ALBANY COLLEGE OF PHARMACY AND HEALTH SCIENCES

BS Biotechnology Curricular Grid

Year 1					
Fall Semester		**Credits**	**Spring Semester**		**Credits**
BIO 111	General Biology I	4	BIO 121	General Biology II	4
CHE 111	General Chemistry I	4	BIO 1XX	Intro to Biotechnology	3
ENG 101	First Year Writing	3	CHE 121	General Chemistry II	4
HUM 115	Voice and Identity	3	HUM XXX	Humanities Selective*	3
PBH 102	First Year Experience	1	MAT XXX	Calc I or Algebra	3
	Total	**15**		**Total**	**17**

Year 2					
Fall Semester		**Credits**	**Spring Semester**		**Credits**
BIO 210	General Microbiology	4	BIO 346	Cell Biology	3
CHE 211 OR CHE 245	Organic Chemistry I OR Survey of Organic Chemistry	4	MAT 145	Elementary Statistics	3
HUM XXX	Humanities Selective**	3		Directed Elective 1	3
PSY OR SOC 101	General Psychology OR Intro to Sociology	3		Free Elective 2	3
	Free Elective 1	3		Free Elective 3	3
	Total	**17**		**Total**	**15**

Year 3					
Fall Semester		**Credits**	**Spring Semester**		**Credits**
BIO 350	Biomedical Lab Techniques I	3	BIO 355	Biomedical Lab Techniques II	3
CHE 203/204	Quantitative Analysis	4	BIO 4XX	Bioinformatics	3
CHE 311	Biochemistry	3	CHE 301/302	Instrumental Analysis	4
CLS 337	Clinical Immunology	3		Directed Elective 2	3
	Total	**13**		**Total**	**13**

Year 4					
Fall Semester		**Credits**	**Spring Semester**		**Credits**
BIO 631G	*Mammalian Cell Culture*	*3*	BHS740 G	Genetics and Molecular Basis of Disease	3
ETH 310	Bioethics	3	BIO 349	Virology	3
PSC 345	Techniques in Molecular Biology	3	BIO 4XX	Applied Biotechnology	3
	Directed Elective 3	3	*BIO 648G*	*Microbial Fermentation*	*3*
	Free Elective 4	3	*PSC 620G*	*Downstream Processing of Biopharmaceutical Products*	*3*
	Total	**15**		**Total**	**15**

TOTAL CREDITS = 120

Courses count for both BS and MS in dual degree program

B.S. BIOTECHNOLOGY

Required Courses: 120 credits

Humanities & Communication: 19 credits

ENG 101: First Year Writing (3)
ETH 310: Bioethics (3)
HUM 115: Voice and Identity (3)
HUM 1XX or 2XX: Humanities: Methods and Approaches Selective (3)
HUM 2XX: Science and Health through the Humanities Lenses Selective (3)
PBH 102: First Year Seminar (1)
PSY 101 or SOC 101: Introduction to Psychology (3) **OR** Introduction to Sociology (3)

Basic Sciences: 39 credits

BIO 111 and 121: General Biology I and II (4, 4)
BIO 210: Microbiology (4)
BIO 346: Cell Biology (3)
CHE 111 and CHE 121: General Chemistry I and II (4,4)
CHE 211: Organic Chemistry I (4) **OR** CHE 245: Survey of Organic Chemistry
CLS 337: Clinical Immunology (3)
MAT 145: Elementary Statistics (3)
Additional Math: Calculus I (4) **OR** College Algebra (3)
CHE311: Biochemistry (3)

Biotechnology: 41 credits

BIO 1XX: Introduction to Biotechnology (3)
BIO 331: Mammalian Cell Culture (3)
BIO 348: Microbial Fermentation (3)
BIO 349: Virology (3)
BIO 350 and 355: Biomedical Laboratory Techniques I and II (3, 3)
BHS 740G: Genetics and Molecular Basis of Disease (3)
BIO 4XX: Applied Biotechnology (3)
BIO 4XX: Bioinformatics (3)
CHE 203 and CHE 204: Quantitative Analysis Lecture and Lab (3, 1)
CHE 301 and CHE 302: Instrumental Analysis Lecture and Lab (3, 1)
FSC 345: Techniques in Molecular Biology (3)
PSC 320: Downstream Processing of Biopharmaceutical Products (3)

Electives: 21credits

Directed Electives: 9 credits
Free Electives: 12 credits

Questions?

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