EDUCATION - CURRICULUM AND INSTRUCTION - MASTER OF ARTS (MA)

The Curriculum & Instruction (C&I) master's degree requires one academic year or more of graduate work beyond the bachelor's degree.

Program Tracks

Reading Instruction and Literacy Leadership Track

This track supports teachers who are interested in becoming knowledgeable in reading instruction and assessment for students experiencing reading difficulties in K–12 classrooms. Once they meet the requirements established by Colorado Department of Education, graduates are eligible to apply for a K–12 Reading Specialist endorsement with the state of Colorado.

STEM Education Track

The CU Boulder School of Education offers this program to support educators and other education professionals who are interested in developing greater understanding of and expertise in education related to STEM (particularly science, mathematics and computational thinking). The program enables teachers, educational designers and scholars to explore and critically analyze educational, pedagogical and curricular strategies designed to support students' STEM learning and identities. Disciplinary connections to critical issues in STEM are strengthened through lesson design and analysis, fieldwork, coursework and research activities. Throughout these experiences, we center equity, democracy and justice as core concerns in STEM education.

The program serves practicing teachers, educational leaders, designers of informal educational settings, as well as individuals with backgrounds in STEM wishing to learn more about teaching and learning. Graduates of our MA program go on to become teacher leaders, instructional designers, curriculum specialists and district administrators.

MA+ Teacher Licensure

The MA+ teacher licensure program (https://catalog.colorado.edu/ graduate/colleges-schools/education/programs-study/teacher-licensureprogram/) leads to a Colorado initial teaching license in Secondary Math, Science, English or Social Studies plus a master's degree in C&I. This program is for candidates who have earned a bachelor's degree from an accredited institution of higher education and who want to elaborate and deepen the close connections between fieldwork and coursework to become a teacher. For more information, contact the School of Education.

Requirements General Requirements

Program Requirements

Students must successfully complete 30 credit hours of approved coursework while maintaining at least a B (3.0) average in all work attempted while enrolled.

Students develop a degree plan in consultation with their faculty advisor, typically in their first semester. The frequency of individual course offerings varies; therefore, candidates should plan ahead so that the required 30 credit hours are completed within the four-year time limit.

Transfer Credit

Transfer credit is defined as any credit earned at another accredited institution, credits earned on another campus of the CU system, or credits earned as a nondegree student within the CU system including the Boulder campus. Students who have transfer credits must complete the transfer-of-credit paperwork approval process.

The maximum amount of work that may be transferred from another accredited institution to CU Boulder is 9 credit hours, and is accepted only after approval of the department chair/program director and under the special conditions outlined in the Graduate School Rules. All courses accepted for transfer must be graduate-level courses. A course in which a grade of B- or lower was received will not be accepted for transfer.

Transfer coursework must have been completed in the five years prior to acceptance to the program. Credit may not be transferred until the student has completed 6 credits of graduate-level coursework as a degree-seeking student on the CU Boulder campus with a 3.0 GPA.

Master's degree students who began CU's Teacher Education Program as undergraduates or as post-baccalaureate students have the following transfer credit options:

- If the student took the courses as an undergraduate, they may be eligible to transfer up to two of their track's eligible transfer courses, depending on when those courses were taken and if the credits did not count towards the degree. Contact the School of Education for more information.
- If the student took the courses as a post-baccalaureate student, they may transfer up to two of their track's eligible transfer courses as electives, as long as the courses were taken within the past five years. Note: Students transferring from secondary programs will transfer seven credits; therefore, they will complete a 31-credit master's degree.

Time Limit

The master's degree must be completed within four years.

Program Tracks

Reading Instruction and Literacy Leadership Track with Colorado Reading Specialist Endorsement

Students must complete the following track-specific course requirements.

Code	Title	Credit Hours
EDUC 5220	Curating and Evaluating Reading Materials for K-12 Classrooms	3
EDUC 5245	Foundations of Reading Instruction K-12	3
EDUC 5255	Digital & Disciplinary Literacies	3
EDUC 5265	Processes & Skills in Writing	3
EDUC 5275	Diagnostic Reading Assessment & Intervention	3
EDUC 5285	Literacy Coaching & Leadership	3
EDUC 5465	Introduction to ELD/Bilingual and Special Education	3

Electives

An additional 9 credit hours of electives are required. Courses that meet students' goals and interests are chosen in consultation with the advisor. Education courses must be at the 5000 level or above¹.

¹ GRTE courses may not count toward a master's degree.

STEM Education Track

In addition to the required core courses, students must complete the following track-specific course requirements.

Code	Title	Credit Hours					
Learning and Development							
Choose at least 3 credit hours of learning and development courses. Examples of eligible courses include but are not limited to: ¹							
EDUC 5050	Knowing and Learning in Mathematics and Science						
EDUC 5105	Teaching for Understanding and Equity						
EDUC 6318	Psychological Foundations of Education						
EDUC 6328	Advanced Child Growth and Educational Development						
Foundations of Educa	ation Curriculum						
Choose at least 3 credit hours of foundations of education curriculum courses. Examples of eligible courses include but are not limited to:							
EDUC 5005	Advanced Social Foundations of Education						
EDUC 5075	Sociology of Education						
EDUC 5085	History of American Education						
EDUC 5301	Queer(ing) Topics in Education						
EDUC 5425	Introduction to Bilingual/Multicultural Education						
EDUC 5726	Introduction to Disciplined Inquiry						
EDUC 6325	Anthropology of Education						
Curriculum and Instruction in Mathematics and Science							

Choose at least 12 credit hours of curriculum and instruction in mathematics and science courses. Eligible courses include but are not limited to: ²

EDUC 5317	Perspectives on Mathematics
EDUC 5460	Teaching and Learning Physics
EDUC 5706	Assessment in Mathematics and Science Education
EDUC 5815	Teaching K-12 Mathematics: Number Sense
EDUC 5821	Teaching K-12 Mathematics: Algebraic Thinking
EDUC 5822	Teaching and Learning Chemistry
EDUC 5833	Teaching and Learning Earth Systems
EDUC 5835	Teaching K-12 Mathematics: Geometry & Measurement
EDUC 5850	Teaching K-12 Mathematics: Probability & Statistics
EDUC 6811	Teaching & Learning Biology In the Classroom

Capstone Course

Students are required to take on one of the seminar courses in the spring before graduation to complete their capstone.

EDUC 5177	Seminar in Curriculum and Policy in
	Mathematics & Science Education

		Education	
	EDUC 5179	Seminar on Teaching and Teacher Education in Math and Science Education	
Ele	ectives		
Ch 50 ch	oose at least 9 add 00 level or above fr osen in consultatio	litional credit hours of courses at the om within the School of Education, to be n with your advisor. ^{2,3,4}	9
Tot	tal Credit Hours		30
1 2 3 4 Elig	Speak with your a requirement. See also "Eligible GRTE courses ma Students may dee science discipline in the College of A taught by graduat gible Transfer Course	dvisor about other courses that could satisfy Transfer Courses" below. y not count toward a master's degree. epen their content knowledge in the mathema is by taking a maximum of 6 credit hours of c arts & Sciences at the 3000 level or above tha e faculty. Ses it (p. 1) section for full details.	this tics or ourses t are
Со	de	Title	Credit Hours
ED	UC 5050	Knowing and Learning in Mathematics and Science	3
ED	UC 5205	Elementary Mathematics Theory and Methods	3
ED	UC 5215	Elementary Science Theory and Methods	3
ED	UC 5317	Perspectives on Mathematics	3
ED	UC 5375	Problem-Based Math Instruction	4
ED	UC 5385	Phenomenon-Based Science Instruction	4

Seminar on Learning in Math & Science

Comprehensive Exam

12

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EDUC 5178

During the final Spring semester prior to graduation, students must enroll in a content seminar course (EDUC 5177, EDUC 5178 or EDUC 5179). The course is a graduation requirement and requires the completion of a paper or project reviewed by faculty to successfully complete graduation and course requirements.

Learning Outcomes

By the completion of the program, students will be able to:

- Demonstrate expertise in teaching and learning within and/or across content domains (e.g., Literacy, STEM Education).
- Demonstrate knowledge of research and practitioner inquiry for evidence-informed teaching and equitable learning experiences within and/or across content domains (e.g., Literacy, STEM Education).
- Demonstrate knowledge of research, scholarship, principles, and practices for broadening participation among youth, families, and communities in the design of equitable learning opportunities within and/or across content domains (e.g., Literacy, STEM Education).