

DEPARTMENT OF SCIENCE AND MATHEMATICS

Dr. Gary Morris, Department Chairperson

Professors: J. Evans, K. Evans

Associate Professors: L. Baker, D. O'Dell, P. Peck

Assistant Professors: N. Cawley, R. Conover, D. Furbee, G. Morris,
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Instructors: B. Bonnett, A. Haddox, A. McHenry, J. Wood

The Department of Science and Mathematics houses a wide variety of programs. In addition to the ones you see listed here, many students choose to follow a pre-professional track. They major in biology or chemistry (or both) while preparing for professional schools. Pre-professional training is available in the following areas:

Medicine	Physician's Assistant	Medical Technology
Pharmacy	Optometry	Radiology
Dentistry	Physical Therapy	Pre-nursing
Veterinary Medicine	Psychiatry	

After graduation, a wide variety of employment opportunities exists. In addition to teaching, our graduates are employed as nurses, pharmacists, or lab technicians. They are employed at such places as the Division of Natural Resources, the Division of Environmental Protection, and the State Police Forensics lab. Other students have gone on to graduate school to pursue advanced degrees in biology and chemistry.

While here our students have the opportunity to participate in our student clubs and organizations, including Chi Beta Phi, the Science and Math Honorary Society, the Student Affiliates of the American Chemical Society, and Pioneers in Nursing for Pre-nursing students. Students have worked on community service events, helped host national meetings of Chi Beta Phi, and made presentations at the national meetings of the American Chemical Society. A wide variety of extra-curricular activities also are available for student participation.

For additional information about the Department of Science and Mathematics, its programs, faculty, and organizations contact the Glenville State College Department of Sciences and Mathematics, 200 High Street, Glenville, West Virginia 26351. Phone (304) 462-6310 or send e-mail to Gary.Morris@glenville.edu.

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Degree Programs: The following programs are available in the Department of Science and Mathematics.

Baccalaureate (4-year non-teaching) Majors:

Bachelor of Arts
Chemistry

Bachelor of Science
Biology

Baccalaureate (Teaching) Majors:

Bachelor of Arts in Education:

Biological Science (9-Adult)

Chemistry (9-Adult)

Chemistry and Physics (9-Adult)

General Science (5-Adult) or General Science (5-9)

Mathematics (5-Adult) or Mathematics (5-9)

**BACHELOR OF ARTS
CHEMISTRY**

General Education Requirements 43 hours

Students must take MATH 102 as part of the General Education requirements.

Chemistry Major Requirement 27 hours

CHEM 101	General Chemistry I	4
CHEM 102	General Chemistry II	4
CHEM 293	Techniques of Chemistry	1
CHEM 301	Organic Chemistry I	4
CHEM 302	Organic Chemistry II	4
CHEM 307	Inorganic Chemistry	4
CHEM 321	Analytical Chemistry I	4
CHEM 493	Senior Research Seminar	2

Chemistry Electives (select from the following) 7 hours

CHEM 322	Analytical Chemistry II	4
CHEM 341	Nuclear Chemistry	3
CHEM 345	Introductory Physical Chemistry	4
CHEM 380	Biochemistry I*	4
CHEM 381	Biochemistry II	4

Natural Sciences and Mathematics Requirements 8 hours

PHYS 201	General Physics I	4
PHYS 202	General Physics II	4

Minor 18-24 hours

Electives 19-25 hours

Recommended courses:*

CHEM 322	Analytical Chemistry II	4
CHEM 345	Introductory Physical Chemistry*	4
MATH 120	Precalculus	4
MATH 202	Calculus I	4
MATH 207	Calculus II	4

*The recommended courses are required for students planning to attend graduate school in chemistry.

Total minimum hours required for degree 128 hours

GATEWAY ASSESSMENT - CHEM 293
CAPSTONE ASSESSMENT - CHEM 493

If biochemistry or introductory physical chemistry is taken as one of the chemistry electives then additional hours in science or math courses are required as prerequisites. Biochemistry (CHEM 380) requires 4 hours biology (BIOL 102); introductory physical chemistry (CHEM 345) requires 8 additional hours of math (MATH 120 & 202).

Students enrolled in chemistry courses are responsible for all lost or broken glassware and equipment. At the beginning of the semester, the student will verify that all laboratory items assigned to him/her are present and in good condition. At the end of the semester, the student must return all items in the same condition. If any items were lost or broken throughout the semester, the student will receive a financial statement either during the last week of classes or during the final examination period. This financial obligation must be paid to the Cashier's Office before the student can graduate. Students who fail to check out of the laboratory will be charged an additional \$5.00.

**BA - CHEMISTRY
SUGGESTED PLAN OF STUDY**

FIRST YEAR

CHEM 101	4	ART 200, CART 200 (OR)	
ENGL 101	3	MUSC 200	2
GSC 100.....	1	CART 101	3
HIST 201, 202, 207, 208 (OR)		CHEM 102.....	4
POSC 203.....	3	CSCI 101.....	3
MATH 102.....	3	MINOR/ELECTIVES.....	4
PED 101	1	Total Hours - Spring Semester	16
Total Hours - Fall Semester	15		

SECOND YEAR

BIOL 101	4	ART 200, CART 200 (OR)	
CHEM 293	1	MUSC 200	2
CHEM 301	4	CHEM 302.....	4
ENGL 102.....	3	ENGL 203, 204, 205 (OR) 206.....	3
PED 201	1	PHYS 202	4
PHYS 201	4	ECON 201, GEOG 203,	
Total Hours - Fall Semester	17	PSYC 201, SOCL 205 (OR)	
		SOCS 225.....	3
		Total Hours - Spring Semester	16

THIRD YEAR

CHEM 307	4	CHEMISTRY ELECTIVES	4
HIST 201, 202, 207, 208 (OR)		MINOR/ELECTIVES.....	12
POSC 203.....	3	Total Hours - Spring Semester	16
PED 301	1		
MINOR/ELECTIVES.....	8		
Total Hours - Fall Semester	16		

REQUEST DEGREE EVALUATION

FOURTH YEAR

CHEM 321	4	APPLY FOR GRADUATION	
CHEM 493	2	CHEMISTRY ELECTIVE	3
MINOR/ELECTIVES.....	10	MINOR/ELECTIVES.....	13
Total Hours - Fall Semester	16	Total Hours - Spring Semester	16

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BACHELOR OF SCIENCE BIOLOGY

Students are required to take BIOL 101, BIOL 102 and MATH 102 as part of their General Education requirements to enhance their success in the program.

General Education Requirements **43 hours**

Biology Major Requirement **40 hours**

BIOL 101	General Biology I	
BIOL 305	General Botany	4
BIOL 309	Human Anatomy and Physiology I	4
BIOL 335	Cell Physiology	4
BIOL 361	Microbiology	4
BIOL 400	Ecology and Field Biology	4
BIOL 456	Genetics	4
BIOL 499	Individual Research Problems	3
Biology Electives*		9
CHEM 301	Organic Chemistry I	4

Science Requirement **27 hours**

BIOL 102	Introduction to Cellular Biology**	
BIOL 203	Plant Disease and Insect Control (OR)	
BIOL 205	Invertebrate Zoology (OR)	
BIOL 206	Vertebrate Zoology	3-4
BIOL 293	Techniques of Science	2
BIOL 493	Senior Seminar	2
CHEM 101	General Chemistry I	4
CHEM 102	General Chemistry II	4
MATH 102	College Algebra	
MATH 256	Probability and Statistics I	3
PHYS 201	General Physics I	4
PHYS 202	General Physics II	4

Minor **18-24 hours**

Total minimum hours required for degree **128 hours**

*Biology Electives cannot include more than eight hours of Special Topics courses (BIOL 399 or BIOL 499) and electives must be 300 or 400 level.

**No more than 8 hours of 300 or 400 level biology may be attempted before the successful completion of Biology 102 and Biology 293.

Students must achieve a minimum grade point average of 2.2 in the Biology Major Requirements for Graduation.

Successful completion of the Gateway and Capstone Assessment courses requires a minimum grade of “C” in each course.

GATEWAY ASSESSMENT - BIOL 293

CAPSTONE ASSESSMENT - BIOL 493

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**BS - BIOLOGY
SUGGESTED PLAN OF STUDY**

FIRST YEAR

BIOL 101.....	4	ART 200, CART 200 (OR)	
CHEM 101	4	MUSC 200	2
ENGL 101	3	BIOL 102.....	4
GSC 100	1	BIOL 203, BIOL 205 (OR)	
HIST 201, 202, 207, 208 (OR)		BIOL 206	3-4
POSC 203	3	CHEM 102.....	4
MATH 102	3	HIST 201, 202, 207, 208 (OR)	
Total Hours - Fall Semester.....	18	POSC 203.....	3
		PED 101.....	1
		Total Hours - Spring Semester	17-18

SECOND YEAR

CART 101	3	BIOL 293.....	2
CHEM 301	4	BIOL 309.....	4
ENGL 102	3	CSCI 101	3
PHYS 201.....	4	MATH 256	3
ECON 201, GEOG 203,		PED 201.....	1
PSYC 201, SOCL 205 (OR)		PHYS 202.....	4
SOCS 225	3	Total Hours - Spring Semester	17
Total Hours - Fall Semester.....	17		

THIRD YEAR

ART 200, CART 200 (OR)		REQUEST DEGREE EVALUATION	
MUSC 200.....	2	BIOL 305.....	4
BIOL 361.....	4	MINOR/ELECTIVES	10
ENGL 203, 204, 205, (OR) 206	3	Total Hours - Spring Semester	14
PED 301	1		
MINOR/ELECTIVES	6		
Total Hours - Fall Semester.....	16		

FOURTH YEAR

BIOL 335.....	4	BIOL 456.....	4
BIOL 400.....	4	BIOL 493.....	2
MINOR/ELECTIVES	6	BIOL 499.....	3
Total Hours - Fall Semester.....	14	MINOR/ELECTIVES	5
		Total Hours - Spring Semester	14

APPLY FOR GRADUATION

BACHELOR OF SCIENCE IN NURSING PROGRAM

The joint offering of the West Virginia University School of Nursing's Bachelor of Science in Nursing program by Glenville State College and West Virginia University School of Nursing is a unique and exciting program that combines the advantages of a small college environment and experiences in a rural setting with experiences in a major medical center. Students interested in the nursing program may enroll at Glenville State College as a pre-nursing student meeting the admission requirements outlined below.

For entry into the pre-nursing program, the student must have an ACT composite score of 20 or greater or an equivalent SAT score. The student must furnish an official transcript from an accredited high school which indicates successful completion of the following courses: Biology - 1 unit; Chemistry - 1 unit; English - 4 units; Mathematics - 3 units including at least 2 units in Algebra. Students who have not completed these courses will be considered on an individual basis. Enrollment in foundation courses may be necessary before beginning the usual freshman year courses.

Registration in the pre-nursing program during the freshman year does not assure admission to the Bachelor of Science in Nursing program (BSN). Formal application for admission to the BSN program takes place early in the second semester of the freshman year.

The freshman and sophomore years of this program are completed at Glenville State College. The junior and senior years are completed at West Virginia University Institute of Technology, Montgomery, West Virginia. Graduates of this program will officially graduate from West Virginia University.

ADMISSION REQUIREMENTS FOR THE B. S. IN NURSING PROGRAM

While preference is given to West Virginia residents, qualified students from other states are encouraged to apply. To qualify for admission to the School of Nursing basic program, a candidate must have completed one year of the prescribed courses listed below. These courses are available at Glenville State College. Applicants are eligible for review by the Admissions Committee after completion of one full semester of course work. The prescribed courses include:

- BIOL 102 - 4 hours
- BIOL 309 - 4 hours
- CHEM 100 and CHEM 103 - 8 hours
- ENGL 101 - 3 hours
- GSC 100 – 1 hour
- NURS 100 — 3 hours
- PSYC 201 — 3 hours
- SOCL 205 — 3 hours

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These courses may be completed at Glenville State College or any accredited institution of higher education.

Application forms for the West Virginia University School of Nursing are available in the Nursing Office, Room 102A, Science Hall at Glenville State College after December 1. Application for admission to the School of Nursing must be made by February 1 of the year the candidate wishes to be admitted.

The applicant's academic record is the major factor in the decision on admission. The applicant must have a cumulative grade point average of 3.0 or above on a scale of 0.0 to 4.0 on all college work attempted, to qualify for consideration. In addition applicants must have a 3.0 grade point average in all prerequisite nursing courses and a 3.0 grade point average in all science courses.

The review of applicants takes approximately two months. The students are notified by mail after review of all applicants is completed.

Admission Petitions

Students not meeting the minimum admission requirements as described above may request to be admitted to the WVU School of Nursing by written petition to the Dean.

Transfer Students

Student enrolled in another college or university who wish to transfer to Glenville State College should follow the procedure regarding Transfer Students. Enrollment in Nursing classes is limited to students accepted into the BSN program.

Academic Standards and Graduation Requirements

Academic Standards for the WVU School of Nursing state that a student:

1. Must maintain a cumulative GPA of 3.0 or better on all college work attempted. Must pass all courses with a grade of "C" or better.
2. May repeat ONLY ONCE a required nursing course in which a grade of "D", "F", "W", "WF", "FIW" or "WU" has been received.
3. May repeat ONLY ONE nursing course throughout the curriculum.
4. Must complete with a grade of "C" or better any required nursing course in which a grade of "D", "F", "FIW", "WF", "WU", or "W" has been received.
5. Students who do not maintain a cumulative GPA of 3.0 or better will be placed on probation from the nursing program for one semester.
6. Students who do not raise their cumulative GPA to 3.0 or better after one semester on probation will be dismissed from the School of Nursing.

7. Nursing courses and pre- and co-requisite courses in which students earn a grade of “D”, “F”, “WF”, “FIW”, “WU”, or “W” must be repeated prior to the student’s progression to the next course in the nursing sequence.
8. Students who repeat a nursing course and earn a grade of “D”, “F”, “WF”, “FIW”, “WU” or “W” will be dismissed from the School of Nursing.
9. Any general education course that is not a pre- or co-requisite of nursing courses and in which a grade of “D” has been earned must be repeated prior to graduation if it is to be counted toward graduation requirements.

Fees, Expenses, Housing, Transportation

Freshman pre-nursing students and sophomore nursing students registering at Glenville for the joint GSC/WVU nursing program will pay the tuition and fees shown in this catalog.

The junior and senior students will register at West Virginia University Institute of Technology division of the WVU School of Nursing and pay the fees stipulated by WVUIT.

Clinical experiences require the student to travel to a multi-county area. Students are responsible for their own transportation. Laboratory fee (per clinical course) is \$400.

Additional Expenses:	Estimate:
Lab coat, white uniform, white shoes, name pin	\$100+
Nursing textbooks (sophomore year)	\$800
Equipment (i.e. stethoscope, scissors)	\$100

**GATEWAY ASSESSMENT
ADMISSION TO WVU SCHOOL OF NURSING**

**CAPSTONE ASSESSMENT
RURAL HEALTH ASSESSMENT**

BACHELOR OF SCIENCE IN NURSING PROGRAM

GENERAL EDUCATION REQUIREMENTS

ART 200, CART 200, (OR) MUSC 200	2
CART 101 Introduction to Public Speaking	3
ENGL 101* Critical Reading and Writing I	3
ENGL 102 Critical Reading and Writing II: American Mosaic	3
ENGL 203, 204, 205 or 206	3
GSC 100 The First-Year Experience	1
HIST 201** History of World Cultures I (OR)	
HIST 202 History of World Cultures II	3
HIST 207 United States History to 1877 (OR)	
HIST 208 United States History since 1877	3
PSYC 201* General Psychology	3
BIOL 100 Human Nutrition	3
BIOL 102* Introduction to Cellular Biology	4
BIOL 309* Human Anatomy and Physiology I	4
BIOL 310 Human Anatomy and Physiology II	4
BIOL 361 Microbiology	4
CHEM 100* Introductory Chemistry	4
CHEM 103* Introductory Organic and Biochemistry	4
MATH 102 College Algebra	3
MATH 256 Probability and Statistics I	3
PSYC 250 Lifespan Development	3
SOCL 205* Principles of Sociology	3

*Prerequisites to Nursing 293 A/B

**One of the History courses must be HIST 201 or HIST 202 in order to meet the minorities requirement for WVU.

MAJOR

NURS 100 Introduction to Nursing	2
NURS 293 A/B Health Assessment & Communication	6
NURS 293 C Foundations of Nursing Practice	6
NURS 293 D Evidence Based Practice and Research	3

Information on the Nursing classes taught through West Virginia University Institute of Technology is available at <http://nursing.wvutec.edu/>

**NURSING
SUGGESTED PLAN OF STUDY**

FIRST YEAR

BIOL 102*	4	BIOL 309**	4
CHEM 100*	4	CHEM 103	4
GSC 100*	1	ENGL 101	3
MATH 102*	3	MATH 256**	3
NURS 100*	2	SOCL 205	3
PSYC 201*	3	Total Hours - Spring Semester	17
Total Hours - Fall Semester	17		

SECOND YEAR

BIOL 310**	4	BIOL 100	3
BIOL 361**	4	CART 101	3
NURS 293A/B	6	ENGL 102	3
PSYC 250**	3	NURS 293C	6
Total Hours - Fall Semester	17	NURS 293D	3
		Total Hours - Spring Semester	18

***Required with a grade of “C” or better before enrolling in sophomore nursing courses.**

****Pre- or co-requisite with sophomore courses. Must be completed with a “C” or better to progress to Junior level.**

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**BACHELOR OF ARTS IN EDUCATION
BIOLOGICAL SCIENCE (9-ADULT)**

Candidates may wish to combine this specialization with another (5-9), (9-Adult), (5-Adult) or (PreK-Adult) specialization.

General Education Requirements 43 hours

Candidates must take BIOL 101, CHEM 101 and MATH 102 as part of the General Education requirements.

Content Specialization Courses 52 hours

Total Hours in Biology 36 hours

BIOL 101	General Biology I	
BIOL 102	Introduction to Cellular Biology	4
BIOL 205	Invertebrate Zoology	4
BIOL 206	Vertebrate Zoology	4
BIOL 293	Techniques of Science	2
BIOL 305	General Botany	4
BIOL 335	Cell Physiology	4
BIOL 362	Plant Physiology	4
BIOL 400	Ecology and Field Biology	4
BIOL 456	Genetics	4
BIOL 493	Senior Seminar	2

Total Hours in Chemistry 4 hours

CHEM 101	General Chemistry I	
CHEM 102	General Chemistry II	4

Total Hours in Mathematics 4 hours

MATH 102	College Algebra	
MATH 120	Precalculus	4

Total Hours in Physics 8 hours

PHYS 201	General Physics I	4
PHYS 209	General Geology	4

Professional Education 23 hours

Must complete a Methods course for each specialization in which candidate seeks to gain licensure.

CSCI 267	Computer Skills for Education	2
EDUC 203	Foundations of Education	2
EDUC 205	Educational Psychology*	3
EDUC 310	Classroom Management and Teaching Strategies	2
EDUC 345	Teaching Science in Middle and Adolescent Education (5-Adult)	3
EDUC 412	Curriculum and Assessment: Content (5-Adult)	2
READ 317	Teaching Reading in Middle and Adolescent Education	3
SPED 220	Educating the Student with Exceptional and Cultural Diversities	3
SPED 334	Strategies for Students with Learning Disabilities and Behavior Disorders	3

Student Internship 12 hours

EDUC 493	Capstone Assessment	1
EDUC	Student Internship	11

Total minimum hours required for degree 130 hours

Education 203 and Education 205 are the only Professional Education courses which can be attempted without being admitted to a Program in Teacher Education.

*Before enrolling in Education 205, a student must have attempted PRAXIS I or be exempt from this requirement due to ACT or SAT score.

GATEWAY ASSESSMENT - ADMISSION TO TEACHER EDUCATION

CAPSTONE ASSESSMENT - EDUCATION 493

**BIOLOGICAL SCIENCE (9-ADULT)
SUGGESTED PLAN OF STUDY**

FIRST YEAR

BIOL 101.....	4
CSCI 101.....	3
EDUC 203.....	2
ENGL 101.....	3
GSC 100.....	1
MATH 102.....	3
PED 101.....	1
Total Hours - Fall Semester.....	17

BIOL 102.....	4
BIOL 206.....	4
BIOL 305.....	4
EDUC 205.....	3
ENGL 102.....	3
Total Hours - Spring Semester.....	18

**CANDIDATES NOT REQUIRED TO TAKE
DEVELOPMENTAL COURSEWORK
SHOULD ATTEMPT PRAXIS I DURING
THE FALL SEMESTER OF FRESHMAN
YEAR**

SECOND YEAR

BIOL 205.....	4
BIOL 293.....	2
CHEM 101.....	4
MATH 120.....	4
PED 201.....	1
PHYS 201.....	4
Total Hours - Fall Semester.....	19

ART 200, CART 200 (OR) MUSC 200.....	2
BIOL 362.....	4
CHEM 102.....	4
ECON 201, GEOG 203, PSYC 201, SOCL 205 (OR) SOCS 225.....	3
HIST 201, 202, 207, 208 (OR) POSC 203.....	3
Total Hours - Spring Semester.....	16

**APPLY FOR ADMISSION TO
TEACHER EDUCATION**

THIRD YEAR

ART 200, CART 200 (OR) MUSC 200.....	2
EDUC 310.....	2
CART 101.....	3
CSCI 267.....	2
HIST 201, 202, 207, 208 (OR) POSC 203.....	3
PED 301.....	1
SPED 220.....	3
Total Hours - Fall Semester.....	16

REQUEST DEGREE EVALUATION

BIOL 456.....	4
BIOL 493.....	2
EDUC 345.....	3
ENGL 203, 204, 205 (OR) 206.....	3
PHYS 209.....	4
Total Hours - Fall Semester.....	16

PASS PRAXIS II EXAM

FOURTH YEAR

APPLY FOR STUDENT INTERNSHIP*

APPLY FOR GRADUATION

BIOL 335.....	4
BIOL 400.....	4
EDUC 412.....	2
READ 317.....	3
SPED 334.....	3
Total Hours - Fall Semester.....	16

EDUC 493.....	1
STUDENT INTERNSHIP.....	11
Total Hours - Spring Semester.....	12

***Interns may not enroll in any other courses.**

**BACHELOR OF ARTS IN EDUCATION
CHEMISTRY (9-ADULT)**

Candidates may wish to combine this specialization with another (5-9), (9-Adult), (5-Adult) or (PreK-Adult) specialization.

General Education Requirements 43 hours

Candidates must take BIOL 101, CHEM 101 and MATH 102 as part of the General Education requirements.

Content Specialization Courses 51 hours

Total Hours in Biology 4

BIOL 101 General Biology I
BIOL 102 Introduction to Cellular Biology

Total Hours in Chemistry 31

CHEM 101 General Chemistry I
CHEM 102 General Chemistry II 4
CHEM 293 Techniques of Chemistry 1
CHEM 301 Organic Chemistry I 4
CHEM 302 Organic Chemistry II 4
CHEM 307 Inorganic Chemistry 4
CHEM 321 Analytical Chemistry I 4
CHEM 345 Introductory Physical Chemistry 4
CHEM 380 Biochemistry I 4
CHEM 493 Senior Research Seminar 2

Total Hours in Mathematics 8

MATH 102 College Algebra
MATH 120 Precalculus 4
MATH 202 Calculus I 4

Total Hours in Physics 8

PHYS 201 General Physics I 4
PHYS 202 General Physics II 4

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Professional Education

23 hours

Must complete a Methods course for each specialization in which candidate seeks to gain licensure.

CSCI 267	Computer Skills for Education	2
EDUC 203	Foundations of Education	2
EDUC 205	Educational Psychology*	3
EDUC 310	Classroom Management and Teaching Strategies	2
EDUC 345	Teaching Science in Middle and Adolescent Education (5-Adult)	3
EDUC 412	Curriculum and Assessment: Content (5-Adult)	2
READ 317	Teaching Reading in Middle and Adolescent Education	3
SPED 220	Educating the Student with Exceptional and Cultural Diversities	3
SPED 334	Strategies for Students with Learning Disabilities and Behavior Disorders	3

Student Internship

12 hours

EDUC 493	Capstone Assessment	1
EDUC	Student Internship: Content	11

Total minimum hours required for degree

129 hours

Education 203 and Education 205 are the only Professional Education courses which can be attempted without being admitted to a Program in Teacher Education.

*Before enrolling in Education 205, a candidate must have attempted PRAXIS I or be exempt from this requirement due to ACT or SAT score.

GATEWAY ASSESSMENT - ADMISSION TO TEACHER EDUCATION

CAPSTONE ASSESSMENT - EDUCATION 493

**CHEMISTRY (9-ADULT)
SUGGESTED PLAN OF STUDY**

FIRST YEAR

CART 101	3	ART 200, CART 200 (OR)	
CHEM 101	4	MUSC 200.....	2
CSCI 101	3	BIOL 101.....	4
ENGL 101	3	CHEM 102.....	4
GSC 100	1	CSCI 267	2
MATH 102	3	EDUC 203	2
PED 101	1	MATH 120	4
Total Hours - Fall Semester	18	Total Hours - Spring Semester	18

**CANDIDATES NOT REQUIRED TO TAKE
DEVELOPMENTAL COURSEWORK SHOULD
ATTEMPT PRAXIS I DURING THE FALL
SEMESTER OF FRESHMAN YEAR**

SECOND YEAR

CHEM 293	1	CHEM 302.....	4
CHEM 301	4	CHEM 307.....	4
EDUC 205	3	HIST 201, 202, 207, 208 (OR)	
MATH 202	4	POSC 203	3
PED 201	1	PHYS 202	4
PHYS 201.....	4	Total Hours - Spring Semester	15
Total Hours - Fall Semester	17		

**APPLY FOR ADMISSION TO
TEACHER EDUCATION**

THIRD YEAR

ART 200, CART 200 (OR)		BIOL 102.....	4
MUSC 200	2	CHEM 345.....	4
CHEM 380	4	EDUC 345	3
ECON 201, GEOG 203, PSYC 201, SOCL 205 (OR)		ENGL 203, 204, 205 (OR) 206	3
SOCS 225	3	PED 301.....	1
EDUC 310	2	SPED 334	3
ENGL 102	3	Total Hours - Spring Semester	18
SPED 220	3		
Total Hours - Fall Semester	17		

PASS PRAXIS II EXAM

REQUEST DEGREE EVALUATION

FOURTH YEAR

APPLY FOR STUDENT INTERNSHIP*

CHEM 321	4
CHEM 493	2
EDUC 412	2
HIST 201, 202, 207, 208 (OR)	
POSC 203.....	3
READ 317	3
Total Hours - Fall Semester	14

APPLY FOR GRADUATION

EDUC 493	1
STUDENT INTERNSHIP.....	11
Total Hours - Spring Semester	12

*Interns may not enroll in any other courses.

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BACHELOR OF ARTS IN EDUCATION CHEMISTRY & PHYSICS (9-ADULT)

Candidates may wish to combine this specialization with another (5-9), (9-Adult), (5-Adult) or (PreK-Adult) specialization.

General Education Requirements **43 hours**

Candidates must take CHEM 101, MATH 102, and PHYS 201 as part of the General Education requirements.

Content Specialization Courses **54 hours**

Total Hours in Chemistry **23**

CHEM 101	General Chemistry I	
CHEM 102	General Chemistry II	4
CHEM 293	Techniques of Chemistry	1
CHEM 301	Organic Chemistry I	4
CHEM 302	Organic Chemistry II	4
CHEM 307	Inorganic Chemistry	4
CHEM 321	Analytical Chemistry I	4
CHEM 493	Senior Research Seminar	2

Total Hours in Mathematics **8**

MATH 102	College Algebra	
MATH 120	Precalculus	4
MATH 202	Calculus I	4

Total Hours in Physics **23**

PHYS 201	General Physics I	
PHYS 202	General Physics II	4
PHYS 304	Problems in Physics	3
PHYS 310	General Astronomy	4
PHYS 341	Nuclear Physics	3
PHYS 345	Introductory Chemical Physics	4
PHYS 350	Modern Physics	3
PHYS 493	Senior Research Seminar	2

Professional Education **23 hours**

Must complete a Methods course for each specialization in which candidate seeks to gain licensure.

CSCI 267	Computer Skills for Education	2
EDUC 203	Foundations of Education	2
EDUC 205	Educational Psychology*	3
EDUC 310	Classroom Management and Teaching Strategies	2
EDUC 345	Teaching Science in Middle and Adolescent Education (5-Adult)	3
EDUC 412	Curriculum and Assessment: Content (5-Adult)	2
READ 317	Teaching Reading in Middle and Adolescent Education	3
SPED 220	Educating the Student with Exceptional and Cultural Diversities	3
SPED 334	Strategies for Students with Learning Disabilities and Behavior Disorders	3

Student Internship **12 hours**

EDUC 493	Capstone Assessment	1
EDUC	Student Internship: Content	11

Total minimum hours required for degree **132 hours**

*Before enrolling in Education 205, a student must have attempted PRAXIS I or be exempt from this requirement due to ACT or SAT score.

GATEWAY ASSESSMENT – ADMISSION TO TEACHER EDUCATION

CAPSTONE ASSESSMENT – EDUC 493

**CHEMISTRY AND PHYSICS (9-ADULT)
SUGGESTED PLAN OF STUDY**

FIRST YEAR

CART 101	3	ART 200, CART 200 (OR)	
CHEM 101	4	MUSC 200.....	2
CSCI 101	3	CHEM 102.....	4
ENGL 101	3	CSCI 267	2
GSC 100	1	ECON 201, GEOG 203,	
MATH 102	3	PSYC 201, SOCL 205 (OR)	
PED 201	1	SOCS 225	3
Total Hours - Fall Semester	18	EDUC 203	2
		MATH 120	4
		Total Hours - Spring Semester	17

**CANDIDATES NOT REQUIRED TO TAKE
DEVELOPMENTAL COURSEWORK
SHOULD ATTEMPT PRAXIS I DURING
THE FALL SEMESTER OF FRESHMAN
YEAR**

SECOND YEAR

CHEM 293	1	CHEM 302.....	4
CHEM 301	4	HIST 201, 202, 207, 208 (OR)	
EDUC 205	3	POSC 203	3
ENGL 102	3	PED 301.....	1
MATH 202	4	PED 101.....	1
PHYS 201.....	4	PHYS 202.....	4
Total Hours - Fall Semester	19	PHYS 341	3
		Total Hours - Spring Semester	16

**APPLY FOR ADMISSION TO
TEACHER EDUCATION**

THIRD YEAR

ART 200, CART 200 (OR)		EDUC 310	2
MUSC 200	2	EDUC 345	3
CHEM 307	4	ENGL 203, 204, 205 (OR) 206	3
PHYS 304.....	3	PHYS 345.....	4
PHYS 310.....	4	PHYS 350.....	3
SPED 220	3	SPED 334	3
Total Hours - Fall Semester	16	Total Hours - Spring Semester	18

REQUEST DEGREE EVALUATION

PASS PRAXIS II EXAM

FOURTH YEAR

APPLY FOR STUDENT INTERNSHIP*		APPLY FOR GRADUATION	
CHEM 321	4	EDUC 493	1
CHEM 493	2	STUDENT INTERNSHIP.....	11
EDUC 412.....	2	Total Hours - Spring Semester	12
HIST 201, 202, 207, 208 (OR)			
POSC 203.....	3		
PHYS 493.....	2		
READ 317	3		
Total Hours - Fall Semester	16		

***Interns may not enroll in any other courses.**

**BACHELOR OF ARTS IN EDUCATION
GENERAL SCIENCE (5-ADULT)**

Candidates may wish to combine this specialization with another (5-9), (9-Adult), (5-Adult) or (PreK-Adult) specialization.

General Education Requirements 43 hours

Candidates must take BIOL 101 and MATH 102 as part of the General Education requirements.

Content Specialization Courses 44 hours

Total Hours in Biology 12

BIOL 101	General Biology I	
BIOL 102	Introduction to Cellular Biology	4
BIOL 361	Microbiology	4
BIOL 400	Ecology and Field Biology	4

Total Hours in Chemistry 12

CHEM 101	General Chemistry I	4
CHEM 102	General Chemistry II	4
CHEM 301	Organic Chemistry I (OR)	
CHEM 321	Analytical Chemistry I	4

Total Hours in Physics 16

PHYS 201	General Physics I	4
PHYS 202	General Physics II	4
PHYS 209	General Geology	4
PHYS 310	General Astronomy	4

Total Hours in Mathematics 4

MATH 102	College Algebra	
MATH 120	Precalculus	4

Electives 6 hours

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Professional Education

23 hours

Must complete a Methods course for each specialization in which candidate seeks to gain licensure.

CSCI 267	Computer Skills for Education	2
EDUC 203	Foundations of Education	2
EDUC 205	Educational Psychology*	3
EDUC 310	Classroom Management and Teaching Strategies	2
EDUC 345	Teaching Science in Middle and Adolescent Education (5-Adult)	3
EDUC 412	Curriculum and Assessment: Content (5-Adult)	2
READ 317	Teaching Reading in Middle and Adolescent Education	3
SPED 220	Educating the Student with Exceptional and Cultural Diversities	3
SPED 334	Strategies for Students with Learning Disabilities and Behavior Disorders	3

Student Internship

12 hours

EDUC 493	Capstone Assessment	1
EDUC	Student Internship	11

Total minimum hours required for degree

128 hours

Education 203 and Education 205 are the only Professional Education courses which can be attempted without being admitted to a Program in Teacher Education.

*Before enrolling in Education 205, a student must have attempted or be exempt from this requirement due to ACT or SAT score.

GATEWAY ASSESSMENT - ADMISSION TO TEACHER EDUCATION

CAPSTONE ASSESSMENT - EDUCATION 493

**GENERAL SCIENCE (5-ADULT)
SUGGESTED PLAN OF STUDY**

FIRST YEAR

BIOL 101.....	4	BIOL 102.....	4
EDUC 203.....	2	CHEM 101, ENVR 101, PHYS 100 (OR) SCNC 101	4
ENGL 101	3	CSCI 101	3
GSC 100	1	EDUC 205	3
HIST 201, 202, 207, 208 (OR) POSC 203.....	3	MATH 120	4
MATH 102.....	3	Total Hours - Spring Semester	18
PED 101	1		
Total Hours - Fall Semester	17		

**CANDIDATES NOT REQUIRED TO TAKE
DEVELOPMENTAL COURSEWORK SHOULD
ATTEMPT PRAXIS I DURING THE FALL
SEMESTER OF FRESHMAN YEAR**

SECOND YEAR

ART 200, CART 200 (OR) MUSC 200	2	APPLY FOR ADMISSION TO TEACHER EDUCATION	
CHEM 101	4	CART 101	3
CSCI 267	2	CHEM 102.....	4
ECON 201, GEOG 203, PSYC 201, SOCL 205 (OR)		ENGL 102	3
SOCS 225	3	PHYS 202.....	4
PED 201	1	PHYS 209.....	4
PHYS 201.....	4	Total Hours - Spring Semester	18
Total Hours - Fall Semester	16		

THIRD YEAR

CHEM 301 (OR) CHEM 321	4	ART 200, CART 200 (OR) MUSC 200.....	2
EDUC 310.....	2	EDUC 345	3
ENGL 203, 204, 205 (OR) 206	3	HIST 201, 202, 207, 208 (OR) POSC 203	3
PED 301	1	SPED 220	3
PHYS 310.....	4	ELECTIVES.....	4
READ 317.....	3	Total Hours - Spring Semester	15
Total Hours - Fall Semester	17		

REQUEST DEGREE EVALUATION

PASS PRAXIS II EXAM

FOURTH YEAR

APPLY FOR STUDENT INTERNSHIP*

APPLY FOR GRADUATION

BIOL 361.....	4	EDUC 493	1
BIOL 400.....	4	STUDENT INTERNSHIP.....	11
EDUC 412.....	2	Total Hours - Spring Semester	12
SPED 334.....	3		
ELECTIVES.....	2		
Total Hours - Fall Semester	15		

***Interns may not enroll in any other courses.**

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BACHELOR OF ARTS IN EDUCATION MATHEMATICS (5-ADULT)

Candidates may wish to combine this specialization with another (5-9), (9-Adult), (5-Adult) or (PreK-Adult) specialization.

General Education Requirements **43 hours**

Candidates must take MATH 110 as part of the general education requirements.

Content Specialization Courses **42 hours**

MATH 105	Quantitative Reasoning	3
MATH 110	The Nature of Math	
MATH 120*	Precalculus	4
MATH 202	Calculus I	4
MATH 207	Calculus II	4
MATH 230	Euclidean Geometry for College Students	3
MATH 256	Probability and Statistics I	3
MATH 303	Modern Algebra	3
MATH 308	Calculus III	4
MATH 310	College Geometry	3
MATH 315	Linear Algebra	3
MATH 321	History of Mathematics	2
MATH 330	Discrete Mathematics	3
MATH 356	Probability and Statistics II	3

*MATH 102 may be required as a prerequisite for MATH 120 if candidates do not have a Math ACT of 24.

Electives **8 hours**

Professional Education **23 hours**

Must complete a Methods course for each specialization in which candidate seeks to gain licensure.

CSCI 267	Computer Skills for Education	2
EDUC 203	Foundations of Education	2
EDUC 205	Educational Psychology*	3
EDUC 310	Classroom Management and Teaching Strategies	2
EDUC 343	Teaching Mathematics in Middle and Adolescent Education (5-Adult)	3

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EDUC 412	Curriculum and Assessment: Content (5-Adult)	2	
READ 317	Teaching Reading in Middle and Adolescent Education	3	
SPED 220	Educating the Student with Exceptional and Cultural Diversities	3	
SPED 334	Strategies for Students with Learning Disabilities and Behavior Disorders	3	
Student Internship			12 hours
EDUC 493	Capstone Assessment	1	
EDUC	Student Internship	11	
Total minimum hours required for degree			128 hours

Education 203 and Education 205 are the only Professional Education courses which can be attempted without being admitted to a Program in Teacher Education.

*Before enrolling in Education 205, a student must have attempted PRAXIS I or be exempt from this requirement due to ACT or SAT score.

GATEWAY ASSESSMENT - ADMISSION TO TEACHER EDUCATION

CAPSTONE ASSESSMENT - EDUCATION 493

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**MATHEMATICS (5-ADULT)
SUGGESTED PLAN OF STUDY**

FIRST YEAR

BIOL 101, 102, CHEM 100, 101, ENVR 101, PHYS 201, 209 (OR) SCNC 101	4
ECON 201, GEOG 203, PSYC 201, SOCL 205 (OR) SOCS 225	3
EDUC 203	2
GSC 100	1
HIST 201	3
MATH 105	3
PED 101	1
Total Hours - Fall Semester	17

**CANDIDATES NOT REQUIRED TO TAKE
DEVELOPMENTAL COURSEWORK SHOULD
ATTEMPT PRAXIS I DURING THE FALL
SEMESTER OF FRESHMAN YEAR**

CSCI 101	3
EDUC 205	3
ENGL 101	3
MATH 110	3
MATH 120	4
Total Hours - Spring Semester	16

SECOND YEAR

ART 200, CART 200 (OR) MUSC 200	2
CART 101	3
CSCI 267	2
ENGL 102	3
HIST 201, 202, 207, 208 (OR) POSC 203	3
MATH 202	4
PED 201	1
Total Hours - Fall Semester	18

ART 200, CART 200 (OR) MUSC 200	2
BIOL 101, 102, CHEM 100, 101, ENVR 101, PHYS 201, 209 (OR) SCNC 101	4
MATH 207	4
MATH 230	3
MATH 256	3
MATH 303	3
Total Hours - Spring Semester	19

**APPLY FOR ADMISSION TO
TEACHER EDUCATION**

THIRD YEAR

EDUC 310	2
ENGL 203, 204, 205 (OR) 206	3
MATH 308	4
MATH 310	3
READ 317	3
Total Hours - Fall Semester	15

EDUC 343	3
MATH 330	3
PED 301	1
SPED 220	3
ELECTIVES	6
Total Hours - Spring Semester	16

REQUEST DEGREE EVALUATION

PASS PRAXIS II EXAM

FOURTH YEAR

APPLY FOR STUDENT INTERNSHIP*

APPLY FOR GRADUATION

EDUC 412	2
MATH 315	3
MATH 321	2
MATH 356	3
SPED 334	3
ELECTIVES	2
Total Hours - Fall Semester	15

EDUC 493	1
STUDENT INTERNSHIP	11
Total Hours - Spring Semester	12

***Interns may not enroll in any other courses.**

**BACHELOR OF ARTS IN EDUCATION
MIDDLE SCHOOL SPECIALIZATIONS**

These programs can be combined with (K-6), (PreK-Adult), (5-Adult), (9-Adult) or as two (5-9) specializations.

GENERAL SCIENCE (5-9) 24 hours

Candidates must take BIOL 101 and CHEM 101 as part of the General Education requirements.

BIOL 101	General Biology I	
BIOL 102	Introduction to Cellular Biology	4
CHEM 101	General Chemistry I	
CHEM 102	General Chemistry II	4
PHYS 201	General Physics I	4
PHYS 202	General Physics II	4
PHYS 209	General Geology	4
PHYS 310	General Astronomy	4
EDUC 345	Teaching Science in Middle and Adolescent Education	

GENERAL MATH–ALGEBRA I (5-9) 20 hours

Candidates must take MATH 102 as part of the General Education requirements.

MATH 102	College Algebra	
MATH 105	Quantitative Reasoning	3
MATH 110	The Nature of Math	3
MATH 120	Precalculus	4
MATH 202	Calculus I	4
MATH 230	Euclidean Geometry for College Students	3
MATH 256	Probability and Statistics I	3
EDUC 343	Teaching Mathematics in Middle and Adolescent Education	

GATEWAY ASSESSMENT – ADMISSION TO TEACHER EDUCATION

CAPSTONE ASSESSMENT – EDUCATION 493