

# BCMB Program Curriculum Map

	BCMB Learning Goal	Definitions			Course Mapping– Core Sequence			Course Mapping– Electives		
		Benchmark	Milestone	Capstone	Benchmark	Milestone	Capstone	Benchmark	Milestone	Capstone
LG1	<b>Describe, interpret, and integrate foundational and core concepts in the discipline.</b>	Describe	Describe and interpret	Describe, interpret, and integrate	BIOL150 PHYS235 CHEM110 CHEM120	BIOL250 CHEM240 CHEM250 CHEM320 CHEM330	BIOL355 BCMB497 X99 CHEM335		BIOL320 BIOL340 BIOL310 BIOL325	BIOL370, BIOL470 BIOL465
LG2	<b>Conduct appropriate scientific literature and database searches.</b>	Basic searches	More advanced searches	Most advanced searches	CHEM110 CHEM120		BCMB497 BCMB498/ X99		BIOL370 BIOL320 BIOL435 BIOL340 BIOL470 BIOL310 BIOL325 BIOL465	
LG3	<b>Develop hypotheses and propose appropriate experiments to test them.</b>	Basic level	Moderate level	Advanced level	BIOL150 BIOL250 PHYS235 CHEM120	BIOL355 CHEM330	BCMB498/ X99		BIOL320 BIOL370 BIOL340 BIOL470 BIOL310	BIOL435 BIOL465
LG4	<b>Conduct research effectively as an individual and as a team member.</b>	Basic level	Moderate level	Advanced level	BIOL150 PHYS235 CHEM120	BIOL250 CHEM330	BCMB498/ X99		BIOL320 BIOL370 BIOL470 BIOL340 BIOL310	BIOL435 BIOL465
LG5	<b>Design and/or conduct experiments and record/archive the data appropriately.</b>	Basic level	Moderate level	Advanced level	BIOL150 PHYS235 CHEM110 CHEM120	BIOL250 CHEM240 CHEM250 CHEM320	BCMB498/ X99		BIOL320 BIOL370 BIOL340 BIOL470 BIOL310 BIOL325	BIOL435 BIOL465
LG6	<b>Perform experiments safely in the laboratory</b>	Basic level	Moderate level	Advanced level	PHYS235 CHEM110 CHEM120	BIOL150 BIOL250 CHEM240 CHEM250 CHEM320 CHEM330	BCMB498/ X99		BIOL320 BIOL435 BIOL340 BIOL310 BIOL325	BIOL470
LG7	<b>Analyze and interpret experimental results using appropriate quantitative tools.</b>	Basic analysis	More advanced analysis and interpretation	Most advanced analysis, interpretation, and critique	BIOL150 PHYS235 CHEM110 CHEM120 MATH130 MATH140	BIOL250 CHEM240 CHEM250 CHEM320 CHEM330	BCMB498/ X99 BIOL355	BIOL320 BIOL370	BIOL435 BIOL340 BIOL470 BIOL310 BIOL325 BIOL465	
LG8	<b>Summarize and express information orally...</b>	Basic level	Moderate level	Advanced level	BIOL150 BIOL250 PHYS235	BIOL355	BCMB497 BCMB498/ X99	BIOL340	BIOL320 BIOL435 BIOL470 BIOL465	
	<b>... visually...</b>	Basic level	Moderate level	Advanced level	BIOL150 PHYS235 CHEM110 CHEM120	BIOL250 CHEM320 CHEM330	BCMB497 BCMB498/ X99	BIOL340	BIOL320 BIOL435 BIOL470 BIOL310 BIOL465	
	<b>... and in writing</b>	Basic level	Moderate level	Advanced level	BIOL150 PHYS235 CHEM110 CHEM120 CHEM240 CHEM250	BIOL250 CHEM320 CHEM330	BCMB498/ X99		BIOL320 BIOL340	BIOL370 BIOL435 BIOL470 BIOL310 BIOL465
LG9	<b>Recognize the ethical issues involved in both the conduct of research and in the dimensions of research.</b>	Basic level	Moderate level	Advanced level	BIOL250 CHEM110 CHEM120 CHEM240 CHEM250	CHEM320 CHEM330		BIOL320	BIOL435 BIOL340 BIOL470 BIOL310 BIOL325	