



**Associates of Science
Medical Sciences Pre-Professional
to
Bachelor of Science
Biology**

**HCCC
Medical Sciences Pre-Professional - AS**

**NJCU
Biology - BS**

COURSE NUMBER	COURSE NAME	CREDITS	COURSE NUMBER	COURSE NAME	CREDITS
Complete the following Courses for Gen Ed Requirements:					
CSS100	College Student Success	1 =	INTD101	Orientation to College	1
ENG101	College Composition I	3 =	ENGL101	English Composition I	3
ENG102	College Composition II	3 =	ENGL102	English Composition II	3
ENG112	Speech	3 =	ENGL147	Effective Speaking	3
MAT 110	Precalculus	4 =	MATH175	Precalculus	4
CSC100	Intro to Computers and Computing	3 =	CS107	Computers & Information Systems	3
BIO111	Anatomy and Physiology I	4 =	BIOL236	Anatomy and Physiology I	4
PSY101	Introduction to Psychology	3 =	PSYC110	Introduction to Psychology	3
1 Humanities Elective	TBD	3 =	TBD		3
1 Diversity Elective	TBD	3 =	TBD		3
1 Humanities or Social Science Elective	TBD	3 =	TBD		3
Complete The Following Courses for Major Requirements:					
BIO211	Anatomy and Physiology II	4 =	BIOL237	Anatomy and Physiology II	4
BIO115	Principles of Biology I	4 =	BIOL130	Principles of Biology I	4
HLT210	Medical Law and Ethics	3 =	HLTH2XX	Health Sciences Elective Credits	3
BIO116	Principles of Biology II	4 =	BIOL131	Principles of Biology II	4
Complete 1 of the Following Courses:					
BIO250	Microbiology	4 =	BIOL303	Microbiology	4
PHY113	Physics I	4 =	PHYS130+1131	College Physics I + Lab	4
Complete 1 Group of Courses for Electives:					
* Pre-Medicine/Pharmacy *					
CHP111	College Chemistry I	4 =	CHEM105	General Chemistry I Lecture	4
CHP211	College Chemistry II	4 =	CHEM1105	Recitation/Labratory	
			CHEM 106	General Chemistry II Lecture	4
			CHEM1106	Recitation/Labratory	
or					
Pre-Physical Therapy/Pre-Athletic Trainer					
EXS101	Intro to Exercise Science	2 =	FES207	Introduction to Exercise Science	2
HLT111	Introduction to Healthcare	2 =	HLTH1XX	Health Sciences Elective Credits	2
EXS203	Exercise Measurement and Prescript	4 =	FES325	Exercise Testing and Prescription	4
or					
Pre-Health Sciences					
MDA106	Medical Terminology	3 =	HLTH1XX	Health Sciences Elective Credits	3
HLT112	Pathophysiology	3 =	BIOL311	Pathophysiology	3
HLT111	Introduction to Healthcare	2 =	HLTH1XX	Health Sciences Elective Credits	2

Note:
* Recommended

Total Credits 60

General Education Waived

Remaining NJCU Courses

COURSE NUMBER	COURSE NAME	CREDITS	COURSE NUMBER	COURSE NAME	CREDITS
Required Core Courses:			Electives Biology Courses:		
32-40			3		
BIOL230	Cell Biology	4	BIOL 231	Comparative Anatomy	4
BIOL304	Genetics	4	BIOL232	Invertebrate Zoology	4
BIOL402 OR 332	Ecology or Field Ecology	4	BIOL233	Principles of Botany	4
BIOL440	Biology Seminar	1	BIOL236 **	Anatomy and Physiology I	0 **
CHEM207	Organic Chemistry I	3	BIOL237 **	Anatomy and Physiology II	0 **
CHEM2207	Organic Chemistry I Lab	1	BIOL240	Scientific Reasoning	3
CHEM208	Organic Chemistry II	3	BIOL250	Biology Research	1
CHEM2208	Organic Chemistry II Lab	1	BIOL252	Evolution: A Bio and Geological Approach	3
MATH192	Calculus and Analytical Geometry I	4	BIOL301	General Physiology	4
CHEM105 *	General Chemistry I Lecture	0-4 *	BIOL302	Plant Physiology	4
CHEM1105 *	Recitation/Labratory		BIOL303 **	Microbiology	0 **
CHEM106 *	General Chemistry II Lecture	0-4 *	BIOL308	Plant Taxonomy	4
CHEM1106 *	Recitation/Labratory		BIOL311	Pathophysiology	3
<hr/>			BIOL312	Endocrinology	3
Complete one of the following:			BIOL335	Essential Concepts in Neuroscience	3
INTD180	Computer Tools for Science and Math	3	BIOL350	Biology Research	2
	OR		BIOL354	Professional Assistant	2
MATH 140	Statistics I	0-4	BIOL401	Developmental Biology	4
	OR		BIOL 403	Radiation Biology	4
PSYC 230	Statistics for Social Sciences	0-4	BIOL404	Immunology	3
<hr/>			BIOL406	Molecular Genetics	4
Complete one of the following Courses with Lab:			BIOL 407	Advanced Cell Biology	4
PHYS131	Physics II	3	BIOL409	Biological Chemistry	3
PHYS1131	Physics II Laboratory and Recitation	1	BIOL410	Electron Microscopy	4
	OR		BIOL418	Scanning Electron Microscopy	4
PHYS 141	Physics II	3	BIOL419	Transmission Electron Microscopy	4
PHYS1141	Physics II Recitation and Labratory	1	BIOL450	Biology Research	3
			BIOL454	Professional Assistant	3
			BIOL492	Independent Study in Biology	3
			BIOL1492	Independent Study in Biology	2
			BIOL2492	Independent Study in Biology	1

Free Elective Courses **17-25**

Notes:

- * This course may be a part of the transfer if taken at HCCC
- ** This course will be a part of the transfer if taken at HCCC

Students must successfully complete a minimum of 5 Biology major courses at NJCU.
 Credits earned for Biology courses more than 10 years ago may not satisfy department requirements.
 Students may apply up to 6 credits of Biology Research or Coop Education toward the BA in Biology requirements.