

Undergraduate Degree

Physical Science (Chemistry and Physics) Licensure (Grades 7-12) Information Sheet

General Education – 42 hrs. (See Undergraduate Bulletin)

Professional Education Requirements for Undergraduate Chemistry and Physics Students – 41 hrs. required with a “C” or better and a 2.5 GPA or better

	<u>Credits</u>
<u>Phase One:</u> Learning about Learners	
5100:200 Intro to Education	3
5100:220 Educational Psychology	3
5610:225 Introduction to Exceptionalities	3
5500:230 Educational Technology	3
5300:100 Orientation: AYA/P-12/Multi-Age	0
 <u>Phase Two:</u> Learning about Teaching	
5300:360 Educational Planning	3
5100:300 Educational Equity	3
 <u>Phase Three:</u> Learning to Apply the Principles of Teaching	
5500:370 Educational Implementation	3
5300:420 Inst. Techniques: Science (spring only)	3
5300 :421 Field Exp: Inst. Techniques: Science	2
5300:325 Content Reading in Sec. Schools	3
5500:475 Instructional Technology Applications	3
 <u>Phase Four:</u> Learning to Teach	
5300:495 Student Teaching ¹	8
5300:496 Student Teaching Colloquium	1

Content Requirements for Chemistry and Physics Licensure Students – 81 hrs.

<u>Science Core</u>		
3100:111 Principles of Biology I		4
3100:112 Principles of Biology II		4
3150:151 Principles of Chemistry I		3
3150:152 Principles of Chemistry Lab		1
3150:153 Principles of Chemistry II		3
3370:101 Physical Geology		4
3370:102 Historical Geology		4

Complete <u>one</u> of two physics options:		
3650:261 Physics Life Science I		4
3650:262 Physics Life Science II		4
OR		
3650:291 Elem. Class. Physics I		4
3650:292 Elem. Class. Physics II		4

<u>Physics</u>		
3650:301 Modern Physics		3
3650:322 Intermediate Lab I		3
3650:323 Intermediate Lab II		3
3650:130 Descriptive Astronomy		4

Complete <u>one</u> of the following courses:		
3650:267 Life Science Physics Comp.		1
3650:293 Class. Physics Comp.		1

Complete <u>one</u> of the following courses:		
3650:133 Music, Sound & Physics		4
3650:137 Light		4

<u>Chemistry</u>		
3150:154 Qualitative Analysis		2
3150:263 Organic Chemistry I		3
3150:264 Organic Chemistry II		3
3150:265 Organic Chemistry Lab I		2
3150:313 Physical Chemistry I		3
3150:380 Advanced Chemistry Lab I		2
3150:401 Biochemistry I		3
3150:423 Analytical Chemistry I		3

<u>Mathematics</u>		
3450:221 Anal. Geometry/Calculus I		4
(pre-req 3450:149 or eligibility for calculus)		
3450:222 Anal Geometry/Calculus II		4
3470:260 Basic Statistics		3

164 credits required for graduation.

Additional Requirements to Add Integrated Science Licensure:

3370:128 Geology of Ohio		1
3370:137 Earth’s Atmosphere & Weather		1
3370:171 Intro to the Oceans		3
3370:200 Environmental Geology		3
3100:217 General Ecology		3
3100:265 Human Physiology		4

Note: These 15 hours are not required for chemistry and physics licensure.

¹Approval of the Student Teaching Committee, based upon approved application to student teaching, passing PRAXIS II subject test, and approved portfolio. Planned teaching experience in schools selected and supervised by the Office of Field Experiences. To qualify for student teaching, students must have a 2.50 GPA overall, 2.5 in education classes, and 2.5 in the student's major, and in methods courses, core courses and in their teaching field(s). Satisfactory completion of a minimum of 100 hours of field and clinical experience is also required before student teaching.

Secondary Science Contact:

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Applications for graduation are due as follows:
September 15 for May graduation
February 15 for August graduation
May 15 for December graduation



The University of Akron
College of Education
Department of Curricular and Instructional Studies
132 Zook Hall
Akron, Ohio 44325-4205
(330) 972-7765

Admission to Professional Education Programs

All students are expected to complete an application for admission. Applications are available in the Pre-Admission Advising Office, Zook Hall 207.

General Education Requirements: To be admitted to the College of Education, all students must be able to meet the following criteria: A student must have completed at least 30 semester hours of coursework. This coursework must include three semester hours in each of the required courses in mathematics; natural science; social science; public/oral communication; four (4) semester hours in English composition; and one (1) semester in physical education. Evidence of competency in mathematics as evidenced by the Praxis I Pre-Professional Skills Test (PPST), or computerized version (CBT), scoring at least 172 in mathematics. (Student with a 22 Composite ACT score or a 1050 Composite SAT score is exempt from this admission requirement. A student who obtains a "B" or better in a minimum of 3 credits of mathematics that meets the University's General Education mathematics requirement is also exempt from this admission requirement.) Evidence of competency in reading comprehension and writing as evidenced by the Praxis I Pre-Professional Skills Test (PPST), or computerized version (CBT), scoring at least 173 in reading comprehension and at least 172 in writing. (Student with a 22 Composite ACT score or a 1050 Composite SAT score is exempt from this admission requirement. A student who obtains a "B" or better in a course that meets the University's General Education English Composition I requirement is also exempt from this admission requirement.) **For additional admission requirements, see The University of Akron Undergraduate Bulletin.**

Speech and Hearing: Ohio law requires that all education students take a speech and hearing test through a licensed professional and/or approved clinic.

Background Check: A criminal background check is required for admission. Additional information is available in the teacher education application.

Basic Computer Literacy Skill: A teacher education licensure applicant must provide evidence of basic computer literacy skills as a pre-admission requirement for any teacher education licensure program. The applicant must demonstrate mastery of hands-on computer skill by taking a test to be developed and administered in the one of the college's computer laboratories. The course 5100:205 (1) Fundamental Educational Computing Skills was created to serve the needs to students who are not computer literate upon entry to a teacher education program.

References: Students are expected to ask two individuals, not related to them but who know them well, to complete a reference form attesting to their interpersonal skills and motivation to teach.

Program Area of Study: All students are expected to comply with requirements specified by the program to which they are applying.

Advisement: All students will be assigned an advisor, and will need to complete an individualized program course distribution (PCD) with their advisor or other approved program designee. This PCD needs to be completed during the first semester of admission. In keeping with the philosophy of the College of Education's teacher education curriculum, "Educator as Decision Maker," students are encouraged to see their program advisor as frequently as necessary to assure they are maintaining positive progress in their program.

Retention: Retention of students in all programs will be evaluation-based. Students will have opportunities to upgrade their skills and achievement in areas where such needs may exist. Completion of the program requirements will be reviewed annually by the student and advisor. Areas of strengths and weakness are to be evaluated, and if a student presents an area of weakness, the advisor will refer the student for remediation. Approval to student teach is contingent on the student's progress through the program of study with satisfactory grades. For admission to student teaching, students must have the approval of the Student Teaching Committee, based upon approved application to student teaching, passing PRAXIS II subject test, and approved portfolio. Planned teaching experience in schools selected and supervised by the Office of Field Experiences.

Licensure: After graduation, students may apply for licensure through the Office of Student Services. The State of Ohio requires all applicants for licensure to pass all the appropriate examination(s) for intended area(s) of licensure. Information about specific requirements for specific licenses can be obtained from the department.

Coursework: Coursework over ten years old may not be applicable for licensure. Check with your advisor regarding specific requirements.