

Science Education Checklist

The University of Pittsburgh, School of Education, offers two post-baccalaureate programs for secondary science certification. The two programs are a Professional Year/MEd (PY) Program and a Master of Arts in Teaching (MAT) Program. These programs provide qualified graduates in the science disciplines (biology, chemistry, physics, earth and space science, general science) with the opportunity to obtain a PA Instructional I Certificate in Science Education for grades 7-12. Details are outlined below.

To be considered for admission, applicants need to have:

- Submitted a completed SOE application form and the application fee: www.education.pitt.edu/apply.
- Earned an undergraduate degree with a recommended GPA 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 copies of spring and summer registration forms as applicable.
- Completed the appropriate number of credit hours as required under the academic prerequisites (completion of only one - of five - available concentrations is necessary).
- Completed the appropriate number of credit hours as required under the education prerequisites.
- Submitted evidence of passing scores on the *Praxis I* Pre-Professional Skills Test (PPST): reading, writing, and mathematics. For further information on the test series: <http://www.ets.org/praxis>.
- 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 resume.

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 Office of Admission and Enrollment Services at: 412.648.2230 or soeinfo@pitt.edu.

Professional Year/MEd (PY) Program:

- Satisfies the requirements for a PA 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 ten hours 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 (MEd) 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 PA 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 (summer II, fall, spring, summer I) beginning in June of the admission year.
- Consists of graduate coursework in combination with an internship in a local school district from Sept. to June.*
- Students may apply for financial aid.

*Compliance with all federal and PA state clearances is required before entering schools.

Academic Prerequisites (chosen from one of the five 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 OR 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.

Education Prerequisites

For Professional Year/MEd (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 at the undergraduate level 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
ADMPS 1001 (UG) / EDUC 2100 (G)	NOT A PREREQ FOR MAT		Social Foundations of Education / Education and Society <i>(UG or G levels accepted as prereq for PY/MEd students*)</i> .
PSYED 1001 (UG) / EDUC 2000 (G) -----	NOT A PREREQ FOR MAT -----		Educational Psychology / Psychology of Learning and Development for Ed. <i>(UG or G levels accepted as prereq for PY/MEd students*)</i> ----- OR Equivalent: PSYED 1003; PSY 0405; PSY 0420; PSY 0421; PSYED 2127
IL 1430	NOT A PREREQ FOR MAT		Introduction to Science Education
IL 1580	NOT A PREREQ FOR MAT		Foundations of Special Education

* If taken at the graduate level can be used toward the MEd after completion of the PY program.

Professional Year (PY) Instructional I Certificate Option

Fall Term

IL 2431	Secondary Science Methods I	3 credits
IL 2747	Teaching Lab – Science	3 credits
IL 2257	Teaching English Language Learners	3 credits
IL 2741	Practicum in Science Education	3 credits
IL 2520	Literacy Assessment & Instruction for Children w/Disabilities in Inclusive Settings in Secondary Classrooms	3 credits

Spring Term

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

Master of Arts in Teaching (MAT) Option

Summer Session II

IL 2500	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	Secondary Science Methods I	3 credits
IL 2520	Literacy Assessment & Instruction for Children w/Disabilities in Inclusive Settings in Secondary Classrooms	3 credits
IL 2257	Teaching English Language Learners	3 credits
IL 2741	Practicum – Science Education	3 credits
IL 2747	Teaching Lab - Science	3 credits

Spring Term

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

Summer Session I

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

Application Questions? Contact:

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