

ACADEMIC DIVISION OF SCIENCES AND TECHNOLOGY			
Degree: ASSOCIATE Credits: 58		CURRICULUM	
Program: BIOPHARMACEUTICAL TECHNOLOGY			
Description: The biopharmaceutical technology program enables our graduates to opt for jobs in both manufacturing and biotechnology companies, with an emphasis on industry trends and the latest technology available to develop advanced medicines that improve human health. The student receives extensive training in science and regulations applicable to the biotechnology and pharmaceutical process.			
Course Code	Course Title	Credits	Requisites
<b>General Education Courses</b>			
MATH 120E	Algebra Intensive	3	
MATH 120E-L	Algebra Intensive Lab	0	
MATH 121	Intermediate Algebra	3	
MATH 121 L I	Intermediate Algebra Lab	0	MATH 120 o MATH 102E– MATH 102E-L o eq.
MATH 151	College Algebra	4	MATH 121 o eq.
MATH 151L	College Algebra Lab	0	MATH 151 - MATH 151L
MATH 152	Trigonometry and Analytic Geometry	4	
MATH 152L	Laboratory Trigonometry and Analytic Geometry	0	
ENGL 152	Fundamentals of Reading and Writing	3	
SPAN 152	Fundamentals of Reading and Writing	3	
HUMA 111	Civilizations and Universal Culture I	3	
GESC 105	Freshman Seminar	3	
		<b>26</b>	
<b>Core Courses</b>			
BIOL 100	Applied Microbiology	3	Co-req: BIOL 100L
BIOL 100L	Applied Microbiology Lab	1	Co-req: BIOL 100
CHEM 101	Applied Chemistry	3	Co-req: CHEM 101L
CHEM 101L	Applied Chemistry Lab	1	Co-req: CHEM 101
		<b>8</b>	
<b>Concentration Courses</b>			
BIOT 101	Introduction to Biotechnology	3	
BIOT 103	Cellular and Molecular Biology for Biotechnology	3	Co Req: BIOT 103L
BIOT 103L	Molecular Cell Biotechnology Laboratory	1	Co Req: BIOT 103
BIOT 210	Regulations and Good Manufacturing Practice	3	
BIOT 240	Validations	3	BIOT 210
BIOT 231	Manufacturing Biotechnology I	3	BIOT 101 Co Req: BIOT 231L
BIOT 231L	Biotechnology Manufacturing Laboratory I	1	BIOT 101 Co Req: BIOT 231
BIOT 250	Biotechnology Manufacturing li	3	BIOT 231 – BIOT 231L Co Req: BIOT 250L
BIOT 250L	Biotechnology Manufacturing Laboratory I	1	BIOT 231 – BIOT 231L Co Req: BIOT 250
PHOP 255	Water Management	3	CHEM 101 - BIOL 100 – BIOL 100L
		<b>24</b>	

1. Los estudiantes interesados podrán continuar a un bachillerato en ciencias con concentración en biología, química o biotecnología. Para continuar con el bachillerato en ciencias, el estudiante debe haber completado el grado asociado.
2. Para continuar a un bachillerato en ciencias, se convalidará un número de créditos equivalentes a un año académico. Los cursos convalidables deben haber sido aprobados con A, B o C. Para las convalidaciones, los cursos específicos se encuentran en la tabla de sustituciones.
3. El promedio general de graduación es 2.00; el promedio de graduación en los cursos de concentración es 2.00.

**Aprobado por la Escuela de Ciencias Naturales y Tecnología de la Universidad Ana G. Méndez, Recinto de Gurabo - Oct/2015**  
**LA ESCUELA DE CIENCIAS NATURALES Y TECNOLOGÍA DE LA UNIVERSIDAD ANA G. MÉNDEZ, RECINTO DE GURABO**

**SE RESERVA EL DERECHO DE REVISAR ESTE DOCUMENTO.**

**Revisado y aprobado por la Escuela de Ciencias Naturales y Tecnología 24 de febrero de 2016**

ACADEMIC DIVISION OF SCIENCES AND TECHNOLOGY			
Degree: ASSOCIATE Credits: 58		PLAN OF STUDY	
Program: BIOPHARMACEUTICAL TECHNOLOGY			
Course Code	Course Title	Credits	Requisites
<b>FIRST YEAR - FIRST SEMESTER</b>			
GESC 105	Freshman Seminar	3	
BIOT 101	Introduction to Biotechnology	3	
BIOT 210	Regulations and Good Manufacturing Practice	3	
MATH 120 o MATH 120E MATH 120L	Algebra Intensive	3	
HUMA 111	Civilizations and Universal Culture I	3	
		<b>15</b>	
<b>FIRST YEAR - SECOND SEMESTER</b>			
BIOT 240	Validations	3	BIOT 210
BIOL 100	Applied Microbiology	3	Co-req: BIOL 100L
BIOL 100L	Applied Microbiology Lab	1	Co-req: BIOL 100
CHEM 101	Applied Chemistry	3	Co-req: CHEM 101L
CHEM 101L	Applied Chemistry Lab	1	Co-req: CHEM 101
MATH 121	Intermediate Algebra	3	MATH 120 O MATH 120E-MATH 120EL o eq.
MATH 121 L	Intermediate Algebra Lab	0	Co Req: MATH 121
		<b>14</b>	
<b>SECOND YEAR - FIRST SEMESTER</b>			
BIOT 231	Manufacturing Biotechnology I	3	BIOT 101 Co Req: BIOT 231L
BIOT 231L	Biotechnology Manufacturing Laboratory I	1	BIOT 101 Co Req: BIOT 231
BIOT 103	Cellular and Molecular Biology for Biotechnology	3	Co Req: BIOT 103L
BIOT 103L	Molecular Cell Biotechnology Laboratory	1	Co Req: BIOT 103
SPAN 152	Fundamentals of Reading and Writing	3	
MATH 151	College Algebra	4	MATH 121 o eq.
MATH 151L	College Algebra Lab	0	MATH 151 - MATH151L
		<b>15</b>	
<b>SECOND YEAR - SECOND SEMESTER</b>			
BIOT 250	Biotechnology Manufacturing li	3	BIOT 231 – BIOT 231L Co Req: BIOT 250L
BIOT 250L	Biotechnology Manufacturing Laboratory I	1	BIOT 231 – BIOT 231L Co Req: BIOT 250
PHOP 255	Water Management	3	CHEM 101 - BIOL 100 – BIOL 100L
ENGL 152	Fundamentals of Reading and Writing	3	
MATH 152	Trigonometry and Analytic Geometry	4	MATH 151 Co Req: MATH 152L
MATH 152L	Laboratory Trigonometry and Analytic Geometry	0	Co Req: MATH 152L
		<b>14</b>	

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24 de febrero de 2016