

Education

B.S.Ed. in Middle Level Grades 4-8 Education: Mathematics

Program Description

The Mathematics concentration of the Bachelor of Science in Education in Middle Level Education degree prepares students to teach math 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.

Delivery Mode

Traditional (on campus)

Accreditation

This undergraduate degree program is 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 eight-semester schedule of courses provides a recommended framework for completing this program of study in four years.

Course	Credits
Freshman Year	
First Semester	16
ENG 101 English Composition I	3
HIS 101 OR HIS 102 American History	3
MAT 181 College Algebra	3
PSY 206 Adolescent Psychology	3
UNI 100 First-Year Seminar	1
Fine Arts Elective	3
Second Semester	15
CHD 250 Teaching Health and Physical Education	3
ESP 210 Special Education Foundation and Collaboration	3
Any Approved American/British Literature Course	3
Free Elective OR MAT 130	3
Natural Science with Lab	3
Sophomore Year	
Third Semester	15
ELM 200 Intro to Middle Level Education	3

Education

Course	Credits
CHD 350 Family and Community Collaborations	3
GEO/POS/ECO 102 Social Sciences Courses	3
MAT 191 College Trigonometry	3
MAT 303 Geometry	3
Fourth Semester	15
ELM 220 Instruction and Assessment in 4-8 Class	3
ESP 311 Assessment and Positive Behavior Interventions*	3
MAT 272 Discrete Mathematics	3
MAT 281 Calculus	3
PSY 208 Educational Psychology	3
Junior Year	
Fifth Semester	15
ELM 302 Language Arts Methods Assessment*	3
ELM 321 Science Methods Assessment*	3
ELM 331 Social Studies Methods Assessment*	3
MAT 341 Linear Algebra	3
MAT 400 Mathematical Modeling	3
Sixth Semester	18
CHD 413 Content Area Literacy Field Experience*	3
ELM 301 Reading Methods Assessment*	3
ELM 311 Math Methods Assessment*	3
EDU 333 Technology for Teaching and Learning	3
MAT 215 Statistics	3
Free Elective Course	3
Senior Year	
Seventh Semester	15

Education

Course	Credits
CHD 450 Assessment and Data Literacy*	3
EDU 350 Supporting English Language Learners	3
EDU 375 Intro to Integrated STEM Education	3
ELM 415 Middle Level Field Experience*	3
ESP 412 Evidence Based Practices	3
Eighth Semester	12
ELM 461 Student Teaching	12
Total	121

Program Notes

- **Course titles in bold** are scheduled together and must be taken at the same time.
- ALL ELM, CHD and ESP courses require current clearances and minimum 2.5 GPA to register for course, except ELM 200 and 220, which require a 2.0 GPA to register.
- All courses required for certification with a grade of C- or lower must be repeated.
- Candidates must follow policies for Admission to Teacher Education as stated in the Teacher Education Handbook.
- Courses marked with an asterisk are restricted to candidates admitted to Teacher Education.
- Pre-requisite for ELM 220 and all 300-level ELM and CHD courses is ELM 200.
- State licensure for exams must be passed before student teaching.
- Current clearances are required prior to enrolling in program courses.

Approved British or American Literature Courses

- **ENG 107** Introduction to Fiction
- **ENG 125** The American West
- **ENG 127** Woman as Hero
- **ENG 148** Horror in Literature
- **ENG 150** Baseball in Literature
- **ENG 155** Black Literature
- **ENG 160** Introduction to British & American Literature
- **ENG 203** Great Books
- **ENG 301** English Literature I (pre-requisite ENG 101, 102)
- **ENG 302** English Literature II (pre-requisite ENG 101, 102)
- **ENG 337** Survey of American Literature I (pre-requisite ENG 101, 102)
- **ENG 338** Survey of American Literature II (pre-requisite ENG 101, 102)
- **HON 250** Honors Comp II (pre-requisite HON 150)

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.

Accelerated Bachelor's-to-Master's Program

An accelerated bachelor's-to-master's (with credits toward a master's degree in Integrative STEM Education K-12) program is also available to undergraduate students who qualify. Curriculum requirements are listed under the "Accelerated Programs" section of this catalog.

Education

Program Webpage

<https://www.calu.edu/academics/undergraduate/bachelors/middle-level-education/mathematics.aspx>