MCD Biology BS Requirements (2021-22)						rse	offerings are subject to change.								
Lower Divis	ion R	eau	rements												
201101 21110	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,														
Calculus:			MATH 11A (FWS) or MATH 19A (FWS)	&			MATH 11B (FWS) or MATH 19B (FWS)								
General Chem:			CHEM 1A: General Chemistry (FWS)	&		П	CHEM 1B: General Chemistry (FWS)	&		1	CHEM 1C: General Chemistry & (FWS)				
General enem			Crieff Die General Greinistry (1995)	ŭ			Chemital delicite chemistry (i 1757	_	1	=	CHEM 1N: General Chem Lab (FWS)				
										_					
Biology		Ш	BIOL 20A: Cell and Molecular Bio (FWS)	&		Ш	BIOE 20B: Development and Physiology (FWS)	&		١	BIOE 20C: Ecology & Evolution (FWS)	&		Ш	BIOL 20L: Experimental Bio Lab (FWS) OR
Organic Chem:			CHEM 8A: Organic Chemistry & (FW)	&			CHEM 8B: Organic Chemistry (WS)								BIOL 102J: Toxic RNA Lab I (F)
			CHEM 8L: Organic Chem Lab (FW)												OR BIOL 107J: Synthetic Gene Regulation Lab I (F)
Statistics:			STAT 5: Statistics (FWS)	OR			STAT 7: Stats for the Biological, Environmental, a	nd H	lealth Sci	ien	es & (FWS)				BIOL 1073: Synthetic Gene Regulation Lab I (F)
							STAT 7L: Stats Lab (FWS)								
Physics:			PHYS 6A: Introductory Physics I & (FWS)	&			PHYS 6B: Introductory Physics II (WS)	OR		-	PHYS 6C: Introductory Physics III (FS)				
Filysics.		H	PHYS 6L: Introductory Physics I Lab (FWS)	OX.		ш	PHT3 0B. IIII OUUCUTY PHYSICS II (W3)	OK		_	rn 13 oc. ilitoductory rnysics ili (r3)				
			equalification courses shaded green with a and students must petition to declare by the					ualit	fication	CC	urses must be completed by the				
end of the St	II quai	_	Declared	e ou	ı qua	irter	deadune.								
		_													
Upper Divis	ion C	ours	ses												
Complete the	major v	vith :	the following:												
	con		upere												
	CORI	: ((URSES:												
			BIOL 105: Genetics (FWS)												
		_				_									
		□ DR	BIOL 100: Biochemistry (WS)	&		Ш	BIOL 101: Molecular Biology (FS)								
			BIOC 100A: Biochemistry & Molecular Bio (F)	&			BIOC 100B: Biochemistry & MB (W)	&			BIOC 100C: Biochemistry & MB (S)				
			BIOL 101L: Molecular Biology Lab (FWS) BIOL 110: Cell Biology (FWS)	OR			BIOL 102L: Toxic RNA Lab II (W)	OR]	BIOL 107L: Synthetic Gene Regulation L	ab II (W)		
		ш	BIOL 110. Cell Biology (FWS)												
	ELEC	TIV	ES: 3 UPPER DIVISION ELECTIVES (ONLY	ON	E OF	- WI	IICH MAY BE A 3-UNIT COURSE: BIOL	112	, 11 6 O	DR	117)				
			BIOC 100C: Biochemistry												
			BIOE 109: Evolution BIOE 135/L: Plant Physiology/Lab												
			BIOL 111A: Immunology												
			BIOL 111B: Immunology II												
		_	BIOL 112: Virology BIOL 114: Cancer Cell Biology												
			BIOL 115: Eukaryotic Molecular Biology												
			BIOL 116: Advanced Topics in Cell Biology												
		_	BIOL 117: Global Health & Neglected Diseases												
			BIOL 118: Principles of Human Genetics BIOL 120: Developmental Biology												
			BIOL 125: Intro to Neuroscience												
		_	BIOL 130: Human Physiology												
			BIOL 140: The RNA World BME 110: Computational Biology Tools												
			BME 130: Genomes												
		_	BME 160: Research Programming for Biologists & E	Bioche	emists	5									
			BME 178: Stem Cell Biology METX 100: Introduction To Microbiology	OR			METX 119: Microbiology								
			METX 140: Molecular Biology And Microbial Genetic			_									
			PHYS 180: Biophysics												
	LAD	114	AB COURSE REQUIRED												
	LAD.		BIOL 100L: Biochemistry Lab												
			BIOL 103L: Toxic RNA Lab II												
			BIOL 105L: Eukaryotic Genetics Lab												
			BIOL 106L: Eukaryotic Genetic Engineering Lab BIOL 108L: Synthetic Gene Regulation Lab III												
			BIOL 109L: Yeast Molecular Genetics Lab												
			BIOL 115L: Eukaryotic Molecular Biology Lab												
		_	BIOL 120L: Developmental Biology Lab BIOL 121L: Environmental Phage Biology Lab												
		_	BIOL 186L: Undergraduate Research in MCD Biolog	ЭV											
			METX 119L: Microbiology Lab												
	Dicc	ını .	NA DV COMMUNICATION & CENTOR TO	D51) ! !! C		NITC ADE CATICEIED DV COMPLETION	0.			LAD COLIDCE FROM THE 122	·-··	C.T.		
	DISC		NARY COMMUNICATION & SENIOR EXIT DC/SENIOR EXIT COMPLETE	KEC	YUIR	ιΕΜΙ	INTO ARE SATISFIED BY COMPLETING	ON	⊵ 5-UN	a f	LAB COURSE FROM THE ABOV	c Ll	٥١.		
		_													
Please refer	to you	- 20	21-22 UCSC General Catalog for more in	form	antio	n 01	clarification								