



**Associates of Science  
Medical Sciences Pre-Professional  
to  
Bachelor of Arts  
Chemistry**

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

**NJCU  
Chemistry - BA**

COURSE NUMBER	COURSE NAME	CREDITS	COURSE NUMBER	COURSE NAME	CREDITS
<b>Complete the following Courses for Gen Ed Requirements:</b>					
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
<b>Complete the following Courses for Major Requirements:</b>					
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
<b>Complete 1 of the following Courses:</b>					
BIO250	Microbiology	4 =	BIOL303	Microbiology	4
PHY113	Physics I	4 =	PHYS130+1131	College Physics I + Lab	4
<b>Complete 1 Group of Courses for Electives:</b>					
<b>* Pre-Medicine/Pharmacy *</b>					
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	
<b>or</b>					
<b>Pre-Physical Therapy/Pre-Athletic Trainer</b>					
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
<b>or</b>					
<b>Pre-Health Sciences</b>					
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
<b>Required Core Courses:</b>			<b>Select a Minimum of 3 credits in CHEM electives:</b>		
<b>45-52</b>			<b>3+</b>		
CHEM105 *	General Chemistry I Lecture	0-4 *	CHEM 220	Environmental Chemistry	4
CHEM1105 *	Recitation/Laboratory		CHEM 306 ***	Physical Chemistry II, Lecture	3 ***
CHEM106 *	General Chemistry II Lecture	0-4 *	CHEM 308	Biochemistry II	4
CHEM1106 *	Recitation/Laboratory		CHEM 3306 ***	Physical Chemistry II Recitation/Laboratory	2 ***
CHEM 207	Organic Chemistry I	3	CHEM 430	Spectroscopic Identif. of Organic Comp's	3
CHEM 2207	Organic Chemistry I Laboratory	1	CHEM 401	Medicinal Chemistry	3
CHEM 208	Organic Chemistry II	3	CHEM 412	Inorganic Chemistry Laboratory	2
CHEM 2208	Organic Chemistry II Laboratory	1	CHEM 414	Advanced Organic Chemistry	3
CHEM 205 **	Analytical Chemistry Lec	3 **	CHEM 420	Food Chemistry	4
CHEM 2205 **	Analytical Chemistry Laboratory	2 **	CHEM 425	Nanomaterial and Microelectronic Fab.	3
CHEM 307	Biochemistry I	4	CHEM 435 *	Materials Chemistry	3 *
CHEM 316 ***	Instrumental Analysis, Lecture	3 ***			
CHEM 3316 ***	Instrumental Methods of Analysis, Lab	2 ***			
CHEM 305 **	Physical Chemistry I	3 **			
CHEM 405 **	Seminar	1 **			
CHEM 416 ***	Inorganic Chemistry	3 ***			
INTD180	Computer Tools for Science and Math	3			
MATH 192	Calculus and Analytic Geometry I	4			
MATH 193	Calculus and Analytic Geometry II	4			
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PHYS131 ***	Physics II	3 ***			
PHYS1131 ***	Physics II Laboratory and Recitation	1 ***			
OR					
PHYS 141	Physics II	3			
PHYS1141	Physics II Recitation and Laboratory	1			

## Free Elective Courses

5-13

### Notes:

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

\*\* Fall Only

\*\*\* Spring Only