June 2020

Biochemistry & Molecular Biology/Biotechnology Course Planning Guide

Year 1 and 2

Biochemistry	BMB 101	Frontiers in Biochemistry (fall year 1)
Chemistry	CEM 151/152 or CEM 141/142	General chemistry lectures
	161/162	General chemistry labs
	CEM 351/352 or CEM 251/252	Organic chemistry lectures
	CEM 355	Organic chemistry lab I (spring only)
	CEM 262	Quantitative analysis
Biology	BS 161/171	Cells & Molecules lecture & lab
	BS 162	Organisms & Populations
Physics	PHY 183/184 or PHY 221/222 or PHY 241/242 or	Physics for Scientists & Engineers Studio Physics for Life Scientists Physics for Cellular and Molecular Biologists
Calculus	MTH 132/133	Calculus I & II

Year 3 and 4

Biochemistry	BMB 461/462	Advanced biochemistry lectures (year 3)
	BMB 471	Advanced biochemistry lab (spring year 4)
	BMB 495 or 499	Senior seminar or Senior thesis (year 4)
Chemistry	CEM 356	Organic chemistry lab II (fall only)
	CEM 383	Introductory physical chemistry lecture
Biology	BMB 470, MMG 408, or CSS 451	Advanced molecular biology lab, Advanced Microbiology lab or Biotech Plant Breeding & Genetics lab (year 4)
	9 credits	300-400 level advanced biotech courses
	IBIO 341 or CSS 350	Fundamental Genetics or Plant genetics (year 2-4)
Computer Science	CMSE 201	Introduction to Computational Modeling (year 2-4)

University Requirements

Tier I Writing	WRA 101/195H (recommended for year 1)
Integrative Studies in Social Sciences*	ISS 200-level ISS 300-level
Integrative Studies in Arts & Humanities*	IAH 201-210 IAH 211 or higher
Integrative Studies in Biological and Physical Sciences	Not required; fulfilled with BS and CEM courses

*Note: Must complete two ISS/IAH courses with different diversity designations (I, N, D)