There are a number of pathways to teacher certification at Wayne State University, and all prepare future teachers to be knowledgeable, skillful, and caring professionals who are able to make a difference in the lives of children and youth. Students in our teacher certification programs benefit from outstanding faculty for their university coursework, and clinical experiences in Detroit and beyond that prepare them to work effectively and passionately with diverse children and youth. The faculty in Teacher Education conduct research and teach courses that focus on creating school experiences that are academically rigorous, personally meaningful, and sustain a vibrant democracy.

Michigan Standard Teaching Certificate (Education) - Bachelor's Degree Requirements

Candidates for the Bachelor of Arts or Bachelor of Science degree in Education must complete at least 120 credits in coursework with a minimum grade point average of 2.5. No grade below a 'C' may be used to meet requirements specific to elementary or secondary education, the major, the minor (including the planned program/comprehensive major), or professional education courses; a grade of ‘C-minus’ is not acceptable.

The following outline presents the general distribution of credits to be fulfilled by the student's choice of curricula from the subsequent program descriptions, below. NOTE: Some programs require more than 120 credits; note also the addendum cited below for the Bachelor of Arts degree.

1. Forty credits in pre-professional coursework including 6-8 credits in English to fulfill Basic and Intermediate Composition requirements and courses specified by individual program areas.
2. Completion of the appropriate professional education sequence.
3. Completion of teaching majors and teaching minors appropriate to the student's intended level of certification.
4. Three credits in personal health, first aid, health of the school child, or comprehensive school health education.
5. Completion of University General Education Requirements (see General Education Program).
6. Michigan Test for Teacher Certification (required for state certification):
   a. Elementary Education: Elementary Education Test. Examination in additional major/minor subject area(s) is also highly recommended.
   b. Secondary Education: Tests in major (required) and minor (recommended) subject areas.
7. Current certification in First Aid and Adult and Child CPR as verified by the Certification Office from a provider approved by the Michigan Department of Education (required for state certification).

BACHELOR OF ARTS in EDUCATION Language Requirement: In addition to the above requirements, the Bachelor of Arts degree requires completion of a foreign language through the intermediate level.

Teaching Certificates (Michigan)

The Michigan Department of Education issues two basic teaching certificates: elementary and secondary. The elementary certificate authorizes an individual to teach all subjects in grades kindergarten through five, major and minor subject areas in grades six through eight, and all subjects in grades K-8 in a self-contained classroom. The secondary certificate authorizes an individual to teach his/her major and minor subject areas in grades six through twelve. Some majors, such as art, music, health and physical education, and foreign language education (Arabic, French, and Spanish), cover all grades, kindergarten through twelve.

Teaching Certification Requirements

All secondary certificates require an academic major in a subject areas such as English, mathematics, science, or social studies, approved for teaching in grades six through twelve by the State Board of Education. A minor is recommended. An elementary certificate requires a minimum of one academic major or a student-centered minor or major and the Planned Program/Comprehensive Major.

Students are recommended for certification after earning a bachelor's degree from a regionally-accredited institution and completing a specified sequence of professional courses in the College of Education. Holders of a bachelor's degree may also earn a teaching certificate in a post-bachelor certification program or Master of Arts in Teaching program. Additional information about these programs can be obtained from the Office of Academic Services in room 489 Education.

Certification for Post-Baccalaureate Students

A college graduate holding the bachelor's or master's degree may qualify for a teaching certificate by completing a Master of Arts in Teaching degree program, or by completing a recognized post-degree program. See the Wayne State University Graduate Bulletin for general requirements for the Master of Arts in Teaching degree. The student may need to supplement previous degree work in order to satisfy major and minor provisions of the Michigan certification code.

Teaching Certificate Endorsements

Teaching endorsements may be added to any certificate. An individual may add endorsements by completing requirements for academic majors and/or minors in accordance with State regulations. An individual holding an elementary certificate may also earn an endorsement to teach at the secondary level, and vice versa. When adding an additional endorsement, the individual must also pass the Michigan Test for Teacher Certification in that subject area.

Holders of certificates may add an additional endorsement in a content area or in a specialty area. Content areas include English, Language Arts, Mathematics, Science, Social Studies, etcetera. Content endorsements are generally completed with undergraduate coursework in a post-bachelor status. Specialty areas are endorsements seen as more pedagogical or based upon a specific setting in which a subject is taught. A few examples of specialty endorsements are Special Education, Early Childhood Education, English as a Second Language, and Bilingual Education. Many of the specialty endorsements are completed as part of a graduate program and may include only graduate coursework.

For more information regarding adding an endorsement, consult an advisor in the Division of Academic Services, 489 Education Building.

Application for an endorsement must be made within five years after endorsement requirements have been met. State examinations must be passed for all new endorsements.
Office of Educational Partnerships and Experiences
Director: Dr. Linda Hicks
Office: 221 Education Building; 313-577-1644

Prerequisite requirements for student teaching eligibility are:

1. Admission to the College of Education.
2. Completion of course work in teaching major and minor(s) with grades of ‘C’ or better.
3. Passing of appropriate tests on the Michigan Test for Teacher Certification (MTTC).
4. Satisfactory completion of required courses in the professional education sequence with grades of ‘C’ or better.
5. Current negative tuberculosis test result.

NOTE: In addition to the above prerequisites, students completing certification requirements directly through the Michigan Department of Education or another university must complete a minimum of six semester credits in the Wayne State University College of Education prior to placement in a student teaching assignment.

Application Procedures
Submit completed application forms to the Office of Educational Partnerships and Experiences prior to the deadline of the appropriate application period (see below).

Application Deadlines
If you want to intern during FALL TERM, materials must be filed online by March 15.

If you want to intern during WINTER TERM, materials must be filed online by September 15.

Advising Offices
Information, written descriptions of programs, and referrals to advisors may be obtained from the following advising offices:

- Health and Physical Education, Room 260, Matthaei Building
- Music Education, 1321 Old Main
- All other programs, Room 489, Education Building

ARYA, POONAM: Ph.D., State University of New York at Buffalo; M.A., M.Ed., B.Ed., Delhi University; Professor

BACCOCK, ELSIE: M.A.T., B.A., Wayne State University; Associate Professor (Teaching)

BALEJA, KATHERINE: Ed.D., Central Michigan University; M.A., Saginaw Valley State University; B.A., Alma College; Assistant Professor (Teaching)

COLOMA, ROLAND: Ph.D., M.A., Ohio State University; B.A., University of California, Riverside; Professor

CRAWFORD, KATHLEEN: Ph.D., M.A., B.A., University of Arizona; Associate Professor

CROWLEY, CHRISTOPHER B.: Ph.D., University of Wisconsin-Madison; M.S.Ed., University of Pennsylvania; B.A., St. Lawrence University; Assistant Professor

DEBLASE, GINA: Ph.D., State University of New York at Buffalo; M.Ed., University of Rochester; B.A., State University of New York; Associate Professor

DENICOLIO, CHRISTINA: Ph.D., University of Colorado; M.A., University of Michigan; B.A., Western Michigan University; Associate Professor

EBENEZER, JAZLIN: Ph.D., University of British Columbia; M.Ed., B.A., Western Washington University; B.S., Madurai University; Professor

GABEL, SUSAN L.: Ph.D., Michigan State University; M.Ed., Wayne State University; B.A., Oral Roberts University; Professor

GONZALES, SANDRA: Ed.D., M.Ed., Columbia University; M.A., Antioch University; B.S., Michigan State University; Associate Professor

HANCOCK, CHRISTINE: Ph.D., University of Kansas; M.A., Boise State University; B.A., Grinnell College; Assistant Professor

HOLLY, JR., JAMES: Ph.D., Purdue University; M.S., Michigan State University; B.S., Tuskegee University; Assistant Professor

HOURANI, ANA: M.A., University of Michigan B.A., Denison University; Assistant Professor (Teaching)

JAMEEL, CHAVON L.: Ph.D., M.Ed., Wayne State University; B.A., Kalamazoo College; Clinical Assistant Professor

KASETA, MICHEL: M.Ed., B.S., Wayne State University; Assistant Professor (Teaching)

LEWIS, JENNIFER: Ph.D., University of Michigan; M.A., B.A., University of California; Associate Professor

LUCAS, LORI: Ed.S. Wayne State University; Assistant Professor (Teaching)

MILLER, AMANDA: Ph.D., University of Kansas; M.Ed., Northern Arizona University; B.A., Gustavus Adolphus; Assistant Professor

MILLER, ANNA G.: M.A., B.A., Wayne State University; Assistant Professor (Teaching)

MOSELEY, JAMES L.: Ed.D., Wayne State University; Associate Professor Emeritus

OZGUN-KOCA, S. ASLI: Ph.D., Ohio State University; M.A., Middle East Technical University; B.A., Hacettepe University; Professor

PEDRONI, THOMAS: Ph.D., M.S., University of Wisconsin at Madison; B.A., Miami University; Associate Professor

RESSA, THEODOTO: Ph.D., M.A., Ohio State University; B.Ed. Maseno University-Kenya; Assistant Professor

REYNOLDS, AJA: Ph.D., University of Illinois-Chicago; M.Ed., University of Illinois-Chicago; B.A. Pennsylvania State University; Assistant Professor

RICKS-BATES, ANITA: M.F.A., Wayne State University; M.A., Eastern Michigan University; Lecturer and Program Coordinator Visual Art Education

ROBERTS, KATHRYN: Ph.D., Michigan State University; M.S., Indiana University; B.S., Butler University; Associate Professor

STEPHENS, GERALYN: Ed.D., M.Ed., Wayne State University; B.A., Eastern Michigan University; Clinical Associate Professor
TED 2220 Foundations II: Foundations of Inclusive Schooling Cr. 2
Philosophy and practices of inclusive schooling, including legal and ethical responsibilities of teachers of marginalized learners, history of disability rights movement, inclusive teaching practices, Universal Design for Learning (UDL). Offered Every Term.
Equivalent: SED 5010

TED 2250 Becoming an Urban Educator Cr. 3
Examination of issues surrounding social justice in urban schools and society through the exploration of the historical, political, and social trends that influence education. Course includes a 40-hour service learning field experience. Offered Every Term.
Restriction(s): Enrollment limited to students in the College of Education.

TED 2500 Introduction to Asian American Studies Cr. 3
Satisfies General Education Requirement: Diversity Equity Incl Inquiry
This course will provide an overview of the historical and contemporary experiences of Asian Americans and Asian migrants in the United States. We will examine major themes, including race and racism, exclusion and assimilation, ethnic and pan-ethnic identities and communities, intersectionality and comparative racialization, as well as activism and social movements. We will analyze these themes within the broad dynamics of empires, wars, globalizations, migrations, and the making of the U.S. as a nation-state and a global power. Offered Yearly.
Equivalent: ASN 2500

TED 5100 Professional Engagement, Advocacy, and Instructional Planning Cr. 2
Identify sources and impact of teaching beliefs, knowledge, and practices. Design curriculum to organize and enact knowledge, experience, and standards. Develop approaches for student engagement for learning and assessment. Analyze strategies of teacher agency and advocacy. Offered Every Term.

TED 5150 Analysis of Elementary Teaching Cr. 3,5
Satisfies General Education Requirement: Writing Intensive Competency
Organization and management of classrooms. Lesson planning, teaching strategies and testing procedures. Work in classroom assigned by both an experienced public school teacher and a University faculty member. Offered Fall, Winter.
Restriction(s): Enrollment limited to students in the College of Education.
Course Material Fees: $29

TED 5350 Topics in Racial Justice in Education Cr. 3
Topics, theories, pedagogies, and research methodologies related to racial justice in PK-12 schools and in pre-service and in-service teacher education, including white supremacy, racialization, antiracism, and decolonization. Applications to educational policies, curriculum, instruction, and co-curricular activities that are relevant to racial/ethnic minority students and educators in PK-12 schools. Implications for students and educators from diverse and intersectional perspectives. Offered Every Term.
Repeatable for 12 Credits

TED 5400 Topics in LGBTQ+ Studies in Education Cr. 3
Topics, theories, and issues related to sexual orientation, gender identity, and gender expression in PK-12 schools and in pre-service and in-service teacher education. Applications to educational policies, curriculum, instruction, and co-curricular activities that are relevant to lesbian, gay, bisexual, transgender, queer, and questioning (LGBTQ+) students and educators in PK-12 schools. Implications for students and educators from diverse and intersectional perspectives. Offered Every Term.
Repeatable for 12 Credits

TED 5650 Pre-Student Teaching Field Experience for Secondary Majors Cr. 5
Field experience in secondary school settings prior to full-time student teaching. Offered Fall, Winter.
Restriction(s): Enrollment limited to students in the College of Education.
TED 5780 Directed Teaching and Conference Cr. 1-12
Directed teaching in schools at level for which students are preparing for certification. Includes regular conference in which teaching methods in various fields are explored. Offered Fall, Winter.
Restriction(s): Enrollment limited to students in the College of Education.
TED 5790 Directed Teaching and Conference for Special Groups Cr. 1-15
Directed teaching in schools at level for which advanced students are preparing for certification; discussion of educational issues. For students seeking endorsements in special areas; for example: special education, early childhood, art. Students interested in completing general elementary and special education field experiences in the same semester should see advisor for eligibility requirements. Offered Fall, Winter.
Restriction(s): Enrollment limited to students in the College of Education.
Repeatable for 15 Credits
TED 5791 Directed Teaching and Conference for Pre-Kindergarten Cr. 6
This course is a preschool level field experience for students who are working toward the Birth-Kindergarten Endorsement for certification. Offered Yearly.
Corequisite: ELE 6080
Restriction(s): Enrollment limited to students in the College of Education.
TED 5792 Directed Teaching and Conference for Early Intervention and Early Childhood Special Education Cr. 6
Directed teaching in early intervention (EI) and/or early childhood special education (ECSE) for advanced students who are preparing for teaching certification in the Birth-Kindergarten grade band; discussion of educational issues. Offered Yearly.
TED 5900 Post-Certification Clinical Experience Cr. 1
This course offers a school-based clinical experience for PK-12 teachers seeking to add an additional content area endorsement (i.e., ESL/BBE, math, social studies, etc.) and/or grade band endorsement (i.e., K-8, 6-12, K-12) to an existing Michigan teaching certification. Experience includes relevant classroom observations; data collection on student learning, instruction, assessment; lesson plan implementation; and collaboration with the course instructor and mentor educators. Offered Every Term.
Repeatable for 4 Credits
TED 6020 Technology Integration in Teaching Cr. 3
An introduction to various experiences exploring current technologies used to inform and support instructional strategies and practices, and content pedagogy in K-12 classrooms. Offered Every Term.
Restriction(s): Enrollment is limited to Graduate level students.
TED 6030 Computer Applications in Teaching II Cr. 3
Use of computing resources to develop problem-solving strategies and multimedia applications for students in specific K-12 curriculum areas. Offered Fall, Winter.
Prerequisite: TED 6020
TED 6140 Local School Curriculum Planning Cr. 1-6
For classroom teachers and teacher educators. Consideration of local problems in elementary and secondary school programs. Planning for better teaching and learning. Offered Intermittently.
Repeatable for 12 Credits
TED 6200 Foundations I: Foundations of Education in Urban Spaces Cr. 2
Examines issues surrounding social justice in urban schools and society through the exploration of the historical, political and social trends that influence education. Offered Every Term.
Corequisite: TED 6205
TED 6205 Foundations Field Experience Cr. 1
Offers community-based, clinical experience for pre-service teachers seeking a prekindergarten-third grade and third through sixth grade teaching license. Experience includes relevant community observations; data collection on learning, language practices, communication; and collaboration in community settings with course instructor and mentor educators. Offered Every Term.
Corequisite: TED 6200
TED 6210 Foundations II: Intersections of Culture, Language, Identity and Schooling Cr. 2
This course is designed to increase students’ knowledge and appreciation of the cultural, social, political and economic realities of our complex, pluralistic society in relation to our educational system. Students will examine the historical foundations of U.S. education, with attention to groups who have historically been denied access to equitable educational experiences. This course will examine educational policies, practices, and beliefs underlying inequities in schooling. The principles of multicultural education, culturally responsive pedagogy, universal design and socio-emotional learning will be introduced as frameworks for classroom organization and instructional planning. Offered Winter.
TED 6220 Foundations III: Foundations of Inclusive Schooling Cr. 2
Philosophy and practices of inclusive schooling, including legal and ethical responsibilities of teachers of marginalized learners, history of disability rights movement, inclusive teaching practices, Universal Design for Learning (UDL). Offered Every Term.
TED 6370 Equity and Inclusion in Diverse Urban Education Settings Cr. 4
Clinical based course, using inclusive instructional practices for all students including, but not limited to, students with disabilities, English Language Learners, and special populations such as: at-risk, and gifted and talented in inclusive urban settings. Offered Fall.
TED 6380 Integrating Content Cr. 1–12
Current issues and trends related to integrating content areas; theory, methods, materials and strategies. Content areas announced in Schedule of Classes. Offered Yearly.
Repeatable for 12 Credits

American Sign Language
ASE 2050 Deaf Culture Cr. 3
Satisfies General Education Requirement: Cultural Inquiry
This course is to introduce students to the most important aspects of the American Deaf experience with history, contributions, and contemporary lives of Deaf people. This course will address topics such as the diversity of Deaf people, Deaf cultural norms, controversial issues, Deaf arts, and Deaf international communities. Offered Fall.
ASE 3000 American Sign Language I Cr. 3
This course is an introduction to American Sign Language (A.S.L.). A.S.L. will be taught through four categories: cultural awareness, grammatical features, vocabulary development and conversational skills. Students will develop mastery of targeted vocabulary, conversational facilitating behaviors, and conversational regulating behaviors. Offered Every Term.
ASE 3020 American Sign Language II Cr. 3
This is the second in a series of courses designed to further the development of comprehension and production abilities in American Sign Language (ASL). Lessons are designed around recognition and demonstration of more sophisticated grammatical features of ASL with focus on increasing fluency and accuracy. Cultural awareness of the Deaf communities of the world are also instilled. Offered Every Term.
Prerequisite: ASE 3000 with a minimum grade of C-
AED 3030 American Sign Language III Cr. 3
This is the third in a series of courses designed to further develop comprehension and production abilities in American Sign Language (ASL). Lessons are designed around recognition and demonstration of more sophisticated grammatical features of ASL with focus on increasing fluency and accuracy. Cultural awareness of the Deaf communities of the world are also instilled. Offered Fall.
Prerequisite: AED 3000 with a minimum grade of C- and AED 3020 with a minimum grade of C-

AED 3040 American Sign Language IV Cr. 3
This is the fourth in a series of courses designed to further development of comprehension and production abilities in American Sign Language (ASL). Lessons are designed around recognition and demonstration of more sophisticated grammatical features of ASL with focus on increasing fluency and accuracy. Cultural awareness of the Deaf communities of the world are also instilled. Offered Winter.
Prerequisite: AED 3030 with a minimum grade of C-

AED 5050 Deaf Culture Cr. 3
This course is to introduce students to the most important aspects of the American Deaf experience with history, contributions, and contemporary lives of Deaf people. This course will address topics such as the diversity of Deaf people, Deaf cultural norms, controversial issues, Deaf arts, and Deaf international communities. Offered Yearly.

AED 5060 Fingerspelling and Numbers Cr. 3
This course is to provide an overview of American Sign Language fingerspelling techniques and numbering skills, focusing on improving students’ receptive and expressive skills. Students that take this course will be able to communicate with speed, dexterity and clarity. Offered Yearly.
Prerequisites: AED 3000 with a minimum grade of C-

AED 5070 Non-Manual Grammatical Features of American Sign Language Cr. 3
This course focuses on specific facial manipulations that are crucial grammatical component of American Sign Language (ASL) such as lexical, morphological, and syntactical non-manual signals construction by the mouth, cheeks, eyes, brows, head, and shoulders. Offered Fall.
Prerequisites: AED 3000 with a minimum grade of C-

Art Education, Visual

AED 5000 Introduction to Art Education Cr. 3
Design of developmentally appropriate and comprehensive art experiences, teaching strategies, and authentic assessment of student learning in art. History, theories and philosophies of visual arts education; contemporary trends and issues. Offered Fall.
Restriction(s): Enrollment limited to students in the College of Education.
Course Material Fees: $15

AED 5020 Painting: Methods and Materials Cr. 3
Methods, materials and processes suitable for teaching painting in the schools. Subject selection, composition, surface selection and preparation, mixing and application of paint, finishing, and presentation. Students develop basic skills in painting for personal artistic expression. Offered Fall.
Restriction(s): Enrollment limited to students in the College of Education.
Course Material Fees: $15
Repeatable for 9 Credits

AED 5050 Integrating the Arts into the Elementary Classroom Cr. 3
Satisfies General Education Requirement: Cultural Inquiry, Visual Performing Arts
Introductory course: integration of visual arts, music, dance, and theatre into the teaching, learning and curriculum of the elementary classroom. Offered Fall, Winter.
Prerequisites: (2 of (ELE 3300, ELE 6290, ELE 6390, ELE 6500, ELE 6600, ELE 3400, ELE 3500, or ELE 3600) and 1 of (ELE 3320 or ELE 6310)) or TED 5150
Course Material Fees: $30

AED 5070 Methods and Materials of Sculptural Expression Cr. 3
Exploration of three-dimensional forms using various media; emphasis on sculptural concepts, materials, tools and techniques related to teaching sculpture on the elementary and secondary level. Offered Fall.
Restriction(s): Enrollment limited to students in the College of Education.
Course Material Fees: $15

AED 5100 Topics in Art Education Cr. 1-3
Art experiences designed for the specific needs of special groups. Topics to be announced in Schedule of Classes. Offered Winter.
Restriction(s): Enrollment limited to students in the College of Education.
Course Material Fees: $15

AED 5150 Computer Graphics in the Classroom Cr. 3
Introduction to digital media and the production of computer graphics using drawing, painting, graphic design, animation, video and web techniques. Offered Spring/Summer.
Restriction(s): Enrollment limited to students in the College of Education.

AED 5160 Theory and Practice in Art Education Cr. 3
Development and analysis of instructional objectives in art education; organization and management of art classrooms; teaching strategies and assessment practices. Offered Spring/Summer.
Restriction(s): Enrollment limited to students in the College of Education.

AED 5230 Ceramics Education I Cr. 3
An overview of handbuilding processes, various firing procedures including blackware and raku, decorating, glazing and equipment maintenance. Emphasis placed on the educational benefits and procedures for working with people of various ages and the management of materials for teaching. Offered Spring/Summer.
Restriction(s): Enrollment limited to students in the College of Education.

AED 5280 Printmaking: Methods and Materials Cr. 3
Studio exploration of relief, planographic, intaglio, and stencil processes as methods of reproduction for artistic expression. Examination of tools, methods and processes suitable for the classroom. Includes study in lithography, dry point, etching, calligraphy, woodcut, linocut, and photo screen processes. Offered Spring/Summer.
Restriction(s): Enrollment limited to students in the College of Education.
Course Material Fees: $25

AED 5560 Art Teaching Laboratory Cr. 3
Laboratory experience in teaching art to elementary, middle, and high school students. Pre-student teaching experiences under close supervision of an experienced Visual Arts teacher. Offered Fall.
Prerequisites: AED 5100 with a minimum grade of D- (may be taken concurrently) and AED 5160 with a minimum grade of D-
Restriction(s): Enrollment limited to students in the College of Education.
Course Material Fees: $15
Repeatable for 9 Credits
AED 5690 Collage, Assemblage, and Multi-Media: Methods and Materials Cr. 3
History and methods of creating collage, assemblage, and multi-media art works. Integration of developmental issues, use of personal meaning and experience for lesson planning, unit planning, and work assessment strategies. Offered Winter.
Prerequisites: (AH 1110, AH 1120, ADR 1050, and ADR 1060) or (ADR 2070, APA 2100, and ASL 2150)
Course Material Fees: $40

AED 5890 The Art of Indigenous Cultures: Inclusion in the K-12 Curriculum Cr. 3
Focus on non-Western, indigenous art forms, such as Balinese architecture, ceramics of Papua New Guinea, Aboriginal painting, Precolombian culture, and Japanese gardens; means of integrating this content into the K-12 Curriculum. Offered Winter, Spring/Summer.
Prerequisites: AH 1110 and AH 1120

AED 6230 Ceramics Education II Cr. 3
Emphasis is placed on throwing procedures, the use of various clay bodies, firing at various temperatures, making and using tools, ceramic history and its use and benefits in a school curriculum. Offered Spring/Summer.
Restriction(s): Enrollment limited to students in the College of Education.
Course Material Fees: $35
Repeatable for 9 Credits

AED 6920 Multi-Cultural Issues in Art Education Cr. 3
Provides all visual arts education students with discipline-specific experiences, current theoretical perspectives, and best practices to enhance the effectiveness of their work in diverse and multicultural learning. Offered Winter.
Restriction(s): Enrollment limited to students in the College of Education.

BBE 1005 Multicultural Education in Urban America Cr. 2
Cultural, social, political and economic realities of our complex, pluralistic society in relation to our education system. Development of analytical and evaluative abilities of teachers to deal with racism, sexism, value clarification and the parity of power. Strategies for multicultural education. Offered Every Term.

BBE 5000 Multicultural Education in Urban America Cr. 2
Cultural, social, political and economic realities of our complex, pluralistic society in relation to our education system. Development of analytical and evaluative abilities of teachers to deal with racism, sexism, value clarification and the parity of power. Strategies for multicultural education. Offered Every Term.
Restriction(s): Enrollment is limited to Graduate level students.

BBE 5500 Introduction to Bilingual/Bicultural Education Cr. 3

BBE 5650 Teaching Methods in Bilingual/Bicultural Education Cr. 3
Utilization of traditional and innovative materials, techniques and methods in teaching elementary and secondary school subjects in a bilingual education program. Offered Intermittently.

BBE 6590 Culture and Language in Bilingual/Bicultural Education Cr. 1-3
Research and application of multicultural activities for designing processes to bring language and culture, and instruction in English, into the classroom. Offered Yearly.
Repeatable for 3 Credits

BBE 6600 Internship in Bilingual/Bicultural Teaching Cr. 2-12
Internship in a bilingual, multicultural setting; assessment of the cultural, educational, and linguistic needs of students of limited English-speaking ability. Offered Intermittently.
Repeatable for 12 Credits

BBE 6850 Applied Linguistics: Issues in Bilingual Education Cr. 3
Current major models of applied English linguistics, contrasting linguistics with special reference to the comparison of English and linguistic minority languages. Offered Yearly.

Career and Technical Education

CTE 5401 Instructional Practices for the Career and Technical Education Classroom: Module 1 Cr. 1
This is Module One of a six (6) module series. The series is specifically for students seeking a vocational endorsement to teach in federally funded, secondary CTE classrooms. This module reviews the history of CTE and its impact on industry. Offered Every Term.

CTE 5402 Instructional Practices for the Career and Technical Education Classroom: Module 2 Cr. 1
This is Module Two of a six (6) module series. The series is specifically for students seeking a vocational endorsement to teach in federally funded, secondary CTE classrooms. This module reviews MCCTE Navigator standards and their relationship to industry expectations. Offered Every Term.

CTE 5403 Instructional Practices for the Career and Technical Education Classroom: Module 3 Cr. 1
This is Module Three of a six (6) module series. The series is specifically for students seeking a vocational endorsement to teach in federally funded, secondary CTE classrooms. This module reviews mastery-learning, performance-based and project-based instructional strategies in the CTE classroom. Offered Every Term.

CTE 5404 Instructional Practices for the Career and Technical Education Classroom: Module 4 Cr. 1
This is Module Four of a six (6) module series. The series is specifically for students seeking a vocational endorsement to teach in federally funded, secondary CTE classrooms. This module reviews assessment strategies in the CTE classroom. Offered Every Term.

CTE 5405 Instructional Practices for the Career and Technical Education Classroom: Module 5 Cr. 1
This is Module Five of a six (6) module series. The series is specifically for students seeking a vocational endorsement to teach in federally funded, secondary CTE classrooms. This module reviews MCCTE and industry partner relationships. Offered Every Term.

CTE 5406 Instructional Practices for the Career and Technical Education Classroom: Module 6 Cr. 1
This is Module Six of a six (6) module series. The series is specifically for students seeking a vocational endorsement to teach in federally funded, secondary CTE classrooms. This module reviews strategies for remaining current with industry and teaching profession trends. Offered Every Term.

CTE 6010 History and Principles of Career and Technical Education Cr. 3
Overview of organization and administration at the federal, state, and local levels. Recent developments and their significance for school reform and improvement; business and industry linkages. Offered Yearly.

Education

ED 3990 Directed Study Cr. 1-6
Offered Every Term.
Repeatable for 6 Credits
ED 4998 Education Honors Thesis Cr. 3-4
Independent research project, essay, or creative project. Students are responsible for identifying their own research project and full-time faculty mentor. Offered Every Term.
Restriction(s): Enrollment limited to students with a class of Junior or Senior; enrollment limited to students in the College of Education.
ED 5998 Field Studies Cr. 1-8
Supervised professional study in field settings. Offered Every Term. Repeatable for 8 Credits

Educational History and Philosophy
EHP 3600 Introduction to the Philosophy of Education Cr. 3
Leading philosophies of education as they bear upon education as a profession and as a discipline. Offered Every Term.
Restriction(s): Enrollment limited to students in the College of Education.

Elementary Education
ELE 2000 Child Development: Birth-Age 8 Cr. 3
Explores processes and trajectories of child development from prenatal development through age 8 from a range of theoretical perspectives. Focus on cultural, linguistic, and socioeconomic contributions to development and fostering development through adult-child relationships. Applying knowledge of development through practical scenarios and video analysis of children's play and exploration. Offered Yearly.

ELE 2010 Equitable Partnerships with Families and Communities Cr. 3
Theory and research-based strategies that support equitable collaboration between professionals and families to best meet the needs of children. Explores family and community contexts as assets for learning. Emphasis on culturally and linguistically responsive approaches to learn about and leverage family strengths and priorities, as well as communication strategies for making shared decisions with families. Offered Yearly.

ELE 2015 Play: How Young Children Learn Cr. 3
Play as a critical component of children's development and learning. Addresses identifying different forms of play, how play fosters development and learning, embedding skills within play-based interactions, how children use play to understand their lives and the world around them, and theory and research-based strategies to facilitate play for all children. Offered Yearly.

ELE 2020 Foundations of Early Childhood Education Cr. 3
Foundational theories, policies, and practices of early childhood education with a focus on inclusive preschool contexts. Explores theory and research-based strategies related to child development, environmental design, play, family partnerships, and assessment. Emphasis on teaching strategies that are developmentally appropriate, culturally responsive, and reflective of universal design for learning. This course contains an integrated clinical experience, and students will complete focused observations at an approved early childhood center. Offered Yearly.

ELE 2025 Social Emotional Learning: Birth-Age 8 Cr. 3
Examination of children's social emotional development from birth through age 8, with focus on how development is shaped by cultural and linguistic contexts, including structural inequities, stress, adverse childhood experiences, and trauma. Exploration of how culture contributes to adult perceptions of behavior. Application of environmental and instructional strategies for positive child guidance that build a caring community of learners, prevent and address challenging behaviors, and support children during social conflicts. Offered Yearly.

ELE 2035 Inclusion, Equity, and Justice in Early Childhood Cr. 3
Explores principles of inclusive teaching for all children across early childhood settings, with emphasis on equitable and meaningful access, participation, and supports. Examines developmentally appropriate and culturally and linguistically relevant, anti-bias, and evidence-based teaching approaches that reflect the principles of universal design for learning. Addresses foundational processes of early intervention and early childhood special education. Offered Yearly.

ELE 2050 Intentional and Inclusive Teaching: Infants and Toddlers Cr. 3
In-depth exploration of intentional and inclusive teaching strategies for infants and toddlers. Designing integrated and purposeful learning experiences through play and exploration for all infants and toddlers, including those with identified disabilities and/or developmental delays. How to enact planned and responsive learning experiences that foster infant and toddler development across all domains and address content areas of language and literacy, the arts, mathematics, social studies, science, technology, and engineering in developmentally appropriate ways. Offered Yearly.
Prerequisites: (ELE 2000 with a minimum grade of C or ELE 6000 with a minimum grade of C), (ELE 2015 with a minimum grade of C or ELE 6015 with a minimum grade of C), (ELE 2020 with a minimum grade of C or ELE 6020 with a minimum grade of C), (ELE 2025 with a minimum grade of C or ELE 6025 with a minimum grade of C), and (ELE 2035 with a minimum grade of C or ELE 6035 with a minimum grade of C)
Corequisite: ELE 2055

ELE 2055 Intentional and Inclusive Teaching: Infants and Toddlers Clinical Experience Cr. 1
This course offers community-based clinical experience for pre-service teachers seeking a birth-kindergarten teaching license. Experience includes focused observation of home visiting and center-based infant and toddler care; lesson plan development and implementation; partnership with caregivers; and collaboration with course instructor and mentor educators. Offered Yearly.
Corequisite: ELE 2050

ELE 2075 The Creative Arts in Early Childhood Education Cr. 3
Supporting the whole child's learning and development through the visual and performing arts and through creative movement from birth to kindergarten. Materials, techniques, and strategies to foster children's appreciation of the arts and their confident, creative participation in the arts. Focus on creative processes, rather than products. Offered Yearly.
Prerequisites: ELE 2000 with a minimum grade of C, ELE 2015 with a minimum grade of C, and ELE 2020 with a minimum grade of C

ELE 6000 Child Development: Birth-Age 8 Cr. 3
Explores processes and trajectories of child development from prenatal development through age 8 from a range of theoretical perspectives. Focus on cultural, linguistic, and socioeconomic contributions to development and fostering development through adult-child relationships. Applying knowledge of development through practical scenarios and video analysis of children's play and exploration. Offered Yearly.
Restriction(s): Enrollment is limited to Graduate level students.

ELE 6010 Equitable Partnerships with Families and Communities Cr. 3
Theory and research-based strategies that support equitable collaboration between professionals and families to best meet the needs of children. Explores family and community contexts as assets for learning. Emphasis on culturally and linguistically responsive approaches to learn about and leverage family strengths and priorities, as well as communication strategies for making shared decisions with families. Offered Yearly.
Equivalent: PSY 6010, SW 6010
ELE 6015 Play: How Young Children Learn Cr. 3
Play as a critical component of children’s development and learning. Addresses identifying different forms of play, how play fosters development and learning, embedding skills within play-based interactions, how children use play to understand their lives and the world around them, and theory and research-based strategies to facilitate play for all children. Offered Yearly.
Restriction(s): Enrollment is limited to Graduate level students.

ELE 6020 Foundations of Early Childhood Education Cr. 3
Satisfies General Education Requirement: Writing Intensive Competency
Foundational theories, policies, and practices of early childhood education with a focus on inclusive preschool contexts. Explores theory and research-based strategies related to child development, environmental design, play, family partnerships, and assessment. Emphasis on teaching strategies that are developmentally appropriate, culturally responsive, and reflective of universal design for learning. This course contains an integrated clinical experience, and students will complete focused observations at an approved early childhood center. Offered Yearly.
Restriction(s): Enrollment limited to students in the College of Education.

ELE 6025 Social Emotional Learning: Birth-Age 8 Cr. 3
Examination of children’s social emotional development from birth through age 8, with focus on how development is shaped by cultural and linguistic contexts, including structural inequities, stress, adverse childhood experiences, and trauma. Exploration of how culture contributes to adult perceptions of behavior. Application of environmental and instructional strategies for positive child guidance that build a caring community of learners, prevent and address challenging behaviors, and support children during social conflicts. Offered Yearly.
Restriction(s): Enrollment limited to Graduate level students.

ELE 6030 Assessment of Young Children Cr. 3
Strategies for assessment of young children from birth through kindergarten within family, community, and school-based contexts. Addresses how to analyze, interpret, document, and share assessment information with families and other professionals. Emphasis on developmentally, linguistically, and culturally appropriate assessment tools as a means to make informed choices about planning instruction and intervention in early learning settings. This course contains integrated clinical experience hours students will complete through assignments and in-class experiences with materials of practice (e.g., work samples, child data, observational video, curricular materials). Offered Yearly.
Prerequisites: (ELE 2000 with a minimum grade of C or ELE 6000 with a minimum grade of C), (ELE 2015 with a minimum grade of C or ELE 6015 with a minimum grade of C), (ELE 2020 with a minimum grade of C or ELE 6020 with a minimum grade of C), (ELE 2025 with a minimum grade of C or ELE 6025 with a minimum grade of C), and (ELE 2035 with a minimum grade of C or ELE 6035 with a minimum grade of C)
Corequisite: ELE 6045
Restriction(s): Enrollment limited to students in the College of Education.

ELE 6040 Intentional and Inclusive Teaching: The Content Areas (PK-K) Cr. 3
Exploration of intentional and inclusive teaching strategies for prekindergarten and kindergarten-age learners in the content areas of language and literacy, the arts, mathematics, social studies, science, technology and engineering, and physical education. Building from the central concepts and developmental progressions of each content area to design planned and responsive learning experiences. Offered Winter.
Prerequisites: (ELE 2000 with a minimum grade of C or ELE 6000 with a minimum grade of C), (ELE 2015 with a minimum grade of C or ELE 6015 with a minimum grade of C), (ELE 2020 with a minimum grade of C or ELE 6020 with a minimum grade of C), (ELE 2025 with a minimum grade of C or ELE 6025 with a minimum grade of C), and (ELE 2035 with a minimum grade of C or ELE 6035 with a minimum grade of C)
Corequisite: ELE 6045

ELE 6041 Intentional and Inclusive Teaching: The Content Areas (PK-K) Clinical Experience Cr. 1
This course is designed for students seeking PK-3 teaching certification. Exploration of intentional and inclusive teaching strategies for prekindergarten and kindergarten-age learners in the content areas of language and literacy, the arts, mathematics, social studies, science, technology and engineering, and physical education. Building from the central concepts and developmental progressions of each content area to design planned and responsive learning experiences. Offered Yearly.
Prerequisites: ELE 2020 with a minimum grade of C or ELE 6020 with a minimum grade of C

ELE 6045 Intentional and Inclusive Teaching: The Content Areas (PK-K) Clinical Experience Cr. 1
This course offers community-based clinical experience for pre-service teachers seeking a birth-kindergarten teaching license. Experience includes focused observation of prekindergarten teaching and learning; lesson plan development and implementation; data collection and analysis of child learning; and collaboration with course instructor and mentor educators. Offered Yearly.
Corequisite: ELE 6040

ELE 6050 Intentional and Inclusive Teaching: Infants and Toddlers Cr. 3
In-depth exploration of intentional and inclusive teaching strategies for infants and toddlers. Designing integrated and purposeful learning experiences through play and exploration for all infants and toddlers, including those with identified disabilities and/or developmental delays. How to enact planned and responsive learning experiences that foster infant and toddler development across all domains and address content areas of language and literacy, the arts, mathematics, social studies, science, technology, and engineering in developmentally appropriate ways. Offered Winter.
Prerequisites: (ELE 2000 with a minimum grade of C or ELE 6000 with a minimum grade of C), (ELE 2015 with a minimum grade of C or ELE 6015 with a minimum grade of C), (ELE 2020 with a minimum grade of C or ELE 6020 with a minimum grade of C), (ELE 2025 with a minimum grade of C or ELE 6025 with a minimum grade of C), and (ELE 2035 with a minimum grade of C or ELE 6035 with a minimum grade of C)
Corequisite: ELE 6055
Restriction(s): Enrollment limited to students in the College of Education.

ELE 6055 Intentional and Inclusive Teaching: Infants and Toddlers Clinical Experience Cr. 1
This course offers community-based clinical experience for pre-service teachers seeking a birth-kindergarten teaching license. Experience includes focused observation of home visiting and center-based infant and toddler care; lesson plan development and implementation; partnership with caregivers; and collaboration with course instructor and mentor educators. Offered Winter.
Corequisite: ELE 6050
ELE 6060 Community Contacts: Working with Families in Urban Settings Cr. 3
Programs and services within the community that assist families in improving educational services for the child. Offered Yearly.

ELE 6070 Family, Community and School Partnerships: Supporting Children's Learning Cr. 3
Theory and practice in joining families, communities, and schools in promoting children's learning, development and success in school. Strengths and needs of families in a diverse, multicultural society, teachers' roles in concert with other disciplines in supporting families and building partnerships, and connection with community resources. Offered Yearly.

ELE 6075 The Creative Arts in Early Childhood Education Cr. 3
Supporting the whole child's learning and development through the visual and performing arts and through creative movement from birth to kindergarten. Materials, techniques, and strategies to foster children's appreciation of the arts and their confident, creative participation in the arts. Focus on creative processes, rather than products. Offered Yearly.

Prerequisites: ELE 6000 with a minimum grade of C, ELE 6015 with a minimum grade of C, and ELE 6020 with a minimum grade of C

ELE 6080 Intentional and Inclusive Teaching: The Preschool Learning Environment Cr. 3
Focus on developing strategies for intentional and inclusive preschool learning environments, including designing and evaluating environments based on learners' identities, strengths, interests, and support needs. Exploration of how to create safe and welcoming classroom communities through positive adult-child and child-child relationships and supportive classroom management. Offered Yearly.

Corequisite: TED 5791
Restriction(s): Enrollment limited to students in the College of Education.

ELE 6090 Introduction to Infant Mental Health Theory and Practice Cr. 3
Concepts of infant mental health theory and practice as a developmental framework for the observation, assessment and understanding of infant-parent behaviors and interactions as indicators of strengths and risks in the security of the attachment relationship. Offered Yearly.

ELE 6100 Planning and Implementing Preschool Curriculum Cr. 3
Planning, implementing, and evaluating all aspects of preschool curriculum: activities, routines, and working with staff and parents. Offered Yearly.

Prerequisites: ELE 6020 with a minimum grade of C, ELE 6210 with a minimum grade of C, ELE 6370 with a minimum grade of C, and ELE 6550 with a minimum grade of C

ELE 6110 Planning Infant and Toddler Curriculum Cr. 3
Planning effective relationship- and play-based curriculum, daily routines and experiences for infants and toddlers that are developmentally appropriate, culturally and linguistically relevant, anti-bias, and reflect principles of universal design for learning. Consideration of home-, community-, and classroom-based early learning settings for infants and toddlers. Offered Yearly.

Prerequisites: (ELE 2050 with a minimum grade of C or ELE 6050 with a minimum grade of C) and (ELE 2055 with a minimum grade of S or ELE 6055 with a minimum grade of S)

ELE 6130 Early Childhood Advocacy, Leadership, and Administration Cr. 3
Becoming an early childhood professional who is ready to be an advocate, leader, and/or administrator. Examine policies, procedures, and systems necessary for high-quality early learning. Develop skills and strategies to ensure ethical and legal guidelines are met, including consideration of health and safety procedures and Michigan Department of Licensing and Regulatory Affairs. This course addresses Michigan Licensing and Regulatory Affairs requirements for Early Childhood Program Directors to have at least 2 semester hours in child care administration. Offered Yearly.

Prerequisites: (ELE 2000 with a minimum grade of C or ELE 6000 with a minimum grade of C) and (ELE 2010 with a minimum grade of C or ELE 6010 with a minimum grade of C)

ELE 6200 Diverse Children's Literature for Elementary Teachers Cr. 3
This course is a survey of children's literature where we will explore, through reading and discussion, a wide range of genres and issues related to children's books with a focus on culturally responsive literature in the elementary school curriculum. Offered Every Term.

Restriction(s): Enrollment limited to students in the College of Education.

Course Material Fees: $17

ELE 6205 Literacy Foundations Cr. 3
This course is designed for undergraduate students seeking initial teacher certification. The focus is on theories and processes related to language and literacy development and the implications of these for curriculum and instruction in grades preK-6. Offered Fall, Winter.

Restriction(s): Enrollment limited to students in the College of Education.

ELE 6210 Literacy Methods I (PK-3) Cr. 3
Theoretical and methodological understanding of teaching and assessing constructs of literacy appropriate for students in grades prekindergarten-3. Offered Every Term.

Prerequisites: ELE 6205 with a minimum grade of C
Corequisite: ELE 6211

ELE 6211 Literacy Clinical Experience (PK-3) Cr. 1
This course offers school-based, clinical experience for pre-service teachers seeking a prekindergarten-third grade teaching license. Experience includes relevant classroom observations; data collection on student learning, instruction, assessment; lesson plan implementation; and collaboration with course instructor and mentor educators. Offered Every Term.

Corequisite: ELE 6210

ELE 6215 Literacy Methods I (3-6) Cr. 3
Theoretical and methodological understanding of teaching and assessing constructs of literacy appropriate for students in grades upper elementary grades 3-6. Offered Fall, Winter.

Prerequisites: ELE 6205 with a minimum grade of C
Corequisite: ELE 6216

ELE 6216 Literacy Clinical Experience (3-6) Cr. 1
This course offers school-based, clinical experience for pre-service teachers seeking a third through sixth grade teaching license. Experience includes relevant classroom observations; data collection on student learning, instruction, assessment; lesson plan implementation; and collaboration with course instructor and mentor educators. Offered Every Term.

Corequisite: ELE 6215

ELE 6220 Literacy I Cr. 3
Theoretical foundations for literacy, investigation of beginning reading and writing constructs and processes, teaching strategies and instructional material. Evaluating literacy skills and knowledge through formal and informal measures and reporting to parents and other professionals. Implications of multiculturalism, special needs, and English language learners. Offered Every Term.

Restriction(s): Enrollment limited to students in the College of Education.
ELE 6225 Literacy Methods II (PK-6) Cr. 3
Advanced theoretical and methodological understanding of teaching and assessing multiple constructs of literacy appropriate for diverse students in grades PK-6. Offered Fall, Winter.
Prerequisites: ELE 6210 with a minimum grade of C or ELE 6215 with a minimum grade of C
Restriction(s): Enrollment limited to students in the College of Education.
Equivalent: ELE 6260

ELE 6240 Literacy II Cr. 3
Development of comprehension in literature and informational material, instructional strategies and material with emphasis on integrated instruction. Evaluation of the development of comprehension and writing through formal and informal measures and reporting to parents and other professionals. Implications of multiculturalism, special needs, and English language learners. Offered Every Term.
Prerequisite: ELE 6220 with a minimum grade of C
Restriction(s): Enrollment limited to students in the College of Education.

ELE 6266 Literacy III Cr. 3
Literacy theory and research and its application to language arts instruction in elementary and middle schools: reading, writing, speaking, listening, viewing, and visually representing. Implications of multiculturalism, special needs, and English language learners. Offered Fall.
Prerequisite: ELE 6220 with a minimum grade of C and ELE 6240 (may be taken concurrently) with a minimum grade of C
Restriction(s): Enrollment limited to students in the College of Education.

ELE 6340 Teaching Reading in Early Childhood Education Cr. 3
Rationale for teaching reading and various reading skills to young children. Materials and methods for initial reading instruction. Offered Yearly.
Restriction(s): Enrollment limited to students in the College of Education.

ELE 6350 Mathematics Foundations (PK-6) Cr. 3
Provides a coherent overview of the historical and foundations underlying the PK-6 mathematics content. Offered Every Term.
Prerequisites: MAT 1120 with a minimum grade of C

ELE 6370 Mathematics Methods (PK-3) Cr. 3
This course cultivates the mathematical knowledge, pedagogical skills and professional dispositions for teaching mathematics to children in grades PreK-3. It builds upon the foundational ideas about teaching mathematics in ELE 6375. Offered Fall, Winter.
Prerequisites: ELE 6350 with a minimum grade of C
Corequisite: ELE 6375

ELE 6375 Mathematics Clinical Experience (PK-3) Cr. 1
Offers school-based, clinical experience for pre-service teachers seeking a prekindergarten-third grade teaching license. Experience includes relevant classroom observations; data collection on student learning, instruction, assessment; lesson plan implementation; and collaboration with course instructor and mentor educators. Offered Fall, Winter.
Prerequisites: ELE 6350 with a minimum grade of C
Corequisite: ELE 6370

ELE 6380 Mathematics Methods (3-6) Cr. 3
This course cultivates the mathematical knowledge, pedagogical skills and professional dispositions for teaching mathematics to children in grades 3-6. It builds upon the foundational ideas about teaching mathematics in ELE 6385. Offered Fall, Winter.
Prerequisites: ELE 6350 with a minimum grade of C
Corequisite: ELE 6385

ELE 6385 Mathematics Clinical Experience (3-6) Cr. 1
Offers school-based, clinical experience for pre-service teachers seeking a prekindergarten-third grade teaching license. Experience includes relevant classroom observations; data collection on student learning, instruction, assessment; lesson plan implementation; and collaboration with course instructor and mentor educators. Offered Fall, Winter.
Prerequisites: ELE 6350 with a minimum grade of C
Corequisite: ELE 6380

ELE 6390 Mathematics Instruction: P-8 Cr. 3
Developing mathematics skills in elementary and middle schools. Students plan, implement and evaluate learning experience with children under professional guidance. Offered Fall, Winter.
Restriction(s): Enrollment limited to students in the College of Education.
Course Material Fees: $58

ELE 6500 Science Curriculum and Methods (3-6) Cr. 3
Role of learning in science in the curriculum. Objectives, plans of organization for learning, resources materials. Overview of balanced program. Experiences with appropriate experiments, field trips, reference materials, audio-visual resources. Offered Every Term.
Prerequisites: (SCE 2100 with a minimum grade of C and SCE 2105 with a minimum grade of C) or (SCE 5100 with a minimum grade of C and SCE 5105 with a minimum grade of C)
Restriction(s): Enrollment limited to students in the College of Education.
Course Material Fees: $10

ELE 6550 Science Curriculum and Methods (PK-6) Cr. 2
This course provides a foundation for instructional strategies that promote phenomenon-based learning and with a focus on engineering design and technology performance expectations for PK-6 elementary instruction. Offered Every Term.
Prerequisites: (SCE 2100 with a minimum grade of C and SCE 2105 with a minimum grade of C) or (SCE 5100 with a minimum grade of C and SCE 5105 with a minimum grade of C)
Restriction(s): Enrollment limited to students in the College of Education.

ELE 6600 Social Studies Methods (PK-6) Cr. 3
In this course, teacher candidates explore and demonstrate knowledge and understanding of social studies with the incorporation of pedagogical knowledge. This includes lesson planning; development of objectives, outcomes, and assessments; curriculum content and organization; teaching strategies; and the implementation of instructional materials. Candidates also incorporate community resources in the planning process. Offered Every Term.
Restriction(s): Enrollment limited to students in the College of Education.

ELE 6610 Current Developments in Early Childhood General and Special Education Cr. 1-6
Topics on developments in research-based recommended practices on early childhood general and special education, covered through seminars and workshops; early intervention and educational implications for children from birth to eight years old. Topics to be announced in Schedule of Classes. Offered Intermittently.
Repeatable for 6 Credits

ELE 6800 Methods for Integrated Curriculum and Pedagogy (PK-6) Cr. 3
Develop unit/lesson plans within and across content areas in innovative and relevant ways. Understand socio-cultural and political contexts and factors that impact curriculum, teaching, and learning. Use effective, differentiated, and inclusive teaching strategies that attend to student strengths and needs. Utilize assessment approaches to inform instruction and student learning and advancement. Offered Fall, Winter.
Prerequisites: (ELE 6210 with a minimum grade of C or ELE 6215 with a minimum grade of C), (ELE 6370 with a minimum grade of C or ELE 6380 with a minimum grade of C), and (ELE 6550 with a minimum grade of C or ELE 6600 with a minimum grade of C)
Corequisite: ELE 6805
ELE 6805 Clinical Experience for Integrated Curriculum and Pedagogy (PK-6) Cr. 2
Offers school-based, clinical experience for pre-service teachers seeking a PK-3 and/or 3-6 grade teaching certificate. Experience includes relevant classroom observations; data collection on student learning, instruction, assessment; lesson plan implementation for integrated curriculum; and collaboration with course instructor and mentor educators. Offered Fall, Winter.
Prerequisite: (ELE 6210 with a minimum grade of C or ELE 6215 with a minimum grade of C), (ELE 6370 with a minimum grade of C or ELE 6380 with a minimum grade of C), and (ELE 6550 with a minimum grade of C or ELE 6600 with a minimum grade of C)
Corequisite: ELE 6800

English Education
EED 5200 Methods of Teaching English (7-12) Cr. 3
Introduction to the purposes and methods of teaching English language arts in grades seven through twelve. Offered Fall.
Restriction(s): Enrollment limited to students in the College of Education.

EED 6120 Teaching Composition Methods (7-12) Cr. 3
Methods for composition instruction, grades 7-12, including writing processes, writing workshop, digital literacies, and the teaching of grammar and vocabulary in the context of writing instruction. Offered Fall.
Prerequisite: EED 5200
Corequisite: EED 6125
Restriction(s): Enrollment limited to students in the College of Education.

EED 6125 Teaching Composition Clinical (7-12) Cr. 2
This course offers school-based English/composition clinical experience in the 7-12 grade band for pre-service teachers. Experience includes relevant classroom observations; data collection on student learning, instruction, assessment; lesson plan implementation; and collaboration with clinical instructors and mentor educators. Offered Fall.
Prerequisite: EED 5200
Corequisite: EED 6120
Restriction(s): Enrollment limited to students in the College of Education.

EED 6210 Language, Literacy, and Learning Cr. 3
This course explores the teaching of language, grammar, and usage in English language arts classrooms, based in sociocultural and sociolinguistic approaches to teaching literacy and language. Offered Fall.
Restriction(s): Enrollment limited to students in the College of Education.

EED 6310 Young Adult Literature Cr. 3
Equivalent: INF 6530

EED 6330 Teaching Literature Methods (7-12) Cr. 3
Pedagogical approaches to the teaching of literature in grades 7-12. Structure of literary genres in relation to sociocultural and critical theories of teaching literature in grades 7-12. Offered Winter.
Prerequisite: EED 5200
Corequisite: EED 6335
Restriction(s): Enrollment limited to students in the College of Education.

EED 6335 Teaching Literature Clinical (7-12) Cr. 2
This course offers school-based English/literature clinical experience in the 7-12 grade band for pre-service teachers. Experience includes relevant classroom observations; data collection on student learning, instruction, assessment; lesson plan implementation; and collaboration with clinical instructors and mentor educators. Offered Winter.
Prerequisite: EED 5200
Corequisite: EED 6330

Language Education
LED 5300 Teaching Chinese as a Second Language Cr. 1-3
Introduction to basic teaching grammar and sound rules and general teaching methodology. Offered Winter.
Prerequisite: CHI 3100 with a minimum grade of D-
Equivalent: CHI 5300

LED 6500 Teaching World Languages in Elementary and Middle Schools: Methods III Cr. 3
Approaches and techniques; review of theory and practice relevant to young learners. Students teach mini-lessons and prepare materials based on national standards and age-appropriate methodologies. Offered Yearly.
Restriction(s): Enrollment limited to students in the College of Education.

LED 6510 Second Language Acquisition and the Teaching of Grammar Cr. 3
Seminar and intensive review of major models of applied sociolinguistics and psycholinguistics; second language acquisition research and teaching of grammar in K-12 education. Offered Yearly.
Restriction(s): Enrollment limited to students in the College of Education.
Repeatable for 6 Credits

LED 6520 Teaching English as a Second Language/Foreign Language: Methods I Cr. 3
Methods and techniques; fundamental theory and practice; English as an international/intranational language. Students micro-teach lessons and prepare teaching materials which emphasize the listening and speaking language skills. Offered Yearly.
Restriction(s): Enrollment limited to students in the College of Education.
Repeatable for 3 Credits

LED 6530 Teaching English as a Second Language/Foreign Language: Methods II Cr. 2-3
Methods and techniques; English as an international/intranational language. Students micro-teach lessons and prepare teaching materials which emphasize the reading and writing language skills. Offered Yearly.
Restriction(s): Enrollment limited to students in the College of Education.
Repeatable for 6 Credits

LED 6555 Integration of Language and Content in Language Teaching Cr. 1-3
Examination and evaluation of instructional strategies used to teach content and develop a second language in specific content/language area instruction. Offered Yearly.
Restriction(s): Enrollment limited to students in the College of Education.
Repeatable for 3 Credits

LED 6565 Assessment in Language Teaching Cr. 1-3
Instruments, techniques, and strategies in the assessment, placement, and evaluation of second language instruction, including language learners in K-12 and post-secondary education. Offered Yearly.
Restriction(s): Enrollment limited to students in the College of Education.
Repeatable for 3 Credits

LED 6580 Culture as the Basis for Language Teaching Cr. 2-4
Culture examined in a multidisciplinary theoretical framework, to provide students with objective relativistic and holistic attitude about human diversity, enabling them to relate to pupils in urban areas. Offered Every Other Year.
Repeatable for 4 Credits

Mathematics Education
MAE 1000 Detroit by the Numbers Cr. 3
Satisfies General Education Requirement: Quantitative Experience Comp
Designed for students to experience mathematics as doable, meaningful, and relevant to their lives. Students will study the city of Detroit by analyzing data and reasoning through quantitative tools presented by local agencies, such as health, environment, education, arts, and sports. Offered Every Term.
MAE 5100 Geometry for Middle School Teachers Cr. 3
Development of Euclidean geometry as a mathematical system; related historical topics; introduction to other geometries; selected topics such as transformations and tessellations. No credit toward a major or minor for secondary mathematics teaching. Offered Every Other Year.
Prerequisites: MAT 1110 with a minimum grade of C- and MAT 1120 with a minimum grade of C-
Equivalent: MAT 5180

MAE 5110 Number Theory for Middle School Teachers Cr. 3
Topics from elementary theory of numbers which underlie middle school mathematics curriculum; historical connections; role of abstraction and proof in mathematics. No credit toward a major or minor for secondary mathematics teaching. Offered Every Other Year.
Prerequisites: MAT 1800 with a minimum grade of C- or MAT 1120 with a minimum grade of C-
Equivalent: MAT 5190

MAE 5120 Abstract Algebra for Middle School Teachers Cr. 3
Topics from elementary abstract algebra underpinning middle school mathematics curriculum; historical connections; role of abstraction and proof in mathematics. No credit toward major in mathematics or secondary mathematics. Offered Every Other Year.
Prerequisites: MAT 1120 with a minimum grade of C- and MAT 1800 with a minimum grade of C-
Equivalent: MAT 5120

MAE 5130 Problem Solving for Middle School Teachers (5-9) Cr. 3
Development of mathematical problem solving in middle grades mathematics education; study of non-routine problems; problem solving strategies; historical connections; connections to selected mathematics content and to topics in other disciplines. Offered Every Other Year.

MAE 5140 Proportional and Algebraic Reasoning for Middle Grades Teachers (5-9) Cr. 3
Proportional reasoning involves thinking about relationships and making comparisons of quantities or values. This course explores those relationships and the ability to think about and compare multiplicative relationships between quantities through the lens of algebraic and proportional reasoning. Offered Every Other Year.

MAE 5150 Methods and Materials of Instruction: Secondary School Mathematics Cr. 3
Mathematics in secondary school; major concepts of secondary school mathematics; methods and instructional materials; classroom administration; modern trends. Offered Yearly.
Corequisite: MAE 5155
Restriction(s): Enrollment limited to students in the College of Education.

MAE 5155 Secondary Mathematics Clinical (7-12) Cr. 2
This course offers school-based mathematics clinical experience in the 7-12 grade band for pre-service teachers. Experience includes relevant classroom observations; data collection on student learning, instruction, assessment; lesson plan implementation; and collaboration with clinical instructors and mentor educators. Offered Yearly.
Corequisite: MAE 5150

MAE 6055 Teaching Mathematics Methods in the Middle Grades Cr. 3
Creative use of resources and materials for improving the mathematics competencies of middle school and junior high school students; organizing the mathematics classroom for effective instruction; promising trends; related research. Offered Yearly.
Corequisite: MAE 6055
Restriction(s): Enrollment limited to students in the College of Education.

MAE 6050 Teaching Mathematics in the Middle Grades Clinical (5-9) Cr. 2
This course offers school-based mathematics clinical experience in the 5-9 grade band for pre-service teachers. Experience includes relevant classroom observations; data collection on student learning, instruction, assessment; lesson plan implementation; and collaboration with clinical instructors and mentor educators. Offered Yearly.
Corequisite: MAE 6050

MAE 6075 Historical and Social Contexts of Teaching Mathematics (5-12) Cr. 3
This course examines current and historical mathematical educational practices that contribute inequitable access and opportunity and ethical and equitable practices in the mathematics classrooms. Offered Yearly.

MAE 6150 Special Topics Cr. 1-6
Current issues and trends; areas of neglected content; curriculum proposals; related research. Topics to be announced in Schedule of Classes. Offered Intermittently.
Repeatable for 12 Credits

MAE 6200 Teaching Arithmetic, Algebra and Functions from an Advanced Perspective Cr. 3
Students gain profound understanding of K-12 mathematics. Concepts underlying K-12 topics and procedures; connections to higher mathematics. Teaching with Simplicity; applying mathematical understanding to teaching practices. Offered Fall.
Prerequisites: MAT 5120, MAT 6170, or MAT 6180
Equivalent: MAT 6200

MAE 6210 Teaching Geometry, Probability and Statistics, and Discrete Mathematics from an Advanced Perspective Cr. 3
Historical perspectives, common conceptions and misconceptions, applications, technology, and mathematical connections relative to teaching geometry (including trigonometry), probability and statistics, and discrete mathematics in secondary school. Offered Winter.
Equivalent: MAT 6210

MAE 6400 Elementary School: Mathematics Curriculum and Assessment Cr. 3
Developing competence in school mathematics programs: objectives, procedures, materials, organizational patterns, evaluation. Offered Intermittently.

Reading, Language and Literature Education

RLL 6121 Teaching Reading in the Content Areas: Grades 6-12 Cr. 3
Teaching reading across all content areas with particular attention to readers with special needs. Offered Every Term.
Restriction(s): Enrollment limited to students in the College of Education.

RLL 6700 Second Language Literacy Development: K-12 Cr. 3
Examination of theories, organizations and instructional strategies involved in second language literacy development, and their applications in the classroom. Offered Fall, Spring/Summer.
Prerequisite: LED 6520 with a minimum grade of C-

RLL 6801 Assessment and Differentiated Instruction for Diverse Learners: Pre-K-8 Cr. 3
Assessment of literacy competencies of diverse learners; use of assessments to plan and implement differentiated instruction in grades PreK-8. Implementation with students in field component; and evaluation. Offered Every Term.
Restriction(s): Enrollment limited to students in the College of Education.
Science Education

SCE 2100 Integrated Science Content PK-6 Cr. 3
Satisfies General Education Requirement: Natural Scientific Inquiry
This course will address core integrated science content topics, concentrating on PK-6 performance expectations; across all science disciplines: life/environmental science, physical science, earth/space science, and engineering/technology/design. Offered Every Term.
Corequisite: SCE 2105

SCE 2105 Integrated Science Lab PK-6 Cr. 1
This lab will provide the opportunity to authentically engage in science and engineering practices and scientific inquiry, use scientific modeling, and conduct controlled experiments; within and integrated across the science disciplines of life/environmental science, physical science, earth/ space science, and engineering/technology/design. Offered Every Term.
Corequisite: SCE 2100

SCE 5010 Biological Sciences for Elementary and Middle School Teachers Cr. 3
Significant biological principles, generalizations and understandings with relation to their use with children. Appropriate learning activities; experiments, field trips, text and reference materials, audio-visual resources, evaluation. Offered Every Term.
Course Material Fees: $10

SCE 5020 Physical Sciences for Elementary and Middle School Teachers Cr. 3
Significant principles, generalizations and understandings in the physical sciences with relation to their use with children. Appropriate learning activities including experiments, field trips, reference materials, audio-visual resources. Offered Every Term.
Course Material Fees: $10

SCE 5030 Earth/Space Science for Elementary and Middle School Teachers Cr. 3
Principles, generalizations and understandings related to teaching earth/ space science to children. Learning activities, field trips, technology, and evaluation. Offered Every Term.
Course Material Fees: $10

SCE 5060 Methods and Materials of Instruction in Secondary School Science I Cr. 3
Role of science in the secondary curriculum. Problems and techniques of teaching science in the secondary schools; objectives, planning laboratory experiments, demonstrations, directed study, student projects, text and reference material, audio-visual resources, evaluation. Offered Fall.
Restriction(s): Enrollment limited to students in the College of Education.
Course Material Fees: $10

SCE 5070 Methods and Materials of Instruction in Secondary School Science II Cr. 3
Restriction(s): Enrollment limited to students in the College of Education.

SCE 5100 Integrated Science Content (PK-6) Cr. 3
Addresses core integrated science content topics, concentrating on PK-6 performance expectations across all science disciplines: life/environmental science, physical science, earth/space science, and engineering/technology/design. Offered Every Term.
Corequisite: SCE 5105

SCE 5105 Integrated Science Lab (PK-6) Cr. 1
The lab provides the opportunity to authentically engage in science and engineering practices and scientific inquiry. Students will use scientific modeling, and conduct controlled experiments within, and integrated across, the science disciplines of life/environmental science, physical science, earth/ space science, and engineering/technology/design. Offered Every Term.
Corequisite: SCE 5100

SCE 6010 Safety in the Science Classroom Cr. 2
Principles of Laboratory safety in all K-12 science classrooms, including legal responsibilities related to the use, storage and disposal of chemicals and biological specimens as well as legal and ethical use of living organisms in the classroom. Offered Winter.
Restriction(s): Enrollment limited to students in the College of Education.
Course Material Fees: $10

SCE 6030 Advanced Studies in Teaching Science in the Junior High and Middle School Cr. 3
Innovations and improvements in middle school and junior high school science teaching. Exploration of appropriate areas of study, development and selection of learning activities and materials; laboratory experiences in selected areas. Offered Every Other Year.
Restriction(s): Enrollment limited to students in the College of Education.
Course Material Fees: $10

SCE 6040 Advanced Studies in Teaching Science in the High School Cr. 3
Emphasis on methods of teaching biology and the physical sciences in the high school. Recent curriculum studies, research, and current problems. Laboratory experiments, equipment, textual and reference material, audio-visual resources, and evaluation procedures. Offered Every Other Year.
Course Material Fees: $10

SCE 7010 Special Topics in Science Education Cr. 1-3
Current theories and issues related to science education: nature of science, equity, global education, interdisciplinary approaches, alternative forms of assessment and technology integration. Topics to be announced in Schedule of Classes. Offered Every Other Year.
Restriction(s): Enrollment is limited to Graduate level students.
Repeatable for 6 Credits

Social Studies Education

SSE 5720 Social Studies Disciplines for Elementary Teachers I Cr. 3
Students explore the content knowledge and major concepts of American History, Michigan Studies, and Geography to help prepare PK-6 learners to make informed decisions as citizens of a culturally diverse, democratic society and interdependent world. Offered Every Term.
SSE 6710 Methods and Materials of Instruction in Secondary Social Studies Cr. 3
Foundations of social studies instruction and curriculum; methods of teaching in middle and senior high school, including the use of state standards in the design of instruction, teaching approaches for the various social studies disciplines, their interdisciplinary application, diversity and appreciation of other cultures. Offered Every Term.
Restriction(s): Enrollment limited to students in the College of Education.

SSE 6720 Social Studies Disciplines for Elementary Teachers II Cr. 3
Students explore the content knowledge and major concepts of Political Science (Civics and Government) and Economics to help prepare PK-6 learners to make informed decisions as citizens of a culturally diverse, democratic society and interdependent world. Offered Fall.

SSE 6730 New Perspectives in Social Studies Education Cr. 3
Development of curricular lesson plans, unit plans, and other teaching strategies utilizing current approaches in social studies education. Offered Winter, Spring/Summer.
Restriction(s): Enrollment limited to students in the College of Education.

Special Education

SED 5000 History, Philosophy, and Ethics of Teaching Students with Disabilities Cr. 2
Historical developments leading to contemporary special and inclusive education. Philosophy of inclusive education. Ethical standards for special educators. This is a prerequisite for all SED courses. Offered Fall, Winter.

SED 5010 Inclusive Teaching Cr. 2
Philosophy and practice of inclusive teaching; legal and ethical responsibilities of educators; practical, empirically supported, and classroom tested approaches; collaborations of service providers; and home-school-society relationships. Offered Yearly.

SED 5075 Consultation and Collaboration for Inclusive Teaching Cr. 2
Knowledge and skills of consultation, collaboration, and co-teaching to support students in a variety of educational settings, particularly inclusive contexts. Offered Intermittently.
Prerequisites: SED 5000 with a minimum grade of C

SED 5080 Supportive Environments, Engaged Learning Cr. 2
Prerequisites: SED 5000 with a minimum grade of C

SED 5090 Transitions for Students with Disabilities Cr. 2
Strategies for supporting students with disabilities and special needs who are in transition between schools and from school to adult life in community settings. Offered Fall, Winter.
Prerequisites: SED 5000 with a minimum grade of C
Course Material Fees: $8

SED 5110 Introduction to Teaching Students with Moderate/Significant Support Needs Cr. 3
Medical terminology and interventions for students labeled cognitively impaired. Social model framework for understanding and supporting students with moderate to significant support needs (e.g., MARSE label cognitive impairment). Offered Fall.
Prerequisites: SED 5000 with a minimum grade of C, SED 5010 with a minimum grade of C, SED 5075 with a minimum grade of C, SED 5080 with a minimum grade of C, and SED 5090 with a minimum grade of C

SED 5115 Observation and Assessment of Students with Moderate/Significant Support Needs Cr. 3
Using observation and assessment to monitor learning and plan instruction for learners with moderate to significant support needs (e.g., MARSE label cognitive impairment) in a variety of educational contexts. Offered Yearly.
Prerequisites: SED 5000 with a minimum grade of C, SED 5010 with a minimum grade of C, SED 5075 with a minimum grade of C, SED 5080 with a minimum grade of C, and SED 5090 with a minimum grade of C

SED 5121 Language Development and Instruction for Students with Moderate/Significant Support Needs Cr. 2
Language-communication development and instruction for students with moderate to significant educational support needs (e.g., MARSE label cognitive impairment). Emphasis on utilizing augmentative and alternative communication systems. Offered Fall.
Prerequisites: SED 5000 with a minimum grade of C, SED 5010 with a minimum grade of C, SED 5075 with a minimum grade of C, SED 5080 with a minimum grade of C, and SED 5090 with a minimum grade of C

SED 5125 Teaching Students with Significant/Multiple Support Needs Cr. 3
Curriculum and instructional for students with significant/multiple impairments in a variety of educational contexts (e.g., students with the label SXI). Offered Yearly.
Prerequisites: SED 5000 with a minimum grade of C, SED 5010 with a minimum grade of C, SED 5075 with a minimum grade of C, SED 5080 with a minimum grade of C, and SED 5090 with a minimum grade of C

SED 5130 Teaching Students with Moderate Support Needs Cr. 3
Curriculum and instruction for students with moderate support needs (e.g., MARSE label cognitive impairment) in a variety of educational contexts. Offered Winter.
Prerequisites: SED 5000 with a minimum grade of C, SED 5010 with a minimum grade of C, SED 5075 with a minimum grade of C, SED 5080 with a minimum grade of C, and SED 5090 with a minimum grade of C

SED 6021 Introduction to Teaching Students with Autism Spectrum Disorder Cr. 3
Historical and current research on autism spectrum disorder (ASD), with professional and personal perspective. Focus on supports, services, and quality of life outcomes. Offered Intermittently.
Prerequisites: SED 5000 with a minimum grade of C, SED 5010 with a minimum grade of C, SED 5075 with a minimum grade of C, SED 5080 with a minimum grade of C, and SED 5090 with a minimum grade of C
Restriction(s): Enrollment is limited to Graduate level students.

SED 6030 Teaching Students with Cognitive, Behavior, and Communication Differences Cr. 3
Teaching students with cognitive and behavioral differences. Emphasis on strategies for supporting inclusive education. Offered Intermittently.
Prerequisites: SED 5000 with a minimum grade of C, SED 5010 with a minimum grade of C, SED 5075 with a minimum grade of C, SED 5080 with a minimum grade of C, SED 5090 with a minimum grade of C, and SED 6021 with a minimum grade of C
Restriction(s): Enrollment is limited to Graduate level students.

SED 6040 Introduction to Early Childhood Special Education Cr. 3
History, philosophy, legislation, and “best practice” of early intervention and educational programs for young children, birth to eight years old, who have developmental delays or disabilities. Offered Fall.
SED 6050 Teaching Students with Communication Differences Cr. 3
Teaching students with communication differences (i.e., students with autism spectrum disorder). Designing relationship based communication support, particularly in inclusive settings. Offered Intermittently.

**Prerequisites:** SED 5000 with a minimum grade of C, SED 5010 with a minimum grade of C, SED 5075 with a minimum grade of C, SED 5080 with a minimum grade of C, SED 5090 with a minimum grade of C, and SED 6021 with a minimum grade of C

**Restriction(s):** Enrollment is limited to Graduate level students.

SED 6060 Teaching Students with Movement and Sensory Differences Cr. 2
Movement and sensory differences in students with autism. Strategies for increasing student engagement in learning, social interaction, and inclusive educational contexts. Emphasis on supports for inclusion and supports provided by related service providers. Offered Yearly.

**Prerequisites:** SED 5000 with a minimum grade of C, SED 5010 with a minimum grade of C, SED 5075 with a minimum grade of C, SED 5080 with a minimum grade of C, SED 5090 with a minimum grade of C, and SED 6021 with a minimum grade of C

**Restriction(s):** Enrollment is limited to Graduate level students.

SED 6070 Assessment and Evaluation of Students with Autism Spectrum Disorders Cr. 3
This course examines the assessment process of the performance and progress of students with disabilities in the general and special education settings. It also examines the role assessment plays with respect to the identification, eligibility, and placement (LRE) of students with disabilities. IEP development and Section 504 process are examined. Formal and informal methods of assessment, progress monitoring, and the formative assessment of academic and behavior skills (including curriculum-based measurement (CBM), Functional Behavior Assessment (FBA) are also covered. Offered Yearly.

**Prerequisites:** SED 5000 with a minimum grade of C, SED 5010 with a minimum grade of C, SED 5075 with a minimum grade of C, SED 5080 with a minimum grade of C, and SED 5090 with a minimum grade of C