

Science Education Checklist

The University of Pittsburgh, School of Education offers two post-baccalaureate programs for Secondary Science teacher certification (grades 7-12). The two programs are a Professional Year (PY) Program and a Master of Arts in Teaching (MAT) Program. Certification Studies are available in Biology, Chemistry, Physics, Earth and Space Science, and General Science. Certification in more than one science is also available. Details are outlined below.

To be considered for admission, applicants need to have:

- submitted a completed School of Education application form and the application fee
- earned an undergraduate degree with a minimum QPA of 3.0 (applications from students who plan to earn their undergraduate degree before the term of admission will be considered)
- submitted official transcripts from all institutions attended
- submitted a copy of the spring registration form if enrolled in spring term courses
- completed the appropriate number of prerequisite credit hours in Academic Prerequisites
- completed the appropriate number of prerequisite credit hours in Chapter 354.23 Prerequisites
- completed the appropriate number of prerequisite credit hours in Education Prerequisites
- submitted evidence of passing scores on the PRAXIS I test series (reading, writing, and mathematics)
- submitted three letters of academic and/or professional recommendation
- submitted a thoughtful, clearly written goal statement of two to three double-spaced typewritten pages
- submitted a resumé

MEETING OR EXCEEDING THE APPLICATION CRITERIA DOES NOT GUARANTEE ADMISSION

The application deadline for both programs is January 15 of the admission year. If you have any questions, please contact the Admissions and Enrollment Services at 412-648-2230.

Professional Year (PY) Program

- satisfies the requirements for a Pennsylvania Instructional I Certificate in Science Education (pending passing scores on the national PRAXIS I & II Exams, successful completion of the PA Statewide Evaluation Form for Student Professional Knowledge and Practice (PDE 430), and satisfactory performance in courses and student teaching)
- is completed in two terms (fall and spring) of 15 credit hours each
- requires one day a week at a local school district in the fall term and a full-time student teaching experience at the same site in the spring term
- contains 18 credits which can be applied within three years towards a Master of Education degree
- students may apply for financial aid

Master of Arts in Teaching (MAT) Program

- requires Interns to take and pass the Content Knowledge test in Biology, Chemistry, Physics, Earth and Space Science, or General Science during the first summer of their program in order to obtain their Intern Certificate
- satisfies the requirements for a Pennsylvania Instructional I Certificate in Science Education (pending passing scores on the national PRAXIS I & II Exams, successful completion of the PA Statewide Evaluation Form for Student Professional Knowledge and Practice (PDE 430), and satisfactory performance in courses and in the internship)
- is completed in 12 months (or two terms and two summer sessions) beginning in June of the admission year
- consists of graduate course work combined with a maximum 4.5 day per week internship in a local school district from September through June
- students may apply for financial aid

Compliance with all Federal and PA state clearances is required before entering schools. Information on how to obtain these clearances is available at www.education.pitt.edu/clearances.

Apply online at www.education.pitt.edu/apply

DEPARTMENT OF INSTRUCTION AND LEARNING

Student _____ Date _____ QPA _____

Academic Prerequisites (chosen from one of the concentrations listed below)

Biology Concentration (40 - 52 credits)				
Course No.	Course Title	GR		Credits
			Foundations of Biology I (with Lab)*	
			Foundations of Biology II (with Lab)*	
			Genetics	
			Molecular Biology	
			Environmental Biology <i>OR</i> Ecology	
			Upper Level Biology Elective	
			Upper Level Biology Elective	
			Upper Level Biology Elective	
			General Chemistry I (with Lab)*	
			General Chemistry II (with Lab)*	
			Organic Chemistry I (with Lab)*	
			Organic Chemistry II (with Lab)*	
			Analytical Geometry and Calculus	

*Credits vary depending upon whether lab component must be registered for separately.

Chemistry Concentration (38 - 54 credits)				
Course No.	Course Title	GR		Credits
			General Chemistry I (with Lab)*	
			General Chemistry II (with Lab)*	
			Introduction to Analytical Chemistry (with Lab)*	
			Organic Chemistry I (with Lab)*	
			Organic Chemistry II (with Lab)*	
			Physical Chemistry (with Lab)*	
			Upper Level Chemistry Elective	
			Introduction to Physics I (with Lab)**	
			Introduction to Physics II (with Lab)**	
			Foundations of Biology (with Lab)	
			Analytical Geometry and Calculus I	
			Analytical Geometry and Calculus II	

*Credits vary depending upon whether lab component must be registered for separately.

** For Physics, Pitt students take Physics I, Physics II and a two credit Physics lab.

Earth and Space Science Concentration (37 - 43 credits)

Course No.	Course Title	GR		Credits
			Astronomy	
			Physical Geology	
			Historical Geology	
			The Planets	
			Oceanography	
			Earth Systems Science	
			Upper Level Geology Elective	
			General Chemistry I (with Lab)*	
			General Chemistry II (with Lab)*	
			Introduction to Physics I (with Lab)**	
			Introduction to Physics II (with Lab)**	
			Analytical Geometry and Calculus I	

Physics Concentration (39 - 45 credits)

Course No.	Course Title	GR		Credits
			Introduction to Physics I (with Lab)**	
			Introduction to Physics II (with Lab)**	
			Mechanics	
			Intermediate Electricity and Magnetism	
			Wave Motion and Optics	
			Upper Level Physics Course	
			Upper Level Physics Course	
			General Chemistry I (with Lab)*	
			General Chemistry II (with Lab)*	
			Analytical Geometry and Calculus I	
			Analytical Geometry and Calculus II	
			Analytical Geometry and Calculus III	

General Science Concentration (37 - 47 credits)

Course No.	Course Title	GR		Credits
			Foundations in Biology I (with Lab)*	
			Foundations in Biology II (with Lab)*	
			Molecular Biology	
			Environmental Biology <i>OR</i> Ecology	
			General Chemistry I (with Lab)*	
			General Chemistry II (with Lab)*	
			Organic Chemistry	
			Introduction to Physics I (with Lab)**	
			Introduction to Physics II (with Lab)**	
			Geology	
			Astronomy	
			Analytical Geometry and Calculus I	

*Credits vary depending upon whether lab component must be registered for separately.

** For Physics, Pitt students must take Physics I, Physics II and a two credit Physics lab.

Chapter 354.23 Prerequisites

Section 354.23 of the Pennsylvania Department of Education teacher certification requirements states that all prospective candidates must take at least 6 semester hour credits in college level English and 6 semester hour credits in college level Mathematics with a grade of C or better.

Course No.	Course Title	GR		Credits
			College Level English Composition *	3
			College Level American or British Literature	3
			College Level Mathematics *	3
			College Level Mathematics **	3

**Course credit can be satisfied through Academic Prerequisite courses.

*SAT II writing subject test score of 600 or above satisfies the three credit English composition requirement.

*A Math SAT II score of 560 or above, or a college or university Algebra Placement Test, or the successful completion of an Advanced Placement Mathematics class that appears on your institution's transcript, satisfies three credits of the Math requirement.

Education Prerequisites

For Professional Year (PY) students, the four education prerequisites must be taken prior to the fall term of the PY program. Master of Arts in Teaching (MAT) students may take Introduction to Science Education prior to beginning the program.

The following approved clearances are required before taking Introduction to Science Education: Federal Criminal History Record, Act 34 – PA State Police Criminal Record Check, and Act 33/151 PA Child Abuse History. Forms may be obtained in 5300 Wesley Posvar Hall, or from our clearances information page.

Course No.	MAT	GR	PY
	NONE		Social Foundations of Education <i>OR</i> Equivalent
			Educational Psychology <i>OR</i> Equivalent
			Introduction to Science Education (IL 1430/2430)
			Foundations of Special Education (IL 1580/2500)

Professional Year (PY) Instructional I Certificate Option

Fall Term

IL 2431	Secondary Science Methods 1	3 credits
IL 2747	Teaching Lab	3 credits
IL 2257	English Language Learners	3 credits
IL 2741	Practicum in Science Education	3 credits
IL 2523	Literacy Assessment	3 credits

Spring Term

IL 2432	Secondary Science Methods 2	3 credits
IL 2841	Student Teaching – Science	8 credits
IL 2843	Student Teaching Seminar – Science	1 credits
IL 2502	Teaching Students with Disabilities in the Secondary Classroom	3 credits

Master of Arts in Teaching (MAT) Option

Summer Session II

IL 1580	Foundations of Special Education	3 credits
IL 2430	Introduction to Science Education (if not taken)	3 credits
EDUC 2100	Education and Society	3 credits
EDUC 2000	Psychology of Learning and Development for Educators	3 credits

Fall Term

IL 2431	Methods I	3 credits
IL 2523	Literacy Assessment	3 credits
IL 2257	English Language Learners	3 credit
IL	Practicum	3 credits
IL 2747	Teaching Lab	3 credits

Spring Term

IL 2496	Internship in Science Teaching	5 credits
IL 2448	Special Topics – Science Internship Seminar	1 credit
IL 2502	Teaching Students with Disabilities in the Secondary Classroom	3 credits
IL 2432	Methods II	3 credits
EDUC 2200	Disciplined Inquiry	3 credits

Summer Session I

IL 2990	Research Seminar for MAT Interns	3 credits
IL 2496	Internship in Science Teaching	6 credits

**For further information concerning program offerings,
please contact:**

Department of Instruction and Learning
5300 Wesley W. Posvar Hall
University of Pittsburgh
Pittsburgh, PA 15260
Telephone 412-624-7254

Application Questions? Contact:

Admissions and Enrollment Services
School of Education
5500 Wesley W. Posvar Hall
University of Pittsburgh
Pittsburgh, PA 15260
Telephone 412-648-2230
Online Applications available at:
<http://www.education.pitt.edu/apply>