CURRICULUM FOR M.S. BIOCHEMISTRY AND MOLECULAR BIOLOGY PROGRAM (30 CREDITS)—SPRING START

Course #	Spring Schedule	Credits	Course #	Fall Schedule	Credits
Core Courses*			***Core Courses****		
BCHB – 508	Lab Applications of Biochem*	**3**	**BCHB – 513**	Core Concepts of Biochemistry*	**4**
BCHB – 526	Core Methods of Biotech*	**3**	***Or* BCHB – 511**	Fundamentals of Biochemistry*	**4**
BCHB – 536	Applications of Cell Culture*	**2**		***If Advanced Lab Still Needed:****	
	May Choose 1 Advanced Lab:*		**BCHB – 535**	Programmed Cell Death	**2**
BCHB – 707	Adv. Tech. Biochem & Cell Bio	**2**	**BCHB – 537**	Fermentation & Bioprocessing	**3**
BCHB – 529	Applic. Human Diagnostics	**2**	**BCHB – 910**	Biochemistry Internship*	**4**
BCHB – 575	Immunotechniques in Biochem	**1**	**BCHB – 810**	Career Dev't & Leadership***	**0**
BCHB - 514	Intro to Bioinformatics*	**1**			
BCHB – 554	Research Ethics & Integrity***	**0**			
BCHB – 570	Intro to Biochem Internship***	**0**		***Total (Core)***	***8 or 10***
BCHB – 539	Basic Lab Safety***	**0**			
	Total (Core)	***9 or 11***			
Some Suggested Elective Courses*			***Some Suggested Elective Courses****		
BCHB – 525	Immunobiotechnology	**1**	**BCHB – 544**	Essentials of Biochem: Metabolism	**1**
BCHB – 540	Molecular Basis Carcinogenesis	**3**	**BCHB – 545**	Essentials of Programmed Cell Death	**1**
BCHB – 541	Structural Biology	**2**	**BCHB – 519**	Medical Toxicology	**2**
BCHB – 516	Molecular Medicine	**2**	**BCHB – 571**	Genomic Sequence Analysis	**1**
TBIO – 572	Pathologic Basis of Cancer	**2**	**BCHB – 531**	DNA Repair to Human Therapy	**1**
BCHB – 522	Drug Targets and Design	**2**	**BCHB – 559**	New Frontiers of Biotechnology	**1**
BCHB – 596	Clinical Metabolomics	**2**	**PHAR – 584**	Introduction to Pharmacology	**1**
PBIO – 529	Human Nutrition & Health	**2**	**TBIO – 584**	Introduction to Tumor Biology	**1**
	Total (Electives)	***6 or 4***		***Total (Electives)***	***7 or 5***

***Core Courses, MS – Biochem students 19 credits total**

****Suggested Electives, MS – Biochem students 11 credits total**

*****All students *must* add BCHB-539, BCHB-570, BCHB-554, and BCHB-810 (0 credit required courses)**

Electives courses chosen from Biotech or other GUMC programs need prior approval from the Program Director