

Accelerated Bachelor's-to-Master's Programs

B.S.Ed. in Middle Level Grades 4-8 Education: Math to M.Ed. in Integrative STEM Education K-12

Program Description

The Science concentration of the Bachelor of Science in Education in Middle Level Education degree prepares students to teach science to children in grades 4 through 8. Upon successful completion of this program, students will earn a bachelor's degree and be eligible for Pennsylvania teaching certification.

Qualified undergraduate students in this concentration may be eligible to participate in the accelerated B.S.Ed.-to-M.Ed. program, which enables them to take graduate courses that apply to both their bachelor's degree in Middle Level Education: Science and (thereafter) a master's in Integrative STEM Education K-12.

The Master of Education in Teacher Education: Integrative STEM Education K-12 focuses on best practices for developing rigorous, relevant, innovative and engaging integrative practices for incorporating STEM principles across disciplines.

Through the accelerated program, students can complete both degrees at Cal U with a total of 142 credits.

Program Coordinator

Dr. Diane Fine

Accreditation

These programs are approved by the Pennsylvania Department of Education. Cal U's education programs have also been accredited by the National Council for Accreditation of Teacher Education (NCATE) since 1954, and we are continuing with the successor organization, the Council for the Accreditation of Educator Preparation (CAEP).

Curriculum

The following curriculum shows the requirements for completing the bachelor's degree under the accelerated B.S.Ed.-to-M.Ed. program. Additional graduate-level courses are required to complete the master's degree; refer to the graduate academic catalog for these requirements.

Course	Credits
General Education Courses	40-41
CHD 250 Health and PE Methods for PreK-4	3
CHD 350 Family and Community Collaborations	3
ECO 102 Econ for El. Ed.	1
EDU 333 Technology for Teaching and Learning	3
EDU 350 Supporting Eng. Lang. Learners	3
ESP 210 Special Education Foundations and Collaborations	3
ENG 101 Composition I	3
GEO 102 Geographic Sys. for El. Ed.	1
HIS 101 U.S. History to 1877 OR HIS 102 U.S. History since 1877	3
MAT 130 Elementary Topics II	3
MAT 181 College Algebra	3

Accelerated Bachelor's-to-Master's Programs

Course	Credits
PHS 120 Basic Physical Science with Lab	3-4
POS 102 American Gov. for El. Ed.	1
UNI 100 First-Year Seminar	1
British/American Lit Course (from approved list)	3
Fine Arts Elective	3
Required Major Courses	45
CHD 413 Content Area Literacy Field Experience*	3
CHD 450 Assessment and Data Literacy*	3
EDE 751 Bld. Sci. Lit and Undr. through Inq.	3
ELM 200 Intro to Middle Level Ed.	3
ELM 220 Inst. and Assess in 4-8 Class.	3
ELM 301 Read Methods Assess.*	3
ELM 302 Lang Arts Methods Assess.*	3
ELM 311 Math Methods Assess.*	3
ELM 321 Science Methods Assess.*	3
ELM 331 Soc St Methods Assess.*	3
ELM 415 Middle Level Education Field Experience*	3
ELM 461 Student Teaching and School Law	12
Concentration Courses	18
EDE 750 Found. of Integrative STEM Ed. K-12	3
<i>In coordination with academic adviser:</i>	
Select one Earth Science course from approved list	4
Select one Physical Science course from approved list	4
BIO 120 General Zoology OR BIO 125 General Botany	4
Select one Science Concentration course from approved list	3
Required Related Courses	15

Accelerated Bachelor's-to-Master's Programs

Course	Credits
ESP 311 Assess Positive Behavior Interv.	3
ESP 412 Evidence-Based Practices*	3
MAT 215 Statistics	3
PSY 206 Adolescent Psychology	3
PSY 208 Educational Psy. (PSY 100 waived)	3
Free Electives	3
EDE 701 Stand. Aligned Curr., Inst. and Asmt.	3
Total	121

Program Notes:

- All courses required for certification with a grade of C- or lower must be repeated.
- All ELM, CHD and ESP courses require current clearances and minimum 2.5 GPA to register, except ELM 200 and ELM 220, which require 2.0 GPA.
- Candidates must follow policies for Admission to Teacher Education as stated in the Teacher Education Handbook.
- Courses marked with asterisk are restricted to candidates Admitted to Teacher Education.
- Prerequisite for ELM 220 and all 300-level ELM and CHD courses is ELM 200.
- State licensure exams must be passed before student teaching.
- Undergraduate students must achieve at least junior standing to take graduate-level coursework.

Approved American/British Lit. Courses

- **ENG 107** Intro to Fiction
- **ENG 125** The American West
- **ENG 127** Women as Hero
- **ENG 148** Horror in Literature
- **ENG 150** Baseball in Literature
- **ENG 155** Black Literature
- **ENG 160** Intro to British and American Literature
- **ENG 203** Great Books
- **ENG 301** English Lit I (pre-req ENG 101 and 102)
- **ENG 302** English Lit II (pre-req ENG 101 and 102)
- **ENG 337** Survey of Am. Lit. I (pre-req ENG 101 and 102)
- **ENG 338** Survey of Am. Lit. II (pre-req ENG 101 and 102)
- **HON 250** Honors Composition II (pre-req Hon 150)

Science Electives

Please consult with the science education advisor before selecting from the following Physical, Earth, and Science concentration courses:

- **EAS 104** Intro. to Meteorology
- **EAS 105** Extreme Weather
- **EAS 142** Climatology
- **EAS 150** Intro. to Geology
- **EAS 163** Intro. to Oceans

Accelerated Bachelor's-to-Master's Programs

- **EAS 210** Soils
- **ENS 101** Intro. to Environmental Science
- **PHS 145** Astronomy
- **CHE 101** General Chemistry I
- **CHE 103** Chemistry for Every Day World
- **PHS 137** Intro. to Environmental Chemistry
- **PHY 121** General Physics I
- **PHY 122** General Physics I

Additional Requirements

Students accepted into a teacher certification program must be admitted to Teacher Education before they may register for upper-level, restricted courses. Please refer to the Teacher Education Program Student Handbook for details on Admission to Teacher Education requirements.

Undergraduate students in the accelerated program may register for no more than 6 graduate credits in any one term, and in terms when a graduate course is registered, the student may not register for more than 18 total credits.

It is the student's responsibility to apply and meet the qualifications of the graduate program portion of the accelerated program. Failure to follow through with enrollment in the accelerated graduate program will result in additional undergraduate credits to complete the bachelor's degree, as outlined in the Undergraduate Credit for Graduate Courses policy.

Additional accelerated program requirements may be found at: https://www.calu.edu/inside/forms/_files/academic-affairs/accelerated-program-application.pdf

Program Webpages

- **Undergraduate:** <https://www.calu.edu/academics/undergraduate/bachelors/middle-level-education/science.aspx>
- **Graduate:** <https://www.calu.edu/academics/graduate/masters/stem/index.aspx>