photography	\$75
ART 153 Still to Moving: Cinematography for Artists	\$30
ART 154A Being Social: Photography and Engagement	\$85
ART 155 Photo Field Research Quarter (PFRQ): California Road Trip	\$550
ART 156 Project Development in Photography	\$75
ART 157 Advanced Digital Photography	\$75
ART 158 Advanced Photography	\$75
ART 159 Special Topics in Photography	\$75

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ART 160B Monoprinting/Mixed Media/Print Media	\$65
ART 161B Relief and Mixed Media Printing	\$65
ART 162A Intaglio I	\$105
ART 162B Intaglio II	\$105
ART 163A Lithography I	\$60
ART 163B Lithography II	\$70
ART 163C Magnified Imagination: A Printmaking Approach	\$65
ART 164A Screenprinting	\$90
ART 165 Print Media in Visual Communication	\$70
ART 166 Art of Bookmaking	\$55
ART 168 Photo-Based Printmaking	\$105
ART 169 Special Topics in Printmaking	\$70
ART 172 Topics in Public Art: Memory, Landscape and Artist	\$55
ART 180B Sculpture II	\$75
ART 181 Art and Politics	\$80
ART 182 Materiality of Color	\$80
ART 183 Metal Fabrication	\$95
ART 184 3D Art & Design Studio: Laser Cutting & CNC Routing	\$120
ART 185 3D Art & Design Studio: Printing & Prototyping	\$120
ART 188 Intermediate/Advanced Sculpture Foundry	\$175
ART 189 Special Topics in Sculpture	\$65
ART 190B Senior Project	\$54
ART 194 Forms & Ideas	\$25
ART 199 Tutorial Independent Study	\$50

Art & Design: Games & Playable Media

ARTG 80G Visual Communication and Interaction Design	\$8
ARTG 80I Foundations of Play	\$4
ARTG 120 Game Design Experience	\$6
ARTG 129 Special Topics in Game Design	\$10
ARTG 170 Games Design Studio I	\$6
ARTG 172 Games Design Studio III	\$20

MUSIC Department

MUSC 1C University Concert Choir	\$10
MUSC 2 University Orchestra	\$15
MUSC 3 Large Jazz Ensemble	\$10
MUSC 9 Wind Ensemble	\$10
MUSC 59 Introductory to Keyboard Skills	\$100
MUSC 60 Fundamental Keyboard Skills	\$150
MUSC 61 Individ. Lessons Major/Minor 1/2 Hr.	\$350
MUSC 61 Individ. Lessons Non Major/Minor 1/2 Hr.	\$350
MUSC 62 Individ. Lessons Major/Minor 1 Hr.	\$650
MUSC 62 Individ. Lessons Non Major/Minor 1 Hr.	\$650
MUSC 63 Group Lessons Major/Minor 1 Hr.	\$100
MUSC 63 Group Lessons Non Major/Minor 1 Hr.	\$100
MUSC 102 University Orchestra	\$15
MUSC 103 Concert Choir	\$10

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MUSC 159A Opera Workshop	\$10
MUSC 160 University Opera Theater	\$10
MUSC 161 Individ. Lessons Major/Minor 1 Hr.	\$650
MUSC 161 Individ. Lessons Non Major/Minor 1 Hr.	\$650
MUSC 162 Advanced Individ. Lessons Major/Minor 1 Hr.	\$650
MUSC 162 Advanced Individ. Lessons Non Major/Minor 1 Hr.	\$650
MUSC 166 Chamber Singers	\$10
MUSC 196B Senior Recital Preparation Individual Lessons	\$650
MUSC 261 Graduate Applied Instruction Major 1 hr.	\$650

Film and Digital Media

FILM 20A The Film Experience	\$2
FILM 20B Intro to TV Culture and Society	\$2
FILM 20C Introduction to Digital Media	\$2
FILM 20P Intro to Production Technique & Theory	\$15
FILM 80T Technothrillers	\$1
FILM 120 Intro to Film Theory and Criticism	\$2
FILM 130 Silent Cinema	\$4
FILM 132A International Cinema to 1930 to 1960	\$4
FILM 132B International Cinema, 1960 to Present	\$4
FILM 134A American Film 1930 to 1960	\$4
FILM 134B American Film 1960 to Present	\$4
FILM 136A Experimental Film and Video	\$12
FILM 136B History of Television	\$5
FILM 136C Visual Culture and Technology	\$8
FILM 136D Documentary Film and Video	\$10
FILM 142 Beyond Cybernetics: Advanced Topics in New Media Technologies	\$15
FILM 160 Film Genres	\$8
FILM 162 Film Authors	\$8
FILM 165A Film Video and Gender	\$15
FILM 165B Race on Screen	\$15
FILM 165C Lesbian, Gay, Queer Film and Video	\$15
FILM 165D Asian Americans and Media	\$15
FILM 165E Chicana/o Cinema and Culture	\$12
FILM 165G Gender and Global Cinema	\$5
FILM 168 National Cinema and Culture	\$15
FILM 170A Introduction to Digital Media Production	\$35
FILM 170B Fundamentals of Film/Video Production	\$190
FILM 171A Special Topics Sound	\$161
FILM 171F Special Topics Workshop: Autobiographical Film	\$210
FILM 171S Special Topics in Film and Digital Media Production	\$175
FILM 172 Film/Video Studio	\$292
FILM 173 - Narrative Workshop	\$210
FILM 175 - Documentary Video Workshop	\$210
FILM 176 - Experimental Video Workshop	\$210
FILM 177 - Digital Media Workshop	\$40
FILM 178A - Personal Computers in Film & Video	\$147
FILM 185D - Sound Image in Theory & Criticism	\$12

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FILM 185R - The Film Remake	\$12
FILM 185S - Advanced Topics in Film Making	\$12
FILM 185X - Eye Candy Seminar	\$12
FILM 187 - Special Topics in Television Studies	\$8
FILM 189 - Special Topics in Digital/Electronic Media Studies	\$5
FILM 194A - Film Theory Seminar	\$15
FILM 194B -Electronic Theory Media Seminar	\$15
FILM 194C - New Media Theory Seminar	\$15
FILM 194D - Film History Seminar	\$12
FILM 194E - International Cinemas	\$15
FILM 194F - Film and Other Arts: MUSC/Dance	\$15
FILM 194G - New (s) Media	\$15
FILM 194S - Special Topics Seminar	\$12
FILM 196A - Sr. Project in Film/Video Production	\$292
FILM 196C - Senior Documentary Workshop	\$292
FILM 197- Sr. Digital Media Workshop	\$20
FILM 200C -Theory and Praxis of Film & Dig Media, Part 2	\$292
FILM 283 - New Media Arts and Digital Culture	\$20

Digital Arts and New Media

DANM 133 Intro to Computing and Physical Computing for the Arts	\$82
DANM 135 Kinematics: Motion and Machine Art	\$50
DANM 138 Procession: Where Sculpture Meets Costume Meets Performance	\$50
DANM 140 3D Alchemy: 3D Design/Rapid Prototyping/3DPrinting/CNC Milling/Laser Cutting	\$14
DANM 141 Intro to Soft Interaction: Fiber Arts and Reactive Technologies	\$78
DANM 219 Introduction to Electronics for Art Making	\$118

Theater Arts

THEA 12 Production Management	\$10
THEA 14 Drawing	\$28
THEA 17 Costume Construction	\$25
THEA 18 Drafting for Theatrical Production	\$20
THEA 18C Computer Aided Drawing for Theatrical Production	\$20
THEA 19 Design Studio: Lighting Studio A	\$30
THEA 30 Introduction to Modern Dance Theory & Technique	\$30
THEA 31A Dance Studio I: Asian or Asian Diasporic Practice	\$30
THEA 31B Dance Studio I: Ballet	\$30
THEA 31C Dance Studio I: Contemporary Dance Theory and Technique	\$30
THEA 31E Dance Studio I	\$21
THEA 33C Adv. Intro to Modern Dance	\$30
THEA 36 Intro to Dance Composition	\$30
THEA 37 African Dance	\$50
THEA 52 Basic Stagecraft	\$25
THEA 80Z Indian Dance	\$30
THEA 114 Design Studio: Sound	\$20
THEA 115A Design Studio: Scenic Design	\$18
THEA 117 Design Studio: Costume	\$25
THEA 118 Design Studio: Scene Painting	\$25

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THEA 119 Design Studio: Lighting Studio B	\$30
THEA 131A Dance Studio II: Asian or Asian Diasporic Practice	\$30
THEA 131B Dance Studio II: Ballet	\$30
THEA 131C Dance Studio II	\$30
THEA 135 Choreography I	\$30
THEA 136 Choreography II	\$21
THEA 137 Studies in Performance (Dance)	\$30
THEA 137A Studies in Performance (Dance): Asian	\$30
THEA 139 Random with Purpose	\$30
THEA 158 Chautauqua	\$5

DIVISION OF PHYSICAL AND BIOLOGICAL SCIENCESBiology: Ecology and Evolutionary Biology

BIOE 075 Scientific Diving Certification	\$440
BIOE 082 Intro to Field Research and Conservation	\$180
BIOE 085 Natural History of the UCSC Natural Reserve	\$65
BIOE 112L Ornithology Field Studies	\$60
BIOE 114L Field Methods in Herpetological Research	\$435
BIOE 117L Systematic Botany of Flowering Plants Lab	\$30
BIOE 120L Marine Botany Lab	\$30
BIOE 122L Invertebrate Zoology Lab	\$25
BIOE 124L Mammalogy Lab	\$81
BIOE 127L Ichthyology Lab	\$20
BIOE 128L Large Marine Vertebrates Field Course	\$50
BIOE 129L Biology of Marine Mammals Lab	\$80
BIOE 131L Animal Physiology Lab	\$10
BIOE 133L Exercise Physiology Lab	\$15
BIOE 134L Comparative Vertebrate Anatomy Laboratory	\$40
BIOE 135L Plant Physiology Lab	\$25
BIOE 137L Molecular Ecology Lab	\$140
BIOE 141L Behavioral Ecology Field Course	\$70
BIOE 145L Field Methods in Plant Ecology	\$55
BIOE 150L Ecological Field Methods Lab	\$120
BIOE 151B Ecology and Conservation in Practice Supercourse	\$1,497
BIOE 153A Artic Ecology & Environmental Change	\$2,570
BIOE 155L Freshwater Ecology Laboratory	\$145
BIOE 158L Marine Ecology Lab	\$40
BIOE 159A Marine Ecology Field Quarter	\$3,000
BIOE 161L Kelp Forest Ecology Lab	\$500
BIOE 170L Molecular Ecology and Evolution Lab	\$10

Biology: Molecular, Cell, and Developmental Biology

BIOL 20L Experimental Biology Lab	\$20
BIOL 100L Biochemistry Lab	\$30
BIOL 101L Molecular Biology Lab	\$35
BIOL 105L Eukaryotic Genetics Lab	\$60
BIOL 109L Yeast Molecular Genetics Lab	\$55

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BIOL 110L Cell Biology Lab	\$60
BIOL 111L Immunology Lab	\$75
BIOL 115L Eukaryotic Molecular Biology Lab	\$113
BIOL 120L Development Lab	\$70
BIOL 121L Environmental Phage Biology Lab	\$120
BIOL 130L Human Physiology Lab	\$10
BIOL 187L Molecular Biotechnology Lab	\$60

Chemistry

BIOC 110L Advanced Biochemistry Lab	\$350
CHEM 1M General Chemistry Lab	\$18
CHEM 1N General Chemistry Lab	\$18
CHEM 8L Organic Chemistry Lab	\$40
CHEM 8M Organic Chemistry Lab	\$50
CHEM 110L Intermediate Organic Chemistry Lab	\$65
CHEM 122 Principles of Instrumental Analysis	\$180
CHEM 146A Adv. Lab. in Organic Chemistry	\$125
CHEM 146B Adv. Lab. in Inorganic Chemistry	\$240
CHEM 146C Adv. Lab in Physical Chemistry	\$75
CHEM 151L Inorganic Chemistry Lab	\$85
CHEM 164 Physical Chemistry Laboratory	\$50
CHEM 169 Chemistry and Biology of Drug Design and Discovery	\$170

Earth & Planetary Sciences

EART 5L California Geology Lab	\$15
EART 10L Geologic Principles Lab	\$40
EART 11 Earthquakes	\$0
EART 20L Environmental Geology Lab	\$20
EART 100 Vertebrate Paleontology	\$10
EART 101 Invertebrate Paleobiology	\$80
EART 104 Geologic Hazards	\$10
EART 105 Coastal Geology	\$15
EART 109 Elements of Field Geology	\$150
EART 110C The Dynamic Earth	\$10
EART 116 Hydrology	\$10
EART 120 Sedimentology and Stratigraphy	\$40
EART 121 The Atmosphere	\$15
EART 135L Practical Geochemistry	\$50
EART 140L Geomorphology Lab	\$40
EART 142 Engineering Geology for Environmental Scientists	\$60
EART 146 Groundwater	\$5
EART 148 Glaciology	\$85
EART 150 Structural Geology	\$125
EART 189 B Summer Field Course	\$1,300
EART 204 Earth and Planetary Sciences Foundations	\$40
ESCI 122 Air Pollution	\$25

Microbiology and Environmental Toxicology

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METX 119L Microbiology Lab	\$58
METX 135L Functional Anatomy Lab	\$45

SOCIAL SCIENCES DIVISIONAnthropology

ANTH 180 Ceramic Analysis Lab	\$25
ANTH 189 Archaeology Field School Cowell Lime Works	\$25

Environmental Science

ENVS 18 Natural History Illustration	\$60
ENVS 106A Natural History of Birds	\$40
ENVS 107A Natural History Field Quarter	\$800
ENVS 109B Ecology and Conservation in Practice Supercourse	\$1,497
ENVS 115L Geographic Information Systems	\$20
ENVS 130C Field Experiences in Agroecology and Sustainable Food Systems	\$22
ENVS 130L Intro to Agroecology Lab	\$15
ENVS 133 Agroecology Practicum	\$55
ENVS 167L Freshwater and Wetland Ecology Lab	\$40
ENVS 215L Geographic Information Systems	\$20

Education

EDUC 221 Science Teaching and Learning in Elementary Classrooms	\$10
EDUC 231 Teaching Science in Secondary Classrooms	\$10

SCHOOL OF ENGINEERINGComputer Science and Engineering

CSE 100L Logic Design Lab	\$15
CSE 121L Microprocessor System Design Lab	\$180
CSE 123A Engineering Design Project I	\$110
CSE 123B Engineering Design Project II	\$10
CSE 125L Logic Design with Verilog Lab	\$5
CSE 129B Capstone Project II	\$10
CSE 129C Capstone Project III	\$10
CSE 225 Intro to ASIC Systems Design	\$15

Computational Media

CMPM 170 Game Design Studio 1	\$25
CMPM 171 Game Design Studio 2	\$65
CMPM 172 Game Design Studio 3	\$25

Electrical and Computer Engineering

ECE 008 - Robot Automation: Intelligence Through Feedback Control	\$5
ECE101L Intro to Electronic Circuits Laboratory	\$25
ECE 102L Properties of Materials Lab	\$5
ECE 118L Intro to Mechatronics Lab	\$150
ECE 129B Capstone Project II	\$10

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ECE 129C Capstone Project III	\$10
ECE 130L Intro. to Optoelectronics Lab	\$15
ECE 135L Electromagnetic Fields & Waves Lab	\$12
ECE 157L RF Hardware Design Lab	\$112
ECE 167L Sensing & Sensor Technologies Lab	\$57
ECE 171L Analog Electronics Lab	\$15
ECE 173L High Speed Digital Design Lab	\$112
ECE 177L Power Electronics Lab	\$40
ECE 218L Mechatronics Lab	\$150
ECE 121L Microcontroller System Design	\$15
ECE 273L High Speed Digital Design Lab	\$112

Biomolecular Engineering

BME 21L Intro to Basic Lab	\$50
BME 51A Applied Electronics for Bioengineers	\$90
BME 51B Applied Electronics for Bioengineers	\$18
BME 128L Protein Engineering Lab	\$140
BME 129B Biomolecular Engineering Project 2	\$80
BME 129C Biomolecular Engineering Project 3	\$80
BME 140L Bioinstrumentation Lab	\$40

COWELL COLLEGE

COWL 70A Bookbinding	\$60
COWL 70B Printing I: Elements of Printing	\$60
COWL 70C Printing II: Typography and Book Design	\$60

CROWN COLLEGE

CRWN 185 Career and Internship Preparation	\$8
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