

This information is subject to change. See the on-line class schedule for the most accurate information.

Courses do not count towards the Biology Major  
Elective lab courses with laboratory credit

Core courses for the Biology Major

BIOL	TITLE	CR	NOTES	LAB	PRE-REQUISITES and COMMENTS (C- or better needed for Biology Major Credit)	SEM
1010	<i>Biology in the 21st Century</i>	3	DV, LS		Not counted toward BIOL Degree.	F/S
1030	<i>Human Biology</i>	3	LS		Not counted toward BIOL Degree.	F
1120	<i>Intro to Earth System Science</i>	3	LS		Not counted toward BIOL Degree.	F
1610	Fundamental Principles of Biology I	4	LS		(Recommend MATH 1010 or higher)	ALL
1615	Fundamental Principles of Biology Lab I	1		[L1]	Co-req BIOL 1610 (or Pre-req BIOL 1210 -or- AP4+ or IB5)	ALL
1620	Fundamental Principles of Biology II	4	LS		(Recommend MATH 1010 or higher)	F/S
1625	Fundamental Principles of Biology Lab II	1		[L1]	Co-req BIOL 1620 (or Pre-req BIOL 2010)	F/S
2020	Principles of Cell Biology	3			BIOL 1210 -or- 1610 -or- AP4+ or IB5 -or- BME 1020 -and- CHEM 1210 -or- 1211 -or- AP4+	F/S
2021	Principles of Cell Science	4	Honors		BIOL 1210 -or- 1610 -or- AP4+ or IB5 -or- BME 1020 -and- CHEM 1210 -or- 1211 -or- AP4+ -and- Honors College -or- Instructor Consent	F
2030	Principles of Genetics	3			BIOL 1210 -or- 1610 -or- AP4+ or IB5	F/S
2325	Human Anatomy	4		[L1]		ALL
2355	Field Botany	2	Half Sem	[L1]		Su
2420	Human Physiology	4	LS		BIOL 1210 -or- 1610 -or- AP4+ -or- IB5 -and- CHEM 1110 -or- 1130 -or- 1210 -or- 1211 -or- AP4+	ALL
2425	Human Physiology Lab	1		[L1]	*Co-Req: BIOL 2420	F/S
2870	Faculty Research Seminar	1				F
3125	Mol Tools for Evol & Pop Biology	3	Half Sem	[L2]	BIOL 1620 -or- 2010 -and- 2030	S (even)
3150	Genomics and Bioinformatics	3		[L1]	BIOL 1610-or-1210 Co-req: BIOL 2030	S
3205	General Microbiology Lab	1		[L1]	*Co-Req: BIOL 3210 -or- 3370 -or- PATH 3100	F/S
3210	General & Pathogenic Microbiology	3			BIOL 2020 -or- 2021 -and- CHEM 1110 -or-1130 -or-1210 -or- 1211 -or- AP4+	F/S not S25
3230	Developmental Biology	3			BIOL 2030	
3240	Intro to Cellular Neurobiology	3			BIOL 2020 -or- 2021	F
3310	Comp Vertebrate Morphology	3			BIOL 1620 -or- 2010	F24
3315	Comp Vertebrate Morphology Lab	1		[L1]	BIOL 1620 -or- 2010	S
3320	Comparative Physiology	3			BIOL 1620 -or- 2010	F
3325	Comparative Physiology Lab	3		[L2]	BIOL 1210 -or- 1610 -or- AP4+ -or- IB5	S
3330	Behavioral Neurobiology	3			BIOL 1620 -or- 2010 -or- 2420	S
3340	Intro to Plant Biology	3			BIOL 1210 -or- 1610 -or- 1620 -or- 2010 -or- AP4+ -or- IB5	S
3350	Physiology of Plants	3			BIOL 1620 -or- 2010 -and- BIOL 2020 -or- 2021	F
3360	Vertebrate Embryology	3			BIOL 2325	F (even)
3370	Microbial Biology	3			BIOL 2020 -or- 2021	S
3380	Evol & Physiol Basis of Health	3			BIOL 2020 -or- 2021 -or- 2420	F
3390	Functional Musculoskeletal Anatomy	3			BIOL 2325	F
3410	Ecology & Evolution	3			BIOL 1620 -or- 2010 -and- MATH 1170 -or- 1310 -or- 1210 -or- 1250 -or- AP Calc AB4+ -or- BC3+ -or- IB5+	F/S
3430	Animal Behavior	3			BIOL 1620 -or- 2010	S (odd)
3460	Global Environmental Issues	3	IR			F
3461	Diversity/Justice Global Env Challenges	1			Co-req BIOL 3460	F
3470	Conservation Biology	3				S
3485	Conservation Biology Field Lab	1		[L1]	BIOL 1620 -or- 2010 -and- *Co-Req: BIOL 3470 (Recommend: BIOL 3410)	S
3510	Biological Chemistry I	3			CHEM 2310 -or- 2311	ALL (Su in Chem)
3515	Biological Chemistry Lab	3		[L1]	*Co-Req: BIOL 3510 -or- CHEM 3510	S (+Su in CHEM)
3520	Biological Chemistry II	3			BIOL 3510 -or- CHEM 3510	S
3525	Molecular Biology of DNA Lab	3		[L2]	Recommend BIOL 3510	F
3550	Physical Principles in Biology	3	QI		BIOL 2020 -or- 2021 -and- CHEM 1220 -or- 1221 -and- MATH 1180 -or- 1220	S
3551	Physical Principles in Biology	3	Honors, QI		BIOL 2020 -or- 2021 -and- CHEM 1220 -or- 1221 -and- MATH 1180 -or- 1220 -and- Member of Honors College	S
3665	Form, Function & Adaptation In Animals	3	Online	[L2]		S
3715	Analysis & Visualization Biological Data	3		[L1]	(BIOL 1610 -and- 1620) AND (MATH 1170 -or- 1210 -or- 1210 -or- 1215 -or- 1250 -or- 1310 -or- 1311)	S
3960	Special Topics in Biology	1-5			Instructor Permission. Topics vary	check schedule
3960	Gene Express Lab	3		[L2]	BIOL 1615 -or- 1625 -and- BIOL 2020	S25
4312	Human Dissection	1			BIOL 4313 -or- 5313 -or- 5315	F/S
4313	<i>Teaching Anatomy</i>	1			<i>Instructor Consent, AOCE Contract Course - see Jon Groot</i>	F/S
4314	Anatomy Colloquium	1			Instructor Consent.	F/S
4950	Directed Reading	1-3			Instructor Consent	ALL
4955	Individual Research	1-3		[L1-L2]	Instructor Consent	ALL
4965	Independent Professional Internship	1-3			Instructor Consent	ALL
4995	Biology Honors Research	1-4	Honors	[L1-L2]	Instructor Consent -and- Member of Honors College	ALL
4999	Honors Thesis/Project	3	Honors		Instructor Consent -and- Member of Honors College	ALL

BIOL	TITLE	CR	NOTES	LAB	PRE-REQUISITES/COMMENTS	SEM
5011	Mathematical Biology I (MATH 5110)	3			MATH 2250 -or- 2280	F
	Mathematical Biology II (MATH 5120)	3			BIOL 5011 -or- MATH 5110	S
5120	Gene Expression	3			BIOL 2020 -or- 2021	S
5210	Cell Structure & Function	3			BIOL 2020 -or- 2021	S
5255	Prokaryotic Genetics	4		[L2]	Recommend BIOL 2020 -or- 2021 -and- BIOL 2030	S
5275	Microbial Diversity, Genomics & Evolution	4		[L2]	BIOL 1620 -or- 2010 -and- 2030	F
5315	Advanced Human Anatomy	3		[L1]	BIOL 2325	S
5350	Ornithology	3			BIOL 1620 -or- 2010	F (even)
5355	Ornithology Field Lab	1		[L1]	*Co-req BIOL 5350	F (even)
5370	Mammalogy	3			BIOL 1620 -or- 2010	S
5425	Mycology	4		[L1]	BIOL 1620 -or- 2010	F
5435	Plant Systematics	4		[L1]	Recommend BIOL 2020 -or- 2021 -and- 3410	
5440	Urban Ecology	3				F
5455	Desert Ecology Field Course	3		[L1]	Instructor Consent.	F (odd)
5460	Plant Ecology in a Changing World	3			BIOL 1620 -or- 2010 -or- Instructor Consent	F
5471	Quantitative Models in Evolutionary Ecology	3	QI		(ANTH 1020 -or- 1050 -or- BIOL 1620 -or- 3125 -or- 3410 -or- 3430) AND (MATH 1050 -or- 1080 -or- 1090 -or- 1170 -or- 1180 -or- 1210 -	F (even)
5480	Entomology	3			BIOL 1620 -or- 2010	F
5485	Entomology Lab	1		[L1]	*Co-req BIOL 5480	F
5490	Ecosystem Ecology	3			CHEM 1220 -or- 1221	S
5495	Biophysical Ecology	4	QI	[L1]	MATH 1180 -or- 1220 -or- 1260 -or- 1320 (Recommend PHYS 2010)	
5510	Genes, Development, and Evolution	3			BIOL 1210 -or- 1610 -or- AP4+ -or- IB5	F
5570	Ecol & Evolution Parasites & Pathogens	3			BIOL 1210 -or- 1610 -or- AP4+ -or- IB5 -and- BIOL 1620 -or- 2010 (Recommend BIOL 3410)	F
5575	Ecol & Evolution Parasites & Pathogens Lab	1		[L1]	*Co-req BIOL 5570	F
5665	Computational Paleobiology	3	Half Sem	[L1]	Instructor Consent. Misc dates, fieldtrips	Su (odd)
5800	Adv Topics in Biochem & Cell Biology	2	Half Sem		BIOL 2020 -or- 2021 -and- BIOL 3510 or CHEM 3510	Su
5910	Mathematical Models in Biology	3			MATH 1180 -or- 1220 -or- 1260 -or- 1320	
5920	Adv Eukaryotic Genetics	3			BIOL 2030	S
5960	Advanced Special Topics in Biology	1-3			Instructor Permission Topics Vary	
5960	Eukaryotic Genetics & Molecular Biology Lab	3		[L2]	Department Permission Pre-req BIOL 2020 or 2021	F24
5960	Cell Biology & Microscopy	3		[L2]	Department Permission Pre-req BIOL 2020 or 2021	S25
CHEM						
5750	Advanced Chemical Biology Lab	2	Half Sem	[L1]	CHEM 2320 -or-2321 -and- BIOL 3510 -or- CHEM 3510	S

**Notes on Biology Major requirements:**

42 credits from courses in the list above (except BIOL 1010, 1030, 1120 and 4313) or approved transfer courses are required for the Biology Major.

A minimum of 16 upper division (3000-5999 level) biology credits are required for the major.

At least 21 of the credits of the biology course required for the Biology Major must be earned at the University of Utah.

A total of 4 laboratory courses (including BIOL 1615 and 1625), totaling 5 lab credits, are required for the Biology Major.

A maximum of 2 laboratory courses may be transferred from other institutions; a minimum of 2 BIOL lab courses representing 3 lab units must be completed at Two 5000-level course, each of 2 credits or more, are required for the Biology Major.

The following previously offered courses do not count towards the 5000-level course requirement: BIOL 5312, 5313, 5314, 5316, 5900

Different emphasis options for the Biology Major have other specific requirements. Please consult you advisor!

All major courses must be completed with a C- or better

**Special designations:**

LS: Life Science Course

DV: Diversity Course

QI: Quantitative Intensive Course

IR: International Course