

# CHEMISTRY WITH TEACHER CERTIFICATION, B.A.

## THE REQUIREMENTS FOR ADMISSION TO THIS CONCENTRATION ARE:

- A minimum cumulative undergraduate grade point average (CGPA) of 3.0.
- A minimum of B- or better on all education courses
- Passing scores on the Praxis CORE, **or** 560 verbal, 540 Math on the SAT, **or** 23 or higher on the ACT, **or** 155 verbal, 156 quantitative on the GRE.

Passing scores on the Praxis CORE Academic Skills for Educators Tests, as of 9/1/19:

- Math Test #5733 Passing Score 150
- Reading Test #5712 Passing Score 156
- Writing Test #5722 Passing Score 162

Students who meet the score levels below are not required to take the Praxis CORE:

### SAT Scores

- If taken before 4/1/1995: Math 520, Reading 480
- If taken between 4/1/1995 to 2/28/2016: Math 540, Reading 560
- If taken on or after 3/1/2016: Math 570, 610 Evidence-Based Reading and Writing or 30 Reading Section

### ACT Scores

- If taken before 8/28/1989: Math 23, English 20
- If taken on or after 8/28/1989: Math 23, English 23

### GRE Scores

- If taken before 8/1/2011: Quantitative 720, Verbal 530
- If taken on or after 8/1/2011: Quantitative 156, Verbal 155

For more information on Praxis exams: <https://www.ets.org/praxis/nj/requirements> (<https://www.ets.org/praxis/nj/requirements/>)

## THE REQUIREMENTS FOR COMPLETION OF THIS DEGREE TRACK ARE:

- Completion of NJCU General Education requirements or equivalent
- Successful completion of major in intended content area
- Passing scores on appropriate Praxis II Exam
- A minimum cumulative GPA of 3.0
- Successful completion of clinical experience and clinical practice (student teaching)

This includes successful submission of the performance assessment, edTPA, as required by the New Jersey Department of Education.

*Note:* For the most updated information on this teaching certification program, students are directed to contact the College of Education as changes may have occurred since publication.

Code	Title	Credits
<b>Required</b>		
CHEM 105	General Chemistry I Lecture	3

CHEM 1105	General Chemistry I Recitation/Laboratory	2
CHEM 106	General Chemistry II Lecture	3
CHEM 1106	General Chemistry II Recitation/Laboratory	2
CHEM 207	Organic Chemistry I	3
CHEM 2207	Organic Chemistry I Laboratory	1
CHEM 208	Organic Chemistry II	3
CHEM 2208	Organic Chemistry II Laboratory	1
CHEM 205	Analytical Chemistry Lec	3
CHEM 2205	Analytical Chemistry Laboratory	2
CHEM 316	Instrumental Analysis, Lecture	3
CHEM 3316	Instrumental Methods of Analysis, Laboratory	2
CHEM 305	Physical Chemistry I	3
CHEM 307	Biochemistry I	4
CHEM 405	Seminar	1
CHEM 416	Inorganic Chemistry	3

### Required Supported courses in Mathematics & Physics

MATH 192	Calculus and Analytic Geometry I	4
MATH 193	Calculus and Analytic Geometry II	4

Select eight credits as one of the following sequences of Physics courses:

Sequence I:		
PHYS 140	Principles of Physics I - Lecture	3
PHYS 1140	Principles of Physics I - Laboratory and recitation	1
PHYS 141	Principles of Physics II - Lecture	3
PHYS 1141	Principles of Physics II - Laboratory and Recitation	1

Sequence II:		
PHYS 130	College Physics I (Lecture)	3
PHYS 1130	Physics I Recitation & Laboratory	1
PHYS 131	Physics II (Lecture)	3
PHYS 1131	Physics II Recitation & Laboratory	1

### Electives

Select a minimum of three credits from the following courses:		3
CHEM 220	Environmental Chemistry	4
CHEM 306	Physical Chemistry II, Lecture	3
CHEM 308	Biochemistry II	4
CHEM 401	Medicinal Chemistry	3
CHEM 412	Inorganic Chemistry Laboratory	2
CHEM 414	Advanced Organic Chemistry	3
CHEM 420	Food Chemistry	4
CHEM 425	Nanomaterial and Microelectronic Fabrication	3
CHEM 435	Materials Chemistry	3

### Required General Studies Program Courses

MATH 215	Problem Solving in Mathematics <sup>1</sup>	3
LTED 160	Languages of Power and Social Justice <sup>2</sup>	3
BIOL 224	The Human Body	3
or BIOL 225	Human Sexual Biology	
or BIOL 106	Practical Nutrition	

### Required Education Courses <sup>3</sup>

Phase I:		
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EDU 280	Challenges in Urban Education	3
LTED 230	Focus: Reading Language & Literacy	3
Phase II:		
EDU 330	Focus: Development, Behavior and Learning	3
EDU 371	Grades 7-12 Methods/Materials	3
Phase III: Courses should be taken concurrently; offered fall semester only		
LTED 370	Secondary:Reading & Language Workshop	2
EDU 3372	Methods and Materials of Teaching Science in Middle and Secondary Schools	3
EDU 331	Clinical Practice I	2
Phase IV:		
EDU 470	Concurrent Student Teaching Seminar	2
EDU 480	Clinical Practice II	8
EDU 485	Classroom Management and Assessment Internship Seminar	2

<sup>1</sup> Required of students who have yet to meet Praxis Core Math requirement.

<sup>2</sup> Strongly recommended for students who have yet to meet Praxis Core Writing and Reading requirements.

#### Freshman

<b>Semester 1</b>		<b>Credits</b>
ENGL 101 or ESL 101	English Composition I or English Composition I for English as a Second Language Students	4
MATH 192	Calculus and Analytic Geometry I	4
BIOL 225	Human Sexual Biology	3
OR		
BIOL 224	The Human Body	3
OR		
BIOL 106	Practical Nutrition	3
<b>Credits</b>		<b>17</b>
<b>Semester 2</b>		
ENGL 102	English Composition II	4
INTD 180	Computers Tools for Science and Math	3
MATH 215	Problem Solving in Mathematics	3
General Education Tier II course		3
General Education Tier II course		3
<b>Credits</b>		<b>16</b>

#### Sophomore

<b>Semester 1</b>		
PHYS 130	College Physics I (Lecture)	3
PHYS 1130	Physics I Recitation & Laboratory	1
MATH 192	Calculus and Analytic Geometry I	4
CHEM 105	General Chemistry I Lecture	3
CHEM 1105	General Chemistry I Recitation/Laboratory	2
EDU 280	Challenges in Urban Education	3
LTED 230	Focus: Reading Language & Literacy	3
<b>Credits</b>		<b>19</b>
<b>Semester 2</b>		
PHYS 131	Physics II (Lecture)	3

PHYS 1131	Physics II Recitation & Laboratory	1
MATH 193	Calculus and Analytic Geometry II	4
CHEM 106	General Chemistry II Lecture	3
CHEM 1106	General Chemistry II Recitation/Laboratory	2
General Education Tier III Capstone course		3
<b>Credits</b>		<b>16</b>

#### Junior

##### Semester 1

CHEM 207	Organic Chemistry I	3
CHEM 2207	Organic Chemistry I Laboratory	1
CHEM 305	Physical Chemistry I	3
EDU 330	Focus: Development, Behavior and Learning	3
EDU 371	Grades 7-12 Methods/Materials	3
Chemistry elective		3
<b>Credits</b>		<b>16</b>

##### Semester 2

CHEM 208	Organic Chemistry II	3
CHEM 2208	Organic Chemistry II Laboratory	1
CHEM 316	Instrumental Analysis, Lecture	3
CHEM 3316	Instrumental Methods of Analysis, Laboratory	2
CHEM 405	Seminar	1
CHEM 416	Inorganic Chemistry	3
CHEM 307	Biochemistry I	4
<b>Credits</b>		<b>17</b>

#### Senior

##### Semester 1

LTED 370	Secondary:Reading & Language Workshop	2
EDU 3372	Methods and Materials of Teaching Science in Middle and Secondary Schools	3
CHEM 205	Analytical Chemistry Lec	3
EDU 331	Clinical Practice I	2
CHEM 2205	Analytical Chemistry Laboratory	2
<b>Credits</b>		<b>12</b>

##### Semester 2

EDU 470	Concurrent Student Teaching Seminar	2
EDU 480	Clinical Practice II	8
EDU 485	Classroom Management and Assessment Internship Seminar	2
<b>Credits</b>		<b>12</b>

**Total Credits** **125**