

138

Lab

Plant Development Morphology

## COURSE MATERIALS AND SERVICES FEES | SPRING 2020

## **COLLEGE OF NATURAL & AGRICULTURAL SCIENCES (CNAS) COURSE TITLE** APPROVED FEE **Cross-Listed Course #** COURSE # **TYPE CROSS-LISTED DEPT. BIOCHEMISTRY** 15 Lab \$80 Intro Biochemistry Laboratory 162 Lec Biochemistry and Molecular Biology \$150 **BIOLOGY** 2 Lab Cellular Basis of Life \$50 3 Lab Organisms in Their Environment \$25 5LA Lab \$50 Introduction to Cell and Molecular Biology Lab \$50 5B Lab Introduction to Organismal Biology 5C Lab Introduction to Evolution and Ecology \$15 20 Dynamic Genome \$50 Lab 100 Lab \$30 100 General Entomology Entomology 104 104 Lab Foundations of Plant Biology \$30 Botany and Plant Sciences 118 Lab Molecular Phylogenetics and Evolution \$50 121L Microbiology Laboratory \$100 121L Lab Microbiology \$40 132 132 Lab Plant Anatomy **Botany and Plant Sciences**

\$30

**Botany and Plant Sciences** 

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143	Lab	Plant Physiology	\$50	Botany and Plant Sciences	143
151	Lab	Invertebrate Zoology	\$130		
160L	Lab	Laboratory in Animal Behavior	\$50		
161A	Lab	Functional Anatomy of the Vertebrates	\$50		
161B	Lab	Functional Anatomy of the Vertebrates	\$50		
162	Lec	Insect Behavior	\$5	Entomology	162
163	Lab	Evolutionary Ecology of Terrestrial Vertebrates	\$120		
165	Lec	Restoration Ecology	\$40	Botany and Plant Sciences	165
170	Lab	Herpetology	\$160		
171L	Lab	Human Anatomy & Physiology	\$100		
173	Lab	Insect Physiology	\$5	Entomology	173
		BOTANY AI	ND PLANT SCIENCES		
31	Lab	Spring Wildflowers	\$25		
104	Lab	Foundations of Plant Biology	\$30	Biology	104
132	Lab	Plant Anatomy	\$40	Biology	132
133	Lab	Taxonomy of Flowering Plants	\$40		
138	Lab	Plant Development Morphology	\$30	Biology	138
143	Lab	Plant Physiology	\$50	Biology	143
146	Lab	Plant Ecology	\$30		
165	Lec	Restoration Ecology	\$40	Biology	165
166	Workshop	Plant Physiological Ecology	\$30		

	CELL BIOLOGY AND NEUROSCIENCE						
106	Lec	Introduction to Neuroscience	\$9				
120L	Lec	Neuroscience Laboratory	\$40	Psychology	120L		
124	Lec	Systems Neuroscience	\$9	Psychology	124		
169	Lec	Human Embryology	\$11				
		C	CHEMISTRY				
1LA	Lab	General Chemistry	\$46				
1LB	Lab	General Chemistry	\$46				
1LC	Lab	General Chemistry	\$46				
1HLA	Lab	Honors General Chemistry	\$46				
1HLB	Lab	Honors General Chemistry	\$46				
1HLC	Lab	Honors General Chemistry	\$46				
5	Lab	Quantitative Analysis	\$46				
08LA	Lab	Organic Chemistry	\$46				
08LB	Lab	Organic Chemistry	\$46				
08LC	Lab	Organic Chemistry	\$46				
111	Lab	Physical Chemistry	\$46				
125W	Lab	Instrumental Methods	\$46				
140	Lab	Environmental Chemistry	\$46				
166	Lab	Advanced Structural and Synthetic Methods	\$46				

ENTOMOLOGY						
10	Lec	Natural History of Insects	\$5			
20	Lec	Bees and Beekeeping	\$66.67			
100	Lab	General Entomology	\$30	Biology	100	
109	Lab	Field Entomology	\$94			
114	Lab	Aquatic Insects	\$100			
124	Lab	Agricultural Entomology	\$100			
126	Lec	Medical and Veterinary Entomology	\$33			
162	Lec	Insect Behavior	\$5	Biology	162	
173	Lab	Insect Physiology	\$5	Biology	173	
			GENETICS			
272	Lab	Introduction to Imaging Bioinstrumentation	\$30	Electrical Engineering	272	
273	Lab	Live Imaging & Analysis of Cellular and Molecular Behaviors	\$30	Electrical Engineering	273	
274	Lab	Introduction to Medical Imaging & Analysis	\$30	Electrical Engineering	274	
			GEOLOGY			
102B	Fld	Summer Field Geology	\$1,732.00			
		MA	ATHEMATICS			
2	Lec	Math Support Practicum	\$3			
4	Lec	Introduction to College Mathematics for Business and the Social Sciences	\$3			
5	Lec	Precalculus	\$3			
008A	Lec	Intro to Coll Math for Sciences	\$3			

008B	Lec	Intro to Coll Math for Sciences	\$6		
009A	Lec	First Year Calculus	\$6		
009B	Lec	First Year Calculus	\$6		
009C	Lec	First Year Calculus	\$6		
09НА	Lec	Honors Calculus	\$3		
09НВ	Lec	Honors Calculus	\$3		
09HC	Lec	Honors Calculus	\$3		
010A	Lec	Calculus - Several Variables	\$3		
010B	Lec	Calculus - Several Variables	\$3		
11	Lec	Introduction to Discrete Structures	\$3	Computer Science	11
22	Lec	Calculus for Business	\$6		
46	Lec	Ordinary Differential Equations	\$6		
		MIC	CROBIOLOGY		
121L	Lab	Microbiology Laboratory	\$100	Biology	121L
125	Lab	Experimental Microbiology	\$50		
			PHYSICS		
002A	Lec	General Physics	\$5		
002HA	Lec	Honors General Physics	\$5		
002B	Lec	General Physics	\$5		
002HB	Lec	Honors General Physics	\$5		
002C	Lec	General Physics	\$5		
002HC	Lec	Honors General Physics	\$5		

2LA	Lab	General Physics Laboratory	\$25	
02HLA	Lab	Honors General Physics Laboratory	\$25	
2LB	Lab	General Physics Laboratory	\$25	
02HLB	Lab	Honors General Physics Laboratory	\$25	
2LC	Lab	General Physics Laboratory	\$25	
02HLC	Lab	Honors General Physics Laboratory	\$25	
8	Lec	Color and Sound: Dimensions in Communication	\$5	
10	Lec	How Things Work	\$5	
16	Lec	Principles of Physics	\$5	
40A	Lab	General Physics	\$25	
040HA	Lab	Honors General Physics	\$25	
40B	Lab	General Physics	\$25	
040HB	Lab	Honors General Physics	\$25	
40C	Lab	General Physics	\$25	
040HC	Lab	Honors General Physics	\$25	
41A	Lab	Intro Physics for Physics Major	\$50	
41B	Lab	Intro Physics for Physics Major	\$50	
41C	Lab	Intro Physics for Physics Major	\$50	
139L	Lab	Electronics for Scientists	\$45	
142L	Lab	Advanced Physics Laboratory	\$150	
142W	Wrk	Advanced Physics Laboratory	\$150	

## COLLEGE OF HUMANITIES, ARTS AND SOCIAL SCIENCES (CHASS)

COURSE #	TYPE	COURSE TITLE	APPROVED FEE	CROSS-LISTED DEPT.	Cross-Listed Course #		
	ART						
1	Lec	Beginning Drawing and Design	\$20				
2	Lec	Beginning Painting and Design	\$40				
3	Lec	Intro to Photo Process	\$50				
4	Lec	Introduction to Moving Images	\$60	Media & Cultural Studies	4		
5	Lec	Beginning Sculpture and 3-D Design	\$85				
9	Lec	Introductory Web-Based Art: Site Creation and Navigation	\$50				
10	Stu	Intro to Video	\$60				
32	Lec	Sophomore Workshop	\$80				
65	Lec	Intro To Vector Image Making & Printing	\$65				
66	Lec	Introduction to 3-D Digital Modeling	\$40	Computer Science	66		
67	Lec	Three-Dimensional Digital Modeling and Animation	\$65		67		
70 E-Z	Lec	Digital Imaging Software for the Visual Arts	\$50				
71 E-Z	Lec	Photographic Materials & Processes	\$50				
75 E-Z	Wrk	Sculpture Materials & Processes	\$65				
102	Lec	Intermediate Drawing	\$20				
103	Lec	Advanced Drawing	\$20				
104	Lec	Life Drawing	\$45				
110	Lec	Intermediate Painting	\$40				

111	Lec	Advanced Painting	\$40		
112 E-Z	Wrk	Painting Materials and Processes	\$50		
115	Lec	Intermediate Sculpture	\$80		
125	Lec	Sculpture Hybrid	\$75		
131	Lec	Intermediate Photography & Digital Technology	\$75	Media & Cultural Studies	131
132	Lec	Junior Workshop	\$80		
133	Lec	Senior Art Workshop	\$80		
134	Lec	Mixed Media	\$65		
136	Lec	Installation & Site-Specific Art	\$65	Media & Cultural Studies	136
137	Lec	Advanced Sculpture	\$80		
139	Lec	Intermediate Web-Based Art	\$40		
140	Lec	Intermediate Analog Photography	\$60		
142	Lec	Color Photography	\$45		
143	Lec	Advanced Digital Imaging Technology	\$65		
145	Lec	Advanced Photography Workshop	\$60		
146 E-Z	Lec	Topics in Advanced Photography	\$60		
150	Lec	Intermediate Moving Images	\$50	Media & Cultural Studies	150
155	Lec	Advanced Moving Images	\$50	Media & Cultural Studies	155
162	Stu	New Genres of Art Practice	\$50		
165	Lec	Intermediate Vector Image Making & Printing	\$65		
167	Lec	Web Authoring	\$35		
169 E-Z	Lec	Digital Imaging Intermediate Software	\$35		

171	Lec	Intermediate & Advanced Sculpture/Digital	\$65						
175	Lec	Advanced Digital Workshop	\$65						
	ART HISTORY								
136	Lec	History of Video Art	\$10	Media & Cultural Studies	137				
137	Lec	History of Experimental Film	\$20	Media & Cultural Studies	138				
		GENDER ANI	D SEXUALITY STUDIES						
148	Lec	INTRSCTNLTY, ECLGY, DSIGN SCI	\$917						
		HIGHLANDER	EARLY START ACADEM	Υ					
1	Sem	Early Start Seminar	\$203						
		MEDIA AND	CULTURAL STUDIES						
4	Lec	Introduction to Moving Images	\$60	Art	4				
131	Lec	Intermediate Photography & Digital Technology	\$75	Art	131				
136	Lec	Installation & Site-Specific Art	\$65	Art	136				
137	Lec	History of Video Art	\$10	Art History	136				
138	Lec	History of Experimental Film	\$20	Art History	137				
150	Lec	Intermediate Moving Images	\$50	Art	150				
			MUSIC						
080 (E-Z)	Stu	Private Instruction: Voice, Keyboard, and Strings	\$250						
081 (E-Z)	Stu	Private Instruction: Brass, Woodwinds, Percussion, and Other Instruments	\$250						
0180 (E-Z)	Stu	Private Instruction: Voice, Keyboard, and Strings	\$500						
0181 (E-Z)	Stu	Private Instruction: Brass, Woodwinds, Percussion, and Other Instruments	\$500						

	PSYCHOLOGY							
120L	Lec	Neuroscience Laboratory	\$40	Cell Biology and Neuroscience	120L			
124	Lec	Systems Neuroscience	\$9	Cell Biology and Neuroscience	124			
		THEATRE, FILM, A	AND DIGITAL PRODUCT	TION				
44	Dis	Make-Up, Theatre, Film TV	\$61					
155	Lec	Intro to Digital Film Production	\$98					
156A	Lec	Digital Film Production	\$98					
156B	Lec	Digital Film Production	\$98					
157	Lec	Introduction to Film Editing	\$71					

MARLAN AND ROSEMARY BOURNS COLLEGE OF ENGINEERING (BCOE)									
COURSE #	ТҮРЕ	COURSE TITLE	APPROVED FEE	CROSS-LISTED DEPT.	Cross-Listed Course #				
	BIOENGINEERING								
10	Lec	Overview of Bioengineering	\$50						
130L	Lab	Bioinstrumentation Lab	\$50						
155	Lab	Biotechnology Lab	\$150						
175A, 175B, 175C	Lec	Senior Design	\$100						
	CHEMICAL AND ENVIRONMENTAL ENGINEERING								
11	Lab	Intro to Bioengineering	\$30						
125	Lab	Analys Meths For Chem & Env Engrs	\$50						

	CHEMICAL ENGINEERING						
124L	Lab	Biochemical Engr Lab	\$50				
160A	Lab	Chem/Env Engineering Lab	\$50	Environmental Engineering	160A		
160B	Lab	Chemical Engineering Lab	\$50				
160C	Lab	Chemical Engineering Lab	\$50				
161	Lab	Nanotechnology Processing Lab	\$50				
175A	Lab	Chemical Process Design	\$50				
		COMP	PUTER SCIENCE				
5	Lab	Introduction to Computer Programming	\$30				
6	Lab	Effective Use of the World Wide Web	\$30				
8	Lab	Introduction to Computing	\$30				
10	Lab	Introduction to Computer Science for Science, Mathematics, and Engineering I	\$30				
11	Lec	Introduction to Discrete Structures	\$3	Mathematics	11		
12	Lab	Introduction to Computer Science for Science, Mathematics, and Engineering II	\$30				
13	Lab	Introduction to Computer Science for Engineering Majors	\$30				
009M	Lab	Introduction to Programming	\$30				
120A	Lab	Logic Design	\$30	Electrical Engineering	120A		
120B	Lab	Introduction to Embedded Systems	\$30	Electrical Engineering	120B		
122A	Lab	Intermediate Embedded and Real-Time Systems	\$30				
122B	Lab	Advanced Embedded and Real-Time Systems	\$30				
130	Lab	Computer Graphics	\$30				

133	Lab	Computational Geometry	\$30		
134	Lab	Video Game and Creation and Design	\$30		
152	Lab	Compiler Design	\$30		
153	Lab	Design of Operating Systems	\$30		
160	Lab	Concurrent Programming and Parallel Systems	\$30		
161L	Lec	Design and Architecture of Computer Systems	\$30		
162	Lab	Computer Architecture	\$30		
164	Lab	Computer Networks	\$30		
165	Lab	Computer Security	\$30		
166	Lab	Database Management Systems	\$30		
168	Lab	Introduction to Very Large Scale Integration (VLSI) Design	\$30	Electrical Engineering	168
177	Lab	Modeling and Simulation	\$30		
179 E-Z	Lab	Project in Computer Science	\$30		
180	Lab	Introduction to Software Engineering	\$30		
181	Lab	Principles of Programming Languages	\$30		
183	Lab	UNIX System Administration	\$30		
		ELECTRIC	CAL ENGINEERING		
01LA	Lab	Engineering Circuit Analysis I Laboratory	\$30		
001B	Lab	Engineering Circuit Analysis II	\$30		
100A	Lab	Electronic Circuits	\$30		
100B	Lab	Electronic Circuits	\$30		
105	Lab	Modeling and Simulation of Dynamic Systems	\$30		

110B	Lab	Signals and Systems	\$30		
115	Lab	Introduction to Communication Systems	\$30		
120A	Lab	Logic Design	\$30	Computer Sciences	120A
120B	Lab	Introduction to Embedded Systems	\$30	Computer Sciences	120B
123	Lab	Power Electronics	\$30		
128	Lab	Data Acquisition, Instrumentation, and Process Control	\$30		
132	Lab	Automatic Control	\$30		
134	Lab	Digital Integrated Circuit Layout and Design	\$30		
135	Lab	Analog Integrated Circuit Layout and Design	\$30		
136	Lab	Semiconductor Device Processing	\$50		
140	Lab	Computer Visualization	\$30		
141	Lab	Digital Signal Processing	\$30		
144	Lab	Introduction to Robotics	\$30	Mechanical Engineering	144
146	Lab	Computer Vision	\$30		
151	Lab	Introduction to Digital Control	\$30		
152	Lab	Image Processing	\$30		
153	Lab	Electric Drives	\$30		
165	Lab	Design for Reliability of Integrated Circuits and Systems	\$30		
168	Lab	Introduction to Very Large Scale Integration (VLSI) Design	\$30	Computer Science	168
204	Lab	Advanced Electromagnetics	\$30		
206	Lab	Nanoscale Characterization Techniques	\$30	Materials Science and Engineering	227A
229	Lab	Video Processing & Communication	\$30		

272	Lab	Introduction to Imaging Bioinstrumentation	\$30	Genetics	272		
273	Lab	Live Imaging & Analysis of Cellular and Molecular Behaviors	\$30	Genetics	273		
274	Lab	Introduction to Medical Imaging & Analysis	\$30	Genetics	274		
275	Lab	Project in Video Bioinformatics	\$30				
	ENGINEERING (ENGR)						
180W	Lec	Technical Communications	\$30				
		ENVIRONMI	ENTAL ENGINEERING				
160A	Lab	Chem/Env Engineering Lab	\$50	Chemical Engineering	160A		
160B	Lab	Environmental Engineering Lab	\$50				
160C	Lab	Environmental Engineering Lab	\$50				
175A	Lab	Senior Design Project	\$50				
		MATERIAL SCIE	NCE AND ENGINEERIN	IG			
160	Lab	Nanostructure Characterization	\$133				
161	Lab	Nanostructure Characterization	\$133				
227A	Lab	Nanoscale Characterization Techniques	\$30	Electrical Engineering	206		
MECHANICAL ENGINEERING							
131	Lab	Design of Mechanisms	\$30				
133	Lab	Introduction to Mechatronics	\$30				
144	Lab	Introduction to Robotics	\$30	Electrical Engineering	144		
156	Lab	Mechanical Behavior of Materials	\$30				
170A	Lab	Experimental Techniques	\$30				
170B	Lab	Experimental Techniques	\$30				

175B	Lab	Mechanical Engineering Design	\$30	
175C	Lab	Mechanical Engineering Design	\$30	
180	Lab	Optics and Lasers in Engineering	\$30	

SCHOOL OF BUSINESS						
COURSE #	ТҮРЕ	COURSE TITLE	APPROVED FEE	CROSS-LISTED DEPT.	Cross-Listed Course #	
MANAGEMENT						
404	Lec	Com, Leadership, Teams, and Ethics	\$181			

GRADUATE SCHOOL OF EDUCATION (GSOE)								
COURSE #	ТҮРЕ	COURSE TITLE	APPROVED FEE	CROSS-LISTED DEPT.	Cross-Listed Course #			
	EDUCATION							
265A	Sem	Practicum in School Psychology: Introductory	\$20					
265B	Sem	Practicum in School Psychology: Basic	\$20					
265C	Sem	Practicum in School Psychology: Advanced	\$20					
265D	Sem	Practicum in School Pschology: Clinical	\$20					
265E	Sem	Practicum in School Psychology: Supervision	\$20					
265F	Sem	Practicum: Mental Health Intervention	\$20					
268A	Sem	Practicum: Mental Health Intervention	\$20					
268B	Prc	Practicum: Mental Health Intervention	\$20					
268C	Prc	Practicum: Mental Health Intervention	\$20					
331	Sem	Early Supervsd Fieldwrk &Sem:ES	\$75					

332	Sem	Early Supervsd Fieldwrk &Sem:MS	\$75	
333	Sem	Early Supervsd Fieldwrk &Sem:SS	\$75	
335A	Sem	Supervsd Teaching: Special Ed	\$228	
337A	Fld	Fld Teaching Performance Assessment	\$300	
344A	Sem	Mult Subj Credential Sem	\$228	
348A	Sem	Sing Subj Credential Sem	\$228	
377A	Fld	Teaching Perf Assess Sing Subj	\$300	