Initial Licensure • Non-Licensure

The Teacher Education Program at Cambridge College is awarded **TEAC accreditation** by the Inquiry Brief Commission of the Council for the Accreditation of Educator Preparation (CAEP) for a period of five years, from May 2014-May 2019. The accreditation does not include individual education courses that the EPP offers to P-12 educators for professional development, re-licensure, or other purposes.

Master of Education

General Science (1-6 or 5-8)

For licensure: 38 credits, 5-6 terms full-time • Non-licensure : 32 credits, 3 terms full-time
• **Program approved** by the Mass. Dept. of Elementary & Secondary Education (ESE)

The **GENERAL SCIENCE EDUCATION** program provides essential science content, integrated with best practices in hands-on, inquiry-based science education. The curriculum is firmly rooted in the Massachusetts science education model with a balance of earth, life, physical and engineering sciences. Students experience a blend of seated and online content science courses.

Learning Outcomes — Students will understand the principles guiding modern scientific thought, and master science content knowledge. They will design and conduct scientific inquiries to test scientific hypotheses, using appropriate tools and techniques to gather, analyze, and interpret data. They will develop descriptions, explanations, predictions, and models using evidence, communicate scientific procedures and explanations. Students will know how science, technology, and math inform each other and serve as mechanisms for inquiry into the nature of the universe. Students will understand historical and philosophical theories in science, and identify common misconceptions. They will identify socially important issues including the impact of technology on our environment.

Teachers will use professional "best practices" in teaching inquiry-based science. They will develop a balanced approach to hands-on science instruction using appropriate methodology. They will learn to engage students of varied learning styles and abilities.

Careers — Elementary science specialist, grades preK-5; middle school general science teacher/earth, life, physical and engineering sciences, grades 5-8; science museum educator, nature center specialist/guide, aquarium and zoo educator.

Professional Seminar & Project .....7 credits

ESE691-692 Professional Seminar (2 terms @ 2 credits)
ESE800 Independent Learning Project (take with Seminar II)

Science Methods.....15 credits . . . 12 credits

Licensure courses @ 3 credits		grades 1-6	grades 5-8
MAT623	Teaching Numerical & Geometric Structures.	•	
SCI680	Attaining Science Literacy.	•	•

option for 1-6: SCI680 or ELE653 Teaching Sci & Technol in Early Childhood & Elem Curric

Methods & Materials for Teaching:

SCI682	Life Science	•	•
SCI684	Earth Science	•	•
SCI686	Physical Science	•	•

Science Content.....choose 8 credits.....11 credits

		grades 1-6	grades 5-8

Confer with advisor before choosing courses.
Be sure to address your weakest areas of science content.

Online courses @ 1 credit

SCI591	Intro to Online Science Learning	SCI601	Aquatic Ecology
SCI603	Electricity & Magnetism	SCI605	Water Quality
SCI607	Structure of the Earth	SCI611	Ocean Science
SCI609	Transfer of Energy	SCI615	Forces & Motion
SCI613	Earth in the Solar System	SCI617	Earth's History
SCI629	Practical Meteorology	SCI600	Cell Biology
SCI619	Teaching Project-Based Science		
SCI627	Teaching Chemistry Through Inquiry		

In-class course option @ 3 credits

SCI688 Methods & Materials for Teaching Middle School Chemistry

All courses offered at least once/year.

Practicum Prerequisites

- Pass all teacher tests required by the state for this license. Massachusetts: Communication & Literacy test and:
  1-6: Successful completion of coursework
  5-8: General Science 5-8 MTEL exam
- SEI605 Sheltered English Immersion or ESE-endorsed course or SEI MTEL.
- Pre-Practicum — 75 hours in diverse settings (0 credit).
- Pass all required courses.

Practicum (licensure students only) .....5 credits

SCI790 Practicum – 300 hrs in an elementary (1-6) or middle school (5-8) science classroom (3 credits)

Guided and evaluated by a licensed/certified general science teacher in the classroom and a Cambridge College general science supervisor. Practicum locations are subject to ESE regulations and must be approved by the program chair. Students are responsible for discussing options for practicum with the program chair.

SCI790***A*** Practicum 1-6 • SCI790***B*** Practicum 5-8

SCI791 Practicum Seminar (2 credits)

Electronic exit portfolio (Taskstream) required for credit.

Admission requirements: Bachelor's degree and other School of Education requirements.

Required to enter program for licensure:

- Massachusetts Educator Personnel ID (MEPID) number.
- Pass Massachusetts Communication & Literacy Test.
- 3.0 GPA at entry; maintained throughout program.

Program subject to change.

Non-licensure option: All program components are required (including the pre-practicum hours) *except for* the SEI, Practicum, Practicum Seminar and MTEL exams. Two additional credits are required as electives specific to science content. These courses must be selected in consultation with the program chair. MAT623 may be replaced with electives specific to the program.

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