

# Curriculum and Instruction

## Missions and Goals

The Department of Curriculum and Instruction aspires to prepare transformative leaders in teaching, learning, and curriculum within diverse pre-K-16 settings through exemplary teaching, research and outreach. In order to reach this vision, we have the following mission. As an engaged community of scholars and teacher educators, we seek to:

- Enhance Iowa's families, schools, and communities through exemplary education and teacher preparation;
- Provide educators and students with the knowledge, skills, and experience necessary to become transformative leaders in an increasingly changing and interdependent world; and
- Support the advancement of specialized academic disciplines through exemplary research and scholarship.

## Undergraduate Study

The Department of Curriculum and Instruction provides the professional education coursework that leads to licensure of pre-service teachers. Majors offered in the department include Elementary Education (K-6), and Early Childhood Education-Unified (birth through age 8). The Early Childhood Education-Unified major is an interdepartmental program administered by the Departments of Curriculum and Instruction and Human Development and Family Studies.

Students who are interested in teaching at the secondary level (7-12) major in a specific discipline (e.g. Mathematics, Science, English, Social Studies) and complete the additional coursework in Curriculum and Instruction required for a teaching license.

*Editor's Note: The Iowa Board of Educational Examiners has mandated changes to the teacher licensure requirements which will impact students graduating after September 1, 2015. Students must consult with an education academic adviser to review these curriculum changes.*

Elementary Education and Early Childhood Education-Unified majors must complete a professional course sequence:

C I 201	Learning Technologies in the PK-6 Classroom	3
C I 204	Social Foundations of Education in the United States	3
C I 245	Strategies in Teaching	2
C I 268	Strategies Practicum	1
C I 332	Educational Psychology of Young Learners	3
C I 406	Multicultural Foundations of School and Society: Introduction	3
SP ED 250	Education of the Exceptional Learner in a Diverse Society	3
<b>Total Credits</b>		<b>18</b>

Secondary education students must complete a professional course sequence:

C I 202	Learning Technologies in the 7-12 Classroom	3
C I 204	Social Foundations of Education in the United States	3
C I 333	Educational Psychology	3
C I 406	Multicultural Foundations of School and Society: Introduction	3
SP ED 401	Teaching Secondary Students with Exceptionalities in General Education	3
<b>Total Credits</b>		<b>15</b>

Some secondary licensure areas also require C I 426 Principles of Secondary Education.

The Curriculum and Instruction department offers a minor in Learning Technologies that may be earned by registering for the program and completing the following courses:

C I 201	Learning Technologies in the PK-6 Classroom	3
or C I 202	Learning Technologies in the 7-12 Classroom	
COM S 107	Applied Computer Programming	3
or COM S 207	Fundamentals of Computer Programming	
or MAT E 370	Toying with Technology	

or CPR E 370	Toying with Technology	
C I 280B	Pre-Student Teaching Experience I: Learning Technologies	1-2
C I 302	Principles and Practices of Learning with Technology	3
C I 407	Principles and Practices of Distance Learning	3
C I 454	Emerging Topics in Learning Technologies <sup>(3 credits required)</sup>	1-3

**Total Credits** 14-17

The Department of Curriculum and Instruction offers courses that can lead to a reading endorsement for grades K-8 or grades 5-12. Students seeking a K-8 endorsement should consult with a Curriculum and Instruction academic adviser. The 5-12 endorsement is offered collaboratively with the English Department. Students seeking this endorsement should consult with an adviser in the English Department. Inquiries can be sent to the Licensure Analyst in Teacher Education Services (133 MacKay) to receive a list of courses needed for an Iowa State University reading endorsement. Prerequisites for the reading endorsement courses are listed in the catalog course descriptions.

## Early Childhood Education-Unified

The undergraduate curriculum in Early Childhood Education-Unified leads to the Bachelor of Science Degree. See curriculum.

The curriculum in Early Childhood Education – Unified is planned for students preparing to teach young children and work with their families. This program leads to careers in working with young children (both those who are typically developing and those with special needs) from birth through age eight. Graduates in this curriculum may teach in early childhood (preschool and primary) classrooms or home based programs, with emphasis on inclusive services. Graduates may be employed by either public or private agencies or schools. This curriculum has been approved by the Iowa Department of Education and meets requirements for the early childhood education - unified teacher license. The program is an interdepartmental major administered by the Department of Curriculum and Instruction and the Department of Human Development and Family Studies within the College of Human Sciences.

Early childhood education-unified majors must satisfy a world languages requirement for graduation.

Students who enroll in early childhood education–unified must apply to and be accepted into the teacher education program prior to enrolling in advanced courses. All early childhood education-unified students, including those seeking a double major, must meet general education requirements for teacher licensure. Iowa State University is in compliance with the Iowa Department of Education's mandate for a performance-based system of teacher training. The State of Iowa has developed and implemented a competency system to evaluate the performance of all teachers. A detailed list of the twelve Iowa State University Teacher Education Standards and the eight State of Iowa Teaching Standards, along with other information about the University Teacher Education Program, can be found at <http://www.teacher.hs.iastate.edu/>, the teacher education website. Additional information is also available from the student's academic adviser. Students in early childhood education – unified must meet the performance outcome standards for teacher licensure. Standards are assessed in coursework through artifacts such as assignments, projects, or practicum participation. These standards assessments are based on the early childhood content standards for endorsement 100 in the State of Iowa. These include competencies in (1) child growth, development, and learning, (2) developmentally appropriate learning environment and curriculum implementation, (3) health, safety, and nutrition, (4) family and community collaboration, and (5) professionalism. Pre-student teaching field experiences and student teaching experiences in at least two different settings is required. Students will receive both formative and summative evaluations of their progress toward meeting these outcomes throughout their program at Iowa State University

## Elementary Education

The undergraduate curriculum in elementary education leads to the Bachelor of Science degree.

The curriculum in elementary education is planned for students preparing to teach at the elementary school level. This program leads to careers in working with school-aged children in kindergarten through sixth grade. Graduates in this curriculum may teach in elementary classrooms in either public or private schools.

Endorsements in art, English/language arts, English as a Second Language (ESL), health, history, music, basic science, social studies, mathematics, special education (Instructional Strategist I: Mild/Moderate Disabilities K-8), and speech communication/theater are available for elementary education students. An

endorsement for teaching world languages in elementary schools is available through the Department of World Languages and Cultures.

Elementary education majors must satisfy a world languages requirement for graduation.

Students who enroll in elementary education must apply and be accepted into the teacher education program prior to enrolling in advanced elementary education courses. Iowa Department of Education licensure requirements state that every student must meet the performance outcome standards for teacher licensure. Standards will be assessed in each course and students will receive both formative and summative evaluations of their progress toward meeting these standards throughout their program at Iowa State University. A detailed explanation of the standards and assessment process may be found on the department's website (<http://www.education.iastate.edu/>). The same information is also available from the student's academic adviser.

Graduates of the elementary education program will be able to demonstrate:

- their understanding of concepts and structures of disciplines, tools of inquiry, how students learn and develop, and the effects of individual differences on learning;
- a broad range of instructional strategies, including knowledge of technology applicable to instruction;
- the ability to stimulate active inquiry with collaboration and supportive interaction among their students; and
- their ability to develop professional relationships with colleagues, parents, and agencies that support students and their learning in appropriate settings.

## Secondary Education

For specific requirements for each area of specialization, see Teacher Education and curricula for the college in which the chosen degree major is sought.

Students seeking recommendations for a license to teach in the secondary schools must be admitted to the teacher education program and pursue a program that includes the professional core:

C I 202	Learning Technologies in the 7-12 Classroom	3
C I 204	Social Foundations of Education in the United States	3
C I 333	Educational Psychology	3
C I 406	Multicultural Foundations of School and Society: Introduction	3
C I 426	Principles of Secondary Education	3
SP ED 401	Teaching Secondary Students with Exceptionalities in General Education	3
<b>Total Credits</b>		<b>18</b>

Notes:

- Students seeking licensure in physical education, agriculture and science do not take C I 426 Principles of Secondary Education.
- Students seeking a teaching license in physical education must see an adviser in the Department of Kinesiology in the College of Human Sciences.
- All students who are recommended by Iowa State University for teacher licensure must meet the requirements of the teacher education program and be recommended by the Associate Dean for Teacher Education.
- Each student must meet the performance outcome standards for teacher licensure. Each standard will be assessed in every major. Students will receive both formative and summative evaluations of their progress toward meeting these outcomes throughout their program at Iowa State University.
- A detailed explanation of the standards and assessment process may be found at <http://www.education.iastate.edu/>. For more information, students should contact the academic adviser in their major. Each student will be enrolled in the department in which he or she plans to major, and must meet the graduation requirements of that department and the college in which it is situated.

## Graduate Study

The Department of Curriculum and Instruction offers work for the degrees Master of Science, Master of Education, and Doctor of Philosophy with a major in education and minor work to students taking major work in other departments. Within the education major in the Department of Curriculum and Instruction a student may earn an education degree with no area of specialization (master's and doctorate) or specialize in special education (master's only), or curriculum and instructional technology (master's and doctorate). The special education specialization is designed to prepare candidates as practitioners and researchers in the field of mild/moderate disabilities or behavioral disorders/learning disabilities. The specialization in curriculum and instructional technology

is designed to prepare candidates as researchers and practitioners in the fields of curriculum and instructional technology.

Students may also opt not to select an area of specialization. These students are asked to select a focus area for their graduate study. Focus areas include educational foundations, world language education, literacy education, mathematics education, multicultural education and international curriculum studies, and science education. See the Curriculum and Instruction web site at <http://www.ci.hs.iastate.edu/> for more information on these focus areas.

A minor is available in curriculum and instructional technology at both the master's and doctoral level. Information about the minors can be found on the web at [http://www.clt.iastate.edu/student/degree\\_programs.php](http://www.clt.iastate.edu/student/degree_programs.php).

Prerequisite to major graduate work in education is preparation substantially equivalent to the completion of one of the undergraduate curricula in education offered at Iowa State University, or graduate preparation in a discipline to be used as a teaching field in a community college or university, and adequate proof that the student ranks above average in scholastic ability and promise of professional competence.

The world language requirement, if any, for the Ph.D. degree will be determined by the student's program of study committee. If no world language is required, the total program must consist of a minimum of 78 semester credits, at least 12 of which must be earned outside the education major, and at least 16 of which must be earned outside the area of specialization. Statistics and research methods may not be included in the 16 credits. Should world language be included, the program of study committee may adjust the minimum program requirement downward, but in no instance may the program of study be less than 72 semester credits. Students whose native language is not English may substitute competence in English. All applicants for the Ph.D. must submit Graduate Record Examination (GRE) scores.

Other graduate programs related to education (including General Graduate Studies) may be planned for students on the basis of previous education and experiences as well as future plans and needs. Students should refer to Agricultural Education and Studies, Family and Consumer Sciences Education, Kinesiology, Educational Leadership and Policy Studies, and General Graduate Studies or to graduate level course offerings within other departments.

## Graduate Teacher Licensure Programs

A Master of Arts in Teaching degree program leading to teacher licensure (science only) is available to students who currently have a bachelor's degree in science (or a closely related field). A teacher licensure program in mathematics education is also available to graduate students (Department of Curriculum and Instruction). Teacher licensure at the graduate level is also offered in agricultural education (College of Agriculture and Life Sciences) and family and consumer sciences (College of Human Sciences). The Department of Curriculum and Instruction provides the professional education coursework.

Students in a graduate teacher licensure program must complete:

SP ED 501	Teaching Secondary Students with Exceptionalities in General Education	3
C I 505	Using Technology in Learning and Teaching	3
C I 506	Multicultural Foundations of School and Society: Advanced	3
C I 529	Educational Psychology and the Secondary Classroom	3
H P C 504	Studies in the Foundations of Education in the United States	3
<b>Total Credits</b>		<b>15</b>

Mathematics licensure students also take C I 526 Principles of Secondary Education.

Graduate level teaching endorsements are offered through the Department of Curriculum and Instruction. Graduate students who seek a teaching endorsement in special education, but do not wish to pursue a master's degree can incorporate those courses in a professional certificate program. Endorsement programs include Instructional Strategist I: Mild/Moderate Disabilities (K-8 or 5-12), or Instructional Strategist II: Behavior Disorders/Learning Disabilities, and special education consultant. A graduate level reading endorsement is also available.

## Graduate Certificate Programs

The Department of Curriculum and Instruction offers Graduate Certificate programs to allow students to enhance their skills outside of full degree programs. The Certificate programs currently offered include Instructional Design, Literacy Coaching, and Special Education.

The Instructional Design Certificate is designed for those working in education, training, professional development, design, and/or outreach who wish to accredit

and enhance their knowledge and skills in instructional design. All credits earned toward the Instructional Design Certificate are Iowa State University graduate credits and can be earned before, after, or concurrently with a master or doctoral degree. More information about the Instructional Design Certificate is available at <http://www.ci.hs.iastate.edu/gcert-id/>.

The Literacy Coaching Certificate program consists of a series of advanced graduate level courses (17 semester credits) aimed at preparing eligible classroom teachers, instructional leaders, and other school personnel to serve in literacy leadership roles with the goal of improving teacher practices and student achievement in diverse PreK-12 school settings. The Literacy Coaching Certificate program provides a unique opportunity to develop deep expertise in literacy research, policy, and practice, as well as skill in leadership at a leading university supported by two outstanding programs within the College of Human Sciences at Iowa State University: Literacy Education and Educational Administration. More information about the Literacy Coaching Certificate is available at <http://www.ci.hs.iastate.edu/literacy/index.php>.

The Special Education Certificate program allows educators who already hold a general education teaching license to complete the coursework necessary to each a teaching endorsement in Special Education. Both the Instructional Strategist I: Mild/Moderate Disabilities (K-6 and 712) and the Instructional Strategist II: Behavior Disorders/Learning Disabilities endorsements are available. The programs use a hybrid distance education model to provide accessible coursework, combining video conferencing with a limited number of on-campus sessions. More information about the Special Education Certificate program is available at <http://www.ci.hs.iastate.edu/sped/gradprosp.php>.

## Curriculum in Elementary Education

The curriculum in Elementary Education is planned for students preparing to teach in grades kindergarten through six. For additional information, see Index, Elementary Education.

Teaching endorsements in areas closely related to elementary education, are available for elementary education majors. These include Art, English as Second Language K-12, English/Language Arts, Health, History, Mathematics, Music, Science (basic), Social Studies, Special Education (Instructional Strategist I: Mild/Moderate K-8), Speech Communication/Theater, World Language. See Teacher Education, Courses and Programs, for additional information about endorsements.

Additional teaching endorsements, available at the graduate level to individuals who hold a valid Iowa teaching license, include the following: K-6 world language, reading, and special education (Instructional Strategist II: Behavior Disorders/Learning Disabilities, ages 5-21).

A minor in learning technologies is available; see requirements under Curriculum and Instruction Courses and Programs.

### Communication Proficiency

To meet graduation requirements, all students must have a C (2.0) or better for each of ENGL 150 Critical Thinking and Communication and ENGL 250 Written, Oral, Visual, and Electronic Composition.

### U.S. Diversity and International Perspectives

To meet graduation requirements, all students must complete 3 cr. of course work in U.S. Diversity and 3 cr. in International Perspectives. See department for approved lists of courses.

### World Language and Culture Requirement

Elementary education majors must satisfy a graduation requirement equivalent to the first year of university-level study in one world language (normally, completion of a two-semester sequence in any one world language). The requirement may be met by completion of three or more years of high school study in one world language.

Students who have completed three or more years of French, German, or Spanish in high school may not receive graded credit for WLC 101/102 in those languages; test-out credit (T credit) may be obtained by passing an appropriate examination or by completing an advanced sequence (200-level or higher) in that language. If these students choose to take WLC 101/102 on a remedial basis, they will be graded S-F. Certification in American Sign Language is recognized by the University and satisfies the world languages requirement for the curriculum in elementary education.

**Total credits required: 128.5.**

**General Education\*: 45.5**

**Communication skills:**

LIB 160	Information Literacy	1
ENGL 150	Critical Thinking and Communication	3

ENGL 250	Written, Oral, Visual, and Electronic Composition	3
Select one of the following:		3
COMST 102	Introduction to Interpersonal Communication	
COMST 218	Conflict Management	
COMST 317	Small Group Communication	
SP CM 212	Fundamentals of Public Speaking	
SP CM 312	Business and Professional Speaking	
SP CM 313	Communication in Classrooms and Workshops	
SP CM 322	Argumentation, Debate, and Critical Thinking	
SP CM 327	Persuasion	

**Total Credits 10**

### Social sciences:

HD FS 102	Individual and Family Life Development	3
or PSYCH 230	Developmental Psychology	
American Government or American History		3
Option		3

**Total Credits 9**

### Humanities:

Select 9 cr.

### Mathematics:

MATH 195	Mathematics for Elementary Education I	3
MATH 196	Mathematics for Elementary Education II	3
One course from the following		3

MATH 104	Introduction to Probability	
MATH 105	Introduction to Mathematical Ideas	
MATH 140	College Algebra	
MATH 150	Discrete Mathematics for Business and Social Sciences	
MATH 145	Applied Trigonometry	
MATH 160	Survey of Calculus	
MATH 165	Calculus I	
MATH 181	Calculus and Mathematical Modeling for the Life Sciences I	
MATH 297	Intermediate Topics for School Mathematics	
STAT 101	Principles of Statistics	

**Total Credits 9**

### Biological/Physical Sciences:

Biological Sciences		3
ANTHR 202	Introduction to Biological Anthropology and Archaeology	
BIOL 101	Introductory Biology	
BIOL 155	Human Biology	
BIOL 173	Environmental Biology	
BIOL 211	Principles of Biology I	
BIOL 255	Fundamentals of Human Anatomy	
BIOL 256	Fundamentals of Human Physiology	
BIOL 258	Human Reproduction	

**Physical Sciences 3**

ASTRO 120	The Sky and the Solar System	
ASTRO 150	Stars, Galaxies, and Cosmology	
CHEM 160	Chemistry in Modern Society	
CHEM 163	College Chemistry	
CHEM 177	General Chemistry I	
GEOL 100	The Earth	
GEOL 101	Environmental Geology: Earth in Crisis	
MTEOR 206	Introduction to Weather and Climate	
PHYS 101	Physics for the Nonscientist	
PHYS 111	General Physics	

**Option 3**

**Total Credits 9**

**Area of specialization\*\*: 18 cr.**

(Require 24 cr.; 9 cr. from an area specialization may be used to meet other requirements.)

**Professional education\*\*: 68 cr.**

Required courses: 24 Credits

C I 201	Learning Technologies in the PK-6 Classroom	3
C I 204	Social Foundations of Education in the United States	3
C I 245	Strategies in Teaching	2
C I 268	Strategies Practicum	1
C I 332	Educational Psychology of Young Learners	3
C I 406	Multicultural Foundations of School and Society: Introduction	3
HD FS 226	Development and Guidance in Middle Childhood	3
HD FS 240	Literature for Children	3
SP ED 250	Education of the Exceptional Learner in a Diverse Society	3
<b>Total Credits</b>		<b>24</b>

Required methods: 21 Credits

21 Credits Required

C I 377	The Teaching of Reading and Language Arts in the Primary Grades (K-3)	4
C I 468A	Pre-Student Teaching Experience II: Primary Grades, Reading and Language Arts	1
C I 378	The Teaching of Reading and Language Arts in the Intermediate Grades (4-6)	4
C I 468B	Pre-Student Teaching Experience II: Intermediate Grades, Reading and Language Arts	1
C I 448	Teaching Children Mathematics	3
C I 468C	Pre-Student Teaching Experience II: Primary Grades, Mathematics	1
C I 449	The Teaching of Science	3
C I 468D	Pre-Student Teaching Experience II: Intermediate Grades, Science	1
C I 443	The Teaching of Social Studies	3

Related Methods: 6 Credits

Choose 6 credits from the following:

H S 275	Health Education in the Elementary School	3
ARTED 211	Introduction to Art Education	3
MUSIC 265	Music in Elementary Education	2
KIN 284	Elementary and Pre-school Movement Education	3

Student teaching: 16 Credits

Choose 16 credits from the following:

C I 416A	Supervised Student Teaching - Elementary: Primary grades (K-3)	arr	†
C I 416D	Supervised Student Teaching - Elementary: International Student Teaching - Primary Grades	arr	†
C I 416B	Supervised Student Teaching - Elementary: Intermediate grades (4-6)	arr	†
C I 416E	Supervised Student Teaching - Elementary: International Student Teaching - Intermediate Grades	arr	†
SP ED 416	Supervised Student Teaching (special education students only)	arr	†

† Arranged with instructor.

Orientation: 1 Credit

C I orientation course. See department for details

C I 315	Transfer Orientation
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One of the following:

\*Refer to departmental curriculum sheet, available from adviser, for specific course requirements

\*\*Must receive a C or above in each of the courses listed