Biology Department 500 level courses	Understand cellular and molecular biological processes		Understand genetic and evolutionary mechanisms		Understand phylogenetic and ecological relationships		Effectively apply experimental and analytical tools		Understand and articulate scientific findings	
	1. Provide examples of the relation between form and function in biology, as expressed in molecular, cellular, and whole-organism physiology	2. Compare and contrast the major cellular processes in eukaryotes and prokaryotes	3. Explain how genetic information is transmitted, and the relationship between genetics and evolution	4. Compare and contrast the primary mechanisms of evolutionary diversification	5. Categorize the diversity of life in terms of the phylogenetic relationships among major organismal groups	6. Describe how interactions among organisms and their environment influence populations, communities, and ecosystem function	7. Quantitatively answer biological questions using mathematical or statistical tools	8. Design, conduct, and interpret experiments using common biological lab and field techniques	9. Effectively and concisely present scientific ideas and the results of scientific research in written and oral form	10. Critique scientific papers, as demonstrated by written or oral summaries of hypotheses, methodology, and conclusions
MICRO. GENETICS & PHYSIOLOGY (BIOL-549)	Major concept	Reinforced	Not addressed	Not addressed	Not addressed	Not addressed	Introduced	Major concept	Introduced	Not addressed
MOLECULAR VIROLOGY (BIOL-554)	Reinforced	Major concept	Major concept	Introduced	Introduced	Introduced	Major concept	Reinforced	Major concept	Major concept
SCAN. ELECTRON MICROSCOPY (BIOL-556)	Reinforced	Reinforced	Not addressed	Not addressed	Reinforced	Not addressed	Not addressed	Major concept	Major concept	Reinforced
ANIMAL PHYSIOLOGY (BIOL-560)	Major concept	Reinforced	Reinforced	Reinforced	Major concept	Major concept	Introduced	Introduced	Major concept	Reinforced
ECOLOGICAL METAGENOMICS (BIOL-562)	Introduced	Reinforced	Major concept	Reinforced	Reinforced	Major concept	Major concept	Reinforced	Reinforced	Reinforced
ADV. BIOCHEM, CELL, MOL. BIOL. (BIOL-567)	Major concept	Major concept	Major concept	Reinforced	Reinforced	Not addressed	Reinforced	Introduced	Major concept	Major concept
BIOINFORMATICS (BIOL-568)	Major concept	Reinforced	Reinforced	Reinforced	Major concept	Major concept	Introduced	Introduced	Major concept	Reinforced
MOL. BASIS OF HEART DISEASE (BIOL-575)	Major concept	Reinforced	Introduced	Introduced	Introduced	Not addressed	Reinforced	Reinforced	Reinforced	Introduced
DEVELOPMENTAL BIOLOGY (BIOL-576)	Major concept	Major concept	Major concept	Reinforced	Major concept	Not addressed	Introduced	Introduced	Major concept	Major concept
MEDICAL MICROBIOLOGY (BIOL-584)	Major concept	Reinforced	Reinforced	Not addressed	Not addressed	Major concept	Not addressed	Not addressed	Major concept	Major concept
STEM CELL & REGEN. BIOLOGY (BIOL-589)	Major concept	Not addressed	Introduced	Not addressed	Not addressed	Not addressed	Introduced	Not addressed	Major concept	Major concept