



## Associate of Science in Chemistry to Bachelor of Science in Chemistry

### HCCC Chemistry A.S.

### NJCU Chemistry B.S.

Course Number	Course Name	Credits		Course Number	Course Name	Credits
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
BIO100	General Biology	3	=	BIOL100	General Biology	4
MAT111	Calculus I	4		MATH192	Calculus and Analytic Geometry I	4
MAT112	Calculus II	4	=	MATH193	Calculus and Analytic Geometry II	4
CSC100	Intro to Computers and Computing	3		CS107	Computer and Information Systems	3
ENG112	Speech	3		ENGL147	Effective Speaking	3
	1 Social Science Elective	3	=	TBD		3
	1 Social Science or Humanities Elective	3		TBD		3
	1 Humanities Elective	3	=	TBD		3
CHP111	College Chemistry I	4	=	CHEM 105 + 1105	General Chemistry I Lecture and Recitation/Lab	5
CHP211	College Chemistry II	4	=	CHEM 106 + 1106	General Chemistry II Lecture and Recitation/Lab	5
CHP225	Organic Chemistry I	4	=	CHEM 207 + 2207	Organic Chemistry I Lecture and Lab	4
CHP230	Organic Chemistry II	4	=	CHEM 208 + 2208	Organic Chemistry II Lecture and Lab	4
PHY111	Engineering Physics I	4	=	PHYS140 + 1140	Principles of Physics I Lecture, Lab and Recitation	4
PHYS211	Engineering Physics II	4	=	PHYS141 + 1141	Principles of Physics II Lecture, Lab and Recitation	4

#### Complete 1 Approved Science Elective:

MAT114	Introduction to Probabilities and Statistics	3	=	MATH140	Statistics I	3
CSC115	Programming in C++ for CS	3	=	CS102	Computer Science II	3
CSC118	Python Programming	3	=	CS252	Programming for All in Python and Computer Science Principles	3
CSC117	Java Programming	3	=	CS101	Computer Science I	3

**Total Credits Transferred      60**

**General Education Waiver Awarded!**

# Remaining NJCU Courses

COURSE NUMBER	COURSE NAME	CREDITS	
<b>REQUIRED COURSES</b>		<b>29</b>	
CHEM205	Analytical Chemistry Lecture	3	Fall Only
CHEM2205	Analytical Chemistry Lab	2	Fall Only
CHEM316	Instrumental Analysis I	3	Spring Only
CHEM3316	Instrumental Methods of Analysis, Laboratory	2	
CHEM305	Physical Chemistry I Lecture	3	Fall Only
CHEM306	Physical Chemistry II Lecture	3	Spring Only
CHEM 3306	Physical Chemistry II Lab and Recitation	2	Spring Only
CHEM307	Biochemistry I	4	
CHEM405	Seminar	1	Fall Only
CHEM416	Inorganic Chemistry	3	Spring Only
INTD180	Computer Tools for Science and Math	3	
<b>Select a Minimum of 2 additional CHEM electives:</b>		<b>6-8cr</b>	
CHEM 220	Environmental Chemistry	4	
CHEM308	Biochemistry II	4	
CHEM430	Spectroscopic Identification of Organic Compounds	3	
CHEM401	Medicinal Chemistry	3	
CHEM420	Food Chemistry	4	
CHEM412	Inorganic Chemistry Laboratory	2	
CHEM414	Advanced Organic Chemistry	3	
CHEM425	Nanomaterial and Microelectronic Fabrication	3	
CHEM425	Materials Chemistry	3	
<b>Free Elective Courses</b>		<b>23-25</b>	
<b>Total Credits To Graduate</b>		<b>120</b>	