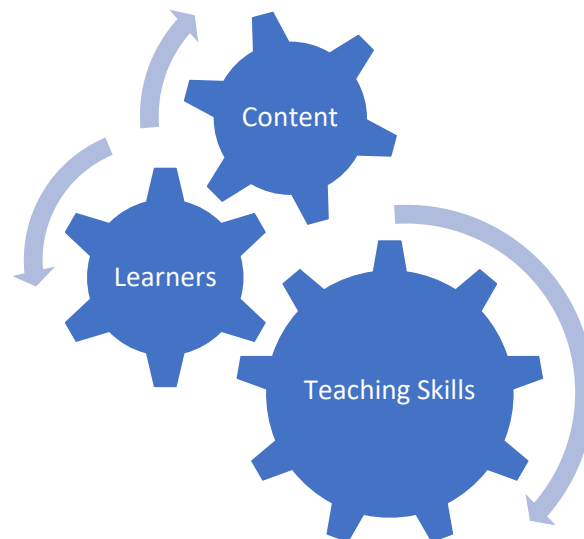


Content Area Preparation for the PennWest Master of Arts in Teaching Program (MAT) Middle and Secondary Options

To be a strong teacher, you need to understand your students and their learning process, have a solid foundation in the content you will teach, and know how to connect the students to the content. In recent decades, MAT Programs have become an effective option to help adults who already have bachelor's degrees in content prepare to be teachers through graduate teacher preparation. The PennWest MAT program focuses on providing the educational knowledge, skills, and dispositions to be an effective teacher. MAT students are expected to already have a solid background in the content area they will be teaching that would have been developed during their undergraduate programs.



Pennsylvania Teacher Certification requires you to pass **licensure tests** related to your content area knowledge. We highly recommend that you begin that preparation now. For each certification area below, we are providing a list of recommended undergraduate courses that would help you be well prepared to teach your content area and to pass your test. We recommend that you review the list of recommended content courses for your subject area and visit the test preparation website for your area. If your undergraduate preparation did not include all of the topics on your list, you will need to take extra steps to prepare such as picking up undergraduate content courses to strengthen your preparation or finding other options to prepare.

Free Test Preparation Materials: For most of the certifications below: Go to the ETS/Praxis website and look up licensure requirements for Pennsylvania. [Licensure Requirements \(ets.org\)](https://www.ets.org/standards-testing/prepare/for-the-test/prepare-for-praxis/prepare-for-praxis-1) You will see general certification information first. Click on the “licensure requirement” tab over the name Pennsylvania. It will take you to an area where you can find the **free study companion** for your subject area. They are no longer maintained directly on their website but you can download them there. We will also keep copies in the advising community shell in Desire2Learn where you will go to take your classes.

Certification area: Art K-12

Certification Test: Praxis Art Content Knowledge (5134) **and** Fundamental Subjects

We recommend a minimum of 30 credit hours related to topics such as:

- Drawing
- 2D design
- 3D design
- Western art history
- Non-western art history
- Art history or art theory
- At least five art studio courses in at least four different medium such as: printmaking, ceramics, jewelry, metals, painting, sculpture, photography, or graphic arts

Certification area: Biology 7-12

Certification Test: Praxis Biology (5236)

We recommend a minimum of 30 credit hours related to topics such as:

- Chemistry with lab
- Physics with lab
- Genetics
- Anatomy
- Physiology
- Ecology
- Zoology
- Botany
- Cellular or molecular
- Biology lab experiences

Certification area: Chemistry 7-12

Certification Test: Praxis Chemistry (5246)

We recommend a minimum of 30 credit hours related to topics such as:

- Chemistry 1 with lab
- Chemistry 2 with lab
- Organic chemistry with lab
- Inorganic chemistry
- Biochemistry or physical chemistry
- Chemistry lab
- Analytical chemistry
- Chemistry elective
- Calculus
- Physics

Certification area: Earth & Space Science 7-12

Certification Test: Praxis Earth and Space Sciences (5572)

We recommend a minimum of 30 credit hours related to topics such as:

- Astronomy
- Geology
- Oceanography
- Hydrology
- Meteorology
- Climatology
- Historical geography
- Geomorphography or tectonics
- Earth science elective
- Chemistry
- Physics
- Evidence of lab experiences

Certification area: English 7-12

Certification Test: Praxis English Language Arts Content Knowledge (5038)

We recommend a minimum of 36 credit hours related to topics such as:

- English composition 1
- English composition 2
- American literature
- British literature
- World literature

- Early western literature (such as Shakespeare)
- Writing theory
- Research for writing or journalism
- English or communication elective,
- English or reading elective
- Two Language courses(grammar, linguistics, history of the language)

Certification area: Math 7-12

Certification Test: Praxis Mathematics (5165)

We recommend a minimum of 36 credit hours related to topics such as:

- College algebra
- Trigonometry, or pre-calculus
- Calculus 1
- Calculus 2
- Calculus 3
- Geometry
- Statistics
- Computer science or technology for math
- History of mathematics or mathematics in society
- Discrete math
- Math modeling
- Linear algebra
- Abstract algebra

Certification area: Middle Grades 4-8

Certification Test: Start with the Praxis Pennsylvania Modules { Pedagogy (5153), ELA & Social Studies (5154), and Math & Science (5155)} **or** (all modules together as core assessment 5152) **plus** an appropriate subject concentration such as ELA, Science, etc.

We recommend a minimum of 30 credit hours related to topics such as:

- English composition
- English literature
- Reading/Writing non-fiction
- American Government
- US History
- World History
- Geography and Economics
- College Algebra
- Geometry
- Statistics

- Physical Science
- Life Science
- Earth and Space Science

Certification area: Physics 7-12

Certification Test: Praxis Physics (5266)

We recommend a minimum of 30 credit hours related to topics such as:

- Calculus 1
- Calculus 2
- College physics 1 with lab
- College physics 2 with lab
- College physics 3
- Electricity and magnetism
- Mechanics
- Atomic and nuclear structure
- Chemistry 1 with lab

Certification area: Social Studies 7-12

Certification Test: Praxis Social Studies Content Knowledge (5081)

We recommend a minimum of 30 credit hours related to topics such as:

- US history 1
- US history 2
- Early western civilization
- Later western civilization
- History elective
- Non-western history
- Anthropology
- Economics
- Geography
- American government
- Sociology
- Psychology.

Certification area: Technology Education K-12

Certification Test: Praxis Technology Education (5051) and Fundamental Subjects

We recommend a minimum of 30 credit hours related to topics such as:

- Technology and society
- Tech design and problem solving

- Energy and power
- Transportation
- Information and communication technology
- Manufacturing and construction
- Engineering design and technical drawing
- Safety practices
- Computer science
- Robotics
- Science with lab
- Trigonometry or higher