



College of EDUCATION

Robert E. Floden,
DEAN

The College of Education at Michigan State University is a community of students, educators and researchers prepared to meet the challenges of education and kinesiology. We are committed to improving practice together through exemplary research, teaching and service. With a renowned five-year teacher preparation program, rigorous training for health-related careers and several nationally ranked graduate programs, the College of Education prepares leaders who make an extraordinary impact on health, well-being and education around the world.

Under the guidance of renowned administrators and faculty members in four departments, students have opportunities to pursue or advance careers in teaching (elementary, secondary and special education), educational administration, higher education, research, policymaking, student affairs, rehabilitation counseling, school psychology, fitness training, sport leadership, and health care fields (e.g., preparation for physical therapy, work as a physician assistant or attending medical school). Degree programs are offered on-campus, online and in hybrid formats, which blend face-to-face and online learning. See program sections for details on programs available.

The College of Education has established a reputation for excellence and visionary thinking in its efforts to improve teaching and learning across our nation and world, particularly within the contexts of urban and global education. The faculty remains committed to addressing the educational and physical needs of all people across the life span, and to working closely with educators, leaders and policymakers in the field.

Innovative teacher education programs, outstanding faculty, relationships with practicing professionals and strong research opportunities make the MSU College of Education a dynamic place for learning to teach and contribute to the fields of education and kinesiology. The college is proud to claim more than 57,000 alumni, each touching lives in their own way around the world.

UNDERGRADUATE PROGRAMS

The College of Education offers four bachelor's degree programs: the Bachelor of Science degree in Athletic Training, the Bachelor of Arts degree in Education, the Bachelor of Science degree in Kinesiology, and the Bachelor of Arts degree in Special Education. The College also offers a Minor in Educational Studies.

For additional information, refer to the *Department of Teacher Education* for the major in education, the *Department of Kinesiology* for majors in Athletic Training and Kinesiology, and the *Department of Counseling, Educational Psychology and Special Education* for the major in special education.

The college offers prospective teachers interested in teaching in urban schools opportunities for admission to the Urban Educators Cohort Program as freshmen. The college also offers prospective teachers with an interest in global education to be admitted to the Global Educators Cohort program as freshmen. Students interested in these programs submit a supplemental application to the College of Education after being admitted to Michigan State University. See www.education.msu.edu/urbancohort and www.education.msu.edu/globalcohort for details.

Admission to College

Students seeking admission to any of the College of Education's undergraduate majors must meet the specific admission criteria and process for the major. For information about admission to the Athletic Training and Kinesiology majors, refer to the *Admission* section for those programs in the *Department of Kinesiology* section of this catalog. For information about admission to the Education and Special Education majors, refer to the *Admission to the Teacher Certification Program* section under Teacher Certifica-

EDUCATION

Undergraduate Programs

tion in the *Department of Teacher Education* section of this catalog.

Honors Study

The College of Education encourages honor students to develop rich and distinctive programs of study. Each Honors College member is assigned a special advisor who is responsible for helping the student plan a balanced and rigorous course of study. Students are encouraged, when appropriate, to enroll in graduate seminars, to work on research projects with college faculty and to take full advantage of honors courses offered outside of the College of Education.

MINOR IN EDUCATIONAL STUDIES

The Minor in Educational Studies, which is administered by the College of Education, provides an opportunity for students interested in the intersection of learning, education, and society. The minor is a valuable addition for those pursuing careers in the social and behavioral sciences, law, social justice, or education. This minor does not offer professional training for teaching or lead to a teaching certificate or license.

The minor is available as an elective to students who are enrolled in bachelor's degree programs at Michigan State University other than the Bachelor of Arts degrees in Education and Special Education. With the approval of the department and college that administers the student's degree program, the courses that are used to satisfy the minor may also be used to satisfy the requirements for the bachelor's degree.

Students who plan to complete the requirements for the minor should consult with the academic advisor for the Educational Studies minor in the College of Education.

Requirements for the Minor in Educational Studies

	CREDITS
1. Complete the following course (3 credits):	
TE 201 Current Issues in Education	3
2. Complete 15 credits of approved course work from the following:	
CEP 260 Dynamics of Personal Adjustment	3
CEP 261 Substance Abuse	3
CEP 370 Educating Students with Special Needs	3
CEP 371 Fundamentals of Conflict and Conflict Resolution in Educational Settings	3
CEP 416 Teaching and Learning with Technology	3
CEP 460 Communication Skill Training for the Helping Professional	3
CEP 470 Disability in a Diverse Society	3
EAD 315 Student Leadership Training	3
EAD 361 Educational Reform and Policy Analysis	3
EAD 362 Student Culture and Higher Education	3
EAD 363 Diversity and Higher Education	3
TE 150 Reflections on Learning	3
TE 250 Human Diversity, Power, and Opportunity in Social Institutions	3
TE 351 Urban Education	3
TE 352 Immigrant Language and Culture	3
TE 353 International Education	3

Additional courses may be used to fulfill this requirement with approval by the student's academic advisor for the minor.

TEACHER CERTIFICATION OPTIONS

Disciplinary majors in education and special education leading to bachelor's degrees in the College of Education are available for teacher certification.

Students who elect a disciplinary major must contact the *Department of Teacher Education* for the major in education, and the *Department of Counseling, Educational Psychology and Special Education* for the major in special education.

For additional information about the teacher certification options, including the many majors throughout the university that are available for those choosing to become secondary education

teachers, refer to the statements on the disciplinary majors and to the statement on *TEACHER CERTIFICATION* in the *Department of Teacher Education* section of the catalog.

GRADUATE STUDY

Graduate programs in the College of Education provide opportunities for advanced study and research in education and kinesiology, and foster development of the insight and skill needed to deal with the many challenges that confront our graduates in today's professions.

The college offers the following degrees in a variety of specialties: Master of Arts, Master of Science, Educational Specialist, Doctor of Education, and Doctor of Philosophy. Several graduate certificates and specializations are also available. Students study the profession in general as well as particular specialties. There is considerable latitude for students to plan their studies in collaboration with their faculty advisors and to work with faculty across the College and university.

Students who are enrolled in the Doctor of Philosophy degree program in Educational Psychology and Educational Technology in the Department of Counseling, Educational Psychology and Special Education and the Doctor of Philosophy degree program in Curriculum, Instruction, and Teacher Education in the Department of Teacher Education may elect a graduate specialization in language and literacy. For additional information refer to the statement on the *Graduate Specialization in Language and Literacy* in the *Teacher Education* section of this catalog.

Students who are enrolled in Master of Arts, Educational Specialist and Doctor of Philosophy degree programs in the Department of Counseling, Educational Psychology and Special Education and in Master of Science and Doctor of Philosophy degree programs in the Department of Kinesiology may elect a specialization in infancy and early childhood. For additional information, refer to the statement on *Interdepartmental Graduate Specializations in Infancy and Early Childhood* in the *College of Social Science* section of this catalog.

The Master of Science and Doctor of Philosophy degrees in Mathematics Education are administered jointly by the College of Natural Science and the College of Education. The College of Natural Science is the primary administrative unit. For additional information, refer to the statements on *Mathematics Education* in the *College of Natural Science* section of this catalog.

Master of Arts and Master of Science

Each candidate for the Master of Arts or Master of Science degree selects one of the major fields in one of the academic units listed below:

- College of Education
 - education (M.A.)
 - mathematics education (M.S.)
- Department of Counseling, Educational Psychology and Special Education
 - applied behavior analysis (M.A.)
 - educational technology (M.A.)
 - rehabilitation counseling (M.A.)
 - school psychology (M.A.)
 - special education (M.A.)
- Department of Educational Administration
 - higher, adult, and lifelong education (M.A.)
 - K-12 educational administration (M.A.)
 - student affairs administration (M.A.)
- Department of Kinesiology
 - kinesiology (M.S.)
 - sport coaching and leadership (M.S.)

Department of Teacher Education
teaching and curriculum (M.A.)

In addition to meeting the requirements of the university as described in the *Graduate Education* section of this catalog, students must meet the requirements specified below.

Admission

Students wishing to become candidates for the master's degree must possess a bachelor's degree from a recognized educational institution. A grade-point average of at least 3.00 during the final two years of undergraduate study is required for regular admission. Admission on a provisional basis is sometimes available; however, a provisional admission requires a grade-point average of at least 2.50 during the final two years of undergraduate study.

Teacher certification is also required for admission in some areas. A student wishing to obtain teacher certification may be admitted to a special program in order to obtain a teaching certificate. For additional information, refer to the statement on *TEACHER CERTIFICATION* in the Department of Teacher Education section.

Requirements for the Degree

A tentative program of study for the degree should be prepared prior to the completion of 10 semester credits. No student will be accepted as a candidate for the master's degree unless such a program has been approved by the advisor. Program changes require the approval of the advisor.

For most of the programs offered by the College of Education, the master's degree may be earned on either Plan A (with thesis) or Plan B (without thesis). For Plan A, not more than 8 credits of master's thesis research may count toward the degree.

Students in any master's program in the College of Education may apply a maximum of 12 credits earned through any combination of courses taken through lifelong education, graduate certification, or in transfer from another institution. Each program may determine if courses are appropriate for the master's program and may allow fewer than 12 credits to be applied to the specific master's program.

Academic Standards

If, upon completion of 18 or more graduate credits, the student has not attained a grade-point average of 3.00 or higher, he or she becomes ineligible to continue work toward the master's degree in the college.

Educational Specialist

The Educational Specialist program is designed for persons who wish to achieve, by a planned program of graduate studies, proficiency beyond the level of the master's degree or equivalent but who do not necessarily plan to complete the Doctor of Philosophy degree.

Each candidate for the Educational Specialist degree selects one of the major fields in one of the departments listed below:

Department of Counseling, Educational Psychology
and Special Education
school psychology

If the student is accepted for admission to doctoral study while pursuing the Educational Specialist degree or after completing this degree, credit for studies completed during the program may be applied to the doctoral degree upon recommendation of the student's doctoral guidance committee and approval of the

Dean of the College of Education. However, the program leading to the Educational Specialist degree should not be thought of as a normal stage between the master's degree and the doctorate, but as a program for people who do not plan to complete work for a doctoral degree. There is no assurance that any of the work taken for the Educational Specialist degree will be counted toward the doctorate should the individual be admitted to a doctoral program.

Admission

Admission to the program normally occurs after the completion of the master's degree or equivalent. However, application may be made by those students who are pursuing bachelor's degrees from recognized educational institutions.

A student who has taken comprehensive examinations for a doctor's degree may apply for transfer to the Educational Specialist program only if these examinations have been satisfactorily passed. Other students in good standing who are in the doctoral program but have not taken the comprehensive examinations and wish to apply for transfer to the Educational Specialist program may do so by application and upon the approval of the guidance committee and advisor.

Admission to the program is subject to the general regulations of the university as set forth in the *Graduate Education* section of this catalog and the College of Education. Normally, the application will be processed in a manner similar to that for doctoral students. Scores for the Graduate Record Examination General Test¹ are required at the time the application for admission to an educational specialist program is submitted. This examination must have been taken no longer than five years prior to the application for admission. At the discretion of the department, applicants may be admitted on a provisional basis pending the required Graduate Record Examination (GRE) General Test scores. Students thus admitted on a provisional basis must take the Graduate Record Examination General Test within a specified time period after enrollment in order to be considered for admission to regular status.

The Miller Analogies Test may be substituted for the Graduate Record Examination General Test by students in K-12 Educational Administration.

Requirements for the Degree

The Educational Specialist program consists of two full years (equivalent of 60 semester credits) of graduate study beyond the bachelor's degree. The second fall and spring semester of graduate study normally embraces 30 semester credits of graduate study. When the master's degree or equivalent is earned in an appropriate field and at an approved institution, a minimum equivalent of 30 additional semester credits of study is required for the Educational Specialist degree. At least 10 of the last 30 semester credits that are required for the degree must be completed on the East Lansing campus.

The sequence of studies for each student pursuing the Educational Specialist degree is planned by the designated advisor with the student's guidance committee, following the procedure described for the Doctor of Philosophy degree program in the college. Students must satisfactorily complete a terminal comprehensive examination that is administered in accordance with department policies. Demonstrated competence in statistics or a reading knowledge of a foreign language will be required whenever such competence is judged appropriate to the program by the guidance committee.

Included in the 60 semester credits that are required for the Educational Specialist degree is study in the major area, in other ar-

EDUCATION

Graduate Study

eas of professional education, and in related areas outside of the College of Education. Field work, internship, externship, and similar laboratory-type experiences constitute at least 6 credits of the program.

Academic Standards

Candidates for the Educational Specialist degree must achieve a grade-point average of not less than 3.20 during the last half of the program (the last 30 semester credits).

Transfer Credits

Up to 8 semester credits beyond the master's degree may be transferred from a recognized educational institution upon approval of the student's guidance committee and the Dean of the College of Education.

Time Limit

All requirements must be completed within five calendar years from the time of the student's first enrollment after completing the master's degree. A student who does not take a master's degree is allowed seven years to complete the requirements.

Doctor of Education

The program is designed for educators and other practitioners who have aspirations for improving their own leadership practice, for developing leadership capacity within their organizations and communities, and for making significant contributions to their local communities and to the future of Michigan. Most graduates with this degree will take up system level leadership in various education agencies, including local and regional school districts, state educational agencies, and professional educational associations. Graduates will also be prepared to teach in community colleges and regional universities, or to hold adjunct or clinical positions in research universities, as well as hold other types of educational leadership positions. Graduates of the program with appropriate prior credential and experience qualify for the Michigan Central Office Administrator endorsement.

Admission

Applicants to the Doctor of Education generally have leadership experience in a school and hold a master's degree in education or its equivalent. Students who wish to qualify for the Michigan Central Office Administrator endorsement by completing the Doctor of Education should already hold the School Administrator credential before applying to the program.

Applicants must have a minimum grade-point average of 3.5 in previous graduate work, submit a goal statement, submit three letters of recommendation from persons who are acquainted with the applicant's academic and professional experience, performance, and potential, and submit scores earned on the Graduate Record Examination (GRE).

Faculty members review applications for program admission and look for indications of a high probability of success if admitted. Such indications include a high level of academic performance in prior degrees, levels of reference supporting academic and clinical proficiency, past leadership experiences and evidence of effectiveness, quality of written expression and a statement of professional goals that is consistent with the objectives of the program.

Applicants may be required to participate in an interview and to submit a sample of scholarly or professional writing.

Requirements for the Degree

The Doctor of Education program consists of a minimum of 45 credits of graduate study beyond the master's degree. The program is a three year, summer intensive program. The first year focuses on core knowledge required by educational leaders, policy makers, and researchers and follows a calendar that differs from the regular MSU academic calendar. The second year deepens students core knowledge of leadership and systems operations on the regular MSU semester course schedule. Year three is dedicated to completion of the capstone projects. At least 6 credits that are required for the degree must be earned on the East Lansing campus within a single semester.

Guidance Committee

Each student admitted to the Doctor of Education program will form a guidance committee with the approval and the assistance of the department. The guidance committee will consist of at least four Michigan State University regular faculty at least three of whom, including the committee chairperson, possess an earned doctoral degree.

Academic Standards

Candidates for the Doctor of Education degree must achieve a grade-point average of 3.0. Attainment of the minimum grade-point average is in itself an insufficient indicator of potential for success in other aspects of the program and in the field. The guidance committee and academic unit are jointly responsible for evaluating the student's competency (as indicated by, e.g., grades in core and other courses, research performance, and development of professional skills) and rate of progress (as indicated by, e.g., the number of courses for which grades have been assigned or deferred). Written evaluations shall be communicated to the student at least once a year, and a copy of such evaluations shall be placed in the student's file. A student whose performance does not meet the standards of quality will not be permitted to continue to enroll in the degree program, and appropriate action will be taken by the college or department.

Comprehensive Examinations

When the prescribed course work is substantially complete as defined by the guidance committee, the Doctor of Education student will present a portfolio of leadership performance assessments completed during required course work as the comprehensive examination, to be evaluated by members of the guidance committee. The examination portfolio will be maintained in the department for three years. Students must be registered during the semester(s) in which they present the comprehensive examination portfolio. This requirement may be waived by the Dean of The Graduate School upon request of the chair of the academic unit, if the examination is administered during the summer session immediately following a spring semester during which the student was registered and/or prior to a fall semester in which the student will be registered.

Scheduling, composing, and evaluating the comprehensive examinations is done in accordance with college and department policy. The department or college shall make available to doctoral students upon matriculation a written explanation of comprehensive examination procedures. The comprehensive examination portfolio must be completed and approved before the student is permitted to participate in a group capstone project.

Transfer Credits

Graduate credits may be transferred from other accredited institutions or international institutions of similar quality if they are appropriate to the student's program and provided they were completed within the time limits approved for the earning of the degree desired at Michigan State University. The department chairperson and dean must grant approval. Only graduate-level courses in which at least a 3.0 (B) grade was received will be considered for transfer.

Time Limit

All components of the comprehensive examination portfolio must be approved within four years and all remaining requirements for the degree must be completed within six years from the time when a student begins the first class at Michigan State University that appears on his or her doctoral program of study. Application for extensions of the six-year period of time toward degree must be submitted by the department for approval by the dean of the college and the Dean of The Graduate School. Upon approval of the extension, the Doctor of Education comprehensive examination portfolio must be prepared anew and submitted for evaluation.

Doctor of Philosophy

Doctoral programs in education and kinesiology at Michigan State University are available to students who show promise of becoming outstanding leaders, disciplined in theory development and research, and qualified to provide exemplary leadership in educational programs. Programs in the College of Education are planned to develop mastery of a comprehensive field, to foster creative intelligence in dealing with educational problems, and to encourage a breadth of understanding of related fields. Such doctoral study is necessarily rigorous and exacting.

Each candidate for the Doctor of Philosophy degree selects one of the major fields in one of the academic units listed below:

- College of Education
 - mathematics education
- Department of Counseling, Educational
 - Psychology and Special Education
 - educational psychology and educational technology
 - measurement and quantitative methods
 - rehabilitation counselor education
 - school psychology
 - special education
- Department of Educational Administration
 - education policy
 - higher, adult, and lifelong education
 - K-12 educational administration
- Department of Kinesiology
 - kinesiology
- Department of Teacher Education
 - curriculum, instruction, and teacher education

In addition to meeting the requirements of the University as described in the *Graduate Education* section of this catalog, students must meet the requirements specified below.

Admission

Applicants must have a record acceptable to the college and department. A master's degree in an appropriate subject matter field may be required, but completion of a master's degree is not a guarantee of admission.

Following receipt of the application, all transcripts, required test scores, letters of recommendation, and any other information required by the program, doctoral applicants may be invited to meet

with a faculty committee before a final decision on doctoral admission is reached.

Scores for the Graduate Record Examination General Test are required at the time the application for admission to a doctoral program is submitted. This examination must have been taken no longer than five years prior to the application for admission. At the discretion of the department, applicants may be admitted on a provisional basis pending the required Graduate Record Examination scores. Students who are thus admitted on a provisional basis must take the Graduate Record Examination General Test within a specified time period after enrollment in order to be considered for admission to regular status.

Requirements for the Degree

A program encompassing approximately two full years of study beyond the master's degree is planned with and for each candidate. The concentration of study in the various programs will vary with the candidate's goals, background of study, current status of understanding, and experience.

All doctoral candidates in the college are required to have basic knowledge in at least four of the following areas of general professional education: (1) administration; (2) curriculum; (3) psychological foundations; (4) research and evaluation methods; (5) social, philosophical, and historical foundations; (6) motor development and motor learning; (7) biological foundations; (8) ethical considerations; (9) issues of diversity in education. The specific areas selected shall be determined by the student's guidance committee in consultation with the student.

All doctoral candidates in the college are required to successfully complete a minimum of 9 or more credits focused on research methods approved by their program and a research practicum course of CEP 995 or EAD 995 or KIN 995 or TE 995 for 1 to 3 credits.

The candidate is required to choose a research problem and to report the research in the form of a dissertation. The dissertation is equivalent to 24 semester credits.

The student must pass written comprehensive examinations that are administered in accordance with department and school policies. For some programs these examinations will be under the direction of the appropriate members of the candidate's guidance committee, supplemented by such other faculty members as may be appointed for the purpose by the Dean of the College. For other programs, a common examination is administered at regularly scheduled times.

The candidate will be orally examined upon presentation of the dissertation. The examination will center on the dissertation itself, but will also include examination on relevant basic concepts.

EDUCATION

Master of Arts

The Master of Arts degree in Education is designed for educators who are interested in enhancing their professional practice through online study of advanced professional knowledge related to teaching, learning, and leadership in P-12 schools and postsecondary contexts such as community colleges, universities, community centers, and the workplace.

The primary objective of the master's degree program in education is to help students acquire a breadth of knowledge grounded in theory while gaining expertise in one or more areas of concentration.

A range of relevant courses and experiences can be incorporated into the student's program to satisfy individual needs and interests.

EDUCATION
Graduate Study

The student must select one of the six concentration areas of study within the discipline of education as part of their planned program: Literacy Education, P-12 School and Postsecondary Leadership, Science and Mathematics Education, Special Education, Sport Coaching and Leadership, or Technology and Learning. The online format of the program provides optimum flexibility for students who wish to engage in inquiry and learning that will contribute to exemplary educational practice.

The College of Education has not determined whether the Master of Arts Degree in Education (MAED) online program satisfies licensure, endorsement, or certification requirements in all states. Licensure and certification is regulated individually by states and no two are exactly alike. Some states have different levels of licensure and/or certification requirements. For example, in Michigan, the MAED online program alone does not lead to State of Michigan endorsement or initial teacher certification. Students who wish to use this program for renewal, endorsement, or certification in their home state should contact their bachelor's certification institution or their home state department of education for applicable requirements, rules, and regulations of their home state. Students are responsible for determining whether the MAED online program will meet their home states' requirements for certification, licensure, or otherwise advancing a student's teaching credentials. Contact MSU's Online MAED academic advisor with questions or, for state department of education contact information, please visit www2.ed.gov/about/contacts/state/index.html.

The requirements for the program must be completed within five years. All course work, including potential transfer and previous MSU course work, must be no older than five years at the time of graduation. Once enrolled in Master of Arts degree in Education, only MSU courses delivered fully online will be accepted for use toward the degree requirements. In addition to meeting the requirements of the university and of the College of Education, students must meet all requirements specified below with advisor approval.

Admission

Applications for admission to the Master of Arts in Education are reviewed by College of Education faculty who look for evidence of appropriate preparation for advanced professional study at the master's level and the likelihood of success in the distance learning format. Such evidence includes applicant's prior educational record, work experience in educational settings, and a statement of professional goals that is consistent with the intellectual focus and online format of the program. In this statement, applicants must specify their interest in at least one area of concentration and address their personal and professional strengths that support their ability to engage in online learning.

Requirements for the Master of Arts Degree in Education

The program is available only online and only under Plan B (without thesis). The student must complete a total of 30 credits approved by the MAED academic advisor distributed as follows:

CREDITS

1. Both of the following courses (6 credits):
 ED 800 Concepts of Educational Inquiry 3
 ED 870 Capstone Seminar 3
2. Complete a 3-credit Issues course which must be outside the student's primary concentration area and approved by the MAED academic advisor.
3. Complete one concentration area as approved by the MAED advisor (9-21 credits). Concentrations are available in Literacy Education, P-12 School and Postsecondary Leadership, Science and Mathematics Education, Special Education, Sport Coaching and Leadership, or Technology and Learning.
4. Additional credits in courses approved by the MAED advisor to complete the 30 credit minimum. Students are able to pursue a second concentra-

- tion area with a 9-credit minimum or utilize prior applicable course work at MSU or another institution, pending advisor approval.
- 5. Successful completion and exhibition of an online portfolio.

DEPARTMENT of COUNSELING, EDUCATIONAL PSYCHOLOGY and SPECIAL EDUCATION

Cary J. Roseth, Chairperson

UNDERGRADUATE PROGRAM

The department offers a Bachelor of Arts degree program with a major in special education. This program is designed for students who plan to be certified as both a K-12 special education teacher and an elementary teacher. The program combines **preprofessional** preparation in the learning disabilities area of special education and in elementary education. Upon satisfactory completion of the requirements for the Bachelor of Arts degree with a major in special education, the bachelor's degree is granted. However, in order for Michigan State University to recommend a person for an elementary teaching certificate with an endorsement in special education, that person must also complete the requirements for the Teacher Certification Internship Year Studies program described in the section on *TEACHER CERTIFICATION* in the *Department of Teacher Education* section of this catalog.

Admission

To earn a degree in special education, students must apply and be admitted to the Teacher Certification Program administered by the Department of Teacher Education in the College of Education. Refer to *Admission to the Teacher Certification Program* in the *Department of Teacher Education* section of this catalog.

Information about admission requirements and the application process can be found at <http://education.msu.edu/academics/undergraduate/apply-teacher-prep.asp>.

In addition to general admission requirements, applicants applying for admission to the Teacher Certification Program with a major in special education must also complete one or two supervised pre-admission experiences totaling at least 42 hours in the area of learning disabilities. Prospective special education students are strongly encouraged to talk with special education faculty about the potential value of sites for securing the required experience. Applicants to the special education program must submit a form verifying completion of the experience with the completed application. Only students who have completed the required experience will be considered for admission.

Requirements for the Bachelor of Arts Degree in Special Education

1. The University requirements for bachelor's degrees as described in the Undergraduate Education section of this catalog; 120 credits, including general elective credits, are required for the Bachelor of Arts degree in Special Education.
 The completion of Mathematics 201 referenced in item 2. b. (1) below may also satisfy the University mathematics requirement.

EDUCATION
Department of Counseling, Educational Psychology
and Special Education

The University's Tier II writing requirement for the Special Education major is met by completing Counseling, Educational Psychology and Special Education 301. That course is referenced in item 2. d. below.

CREDITS

2. The following requirements for the major:
- a. **Professional Education Courses** (21 credits):
 All of the following courses with a grade-point average of 2.5 or above with no individual grade below 2.0:
- | | | |
|---------|-----------------------------------------------------------------------|---|
| CEP 240 | Diverse Learners in Multicultural Perspective | 3 |
| TE 150 | Reflections on Learning | 3 |
| TE 301 | Literacy, Learners and Learning in Context
- Elementary (W) | 3 |
| TE 403 | Teaching of Science to Diverse Learners – Elementary | 3 |
| TE 404 | Teaching of Social Studies to Diverse Learners
– Elementary | 3 |
| TE 405 | Teaching of Language and Literacy to Diverse
Learners – Elementary | 3 |
| TE 406 | Teaching of Mathematics to Diverse Learners
– Elementary | 3 |
- b. **Planned Program for Elementary Education for Special Education Majors** (20 to 30 credits):
 All courses are required unless otherwise stated. Some courses below are also required for or applicable to the Elementary Teaching Majors. The Planned Program must total at least 20 credits that are not double-counted with the required teaching major. All candidates for elementary certification must pass each Elementary Planned Program course with a minimum grade of 2.0.
- (1) Both of the following mathematics courses (6 credits):
- | | | |
|---------|----------------------------------------|---|
| MTH 201 | Elementary Mathematics for Teachers I | 3 |
| MTH 202 | Elementary Mathematics for Teachers II | 3 |
- Mathematics 201 and Mathematics 202 are required for the Elementary Mathematics Teaching Major in which case 0 credits count toward the Planned Program. Mathematics 201 and 202 are prerequisites for Teacher Education 406 and must be completed with a minimum grade of 2.0 prior to enrollment in Teacher Education 406.
- (2) The following course in children's literature (3 credits):
- | | | |
|--------|----------------------------------------------------|---|
| TE 348 | Reading and Responding to Children's
Literature | 3 |
|--------|----------------------------------------------------|---|
- Teacher Education 348 is required for the Language Arts Teaching Major in which case 0 credits count toward the Planned Program. Teacher Education 348 is a prerequisite for Teacher Education 405 and must be completed with a minimum grade of 2.0 prior to enrollment in Teacher Education 405.
- (3) One of the following courses on language acquisition and development (3 or 4 credits):
- | | | |
|---------|------------------------------------------|---|
| CSD 333 | Oral Language Development | 3 |
| ENG 302 | Introduction to English Language Studies | 3 |
| LIN 200 | Introduction to Language | 3 |
| LIN 401 | Introduction to Linguistics | 4 |
- Special education majors are encouraged to take Communicative Sciences and Disorders 333, which is also required for the Learning Disabilities area of emphasis. With a grade of at least 2.0, this course may be counted toward both the Planned Program and the Learning Disabilities requirements. Students completing the Language Arts Teaching Major may count one of the other courses toward the major, in which case 0 credits count toward the Planned Program. Communicative Sciences and Disorders 333 can be applied to the Language Arts Teaching Major, in which case 0 credits count toward the Planned Program.
- (4) The following course on science in the elementary schools (3 credits):
- | | | |
|---------|--------------------------------|---|
| ISE 301 | Science for Elementary Schools | 3 |
|---------|--------------------------------|---|
- Integrated Science Education 301 is waived for the Integrated Science Teaching Major. Integrated Science Education 301 is a prerequisite for Teacher Education 403 and must be completed with a minimum grade of 2.0 prior to enrollment in Teacher Education 403.
- (5) The following U.S. History course (4 credits):
- | | | |
|---------|----------------------|---|
| HST 202 | U.S. History to 1876 | 4 |
|---------|----------------------|---|
- History 202 is required for the Social Studies Teaching Major, in which case 0 credits count toward the Planned Program.
- (6) The following geography course (3 credits):
- | | | |
|---------|--------------------------|---|
| GEO 204 | World Regional Geography | 3 |
|---------|--------------------------|---|
- Geography 204 is required for the Social Studies Teaching Major, in which case 0 credits count toward the Planned Program.
- (7) One of the following arts courses (4 credits):
- | | | |
|----------|---------------------------------------------------------------------------------|---|
| IAH 208 | Music and Culture (I) | 4 |
| IAH 209 | Art, the Visual, and Culture (D) | 4 |
| IAH 241A | Creative Arts and Humanities: Music and
Society in the Modern World (D) | 4 |
| IAH 241C | Creative Arts and Humanities: Cultural and
Artistic Traditions of Europe (I) | 4 |
| IAH 241D | Creative Arts and Humanities: Theater
and Society in the West (I) | 4 |
| IAH 241E | Creative Arts and Humanities: The
Creative Process (D) | 4 |

- | | | |
|----------|----------------------------------------------------------------|---|
| IAH 241F | Creative Arts and Humanities: Traditions
in World Art I (I) | 4 |
|----------|----------------------------------------------------------------|---|
- Students may use IAH 208 or 209 to satisfy the IAH 201-210 degree requirement and IAH 241A, 241C, 241D, 241E or 241F to satisfy the IAH 211-241 degree requirement. (4 credits may count toward both the Planned Program and the University's Integrative Studies requirement in Arts and Humanities).
- (8) One of the following creative arts courses (3 credits):
- | | | |
|---------|-------------------------------------------|---|
| MUS 463 | Methods and Materials of Elementary Music | 3 |
| TE 430 | Introduction to Arts in the Classroom | 3 |
| TE 431 | Learning through Drama | 3 |
| TE 432 | Learning through Movement | 3 |
| THR 421 | Creative Dramatics | 3 |
| THR 422 | Children's Theatre | 3 |
- Language Arts Teaching Majors may apply one of these courses to the Language Arts requirements, in which case 0 credits count toward the Planned Program.
- (9) The following health and physical education course (3 credits):
- | | | |
|---------|-------------------------------------------------------------------|---|
| KIN 355 | Physical Activity and Health Education
for Elementary Teachers | 3 |
|---------|-------------------------------------------------------------------|---|
- c. **Subject Matter Teaching Preparation** (36 to 58 credits)
Teaching Major. Four teaching majors (language arts, social studies, integrated science, and mathematics) are available for prospective elementary school teachers. Elementary teacher candidates must choose one of the four teaching majors. These majors, which are housed in the College of Education, provide prospective elementary teachers with the opportunity to focus academic studies in a set of closely allied subject areas that are central to the core curriculum in elementary and middle schools. To enroll in one of these teaching majors, students must be admitted to the College of Education's Elementary Teacher Certification Program.
- (1) Language Arts (36 to 46 credits)
 (2) Social Studies (49 credits)
 (3) Integrated Science (56 to 59 credits)
 (4) Mathematics (32 credits)
- d. **Learning Disabilities Area of Emphasis** (19 credits):
 All of the following courses:
- | | | |
|---------|---------------------------------------------------------------------|---|
| CEP 301 | Literacy Instruction for Students With Mild
Impairments (W) | 3 |
| CEP 449 | Behavior Management in Special Education | 3 |
| CEP 451 | Models of Special Education Administration
and Services | 3 |
| CEP 452 | Universal Design for Learning in the General
Education Classroom | 3 |
| CSD 333 | Oral Language Development | 3 |
| PSY 101 | Introductory Psychology | 4 |

TEACHER CERTIFICATION OPTION

The special education disciplinary major leading to the Bachelor of Arts degree is available for teacher certification. Students with a special education disciplinary major must complete the following pedagogy courses:

Students who are seeking both elementary teacher certification and K-12 endorsement in **Learning Disabilities** satisfy all of the pedagogy course requirements by completing Counseling, Educational Psychology and Special Education 240, 502A, 801A, 802A, 803A, and 804A and Teacher Education 150, 301, 401, 402, and 501. [NOTE: Counseling, Educational Psychology and Special Education 502A, 801A, 802A, 803A, and 804A contain disciplinary content, as well as pedagogical content. Therefore, those courses are also counted toward the requirements for endorsement in the area of learning disabilities.] Students who completed Teacher Education 502, 801, 802, 803, and 804 and who are seeking endorsement in **Learning Disabilities** must complete Counseling, Educational Psychology and Special Education 502A, 801A, 802A, 803A, and 804A.

Students who elect the special education disciplinary major must contact the Department of Counseling, Educational Psychology and Special Education. For additional information, refer to the section on *TEACHER CERTIFICATION* in the *Department of Teacher Education* section of this catalog.

GRADUATE STUDY

The department offers the graduate programs that are listed below:

Graduate Certificates

- applied behavior analysis in special education
- educational psychology
- educational technology
- k12 computer science education
- online teaching and learning

Master of Arts

- applied behavior analysis
- educational technology
- rehabilitation counseling
- special education

Educational Specialist

- school psychology

Doctor of Philosophy

- educational psychology and educational technology
- measurement and quantitative methods
- rehabilitation counselor education
- school psychology
- special education

Descriptions of the graduate programs, organized by fields of study in alphabetical order, are presented below.

Students who are enrolled in the Doctor of Philosophy degree program in Educational Psychology and Educational Technology in the Department of Counseling, Educational Psychology and Special Education may elect a graduate specialization in language and literacy. For additional information, refer to the statement on *Graduate Specialization in Language and Literacy* in the *Department of Teacher Education* section of this catalog.

Students who are enrolled in Master of Arts, Educational Specialist, and Doctor of Philosophy degree programs in the Department of Counseling, Educational Psychology and Special Education may elect specializations in Infancy and Early Childhood. For additional information, refer to the statement on *Interdepartmental Graduate Specializations in Infancy and Early Childhood* in the *College of Social Science* section of this catalog.

APPLIED BEHAVIOR ANALYSIS

The Master of Arts degree in Applied Behavior Analysis is designed for persons who plan to be involved in the delivery of behavioral services and interventions to public consumers. It provides the opportunity to develop in-depth knowledge and applied competence in the delivery of behavior analysis to improve the quality of life of consumers in various service settings.

The degree is relevant for persons interested in pursuing careers in behavior analysis that require the Board Certified Behavior Analyst (BCBA) credential. The program offers graduate-level course work and supervised fieldwork in behavior analysis required by the Behavior Analyst Certification Board (BACB) to sit for the national Board Certification exam, which students complete independently. The program develops knowledge and competencies in the administration of behavior analysis beyond an undergraduate or graduate certificate program. It provides students with skills a BCBA requires, such as strong communication, analytical, and scientist-practitioner skills, as well as interpersonal skills that facilitate collaboration with and leadership of professional groups.

In addition to meeting the requirements of the University and of the College of Education, students must meet the requirements specified below.

Admission

An applicant to the Master of Arts degree in Applied Behavior Analysis must:

1. submit both departmental and university application forms.
2. submit three letters of recommendation from person knowledgeable about the applicant's academic potential to pursue graduate study and competence or potential to deliver applied behavior analysis services.
3. submit a statement of professional goals that clearly describe the applicant's reasons for pursuing the master's degree and the goals that the degree will help them attain.
4. have access to high-speed internet and the appropriate technologies.

Applications are reviewed by faculty who look for indications of a high probability of success. The following factors are significant in determining admission to the Master of Arts degree in Applied Behavior Analysis:

1. A grade-point average of 3.00 or higher in the last two years of undergraduate and all graduate courses.
2. Experience working with children and youth with disabilities in a school or camp or other experience with behavior analysis that is acceptable to the faculty.
3. Professional goals that are consistent with the objectives of the degree program.
4. A test of English language proficiency for students for whom English is not a first language.
5. Submission of Graduate Record Examination (GRE) scores.

Admission to the program is competitive and subject to space availability. Not all students who meet the above requirements will be admitted. A student who, in the judgment of the faculty, has not completed the appropriate course work in exceptional children or behavior management may be required to complete such course work in addition to the requirements below. This collateral course work will not count towards degree requirements. Students will be admitted only during fall semester. Applications must be submitted by March 1st.

Requirements for the Master of Arts Degree in Applied Behavior Analysis

	CREDITS
The program is available under Plan A (with thesis). Students must complete a minimum of 37 credits from the following:	
1. All of the following courses (21 credits):	
CEP 845 Autism Spectrum Disorders: Assessment and Intervention	3
CEP 851 Concepts and Principles of Applied Behavior Analysis	3
CEP 852 Experimental Analysis of Behavior	3
CEP 853 Functional Behavior Assessment and Behavior Change	3
CEP 854 Ethics in Behavior Analysis	3
CEP 855 Verbal Behavior in Education	3
CEP 942 Single-case Experimental Designs for Intervention Research	3
2. Ten credits in the following course to be completed in three enrollments during the student's first year in the program.	
CEP 894F Practicum in Applied Behavior Analysis	10
3. The following course (6 credits):	
CEP 899 Master's Thesis Research	6
4. Complete a written report commensurate with publication requirements in Applied Behavior Analysis.	
5. Successfully defend the thesis before a faculty committee.	

APPLIED BEHAVIOR ANALYSIS IN SPECIAL EDUCATION

Graduate Certificate

The Graduate Certificate in Applied Behavior Analysis in Special Education prepares special educators for roles as behavior analysts in educational settings. Students will prepare to take and pass the national behavior analyst certification examination developed by the Behavior Analyst Certification Board in accordance with governing bodies in behavior analysis. The certificate is available only online.

In addition to meeting the requirements of the University and of the College of Education, students must meet the requirements specified below.

Admission

An applicant for admission to the Graduate Certificate in Applied Behavior Analysis in Special Education must:

1. submit both departmental and university application forms.
2. have a master's degree or be enrolled in a master's degree program at Michigan State University.
3. submit three letters of recommendation from persons knowledgeable about the applicant's academic potential to pursue graduate study and competence or potential to deliver applied behavior analysis or related services.
4. submit a statement of professional goals that clearly describe the applicant's reasons for pursuing the certificate and the goals that the emphasis area will help them attain.
5. have access to high-speed internet and the appropriate technologies.

Applications are reviewed by faculty who look for indications of a high probability of success. The following factors are significant in determining admission to the emphasis area:

1. A grade-point average of 3.00 or higher in the last two years of undergraduate and all graduate courses.
2. Experience working with children and youth with disabilities in a school or camp or other experience with behavior analysis that is acceptable to the faculty.
3. Professional goals that are consistent with the objectives of the emphasis area.
4. A test of English language proficiency for students for whom English is not a first language.

The certificate requires completion of a three- or six-course sequence, depending on an applicant's prior course work in applied behavior analysis. All courses are offered online only. Students are required to have access to high-speed internet and the appropriate technologies. Students transcripts and previous course syllabi will be reviewed by the program coordinator to determine whether a student will follow the three- or six-course sequence. Course selections must be pre-approved by the program coordinator to ensure compliance with the requirements of the Behavior Analysts Certification Board. A student who, in the judgment of the faculty, has not completed appropriate courses in exceptional children or behavior management may be required to complete such courses in addition to the requirements below.

Requirements for the Graduate Certificate in Applied Behavior Analysis in Special Education

CREDITS		
Students must complete three to six courses from the following (9 to 19 credits):		
CEP 844	Applied Behavior Analysis I	3
CEP 845	Autism Spectrum Disorder: Assessment and Intervention	3 or 4
CEP 846	Autism Spectrum Disorders: Advanced Topics	3
CEP 854	Applied Behavior Analysis II	3
CEP 855	Verbal Behavior in Education	3
CEP 942	Single-case Experimental Designs for Intervention Research	3

Students currently enrolled in the Master of Arts Degree in Special Education pursuing an Autism Spectrum Disorder Endorsement will complete CEP 844, 845, and 846 as part of these requirements.

EDUCATIONAL PSYCHOLOGY

Graduate Certificate

The Graduate Certificate in Educational Psychology is designed to provide educators and non-educators with knowledge and perspectives on learning and development. By understanding the psychological processes that underlie learning, as well as the practices that support these processes, the developmental mechanisms that lead to individual differences, and the impact of motivation, participants will gain deeper insight into the needs of developing learners. The certificate is available only online.

Admission

To be considered for admission to the Graduate Certificate in Educational Psychology an applicant must:

1. have completed a bachelor's degree.
2. submit the university application form and fee.
3. Complete the Intent to Enroll form on the program Web site.
4. provide transcripts from all previous institutions of higher education.
5. complete a test of English language proficiency if English is not the first language.

Applications are reviewed by faculty who look for indications of a high probability of success.

Requirements for the Graduate Certificate in Educational Psychology

CREDITS		
Students must complete the following courses (9 credits):		
CEP 800	Psychology of Learning in School and Other Settings	3
CEP 801	Psychological Development: Learner Differences and Commonalities	3
CEP 802	Developing Positive Attitudes toward Learning	3

EDUCATIONAL PSYCHOLOGY AND EDUCATIONAL TECHNOLOGY

Doctor of Philosophy

The doctoral program in educational psychology and educational technology is designed for persons who show promise of becoming scholars and leaders in the study of human learning and development in varied educational settings and the study, creation, and use of diverse technologies supporting learning and teaching. The program places emphasis on rigorous scholarship and formulation of analytic perspectives on learning, development, and technology embedded in culture and society. Graduates of this program will be equipped to pursue careers in university research and teaching, research and development of online learning environments in diverse educational settings and to assume leadership roles in school systems and the private sector.

Doctoral students in educational psychology and educational technology focus their studies in one or both of the following emphasis areas:

Educational Psychology. Students study processes of human learning and development in naturally occurring settings such as homes, classrooms, peer groups, workplaces, and laboratories in order to understand and improve educational practice. Program participants often base their analyses in specific domains, including mathematics, literacy, and science.

EDUCATION

Department of Counseling, Educational Psychology and Special Education

Educational Technology. Students engage in research and development seeking to understand the pedagogy, policy, and design of media and technologies in support of learning, nationally and internationally, in formal environments such as traditional and online classes as well as in informal environments such as homes and after-school programs.

Students who are enrolled in the Doctor of Philosophy degree program in Educational Psychology and Educational Technology in the Department of Counseling, Educational Psychology and Special Education may elect a specialization in language and literacy. For additional information, refer to the statement on *Graduate Specialization in Language and Literacy* in the *Department of Teacher Education* section of this catalog.

In addition to meeting the requirements of the university and the College of Education, students must meet the requirements specified below.

Admission

Persons who hold degrees from a variety of disciplines may apply for admission. The review of applications focuses on previous study and experience, compatibility between academic and professional goals and this doctoral program, and demonstration of potential for successful advanced degree work.

All students admitted to the program begin their studies in fall semester. The deadline for submitting applications is December 1 prior to the year for which admission is sought in order to receive full consideration for financial support. Applications received after this date will be reviewed if space is available in the program.

Requirements for the Doctor of Philosophy Degree in Educational Psychology and Educational Technology

The student must meet the requirements specified below:

	CREDITS
1. Proseminar Sequence.....	6
Both of the following courses:	
CEP 900 Proseminar in Educational Psychology and Educational Technology I.....	3
CEP 901 Proseminar in Educational Psychology and Educational Technology II.....	3
2. Educational Inquiry and Research.....	15
All of the following courses:	
CEP 930 Educational Inquiry.....	3
CEP 932 Quantitative Methods in Educational Research I.....	3
CEP 933 Quantitative Methods in Educational Research II.....	3
CEP 955 Research Design and Methods for Educational Psychology and Educational Technology.....	3
CEP 995 Practicum in Research Design and Data Analysis.....	3
3. Core Courses (12 credits):	
a. One of the following courses (3 credits):	
CEP 911 Intellectual History of Educational Psychology.....	3
CEP 916 Intellectual History of Educational Technology.....	3
b. Three of the following courses (9 credits):	
CEP 902 The Psychology Learning School Subjects.....	3
CEP 903 Cognitive Development Across the Lifespan.....	3
CEP 904 Social-Emotional Development across the Lifespan.....	3
CEP 909 Cognition and Technology.....	3
CEP 910 Motivation and Learning.....	3
CEP 917 Design of Media for Learning.....	3
CEP 953 Teachers and Technology.....	3
CEP 956 Mind, Media, and Learning.....	3
4. Area of Concentration. At least three additional courses in the student's area of concentration. Students are encouraged to include some course work from outside the Department of Counseling, Educational Psychology and Special Education. Emphasis area and concentration courses must provide a coherent program of study approved, in advance, by the student's guidance committee.	
5. Pass a departmental preliminary examination, focused on scholarly writing and the critique of research at the end of the first year of doctoral study.	
6. Satisfactory completion of a research apprenticeship.	
7. Successful completion and defense of the dissertation.	
8. Complete 24 credits of CEP 999 Doctoral Dissertation Research. Students may not earn more than 30 credits in CEP 999 Doctoral Dissertation Research.	

EDUCATIONAL TECHNOLOGY

Graduate Certificate

The Graduate Certificate in Educational Technology is designed to assist current educators in becoming better teachers by utilizing new technologies to improve instructional practice. The introduction of new technology in the classroom will help participants re-think their own practice as teachers, evaluate their own beliefs about what helps students learn, and consider new ideas and perspectives that they might otherwise have overlooked or not encountered.

The scheduling of the certificate program allows flexibility to accommodate both full-time students and working professionals by offering accelerated summer study programs, as well as online and face-to-face courses.

This certificate program has been identified as the first three courses of the Educational Technology NP Endorsement concentration.

This program is not accredited by the *Kentucky Education Professional Standards Board* and is not recognized for initial, additional, or renewal of certification or salary enhancement (rank change) for K-12 educators in Kentucky.

Admission

To be considered for admission into the Graduate Certificate in Educational Technology, applicants must have completed a bachelor's degree. For additional information, refer to the *Admission* section in the *Graduate Education* section of this catalog.

Requirements for the Graduate Certificate in Educational Technology

	CREDITS
Students must complete all of the following courses (9 credits):	
CEP 810 Teaching for Understanding with Technology.....	3
CEP 811 Adapting Innovative Technologies to Education.....	3
CEP 812 Applying Educational Technology to Issues of Practice.....	3

Master of Arts

The Master of Arts degree program in Educational Technology prepares students for the thoughtful use and design of technology in various educational settings. The program draws on current theories of learning and development to understand the role of technology in learning and instruction.

The program is offered in several different formats and allows flexibility to accommodate both full-time students and working professionals by offering accelerated summer study programs, online and hybrid courses.

An Educational Technology (NP) endorsement can be added to either an elementary or secondary certificate by completing the requirements for MSU's Master of Arts degree program in Educational Technology. For more information on the NP endorsement, visit <http://edutech.educ.msu.edu/programs/masters/>.

This program is not accredited by the *Kentucky Education Professional Standards Board* and is not recognized for initial, additional, or renewal of certification or salary enhancement (rank change) for K-12 educators in Kentucky.

Admission

Applications for admission to the program are reviewed by faculty who look for indications of a high probability of success. Such indications include a high level of academic performance, experi-

ence with educational technology, and consistency of professional goals with the objectives of the program.

The applicant is required to submit both departmental and university application forms and three letters of recommendation from professors or employers.

Requirements for the Master of Arts Degree in Educational Technology

The program is available only under Plan B (without thesis). The student must complete a total of 30 credits distributed as follows:

	CREDITS
1. Core Courses. All of the following courses:	9
CEP 800 Psychology of Learning in School and Other Settings	3
CEP 807 Proseminar in Educational Technology.	3
CEP 822 Approaches to Educational Research.	3
2. Completion of a minimum of 21 credits of course work at the 800-level or above as approved by the student's academic advisor. A list of approved courses is available from the Educational Technology Program.	
3. Completion of a final evaluation.	

K12 COMPUTER SCIENCE EDUCATION

The Graduate Certificate in K12 Computer Science Education prepares K12 teachers to teach computational thinking to learners at the elementary and secondary levels. Domains include computational thinking, algorithmic thinking, breaking down complex problems, abstracting and generalizing principles to solve problems, and development of creative thinking. Teachers learn to teach these concepts and skills through culturally relevant pedagogy, attending to how culture and context impact student learning.

Admission

To be considered for admission into the Graduate Certificate in K12 Computer Science Education, applicants must have completed a bachelor's degree with a minimum grade-point average of 3.0.

Requirements for the Graduate Certificate in K12 Computer Science Education

Students must complete 9 credits from the following courses:

	CREDITS
CEP 814 Computational Thinking for K12 Educators	3
CEP 824 Programming Concepts for K12 Educators	3
CEP 833 Creativity in K12 Computing Education	3

MEASUREMENT AND QUANTITATIVE METHODS

Doctor of Philosophy

The doctoral program in measurement and quantitative methods is designed for persons who hope to develop and investigate methods of assessment and quantitative analysis, as well as for individuals who wish to become experts in the application and use of such methods. Graduates may teach courses in educational measurement, statistics, and program evaluation in colleges and universities and are often involved in research on problems of measurement and quantitative methods. Graduates also occupy leadership positions in educational, governmental, and other agencies concerned with educational measurement, statistics, and program evaluation. Students in the program learn to analyze research data and have opportunities to design and execute research studies and to consult on research design, data analysis, and evaluation. Students may develop and evaluate new statistical and psychometric models for use in educational research and behavioral science.

Admission

Applications for admission to the program are reviewed by faculty who look for indications of a high probability of success. Such indications include a high level of academic performance, a high score on the Graduate Record Examination General Test, and a statement of professional goals that is consistent with the objectives of the program. The applicant must submit three letters of recommendation, including at least one letter of recommendation from a professor or employer.

The applicant is required to submit supplemental documents and information as determined by the program, as well as the university application.

Persons are admitted to the program for fall semester only. The deadline for submitting applications is December 1 of each year for admission the following fall semester. If space is available, late applications may be considered.

In addition to meeting the requirements of the university and of the College of Education, students must meet the requirements specified below.

Requirements for the Doctor of Philosophy Degree in Measurement and Quantitative Methods

The student's program plan of course work must fulfill the requirements described below. In addition to completing the required course work, students should participate in measurement and quantitative methods seminars and satisfy the College of Education breadth requirements which require basic knowledge in at least four of the following areas of general professional education: administration; curriculum; psychological foundations; research and evaluation methods; social, philosophical, and historical foundations; motor development and motor learning; biological foundations; ethical considerations; and issues of diversity in education.

	CREDITS
1. Core Courses. All of the following courses (30 to 32 credits):	
CEP 900 Proseminar in Educational Psychology and Educational Technology I	3
CEP 920 Basic Concepts in Educational and Social Science Measurement	3
CEP 921 Psychometric Theory I	3
CEP 923 Item Response Theory	3
CEP 930 Educational Inquiry	3
CEP 932 Quantitative Methods in Educational Research I	3
CEP 933 Quantitative Methods in Educational Research II	3
CEP 934 Multivariate Data Analysis I	4
CEP 935 Advanced Topics in Multivariate Data Analysis II	4
CEP 995 Practicum in Research Design and Data Analysis	1 to 3
2. Concentration Courses.	
a. <i>Measurement Majors:</i>	
The following course:	
CEP 922 Psychometric Theory II	3
b. <i>Quantitative Majors:</i>	
Two of the following courses:	
EC 820A Econometrics IA	3
EC 820B Econometrics IB	3
PPL 802 Quantitative Methods in Public Policy II	3
PPL 803 Quantitative Methods in Public Policy III	3
STT 441 Probability and Statistics I: Probability	3
STT 442 Probability and Statistics II: Statistics	3
STT 861 Theory of Probability and Statistics I	3
STT 862 Theory of Probability and Statistics II	3
3. Cognate Courses:	
a. <i>Measurement Majors:</i>	
Three of the following courses:	
CEP 938 Latent Variable and Structural Equation Modeling	3
CEP 939 Seminar in Educational Measurement	3
CEP 982 Seminar in Counseling, Educational Psychology and Special Education	3
CEP 991B Special Topics in Educational Statistics and Research Design.	4
STT 997 Advanced Topics in Statistics	3
b. <i>Quantitative Majors:</i>	
Three of the following courses:	
CEP 938 Latent Variable and Structural Equation Modeling	4
CEP 982 Seminar in Counseling, Educational Psychology and Special Education	3
CEP 991B Special Topics in Educational Statistics and Research Design.	3
EC 821A Cross Section and Panel Data Econometrics I	3
EC 821B Cross Section and Panel Data Econometrics II	3
STT 802 Statistical Computation	3

EDUCATION

Department of Counseling, Educational Psychology and Special Education

- | | | |
|---------|-------------------------------|---|
| STT 825 | Sample Surveys | 3 |
| STT 997 | Advanced Topics in Statistics | 3 |
4. Successful completion and defense of the dissertation. Students must complete 24 credits of CEP 999 Doctoral Dissertation Research but may not earn more than 30 credits.

ONLINE TEACHING AND LEARNING

Graduate Certificate

The Graduate Certificate in Online Teaching and Learning prepares individuals to design and teach online courses. Students learn to apply the latest theories of learning and pedagogy while acquiring skills with new multimedia and networking tools to create exciting new online learning environments. The schedule of the certificate program allows flexibility to accommodate both full-time students and working professionals.

Requirements for the Graduate Certificate in Online Teaching and Learning

- | | CREDITS |
|---------------------------------------------------------|---------|
| 1. Complete all of the following courses (9 credits): | |
| CEP 813 Electronic Portfolios for Teaching and Learning | 3 |
| CEP 817 Learning Technology through Design | 3 |
| CEP 820 Teaching K-12 Students Online | 3 |

REHABILITATION COUNSELING

Master of Arts

Rehabilitation counseling is a profession devoted to enhancing the quality of life of individuals who have physical, mental, or emotional disabilities. Rehabilitation counselors provide counseling and other coordinated services to such individuals in the public, nonprofit, and private sectors of rehabilitation practice. The master's degree program in rehabilitation counseling emphasizes the philosophy, process, and professional discipline of rehabilitation. The program also emphasizes vocational assessment, vocational placement, and career development for persons with disabilities.

The Master of Arts degree program in rehabilitation counseling has been accredited by the Council on Rehabilitation Education.

Students who are interested in taking the examination to become a Certified Rehabilitation Counselor, or in obtaining State of Michigan licensure as counselors, should consult with an academic advisor to ensure that they complete the required courses.

In addition to meeting the requirements of the university and of the College of Education, students must meet the requirements specified below.

Admission

Consideration is given to the applicant's previous academic and professional experience. There should be in each applicant's background a pattern of experience that supports his or her expressed desire to pursue advanced graduate studies in rehabilitation counseling. Appropriate evidence of such experience should be reflected in the applicant's letters of recommendation. The following are factors significant in determining admission to the program:

1. A bachelor's degree in an appropriate field from a recognized educational institution, with a grade-point average of 3.0 (B) or better in the last two years of undergraduate study;
2. Scores from the Graduate Record Examination General Test if the applicant's grade-point average is less than 3.0;
3. At least two letters of recommendation from professors or employers.

The applicant is required to submit a departmental application form, as well as the university application form. Upon request for admission to the program, the departmental application form is mailed to the applicant with the university application form.

Requirements for the Master of Arts Degree in Rehabilitation Counseling

The program is available only under Plan B (without thesis). The student must complete a total of 48 credits distributed as follows:

- | | CREDITS |
|------------------------------------------------------------------|---------|
| 1. Counseling Core. All of the following courses: | 9 |
| CEP 861 Counseling Theory, Philosophy, and Ethics | 3 |
| CEP 862 Introduction to Individual and Group Counseling | 3 |
| CEP 864 Career Counseling | 3 |
| 2. Rehabilitation Counseling Core. All of the following courses: | 18 |
| CEP 868 Medical Aspects of Disability | 3 |
| CEP 870 Foundations of Rehabilitation Counseling | 3 |
| CEP 871 Cognitive and Psychological Aspects of Disability | 3 |
| CEP 872 Social and Environmental Aspects of Rehabilitation | 3 |
| CEP 873 Employment Strategies for Individuals with Disabilities | 3 |
| CEP 876 Professional Issues in Rehabilitation Counseling | 3 |
| 3. Research and Evaluation. All of the following courses: | 6 |
| CEP 822 Approaches to Educational Research | 3 |
| CEP 877 Assessment in Rehabilitation | 3 |
| 4. Practicum and Internship. Both of the following courses: | 15 |
| CEP 893A Rehabilitation Counseling Internship | 9 |
| CEP 894A Rehabilitation Counseling Practicum | 6 |
- Field placements must be approved by the department.

REHABILITATION COUNSELOR EDUCATION

Doctor of Philosophy

The Doctor of Philosophy degree program with a major in rehabilitation counselor education is designed to prepare individuals for careers as university-level educators and researchers and as consultants. The program is designed to provide the specialized knowledge and skills needed to help individuals with physical, mental, or emotional disabilities to become fully integrated and productive participants of society.

In addition to meeting the requirements of the university and of the College of Education, students must meet the requirements specified below.

Admission

To be admitted to the doctoral program in rehabilitation counseling, a person must have:

1. A grade-point average of 3.3 or higher in master's degree course work in rehabilitation counseling or in a related field.
2. Strong letters of personal and professional recommendation regarding the applicant's academic capability and professional and personal qualifications, as judged by the faculty.
3. Relevant post-master's work experience in rehabilitation counseling, as judged by the faculty.
4. Professional goals and interests that are compatible with the objectives and philosophy of the program, as judged by the faculty.
5. Satisfactory scores on the Graduate Record Examination General Test, as judged by the faculty.

The applicant is required to submit both departmental and university application forms. Persons are admitted to the program only for fall semester. The deadline for submitting applications for admission is **December 1** of each year for admission the following fall semester.

Applicants to the Doctor of Philosophy degree program with a major in rehabilitation counselor education are expected to have completed a master's degree program in rehabilitation counseling accredited by the Council on Rehabilitation Education. Applicants with a master's degree in counseling, psychology, or

another human service field would need to complete the core master's level courses in rehabilitation counseling in addition to the requirements for the degree. Students will be encouraged to enroll in new course content areas that were not addressed in their master's degree programs.

Requirements for the Doctor of Philosophy Degree in Rehabilitation Counselor Education

The student must meet the requirements specified below.

	CREDITS
1. Educational Inquiry and Research. All of the following courses:	17
CEP 930 Educational Inquiry	3
CEP 932 Quantitative Methods in Educational Research I	3
CEP 933 Quantitative Methods in Educational Research II	3
CEP 934 Multivariate Data Analysis I	4
CEP 968 Research Methods in Counseling and School Psychology	3
CEP 995 Practicum in Research Design and Data Analysis	1
2. Ethics and Professional Practice of Counseling. Both of the following courses:	6
CEP 963 Ethics in Counseling and School Psychology	3
CEP 969 Clinical Supervision in Counseling and School Psychology	3
3. Rehabilitation Counseling Proseminars. All of the following courses:	9
CEP 960 Theoretical Foundations of Counseling	3
CEP 964 Practice and Profession of Rehabilitation Counseling	3
CEP 965 Psychosocial Bases of Disability and Rehabilitation	3
4. Professional Preparation Core. All of the following course:	9
CEP 944A Rehabilitation Counselor Pedagogy	3
CEP 944B Teaching Practicum in Rehabilitation Counselor Education	3
CEP 944C Clinical Practice Practicum in Rehabilitation Counseling	3
5. Learning and Development/Diversity. Two of the following courses:	6
CEP 860A Perspectives in Multicultural Counseling	3
CEP 903 Cognitive Development Across the Lifespan	3
CEP 905 Cultural Perspectives on Learning and Development	3
6. Elective Study. Two courses selected with the approval of the student's guidance committee.	
Students who wish to develop additional counseling experience, prior to enrollment in CEP 944C, may enroll in CEP 944D Clinical Supervision Practicum in Rehabilitation Counselor Education, as a 3 credit elective.	
7. Successful completion and defense of the dissertation. Students may not earn more than 30 credits in CEP 999 Doctoral Dissertation Research.	

SCHOOL PSYCHOLOGY

Students interested in pursuing graduate study in school psychology must apply for admission to either the educational specialist or the doctoral program in school psychology. The initial phase of study in either of these programs is integrally related to the Master of Arts in School Psychology, which is available only to students in the Educational Specialist in School Psychology or the Doctor of Philosophy in School Psychology. The first 30 required credits of these respective degree programs fulfill the requirements of the Master of Arts in School Psychology, which students may elect to earn before continuing their course of study in either the educational specialist or the doctor of philosophy degree programs.

Master of Arts

The Master of Arts Degree in School Psychology explores the theoretical, philosophical, and professional discipline of school psychology. This program's requirements are met as an integral part of the educational specialist or doctoral program, with a planned sequence of courses and practica experiences. There is no terminal master's program.

Admission

Students interested in graduate study in school psychology should apply directly to the Educational Specialist or Doctor of Philosophy program in School Psychology. Master of Arts degree program requirements are incorporated into and are met as a part of those programs. Students do not apply separately for admission to the Master of Arts program.

Requirements for the Master of Arts Degree in School Psychology

The program is available only under Plan B (without thesis). The student must complete a total of 30 credits distributed as follows:

1. A minimum of 15 credits in school psychology courses at the 800-level or above.
2. A minimum of 3 credits in child development courses at the 800-level or above.
3. A minimum of 12 credits in courses in areas such as learning and development, or research and evaluation, as approved by the student's guidance committee.
4. Completion of a final examination or evaluation.

Educational Specialist

The Educational Specialist degree program in school psychology is designed for persons who plan to devote their professional careers to school psychological services and who desire to achieve a level of proficiency that will enable them to assume leadership roles. The program consists of a planned sequence of courses, practica, and internship experiences that are complemented by graduate study in educational psychology and supporting disciplines.

In addition to meeting the requirements of the College of Education, students must meet the requirements specified below.

Admission

An individual should have a bachelor's degree in psychology or education or substantial course work in psychology or education to be considered for admission. A person with a master's degree in psychology or a related field may also apply for admission.

To be admitted to the program, a person with a bachelor's, but not a master's, degree must have a minimum grade-point average of 3.0 (B) for the last two years of undergraduate work. A person with a master's degree must have a minimum grade-point average of 3.5 (B+) for prior graduate work. An admissions interview may be required.

Applicants should provide a written statement to the effect that they will be available to serve an internship of 1200 clock hours (30 weeks). For employment in other states, an internship of nine months may be required.

Persons are admitted to the program only for fall semester. The deadline for submitting applications for admission is January 15th for the following fall semester.

Requirements for the Educational Specialist Degree in School Psychology

Students must meet the requirements specified below. Students who hold a Master of Arts degree in School Psychology may already meet some of these requirements.

	CREDITS
1. All of the following courses (33 credits):	
a. School Psychology (24 credits):	
All of the following courses:	
CEP 880 Cognitive Assessment	3
CEP 881 Social and Emotional Assessment and Intervention	3
CEP 883 Psychology of Classroom Discipline	3
CEP 884 Roles and Functions of School Psychologists	3
CEP 885 Behavior Disorders in Children	3
CEP 886 Psychoeducational Assessment and Intervention I	3
CEP 889 Consultation in School Psychology	3
CEP 918 Theories of School-Based Psychological Interventions	3
b. Educational Psychology (9 credits):	
All of the following courses:	
CEP 903 Cognitive Development Across the Lifespan	3
CEP 904 Social-Emotional Development across the Lifespan	3
CEP 932 Quantitative Methods in Educational Research I	3
2. Completion of an educational intervention course addressing design, delivery, and evaluation of psychoeducational interventions for at-risk youth. Course selection must be approved by the student's advisor (3 credits).	

EDUCATION

Department of Counseling, Educational Psychology and Special Education

3. Two enrollments of the following course (6 credits):
CEP 893K Practicum in School Psychology 3
4. Two enrollments of the following course (6 credits):
CEP 894K Internship in School Psychology 3
5. Complete 12 credits of electives as approved in consultation with the student's advisor.

Doctor of Philosophy

The Doctor of Philosophy degree program with a major in School Psychology is designed to equip psychologists with the knowledge, skills, and dispositions necessary to provide quality psychological services to children, youth, and families in multiple settings, as well as to conduct research in related areas. The program includes a planned sequence of course work in school psychology and supporting disciplines, complimented by practica and internship experiences. Students in the program receive the training necessary to become both a certified school psychologist in Michigan, as well as a nationally certified school psychologist. Students are also license-eligible as psychologists, pending completion of state-level licensure requirements.

The Doctor of Philosophy degree in School Psychology is accredited by the Commission on Accreditation of the American Psychological Association (APA) and approved by the National Association of School Psychologists (NASP). The doctoral program is also approved the Michigan Department of Education. Students who are enrolled in the program are expected to abide by the ethical principles of the APA and NASP.

In addition to meeting the requirements of the university and of the College of Education, students must meet the requirements specified below.

Admission

To be admitted to the doctoral program in school psychology, applicants must submit both the university application forms and applicable application fee, and must have:

1. A bachelor's degree in education or psychology, or in a related field. A master's degree or a teaching certificate is not required, but evidence of experience working with children, youth, and families in school, community, agency, or research settings is desirable.
2. A grade-point average of 3.0 or higher in the last two years of the bachelor's degree program.
3. A grade-point average of 3.5 or higher in courses taken at the master's degree level or beyond.
4. Professional goals and interests compatible with the program objectives and philosophy as evident in an applicant's statement of Professional Goals and Experiences, as judged by the faculty.
5. Strong personal recommendations from individuals who are knowledgeable about the applicant's academic performance and ability to work effectively with people, as judged by the faculty.
6. Satisfactory scores on the Graduate Record Examination General Test. This typically means scores in the above average range.
7. Evidence of previous research experience such as a master's thesis or scholarly paper, work on a research project, publication in a professional journal, or presentation at a professional conference.
8. A writing sample.
9. An on-campus, web, or equivalent interview.
10. A completed Criminal Background Statement of Understanding Form.
11. A resume or curriculum vita.

Persons are admitted to the program once a year with enrollment starting fall semester. The deadline for submitting applica-

tions for admission is December 1st for the following fall semester.

Requirements for the Doctor of Philosophy Degree in School Psychology

The student must meet the requirements specified below. Students who hold an Educational Specialist or a Master of Arts degree in School Psychology may already meet some of these requirements. Student's doctoral plans must be approved by faculty and be consistent with the following requirements.

CREDITS

1. **Educational Inquiry and Research.** Complete 16 credits of course work which includes quantitative methods and research design as approved by the student's guidance committee. Students must complete the following course in fulfillment of this requirement:
CEP 995 Practicum in Research Design and Data Analysis 3
2. **Psychological Foundations:** Complete 15 credits of course work which includes history of psychology, development across the lifespan, social aspects of behavior, cognitive aspects of behavior, and biological bases of behavior as approved by the student's guidance committee.
3. **Theoretical Foundations.** Complete 6 credits of course work which includes ethics and psychotherapy as approved by the student's guidance committee.
4. **School Psychology.** Complete 45 credits of course work which includes assessment, intervention, consultation, behavior disorders, theoretical foundations of school psychology, and field based experience as approved by the student's guidance committee.
5. **Family Elective.** Complete 3 credits of course work which includes parenting children with disabilities or family systems as approved by the student's guidance committee.
6. **Internship.** Complete 9 credits in a field-based internship related to school psychology that must extend over a full calendar year and consist of at least 2,000 supervised clock hours of practice.
7. Successful completion and defense of the dissertation. Students may not earn more than 30 credits in CEP 999 Doctoral Dissertation Research, of which 24 credits are required.

SPECIAL EDUCATION

Graduate study in special education leads to the Master of Arts or Doctor of Philosophy degree.

Persons who hold valid State of Michigan teaching certificates in elementary or secondary education and who wish endorsements in special education should refer to the statement on *Other Educational Opportunities for Teachers* in the *Department of Teacher Education* section of this catalog.

Master of Arts

The master's degree program with a major in special education is designed for persons who plan to be involved in the education of students with disabilities. Students who are enrolled in the program must complete *one* of the following areas of emphasis: autism spectrum disorder, or learning disabilities.

In addition to meeting the requirements of the university and of the College of Education, students must meet the requirements specified below.

Admission

An applicant for admission to the master's degree program in special education is required to submit:

1. Both departmental and university application forms.
2. Three letters of recommendation from persons knowledgeable about the applicant's academic potential to pursue graduate study and teaching competence or potential.

A statement of professional goals that clearly describes the applicant's reasons for pursuing a master's degree and the goals that the emphasis area will help the student attain.

Applications are reviewed by faculty who look for indications of a high probability of success. The following factors are significant in determining admission to the program:

1. A grade-point average of 3.0 or higher in the last 60 credit hours attempted of undergraduate and all graduate courses.

2. A valid teaching certificate in elementary or secondary education or eligibility for admission to the teacher certification program.
3. Experience working with children and youth with disabilities (e.g., in a school or camp emphasis area) that is acceptable to the faculty. The experience should be related to the applicant's planned area of emphasis.
4. Professional goals that are consistent with the objectives of the program.
5. A test of English language proficiency for students for whom English is not a first language.

Students who are seeking certification or endorsement through these emphasis areas and who do not have a valid teaching certificate must complete the requirements for teacher certification in elementary or secondary education, in addition to meeting the requirements for the master's degree in special education with an emphasis in autism spectrum disorder, or learning disabilities.

Students who enter the master's degree program with a valid teaching certificate in elementary or secondary education and who desire an additional endorsement in an area of special education also must meet the endorsement requirements for autism spectrum disorder, or learning disabilities.

Requirements for the Master of Arts Degree in Special Education

In addition to a formal evaluation, the student must complete *one* of the following areas of emphasis: autism spectrum disorder, or learning disabilities. The total number of credits required for the Master of Arts in Special Education varies according to the area of emphasis a student selects. The program is available only online and only under Plan B (without thesis).

Autism Spectrum Disorder

Two programs in autism spectrum disorders (ASD) are available; autism spectrum disorder or autism spectrum disorder with an autism spectrum disorder endorsement. All graduate-level courses are offered via a combination of web-based, video conference, and phone/video-phone technologies. Students are required to have access to the appropriate technologies and the internet. A student who, in the judgment of the faculty, has not completed appropriate courses in exceptional children or behavior management may be required to complete such courses in addition to the courses listed below.

Autism Spectrum Disorder - Master of Arts with an Autism Spectrum Disorder Endorsement

Students must complete a minimum of 30 credits if they possess a teaching certificate and an initial endorsement in special education. A student who possesses a teaching certificate and is seeking an initial endorsement in special education will be required to complete an additional 6 credits (3 credits of CEP 840 and 3 credits of CEP 893J) for a total of 36 credits. A student who earned a teaching certificate and endorsement in learning disabilities from Michigan State University can transfer 12 credits of approved course work and complete this program upon the completion of 18 credits.

1. All of the following courses (30 credits):

CEP	801A	Collaboration and Consultation in Special Education . . .	3
CEP	803A	Assessment of Students with Mild Disabilities	3
CEP	841	Classroom and Behavior Management in the Inclusive Classroom	3
CEP	842	Content-Area Instruction for Students with Mild Disabilities	3
CEP	843	Autism Spectrum Disorders: Characteristics and Educational Implications	3
CEP	844	Applied Behavior Analysis.	3
CEP	845	Autism Spectrum Disorders: Assessment and Intervention	3
CEP	846	Autism Spectrum Disorders: Advanced Topics.	3
CEP	850	Technology and Literacy for Students with Mild Disabilities	3
CEP	894J	Special Education Practicum: Children and Youth with Autism Spectrum Disorders	3

Autism Spectrum Disorder - Endorsement only

Students must complete a total of 21 credits. The autism spectrum disorder endorsement only is available to students who already possess a special education endorsement in another disability area. Students who are seeking their initial endorsement in special education in the area of autism spectrum disorder must follow the requirements above under the heading **Autism Spectrum Disorder – Master of Arts with an Autism Spectrum Disorder Endorsement**.

1. All of the following courses (21 credits):

CEP	841	Classroom and Behavior Management in the Inclusive Classroom	3
CEP	843	Autism Spectrum Disorders: Characteristics and Educational Implications	3
CEP	844	Applied Behavior Analysis.	3
CEP	845	Autism Spectrum Disorders: Assessment and Intervention	3
CEP	846	Autism Spectrum Disorders: Advanced Topics.	3
CEP	894J	Special Education Practicum: Children and Youth with Autism Spectrum Disorders	6

Learning Disabilities

Two programs in learning disabilities are available; Master of Arts without a learning disabilities endorsement or a Master of Arts with a learning disabilities endorsement. All graduate-level courses are offered via a combination of web-based, video conference, and phone/video-phone technologies, with the exception of the Special Education Internship, which is required for students who are seeking an endorsement. Students are required to have access to the appropriate technologies and the internet.

Learning Disabilities - Master of Arts

This program is designed for students who already have an endorsement to teach students with learning disabilities or who are seeking a master's degree that will permit them to improve their knowledge of learning difficulties and disabilities. Students who complete these requirements will not receive an endorsement in learning disabilities.

Students must complete 30 credits and may be able to transfer 6 to 12 credits of course work from their post-baccalaureate program into the master's area of emphasis with advisor approval. The course work must meet the area of emphasis, department, college, and university requirements. The student's area of emphasis must be approved by the advisor.

1. All of the following courses (30credits):

CEP	801A	Collaboration and Consultation in Special Education . . .	3
CEP	803A	Assessment of Students with Mild Disabilities	3
CEP	804A	Literacy Instruction for Students with Mild Disabilities. . .	3
CEP	840	Policies, Practices, and Perspectives in Special Education	3
CEP	841	Classroom and Behavior Management in the Inclusive Classroom	3
CEP	842	Content-Area Instruction for Students with Mild Disabilities	3
CEP	844	Applied Behavioral Analysis	3
CEP	850	Technology and Literacy for Students with Mild Disabilities	3
TE	846	Accommodating Differences in Literacy Learners.	3
		Elective in TE or CEPSE	3

Learning Disabilities - Master of Arts with a Learning Disabilities Endorsement

This program is designed for students who are seeking an endorsement in learning disabilities. This may be the first endorsement for a teacher who is certified in elementary or secondary education prior to entering the area of emphasis or it may be a second endorsement for a student who has an endorsement in another special education area.

Students must complete 36 credits. Students who enter the area of emphasis with a teaching certificate in elementary or secondary special education may be able to transfer up to 6 credits of course work from their post-baccalaureate program into the master's area of emphasis with advisor approval. The course work must meet the area of emphasis, department, college, and university requirements. The student's area of emphasis must be approved by the advisor.

Students who enter the area of emphasis with a valid teaching certificate will be recommended for a State of Michigan teaching endorsement in learning disabilities upon completion of these requirements. The student must contact the Department of Education in other states in which they may desire to teach to determine if the endorsement is recognized.

1. All of the following courses (36 credits):

CEP	801A	Collaboration and Consultation in Special Education . . .	3
CEP	803A	Assessment of Students with Mild Disabilities	3
CEP	804A	Literacy Instruction for Students with Mild Disabilities. . .	3
CEP	840	Policies, Practices, and Perspectives in Special Education	3
CEP	841	Classroom and Behavior Management in the Inclusive Classroom	3
CEP	842	Content-Area Instruction for Students with Mild Disabilities	3
CEP	844	Applied Behavioral Analysis	3
CEP	850	Technology and Literacy for Students with Mild Disabilities	3
CEP	893F	Special Education Internship: Teaching Children with Learning Disabilities	3
CEP	894G	Special Education Practicum: Children and Youth with Learning Disabilities	6
TE	846	Accommodating Differences in Literacy Learners.	3

EDUCATION

**Department of Counseling, Educational Psychology
and Special Education**

Doctor of Philosophy

The doctoral program with a major in special education is available to students who show promise of becoming outstanding leaders in the administration of special education programs or in college instruction. Students' programs of study are planned to develop mastery of a comprehensive field, to foster creative approaches to the educational problems of exceptional children, and to encourage a breadth of understanding of related disciplines.

In addition to meeting the requirements of the university and of the College of Education, students must meet the requirements specified below.

Admission

Applications for admission to the program are reviewed by faculty who look for indications of a high probability of success. Such indications include a high level of academic performance, a high score on the Graduate Record Examination General Test, and a statement of professional goals that is consistent with the objectives of the program. The applicant must submit three letters of recommendation including at least one from a professor or employer.

The applicant is required to submit the university application and applicable application fee.

Persons are admitted to the program once a year with enrollment starting fall semester only. The deadline for submitting applications is December 1 of each year for admission the following fall semester. If space is available in the program, late applications will be considered.

**Requirements for the Doctor of Philosophy Degree
in Special Education**

Students must meet the requirements specified below:

1. Research Methodology (21 credits):
 - a. All of the following courses:

CEP 930	Educational Inquiry	3
CEP 932	Quantitative Methods in Educational Research I	3
CEP 933	Quantitative Methods in Educational Research II	3
CEP 942	Single-Case Experimental Designs for Intervention Research	3
CEP 995	Practicum in Research Design and Data Analysis	3
 - b. One of the following courses:

CEP 931	Introduction to Qualitative Methods in Educational Research	3
TE 939A	Special Topics in Advanced Qualitative Methodology	3
TE 939B	Advanced Qualitative Methods: Critical Ethnography	3
TE 939C	Advanced Qualitative Methods: Discourse Analysis	3
TE 939D	Advanced Qualitative Methods: Case Studies	3
TE 939E	Advanced Qualitative Methods: Humanities Oriented Research	3
TE 939F	Advanced Qualitative Methods: Phenomenology	3
TE 939G	Advanced Qualitative Methods: Humanizing Research-Decolonizing Qualitative Inquiry	3
 - c. At least one additional course in research methods.
2. Special Education Core. All of the following courses (15 credits):

CEP 900	Proseminar in Educational Psychology and Educational Technology I	3
CEP 925	Applied Research in Special Education	3
CEP 941	Academic Issues in Special Education for At-Risk Students	3
CEP 943	Multicultural Issues in Special Education	3
CEP 949	Critical Issues in Special Education	3
3. At least 3 courses, totaling 9 credits in an approved cognate area.
4. Successful completion and defense of the dissertation. Students may not earn more than 30 credits in CEP 999 Doctoral Dissertation Research.

**DEPARTMENT of
EDUCATIONAL
ADMINISTRATION**

Marilyn Amey, Chairperson

GRADUATE STUDY

Graduate study in the Department of Educational Administration leads to the Master of Arts, Doctor of Education, or Doctor of Philosophy degree. Each degree represents a different level of understanding and skill. Programs and specific degrees available are:

- Economics of Education:
 - Graduate Specialization
- Educational Leadership:
 - Doctor of Education
- Education Policy:
 - Doctor of Philosophy
- Higher, Adult, and Lifelong Education:
 - Master of Arts
 - Doctor of Philosophy
- K-12 Educational Administration:
 - Master of Arts
 - Doctor of Philosophy
- Student Affairs Administration:
 - Master of Arts
- Teaching and Learning in Postsecondary Education:
 - Graduate Certificate
- Urban Education:
 - Graduate Certificate

Students who are interested in obtaining school administrator or central office administrator certification, either in addition to or apart from earning a graduate degree in a program that is administered by the Department of Educational Administration, should consult with an academic advisor to ensure that they complete the required courses.

Students seeking Graduate Certificates in Teaching and Learning in Postsecondary Education or Urban Education must consult with the certificate coordinator to ensure that they complete an approved program of study.

**GRADUATE SPECIALIZATION IN ECONOMICS OF
EDUCATION**

The Graduate Specialization in Economics of Education, which is administered by the College of Education, is designed to provide students with advanced statistical training and understanding of the application of these methods to key educational topics, with particular emphasis on use of economic methods and theories.

The specialization is available as an elective to students who are enrolled in doctoral degree programs at Michigan State University. With the approval of the department and college that administers the student's degree program, the courses that are used to satisfy the specialization may also be used to satisfy the requirements for the doctoral degree. The students program of study must be approved by the advisor for the specialization.

Requirements for the Graduate Specialization in Economics of Education

CREDITS

Students must complete the following with a 3.5 grade-point average in courses across the specialization (18 credits):

1. Both of the following courses with a grade of 3.0 or higher in each course: (6 credits):
 - EC 820A Econometrics IA 3
 - EC 820B Econometrics IB 3
2. One additional 3-credit graduate-level advanced statistics or econometrics course as determined by the student's guidance committee.
3. One of the following courses (3 credits):
 - AFRE 805 Microeconomic Analysis 3
 - EC 812A Microeconomics I 3
4. Both of the following courses (6 credits):
 - EAD 948 Advanced Economics of Education 3
 - EAD 949 Advanced Seminar in Education Policy 3
5. Complete a substantial research paper on a topic in the economics of education as approved by the student's guidance committee.

EDUCATIONAL LEADERSHIP

Doctor of Education

The innovative Doctor of Education in Educational Leadership (Ed.D.) aims to achieve high levels of quality and relevance in the preparation of executive educational leaders. In addition, the program seeks to engage faculty and students in the broader Michigan community with the intention of working collaboratively toward effective schools, vital communities, and a re-invigorated state. It is a specialized program in advanced educational leadership practice and is tailored to the needs and interests of targeted students. The program has multiple goals: promoting continuous improvement of schools systems in order to best serve all students; guiding assessment of the politics and policy contexts of schooling; providing opportunities and training for civic engagement with professional and community partners in order to deliberate issues of mutual concern democratically; and engaging in rigorous collaborative research through implementation and evaluation of a creative community action project or through a project designed in consultation with a client organization.

The program is designed for educators and other practitioners who have aspirations for improving their own leadership practice, for developing leadership capacity within their organizations and communities, and for making significant contributions to their local communities and to the future of Michigan. Most graduates with this degree will pursue system-level leadership in various education agencies, including local and regional school districts, state educational agencies, and professional educational associations. Graduates will also be prepared to teach in community colleges and regional universities, or to hold adjunct or clinical positions in research universities, or other types of educational leadership positions. Graduates of the program with appropriate prior credentials and experience will qualify for the Michigan Central Office Administrator endorsement.

The program consists of a minimum of 45 credits of graduate study beyond the master's degree. In addition to meeting the requirements of the College of Education, students must meet the requirements specified below.

Admission

Applicants to the Doctor of Education degree in Educational Leadership should have leadership experience in a school and hold a master's degree in education or its equivalent. Students who wish to qualify for the Michigan Central Office Administrator

endorsement by completing the Doctor of Education degree in Educational Leadership should already hold the School Administrator credential before applying to the program.

Applicants must:

1. submit a goal statement.
2. submit three letters of recommendation from persons who are acquainted with the applicant's academic and professional experience, performance, and potential.
3. submit scores earned on the Graduate Record Examination (GRE).

Applicants may be required to participate in an interview and to submit a sample of scholarly or professional writing.

Requirements for the Doctor of Education Degree in Educational Leadership

CREDITS

1. All of the following core courses (18 credits):
 - EAD 920 Political Economy of Schooling 3
 - EAD 921 Educational Leadership and Transformation 3
 - EAD 922 Analyzing Education Systems 3
 - EAD 923 Organizing for Learning 3
 - EAD 926 School Finance and Operations 3
 - EAD 927 Enacting Systemic Improvement 3
2. All of the following inquiry and research courses (18 credits):
 - EAD 924 Data and Decisions 3
 - EAD 929 Collaborative Inquiry 3
 - EAD 981A Capstone I 4
 - EAD 981B Capstone II 4
 - EAD 982A Capstone Seminar I 2
 - EAD 982B Capstone Seminar II 2
3. Both of the following courses (9 credits):
 - EAD 980 Engaged Educational Leadership 6
 - EAD 990 Independent Study 3
4. Completion of the comprehensive examination portfolio.

EDUCATION POLICY

Doctor of Philosophy

The Doctor of Philosophy in Education Policy is designed for persons who show promise of becoming scholars and leaders in state, national, and international policy communities. The program prepares scholars and leaders to understand, evaluate, and implement education policy analysis in universities, research organizations, government agencies, philanthropies and other institutions in the public and private sectors. Students will have opportunities to develop analytical perspectives on current issues in educational policy and to investigate how these issues shape organizations, practice and learning. Students will acquire an understanding of different contexts for educational-policy formation. They will master the skills essential for policy research and analysis.

In addition to meeting the requirements of the university and the College of Education, students must meet the requirements specified below.

Admission

Persons who hold bachelor's or master's degrees from a variety of disciplines may apply for admission to this doctoral program. Applicants with limited backgrounds in education or the underlying policy disciplines of political science, sociology, history, and economics, may be required to complete collateral work that will *not* count toward the degree requirements.

The review of applications focuses on previous study and experience, compatibility between academic and professional goals and this doctoral program, and demonstration of potential for successful advanced degree work.

Requirements for the Doctor of Philosophy Degree in Education Policy

Students must complete the requirements specified below:

	CREDITS
1. Education Policy Core. All of the following courses:	12
EAD 942 Economics of Education	3
EAD 943 Politics of Education	3
EAD 944 Social Context of Education	3
EAD 947 Comparative International Education Policy	3
2. Education Inquiry and Research.	
a. All of the following courses:	10 to 12
CEP 930 Educational Inquiry	3
EAD 946A Regression Analysis for Education Policy	3
EAD 946B Econometric Analysis for Education Policy	3
EAD 995 Research Practicum in Educational Administration	1 to 3
b. One 3-credit qualitative research methods course.	
c. One 3-credit advanced research methods course.	
3. Concentration in Education Policy	12
Four courses in disciplinary or policy studies selected to provide the student with competence in a specialized area of research, including at least 3 credits of EAD 949 Advanced Seminar in Education Policy.	
4. Dissertation	24
Successful completion of 24 credits of Doctoral Dissertation Research. Students may not earn more than 30 credits in Doctoral Dissertation Research.	

HIGHER, ADULT and LIFELONG EDUCATION

Master of Arts

The master's degree program in higher, adult and lifelong education is designed for persons who are preparing for careers in post-secondary education, public and nonprofit agencies, or business and industry. The program focuses on the broad study of issues, institutions, and practices in the field with emphasis on instruction, program development, and program management.

In addition to meeting the requirements of the university and of the College of Education, students must meet the requirements specified below.

Admission

The applicant must submit three letters of recommendation from persons who are acquainted with the applicant's academic and employment experiences and potential.

Requirements for the Master of Arts Degree in Higher, Adult and Lifelong Education

The program is available only under Plan B (without thesis). The student must complete 30 credits distributed as follows:

	CREDITS
1. Both of the following courses:	6
EAD 840 Inquiry in Postsecondary Education	3
EAD 868 Proseminar in Higher and Adult Education	3
2. Three of the following courses:	9
EAD 801 Leadership and Organizational Development	3
EAD 805 Administration in Higher Education	3
EAD 860 Concept of a Learning Society	3
EAD 861 Adult Learning	3
EAD 866 Teaching in Postsecondary Education	3
EAD 870 Foundations of Postsecondary Education	3
EAD 876 Budgeting and Finance in Higher Education	3
EAD 877 Program Planning and Evaluation in Postsecondary Contexts	3
3. Fifteen additional credits of which 9 credits must be in Educational Administration courses within the Higher, Adult and Lifelong Education program.	
4. Pass a final certifying examination.	

Doctor of Philosophy

The doctoral program in higher, adult, and lifelong education is designed for individuals pursuing careers as administrators, researchers, professors, or policymakers in the field. The program emphasizes the complex and multifaceted nature of post-second-

ary education in the United States and other nations. By studying the diversity of contexts, structures, practices, and participants, students in the program should gain a broad, comparative perspective on the interrelated systems that influence the provision of post-secondary education in modern societies. The program is designed to assist students to distill from these perspectives a meaningful professional agenda and to acquire the skills and knowledge needed to carry this agenda forward.

The program is based on the belief that practitioners in the field of higher, adult, and lifelong education must (1) be knowledgeable about current practices, trends, and issues and (2) be able to advance the current boundaries of professional knowledge.

In addition to meeting the requirements of the university and of the College of Education, students must meet the requirements specified below.

Admission

The applicant must submit three letters of recommendation from persons who are acquainted with the applicant's academic and professional experience, performance, and potential. Applicants may be required to participate in an interview and to submit a sample of scholarly writing.

Requirements for the Doctor of Philosophy Degree in Higher, Adult, and Lifelong Education

	CREDITS
1. Educational Inquiry and Research.	
a. The following course:	
CEP 930 Educational Inquiry	3
b. A graduate level course in quantitative methods approved by the student's guidance committee.	
c. A graduate level course in advanced qualitative methods approved by the student's guidance committee.	
d. A research practicum to be taken after the student has completed the courses referenced in items 1.a., 1.b., and 1. c. above:	
EAD 995 Research Practicum in Educational Administration	3
2. Core Courses. All of the following courses:	
EAD 960 Proseminar in Postsecondary Education	3
EAD 966 Students in Postsecondary Education	3
EAD 967 Policy Development and Analysis in Postsecondary Education	3
EAD 968 Teaching, Learning and Curriculum in Postsecondary Education	3
EAD 970 Organization and Administration in Postsecondary Education	3
3. Additional Educational Administration Courses.	
Eighteen <i>additional</i> credits in 800-level Educational Administration courses or above which deal with issues of postsecondary education.	
4. Successful completion and defense of the dissertation. Students must complete 24 credits but may not earn more than 30 credits in EAD 999 Doctoral Dissertation Research.	

K-12 EDUCATIONAL ADMINISTRATION

The graduate degree programs in K-12 educational administration are designed to prepare persons for leadership positions in elementary and secondary education in the United States and other nations.

Master of Arts

The master's degree program in K-12 educational administration is designed to prepare individuals for administrative positions in schools and school districts. The program is open to classroom teachers and noneducators who are interested in the practice or teaching of educational administration.

In addition to meeting the requirements of the university and of the College of Education, students must meet the requirements specified below.

Requirements for the Master of Arts Degree in K–12 Educational Administration

The program is available only under Plan B (without thesis). The student must complete 30 credits and meet the requirements specified below, which must be approved by the student's academic advisor.

	CREDITS
1. A core of selective experiences that builds on four critical leadership capacities: (1) vision building, interpersonal and political skills; (2) organizational analysis and operation; (3) research and inquiry and (4) engagement with families and communities. In addition, the core experience will include field-based leadership internships	24
2. A minimum of 6 credits in an area of emphasis focused on professional interest	6
3. Pass a final certifying examination.	

Doctor of Philosophy

The doctoral degree program in K–12 educational administration is designed to prepare persons who will become administrators in K–12 school systems; administrators, educators, or researchers in institutions of higher education; or policy analysts or policy makers in a variety of agencies concerned with K–12 education.

Perspectives on K–12 educational administration, study of topics of enduring concern to educational administrators, clinical experiences, and applied research are integral aspects of this doctoral program.

In addition to meeting the requirements of the university and of the College of Education, students must meet the requirements specified below.

Admission

Applications for admission to the program are reviewed by faculty who look for indications of a high probability of success within the program. Such indications include a high level of academic performance at the bachelor's and master's levels, evidence of leadership in education, and a statement of professional goals that is consistent with the objectives and resources of the program. Applicants must submit a writing sample.

Requirements for the Doctor of Philosophy Degree in K–12 Educational Administration

Students must meet the requirements specified below.

1. Educational Inquiry and Research:	
a. The following courses:	
CEP 930 Educational Inquiry	3
CEP 932 Quantitative Methods in Educational Research I	3
b. One of the following courses:	
CEP 933 Quantitative Methods in Educational Research II	3
A 900-level course in advanced qualitative methods approved by the student's guidance committee.	
c. A research practicum to be taken after the student has completed the courses referenced in items 1.a. and 1.b. above:	
EAD 995 Research Practicum in Educational Administration	1 to 3
2. K–12 Educational Administration:	
a. One of the following courses:	
EAD 990 Independent Study	3
EAD 994 Laboratory and Field Experience in Educational Administration	3
b. At least 12 credits in other K–12 educational administration courses approved by the student's guidance committee.	
3. Concentration Course work. Students must complete a minimum of 9 credits of course work that builds expertise in an area related to their doctoral research. These courses should be organized around a specific theme, must be selected with an advisor's guidance, and must be approved by the student's guidance committee. These courses may be taken inside or outside the Department of Educational Administration.	
4. Successful completion and defense of the dissertation. Students may not earn more than 30 credits in EAD 999 Doctoral Dissertation Research.	

STUDENT AFFAIRS ADMINISTRATION

Master of Arts

The master's degree program in student affairs administration is designed for persons who plan to be employed in this field within institutions of higher education. The program is designed to enable students to achieve an understanding of educational administration, higher education, and student affairs administration. Course work in the major integrates theory and practice. Courses can be chosen to reflect a student's interest in administration and leadership, teaching and learning, or adult development, and to build skills in academic advisement, training and development, communications, or counseling.

In addition to meeting the requirements of the university and of the College of Education, students must meet the requirements specified below.

Admission

Applicants must submit a written statement of their volunteer experiences and interests that are related to the field of student affairs administration. The three required letters of recommendation must be from persons who are acquainted with the applicant's (1) academic and employment performance and (2) potential for graduate work and professional administration in higher education. Applicants must be available for an interview.

Requirements for the Master of Arts Degree in Student Affairs Administration

The program is available only under Plan B (without thesis). The student must complete 40 credits distributed as follows:

	CREDITS
1. All of the following courses:	25
EAD 805 Administration in Higher Education	3
EAD 870 Foundations of Postsecondary Education	3
EAD 871 Collegiate Contexts for Teaching and Learning	3
EAD 873 The College Student Experience	3
EAD 874 Student Affairs in Collegiate Settings I	3
EAD 875 Student Affairs in Collegiate Settings II	3
EAD 889 Research and Assessment in Student Affairs	3
EAD 893 Professional Development Seminar in Student Affairs	4
2. Two or three courses selected from EAD course offerings approved by the student's academic advisor	6 to 9
3. Two or three additional courses in such areas as academic advisement, training and development, communications, and counseling approved by the student's academic advisor.	6 to 9

GRADUATE CERTIFICATE IN TEACHING AND LEARNING IN POSTSECONDARY EDUCATION

The Graduate Certificate in Teaching and Learning in Postsecondary Education is a professional development program designed to assist current educators and practitioners from a variety of professional settings and disciplines who seek to enhance their understanding of teaching and learning issues for adult learners. The flexible schedule of the graduate certificate program accommodates both full-time students and working professionals. The certificate is available only online.

Admission

To be considered for admission students must possess a 3.0 grade-point average in the final two years of undergraduate study. Students will submit a personal statement indicating their interest in the program and how it fits within their professional goals. Applicants whose grade-point average is below 3.0 during the final two years of undergraduate study may be considered for admission to the program on a provisional basis.

Requirements for the Graduate Certificate in Teaching and Learning in Postsecondary Education

	CREDITS
Students must complete the following (9 credits):	
1. The following course (3 credits):	
EAD 861 Adult Learning	3
2. At least two of the following courses (6 credits):	
EAD 860 Concept of a Learning Society	3
EAD 863 Training and Professional Development	3
EAD 866 Teaching in Postsecondary Education	3
EAD 871 Collegiate Contexts for Teaching and Learning	3
EAD 877 Program Planning and Evaluation in Postsecondary Contexts	3
EAD 878 Education in the Digital Age	3

GRADUATE CERTIFICATE IN URBAN EDUCATION

The Graduate Certificate in Urban Education, which is administered by the Department of Educational Administration in the College of Education, is designed for students who aspire to understand and focus on issues involving urban education including the racial academic achievement gap; allocation of resources for urban schools; contexts of social, cultural, and economic differences; and the possibilities of transforming the ways in which urban school children learn to be active and engaged participants in their communities.

The certificate is available as an elective to students who are enrolled in master's or doctoral degree programs with approval from the urban education faculty. Students must meet the requirements of the certificate specified below, in addition to the requirements for the student's primary degree program.

Requirements for the Graduate Certificate in Urban Education

	CREDITS
Students must complete the following (12 credits):	
1. The following course (3 credits):	
EAD 901 Urban Education: An Historical Overview	3
2. Three of the following courses (9 credits):	
CEP 943 Multicultural Issues in Special Education	3
EAD 822 Engaging Diverse Students and Families	3
EAD 830 Issues in Urban Education: Racial Achievement Gap	3
EAD 926 School Finance and Operations	3
EAD 940 Organizational Analysis of Education	3
TE 961 Urban Politics, Education, and School Reform	3
TE 962 Teachers and Teaching in Urban Contexts	3
TE 963 Critical Race Theory in Education	3
3. Students must complete a research paper on a topic in urban education which may focus on issues related to policy, curriculum, leadership or counseling as they pertain to understanding problems and strengths in urban schools. The research paper topic must be pre-approved by the urban education faculty and completed while enrolled in one of the courses listed above.	

DEPARTMENT of KINESIOLOGY

Alan L. Smith, Chairperson

UNDERGRADUATE PROGRAM

The department offers Bachelor of Science degree majors in Kinesiology and in Athletic Training with an emphasis on relationships between physical activity in human beings and various sciences. Students will gain an understanding of the development, interpretation, application, and dissemination of knowledge that relates physical activity to human well-being.

ATHLETIC TRAINING

The major in athletic training prepares students to work with athletes, physicians, and coaches to ensure the health care and well-being of the competitive and recreational athlete. The Michigan State University athletic training major blends clinical and academic learning experiences. Students will gain knowledge and skills in evaluation and the treatment and rehabilitation of athletic injuries and will be prepared to organize and manage athletic training programs. The Michigan State University student majoring in athletic training is exposed to state-of-the-art philosophies, equipment, and research.

A student in this major will complete a two-year athletic training curriculum while working in a variety of clinical settings. These settings include on-campus rotations within the athletic department, high schools, and various clinics. Through clinical education, the student will encounter experiences requiring immediate decision-making, physician consultation, injury evaluations, and communications with coaches, student-athletes, and approved clinical instructors. Students who complete this major will be eligible to take the Board of Certification (BOC) examination.

The Bachelor of Science degree in Athletic Training is designed to prepare students for job opportunities in collegiate, professional, clinical, high school, and industrial settings. Students who graduate from this program may enter professional physical therapy programs, medical programs, or graduate studies in kinesiology. The degree is accredited by the Commission on Accreditation of Athletic Training (CAATE).

Admission

Admission to the athletic training major is competitive and requires completion of at least 31 credits. A limited number of students are admitted. The deadline for application to the major is February 1. The decision regarding admission to the major is based on the following criteria:

- Submission of the following: (a) an application to the major in athletic training; (b) an essay expressing reasons for selecting the field of athletic training; and (c) three letters of personal reference.
- Completion of the following prerequisite courses with a grade-point average of 2.5 in these courses:

KIN 125	First Aid and Personal Safety	3
KIN 126	Introduction to Athletic Training	3
KIN 127	Taping and Bracing in Athletic Training	1
KIN 227	Observations and Introduction to Clinical Skills in Athletic Training	2
KIN 228	Clinical Rotation and Skills: Introduction in Athletic Training	1
KIN 320	Pathology of Sports Injury	3
- A minimum grade of 2.00 in each of the following courses: Chemistry 141, Kinesiology 216, Mathematics 103, Kinesiology 251, and Physiology 250.
- University grade-point average of 2.5 or above.
- Interview with the Michigan State University Athletic Training Admissions Board.
- Space availability in the formal clinical curriculum sites.

Requirements for the Bachelor of Science Degree in Athletic Training

- The University requirements for Bachelor's degrees as described in the *Undergraduate Education* section of this catalog; 120 credits, including general elective credits, are required for the Bachelor of Science degree in Athletic Training. Students enrolled in the Athletic Training major leading to the Bachelor of Science degree in the Department of Kinesiology may complete an alternative track to Integrative Studies in Biological and Physical Sciences that consists of the following courses: Chemistry 141 and 161, Kinesiology 251, and Physiology 250. The completion of Chemistry 161, and Kinesiology 251 satisfies the laboratory requirement. Chemistry

141 and 161, Kinesiology 251, and Physiology 250 may be counted toward both the alternative track and the requirements for the major referenced in item 2. a. below.

The University's Tier II writing requirement for the Athletic Training major is met by completing Kinesiology 345. That course is referenced in item 2. b. below.

CREDITS

2. The following requirements for the major:
 - a. All of the following with a minimum grade of 2.0 in each course: 18

CEM 141	General Chemistry	4
KIN 216	Applied Human Anatomy	3
KIN 251	Principles of Human Movement	4
MTH 103	College Algebra	3
PSL 250	Introductory Physiology	4
 - b. All of the following courses with a minimum grade-point average of 2.0: 40

KIN 121	The Healthy Lifestyle	3
KIN 125	First Aid and Personal Safety	3
KIN 126	Introduction to Athletic Training	3
KIN 127	Taping and Bracing in Athletic Training	1
KIN 173	Foundations of Kinesiology	3
KIN 217	Applied Human Anatomy Laboratory	1
KIN 227	Observations and Introduction to Clinical Skills in Athletic Training	2
KIN 228	Clinical Rotation and Skills: Introduction in Athletic Training	1
KIN 250	Measurement in Kinesiology	3
KIN 310	Physiological Bases of Physical Activity	3
KIN 320	Pathology of Sports Injury	3
KIN 330	Biomechanics of Physical Activity	3
KIN 345	Sport and Exercise Psychology (W)	3
KIN 360	Physical Growth and Motor Behavior	3
KIN 411	Laboratory Experiences in Exercise Physiology	2
KIN 465	Adapted Physical Activity	3
 - c. The following course: 1

CEM 161	Chemistry Laboratory I	1
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 - d. All of the following courses with a minimum grade-point average of 2.0: 15

KIN 421	Lower Body Injury Evaluation	3
KIN 422	Rehabilitation of Athletic Injuries	3
KIN 423	Therapeutic Modalities	3
KIN 425	Organization and Administration of Athletic Training	3
KIN 426	Upper Body Injury Evaluation	3
 - e. One 3-credit, 400-level course in the Department of Kinesiology as approved by the Director of Athletic Training.
 - f. Successful completion of the final clinical rotation, with a minimum grade of 2.0 in the following: 4

KIN 427	Clinical Rotations in Athletic Training	4
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 - g. A candidate must meet a minimum clinical evaluation score as required by the program director based on performance in clinical rotation experiences and competency.
 - h. Meet professional standards as designated by the department.

KINESIOLOGY

The major in kinesiology places emphasis on the attainment of disciplinary knowledge in the anatomical, biomechanical, developmental, physiological, and neurological aspects of physical activity, explores how physical activity relates to human well-being, and offers an area of emphasis in exercise science.

The bachelor's degree program in kinesiology is designed to prepare students to enter a variety of fields associated with sport, exercise science, and allied health services. Students who graduate from this program often enter professional exercise science programs or graduate studies in kinesiology.

Admission

Admission to the major requires completion of at least 28 credits acceptable to the College with a cumulative university grade-point average of 2.0 or above and a minimum grade of 2.0 in each of the following courses: Chemistry 141, Kinesiology 216, Kinesiology 251, Mathematics 103, and Physiology 250.

Requirements for the Bachelor of Science Degree in Kinesiology

1. The University requirements for bachelor's degrees as described in the *Undergraduate Education* section of this catalog; 120 credits, including general elective credits, are required for the Bachelor of Science degree in Kinesiology.

Students enrolled in the Kinesiology major leading to the Bachelor of Science degree in the Department of Kinesiology may complete an alternative track to Integrative Studies in Biological and Physical Sciences that consists of the following courses:

Chemistry 141 and 161, Kinesiology 251, and Physiology 250. The completion of Chemistry 161, and Kinesiology 251 satisfies the laboratory requirement. Chemistry 141 and 161, Kinesiology 251, and Physiology 250 may be counted toward both the alternative track and the requirements for the major referenced in item 2.a. below.

The University's Tier II writing requirement for the Kinesiology major is met by completing Kinesiology 345 or 445. Those courses are referenced in item 2.d. below.

CREDITS

2. The following requirements for the major:
 - a. All of the following with a minimum grade of 2.0 in each course: 18

CEM 141	General Chemistry	4
KIN 216	Applied Human Anatomy	3
MTH 103	College Algebra	3
KIN 251	Principles of Human Movement	4
PSL 250	Introductory Physiology	4
 - b. All of the following courses with a minimum grade-point average of 2.0: 18

KIN 121	The Healthy Lifestyle	3
KIN 173	Foundations of Kinesiology	3
KIN 250	Measurement in Kinesiology	3
KIN 310	Physiological Bases of Physical Activity	3
KIN 330	Biomechanics Physical Activity	3
KIN 360	Physical Growth and Motor Behavior	3
 - c. The following course: 1

CEM 161	Chemistry Laboratory I	1
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 - d. One of the following courses: 3

KIN 345	Sport and Exercise Psychology (W)	3
KIN 445	Sport and Physical Activity in Society (W)	3
 - e. Completion of an approved cognate in kinesiology (a minimum of 12 credits): 12

An internship experience approved by the Kinesiology Internship Coordinator from one of the following courses: 3 to 6

KIN 492	Internship: Non-Physiologically Based	3 to 6
KIN 493	Internship: Physiologically Based	3 to 6

MINOR IN COACHING

The Minor in Coaching is designed to provide students with knowledge, skills, and experiences that will enable them to coach effectively and safely in school, community–youth, and adult sports programs.

The educational objectives of the Minor in Coaching are for students to acquire:

1. Knowledge and understanding of the growth and development of athletes.
2. Knowledge and understanding of the medical, legal, psychological, social, biological, physical, theoretical, and technical aspects of coaching.
3. Practical experience in coaching.

With the approval of the department and college that administer the student's degree program, courses that are used to satisfy the requirements for the minor may also be used to satisfy the requirements for the bachelor's degree.

Requirements for the Minor in Coaching

CREDITS

- The student must complete:
1. All of the following courses (17 credits):

KIN 173	Foundations of Kinesiology	3
KIN 345	Sport and Exercise Psychology (W)	3
KIN 360	Physical Growth and Motor Behavior	3
KIN 400	Principles of Coaching I	4
KIN 401	Principles of Coaching II	4
 2. One of the following courses (3 credits):

ANTR 350	Human Gross Anatomy for Pre-Health Professionals	3
KIN 216	Applied Human Anatomy	3
 3. One of the following courses (2 credits):

KIN 300A	Coaching Baseball	2
KIN 300C	Coaching Soccer	2
KIN 300D	Coaching Basketball	2
KIN 300E	Coaching Football	2
KIN 402	Coaching for Strength, Conditioning and Fitness	2
KIN 490	Independent Study	2
KIN 494	Fieldwork	2

To be counted toward the requirements for the Minor in Coaching, the content of Kinesiology 490 must focus on coaching. An academic advisor in the Department of Kinesiology must approve in writing the content of this course before the student enrolls in the course.

4. **Cardiopulmonary Resuscitation (CPR) and First Aid Certification.** Students must obtain these two certifications through a reputable source for CPR and first aid. Reputable sources include but are not limited to the American Red Cross, American Heart Association, and the National Safety Council. The certification must be current at the time of

EDUCATION
Department of Kinesiology

the student's date of graduation. These certifications involve additional costs to the student.

MINOR IN HEALTH PROMOTION

The Minor in Health Promotion is designed to assist students in understanding health issues that will serve as a basis for personal and professional growth and positive lifestyle changes. The minor, which is multidisciplinary, is administered by the Department of Kinesiology.

With the approval of the department and college that administer the student's degree program, courses that are used to satisfy the requirements for the minor may also be used to satisfy the requirements for the bachelor's degree.

Requirements for the Minor in Health Promotion

	CREDITS
The student must complete:	18
1. All of the following courses (9 credits):	
HNF 150 Introduction to Human Nutrition	3
KIN 121 The Healthy Lifestyle	3
PSY 320 Health Psychology	3
2. At least 9 credits from the following courses:	
ANP 270 Women and Health: Anthropological and International Perspectives	3
ANP 370 Culture, Health, and Illness	3
CEP 260 Dynamics of Personal Adjustment	3
CEP 261 Substance Abuse	3
EEM 260 World Food, Population and Poverty	3
EPI 390 Disease in Society: Introduction to Epidemiology and Public Health	4
GEO 435 Geography of Health and Disease	3
HDFS 225 Lifespan Human Development in the Family	3
HDFS 444 Interpersonal Relationships in the Family	3
HDFS 445 Human Sexuality	3
HM 101 Introduction to Public Health	3
HNF 102 Dietary Supplements: Evidence vs. Hype	3
HNF 310 Nutrition in Medicine for Pre-Health Professionals	3
HNF 385 Public Health Nutrition	3
HNF 406 Global Foods and Culture	3
HNF 415 Global Nutrition	3
HNF 457 Sports and Cardiovascular Nutrition	3
PHL 344 Ethical Issues in Health Care	4
PHL 453 Ethical Issues in Global Public Health	3
PSY 333 The Neurobiology of Food Intake and Overeating	3
SOC 475 Health and Society	3

GRADUATE STUDY

The department offers programs in kinesiology leading to the Master of Science and Doctor of Philosophy degrees and programs in sport coaching and leadership leading to a Graduate Certificate and a Master of Science degree.

Students who are enrolled in Master of Science and Doctor of Philosophy degree programs in the Department of Kinesiology may elect specializations in Infancy and Early Childhood. For additional information, refer to the statement on *Interdepartmental Graduate Specializations in Infancy and Early Childhood* in the *College of Social Science* section of this catalog.

KINESIOLOGY

Graduate study in kinesiology provides opportunities for students to specialize in areas leading to the Master of Science and Doctor of Philosophy degrees. The programs are designed to prepare individuals for professional positions as educators, researchers, and consultants in a variety of sports, health, and educational contexts. Collaborative course work, laboratory and field experiences, clinical placements, and research are available with other departments and schools both at Michigan State University and at other universities, as well as with various community agencies.

Master of Science

The primary objective of the master's degree program in kinesiology is to help students to acquire a breadth of knowledge grounded in theory, to gain expertise in one or more areas of specialization, and to develop competence in methods of inquiry. The program follows the guidelines that were adopted by the National Association for Sport and Physical Education (NASPE).

A range of relevant courses and experiences can be incorporated into the student's program to satisfy individual needs and interests.

Eight major areas of study within the discipline of kinesiology are available to master's students:

- Athletic Training
- Coaching
- Cognitive and Motor Neuroscience
- Exercise Physiology
- Psychosocial Aspects of Sport and Physical Activity
- Sport Administration
- Strength and Conditioning
- Student Athlete Development

For each student, one of these eight areas of study is designated as the concentration.

In addition to meeting the requirements of the university and of the College of Education, students must meet the requirements specified below.

Admission

To be considered for admission into the master's program, applicants must have completed an undergraduate degree. Factors considered in admissions decisions include (a) clarity of applicant's professional goals; (b) relationship between the program and the applicant's goals; (c) previous academic experience and performance as indicated by transcripts from previous degrees including a competitive cumulative grade-point average of 3.0 or higher on a 4.0 scale; (d) competitive scores on the Graduate Record Examination (and Test of English as a Foreign Language for international students); (e) three letters of recommendation.

Requirements for the Master of Science Degree in Kinesiology

Breadth requirement. Students who have *not* completed an undergraduate degree in kinesiology (or similarly named program such as physical education or exercise science) must complete a minimum of 6 credits of Kinesiology courses representing at least two of nine different disciplinary areas (adapted physical activity, athletic training, biomechanics, coaching, exercise physiology, growth and motor development, psychosocial aspects of sport and physical activity, sport administration, student athlete development) outside of the student's major area/concentration, as approved by the student's guidance committee. Credits earned in 200 or 300 level courses may be used to fulfill the breadth requirement, but will not count toward the master's degree.

The program is available under both Plan A (with thesis) and Plan B (without thesis). Students must complete 30 credits and meet the requirements specified below:

	CREDITS
Requirements for Plan A and Plan B:	18
1. Required core course (3 credits):	
KIN 871 Research Methods in Kinesiology	3
2. A minimum of 9 credits of kinesiology graduate level courses in the student's concentration as approved by the student's guidance committee.	
Additional Requirements for Plan A:	12
1. Both of the following courses (9 credits):	
One additional research methods course at the 400–900 level approved by the student's guidance committee (3 credits).	
KIN 899 Master's Thesis Research	6

2. Additional credits in courses approved by the student's guidance committee (3 credits).
- Additional Requirements for Plan B:** 12
1. Additional credits in courses approved by the student's guidance committee (12 credits). One of the following courses is recommended:
 - KIN 893 Internship in Kinesiology 4 to 6
 - KIN 897 Project in Kinesiology 4
 2. Final certifying examination.
 - Students who complete Kinesiology 893 or 897 are required to pass an *oral* certifying examination.
 - Students who do *not* complete Kinesiology 893 or 897 are required to pass a **written** certifying examination.

SPORT COACHING AND LEADERSHIP

The Master of Science degree in Sport Coaching and Leadership provides opportunities for students to develop expertise in learning and using scientific knowledge and best practices related to coaching and developing athletes and leading sports programs at the intercollegiate, interscholastic, community sports, and university levels. It facilitates interdisciplinary knowledge in various issues related to coaching across the lifespan. Practical experiences are available at high schools, within the university athletic department, and in other sports-related organizations and agencies.

Admission

To be considered for admission to the Master of Science degree in Sport Coaching and Leadership students must:

1. have completed a bachelor's degree in the United States or its equivalent from an accredited institution.
2. have a minimum 3.0 grade-point average.
3. submit one letter of recommendation from a current colleague or supervisor.
4. submit a statement of professional goals that clearly describe the applicant's reasons for pursuing the master's degree and the goals that the degree will help them attain.

Upon acceptance, students must submit evidence of current CPR, first-aid, and blood borne pathogen training and maintain such certification throughout their enrollment in the program.

Applications are reviewed by faculty who look for indications of high probability of success. Factors that are significant in determining admission are:

1. A grade-point average of 3.0 or higher.
2. Professional goals that are consistent with the objectives of the master's program.
3. Evidence of a philosophical understanding of developmentally appropriate sport experiences.

Requirements for the Master of Science Degree in Sport Coaching and Leadership

The program is available only under Plan B (without thesis). The student must complete 30 credits distributed as follows:

- | | CREDITS |
|----------------------------------------------------------------------------------|---------|
| 1. All of the following courses (30 credits): | |
| KIN 829 Safety and Injury Control | 3 |
| KIN 854 Legal and Administrative Issues for Administrators and Coaches | 3 |
| KIN 855 Psychosocial Bases of Coaching Athletes | 3 |
| KIN 856 Physical Bases of Coaching Athletes | 3 |
| KIN 857 Promoting Positive Youth Development through Sport | 3 |
| KIN 865 Stages of Athlete Development | 3 |
| KIN 868 Skill Development in Athletes | 3 |
| KIN 872 Coaching Science: Applied Research | 3 |
| KIN 880 Sport Leadership Practicum | 3 |
| KIN 896 Integrative Capstone in Sport Coaching and Leadership | 3 |
| 2. Completion of a final examination or evaluation. | |

GRADUATE CERTIFICATE IN SPORT COACHING AND LEADERSHIP

The Graduate Certificate in Sport Coaching and Leadership provides opportunities for students to develop expertise in learning and using scientific knowledge and best practices related to coaching and developing athletes and leading sports programs at the intercollegiate, interscholastic, and community sports levels. It facilitates interdisciplinary knowledge in various issues related to coaching across the lifespan. The certificate is available only online.

Admission

To be considered for admission to the Graduate Certificate in Sport Coaching and Leadership students must:

1. have completed a bachelor's degree.
2. complete the Intent to Enroll form if you are currently enrolled in a graduate degree program at Michigan State University.

Students who are not enrolled at Michigan State University must:

1. submit a university application and application fee.
2. provide transcripts from all previous institutions of higher education.
3. submit one letter of recommendation from a current colleague or supervisor.
4. submit a statement of professional goals that clearly describe the applicant's reasons for pursuing the certificate and the goals that the certificate will help them attain.
5. a test of English language proficiency for students for whom English is not a first language.

Upon acceptance, students must submit evidence of current CPR, first-aid, and blood borne pathogen training and maintain such certification throughout their enrollment in the program.

Applications are reviewed by faculty who look for indications of high probability of success. Factors that are significant in determining admission are:

1. A grade-point average of 3.0 or higher in the last two years of all undergraduate and graduate course work.
2. Professional goals that are consistent with the objectives of the graduate certificate.
3. Evidence of a philosophical understanding of developmentally appropriate sport experiences.

Requirements for the Graduate Certificate in Sport Coaching and Leadership

CREDITS

Students must complete 9 credits from the following courses:

1. One of the following courses for the Psychosocial Competency (3 credits):
 - KIN 855 Psychosocial Bases of Coaching Athletes 3
 - KIN 857 Promoting Positive Youth Development through Sport . . . 3
 - KIN 865 Stages of Athlete Development 3
2. One of the following courses for the Physical Competency (3 credits):
 - KIN 856 Physical Bases of Coaching Athletes 3
 - KIN 868 Skill Development in Athletes 3
3. One of the following courses for the Legal/Safety Competency (3 credits):
 - KIN 829 Safety and Injury Control 3
 - KIN 854 Legal and Administrative Issues 3

Doctor of Philosophy

The primary objective of the doctoral degree program in kinesiology is to develop scholars who are competent in teaching, conducting research, and serving in leadership roles in various educational, governmental, public, or private agencies. In addition to developing expertise in an area of specialization, students must be able to interpret and integrate information from related academic disciplines. Individualized programs of study may be developed, taking into consideration students' academic needs and professional goals.

Four major areas of study within the discipline of kinesiology are available to doctoral students:

- Athletic Training
- Cognitive and Motor Neuroscience
- Exercise Physiology
- Psychosocial Aspects of Sport and Physical Activity

For each student, one of these four areas of study is designated as the concentration.

While enrolled in the doctoral degree program in kinesiology, students are expected to present at least one paper at a professional meeting.

In addition to meeting the requirements of the university and of the College of Education, students must meet the requirements specified below.

Admission

Ordinarily, to be considered for admission into the doctoral program, a master's degree is required; however, in cases of exceptional scholarly promise, a student may enter the doctoral program following the completion of the undergraduate degree. Factors considered in admissions decisions include (a) clarity of applicant's goals and research interests; (b) relationship between the program and the applicant's goals and research interests; (c) previous academic experience and performance as indicated by transcripts from previous degrees (a competitive cumulative grade-point average of 3.0 or higher on a 4.0 scale); (d) competitive scores on the Graduate Record Examination (and TOEFL for international students); (e) evidence of research competence such as a master's thesis, senior research project, or other research experience; and (f) three letters of recommendation. An interview with a committee of faculty members is strongly recommended.

Requirements for the Doctor of Philosophy Degree in Kinesiology

Breadth requirement. Students who have completed a previous degree in kinesiology, or similarly named program such as physical education or exercise science, must complete a minimum of 6 credits of kinesiology courses at the 800-900 level outside of the student's major area/concentration. Students who have not completed a previous degree in kinesiology must complete a minimum of 9 credits of kinesiology courses at the 800-900 level representing at least two different disciplinary areas (adapted physical activity, athletic training, biomechanics, exercise physiology, growth and motor development, psychosocial aspects of sport and physical activity) outside of the student's major area/concentration. Courses used to satisfy the breadth requirement must be approved by the student's guidance committee. Courses that are used to satisfy the requirements referenced in the area below titled **Educational Inquiry and Research** may not be used to satisfy this requirement.

The student must complete a minimum of 60 credits and meet the requirements specified below:

1. Educational Inquiry and Research.

CREDITS

- a. The following course:
KIN 995 Research Practicum in Kinesiology. 1 to 3
- b. Complete 9 credits of 800-900 level research methods courses approved by the student's guidance committee.
2. Area of Concentration.
A minimum of four courses at the 800–900 level totaling at least 12 credits in one of the six major areas of study referenced above. At least 6 of the 12 credits must be in Kinesiology courses. Courses in the student's concentration must be approved by the student's guidance committee. Courses that are used to satisfy the requirements referenced in item 1. above may not be used to satisfy this requirement.
3. Related Studies.
A cognate that consists of a minimum of three courses at the 400–900 level totaling 9 credits. All 9 of the credits must be in courses outside the Department of Kinesiology and must be related to the student's concentration. Both the cognate and the related courses must be approved by the student's guidance committee.
4. Successful completion of the research practicum.
5. Successful completion and defense of the dissertation. The dissertation must be in the student's concentration. Students may not earn more than 30 credits in KIN 999 Doctoral Dissertation Research.
6. Teaching.
Competency in teaching the subject matter of the student's concentration to undergraduate students or to an outreach audience, as judged by the student's guidance committee. This requirement may be met as part of a graduate teaching assistantship assignment.

DEPARTMENT of TEACHER EDUCATION

Margaret S. Crocco, Chairperson

UNDERGRADUATE PROGRAM

The Department of Teacher Education offers a Bachelor of Arts degree program with a major in education. This program is a preprofessional program that is designed for students who plan to teach in elementary schools. Students in the program work toward certification as elementary teachers. Upon satisfactory completion of the requirements for the Bachelor of Arts degree with a major in Education, the bachelor's degree is granted. However, in order for Michigan State University to recommend a person for a teaching certificate, that person must also complete the requirements for the Teacher Certification Internship Year Studies Program described in the section on **TEACHER CERTIFICATION** below.

Students who plan to teach in secondary schools should refer to the section on "MSU Subject Matter Teaching Majors for Secondary Teacher Certification" in the section on **TEACHER CERTIFICATION** below.

Students who wish to obtain a special education endorsement in learning disabilities on an elementary teaching certificate should see the *Counseling, Educational Psychology, and Special Education* section of this catalog for information about majoring in Special Education. These students must be admitted to the Elementary Teacher Certification Program and complete the Planned Program for Elementary Education and one of the required elementary teaching majors in addition to other requirements.

Students who wish to obtain an early childhood endorsement on an elementary teaching certificate should see the *Human Development and Family Studies* section of this catalog for information about majoring in Child Development. These students must be admitted to the Elementary Teacher Certification Program and complete the Planned Program for Elementary Education and one of the required elementary teaching majors in addition to other requirements.

Admission to the Major

To earn a Bachelor of Arts Degree in Education, students must apply and be admitted to the Teacher Certification Program administered by the Department of Teacher Education in the College of Education (refer to *Admission to the Teacher Certification Program* under *Teacher Certification* in the *Department of Teacher Education* section of this catalog). Information about admission requirements and the application process can be found at <http://education.msu.edu/academics/undergraduate/apply-teacher-prep.asp>.

Requirements for the Bachelor of Arts Degree in Education

1. The University requirements for bachelor's degrees as described in the *Undergraduate Education* section of this catalog; 120 credits, including general elective credits, are required for the Bachelor of Arts degree in education.

The completion of Integrative Studies in Arts and Humanities 208, 209, 241A, 241C, 241D, 241E, or 241F referenced in item 2. b. (7) below may also satisfy the University's elective requirement in Integrative Studies in Arts and Humanities.

Students who are admitted to the Elementary Teacher Certification Program and who choose to complete the requirements for the Integrated Science Teaching Major may complete an alternate track to Integrative Studies in Biological and Physical Sciences that consists of Biological Science 161 and 171 and Chemistry 141, all of which are required courses in the Integrated Science Teaching Major.

The completion of Mathematics 201 referenced in item 2. b. (1) below may also satisfy the University Mathematics requirement.

The University's Tier II writing requirement for the Education major is met by completing Teacher Education 301 and 404. Those courses are referenced in item 2. a. (1) below.

2. The following requirements for the major:

	CREDITS
a. Professional Education Courses:	21
(1) All of the following courses (21 credits):	
TE 150 Reflections on Learning	3
TE 250 Human Diversity, Power, and Opportunity in Social Institutions	3
TE 301 Literacy, Learners, and Learning in Context - Elementary (W)	3
TE 403 Teaching of Science to Diverse Learners - Elementary	3
TE 404 Teaching of Social Studies to Diverse Learners - Elementary	3
TE 405 Teaching of Language and Literacy to Diverse Learners - Elementary	3
TE 406 Teaching of Mathematics to Diverse Learners - Elementary	3
b. Planned Program for Elementary Education:	20 to 30
(1) Both of the following mathematics courses (6 credits):	
MTH 201 Elementary Mathematics for Teachers I	3
MTH 202 Elementary Mathematics for Teachers II	3
The completion of Mathematics 201 may also satisfy the university mathematics requirements. These courses are required for the Elementary Mathematics Teaching Major in which case 0 credits count toward the Planned Program. Mathematics 201 and 202 are a prerequisite for Teacher Education 406 and must be completed with a minimum grade of 2.0 prior to enrollment in Teacher Education 406.	
(2) The following course in children's literature (3 credits):	
TE 348 Reading and Responding to Children's Literature	3
This course is required for the Language Arts Teaching Major in which case 0 credits count toward the Planned Program. Teacher Education 348 is a prerequisite for Teacher Education 405 and must be completed with a minimum grade of 2.0 prior to enrollment in Teacher Education 405.	
(3) One of the following language acquisition and development courses (3 or 4 credits):	
CEP 345 Language and Literacy Development and Disorders	3
CSD 333 Oral Language Development	3
ENG 302 Introduction to English Language Studies	3
LIN 200 Introduction to Language	3
LIN 401 Introduction to Linguistics	4
Language Arts Elementary Teaching Majors may count one of the above courses toward the major, in which case 0 credits count toward the Planned Program.	
(4) The following science in elementary schools course (3 credits):	
ISE 301 Science for Elementary Schools	3
This course is waived for students pursuing the Integrated Science Teaching Major. Integrated Science Education 301 is a prerequisite for Teacher Education 403 and must be completed with a minimum grade of 2.0 prior to enrollment in Teacher Education 403.	
(5) The following U.S. history course (4 credits):	

HST 202 U.S. History to 1876	4
This course is required for the Social Studies Teaching Major in which case 0 credits count toward the Planned Program.	
(6) The following geography course (3 credits):	
GEO 204 World Regional Geography	3
This course is required for the Social Studies Teaching Major in which case 0 credits count toward the Planned Program.	
(7) One of the following arts courses (4 credits):	
IAH 208 Music and Culture (I)	4
IAH 209 Art, the Visual, and Culture (D)	4
IAH 241A Creative Arts and Humanities: Music and Society in the Modern World (D)	4
IAH 241C Creative Arts and Humanities: Cultural and Artistic Traditions of Europe (I)	4
IAH 241D Creative Arts and Humanities: Theater and Society in the West (I)	4
IAH 241E Creative Arts and Humanities: The Creative Process (D)	4
IAH 241F Creative Arts and Humanities: Traditions in World Art (I)	4
Students may use Integrative Arts and Humanities 208 or 209 to satisfy the IAH "A" component and Integrative Arts and Humanities 241A, 241C, 241D, 241E or 241F to satisfy the IAH "B" component of the University's Integrative Studies requirement in Arts and Humanities. (4 credits may count toward both the Planned Program and the University's Integrative Studies requirement in Arts and Humanities).	
(8) One of the following creative arts courses (3 credits):	
MUS 463 Methods and Materials of Elementary Music	3
TE 430 Introduction to Arts in the Classroom	3
TE 431 Learning Through Drama	3
TE 432 Learning Through Movement	3
THR 421 Creative Dramatics	3
THR 422 Children's Theatre	3
Language Arts Teaching Majors may apply one of these courses to the Language Arts requirements, in which case 0 credits count toward the Planned Program.	
(9) The following health and physical education course (3 credits):	
KIN 355 Physical Activity and Health Education for Elementary Teachers	3

c. Subject Matter Teaching Preparation

Teaching Major. Four teaching majors (language arts, social studies, integrated science, and mathematics) are available for prospective elementary school teachers. Elementary teacher candidates must choose one of the four teaching majors. These majors, which are housed in the College of Education, provide prospective elementary teachers with the opportunity to focus academic studies in a set of closely allied subject areas that are central to the core curriculum in elementary and middle schools. To enroll in one of these teaching majors, students must be admitted to the College of Education's Elementary Teacher Certification Program.

(a) Language Arts	36 to 46
(b) Social Studies	49
(c) Integrated Science	56 to 59
(d) Mathematics	32

For the four teaching majors, refer to the section "MSU Subject Matter Teaching Majors for Teacher Preparation and Certification": (a) MSU Teaching Majors for Elementary Teacher Certification" in the section on *TEACHER CERTIFICATION* below.

Disciplinary Teaching Minors (41 to 50 credits):
Students may elect to complete one or more optional disciplinary teaching minor(s), in addition to the required teaching major. The following disciplinary teaching minors are available for prospective elementary school teachers.

Arabic	20
Chinese	24
Computer Science	22 or 23
English	21 to 23
French	21
German	23
History	23 to 26
Japanese	24
Mathematics-Elementary	20
Russian	23
Spanish-Elementary	24
Teaching English to Speakers of Other Languages	20 to 25

For requirements for the disciplinary teaching minors, refer to the section "Requirements for the Disciplinary Teaching Minors Listed Above" in the section on *TEACHER CERTIFICATION* below.

One Disciplinary Major. Students wishing to complete one or more of the following optional disciplinary teaching majors, in addition to the required teaching major, should refer to *Teacher Certification Options* in the catalog sections for the colleges, departments, and schools that administer disciplinary majors that are available for teacher certification.

- College of Arts and Letters:
- Arabic
 - Chinese
 - French

German
Japanese
Spanish
College of Social Science:
History Education

TEACHER CERTIFICATION

ADMISSION TO THE TEACHER CERTIFICATION PROGRAM

Information about current admission requirements and the admission application process can be found at <http://education.msu.edu/academics/undergraduate/>. MSU undergraduates generally apply during the first semester of the sophomore year, although they may apply later.

To be considered for admission to the Teacher Certification Program, an applicant must:

1. Have earned a minimum of 28 credits.
2. Have earned a cumulative grade point average of at least 2.5.
3. Have successfully completed any required developmental course work.
4. Have disclosed any prior convictions or civil infractions and provided required court documents as necessary.
5. Have passed all portions of the Michigan Test for Teacher Certification (MTTC) Professional Readiness Examination (PRE) or meet established criteria using approved alternative pass measures.
6. Have completed all aspects of the application process before the published deadline.

In addition to general admission requirements, applicants applying for admission to the Teacher Certification Program with a major in Special Education must also complete one or two supervised pre-admission experiences, totaling at least 42 hours, with children or youth who have special needs. Prospective Special Education students are encouraged to talk with Special Education faculty about the relative merits of various sites for securing the required experience. Applicants to the Special Education program must submit forms verifying completion of the experience along with a complete admission application (see <http://education.msu.edu/academics/undergraduate/>). Only students who have completed the required experience will be considered for admission to the Special Education major.

Persons who already hold baccalaureate degrees from Michigan State University or other recognized institutions of higher learning are required to follow the process for Post-Bachelors students (see <http://education.msu.edu/certification/postba/post-bachelor-application.asp>). Contact the College of Education Student Affairs Office for more information.

Persons are selected for admission based on a holistic evaluation of criteria that include, but are not limited to, cumulative grade point average, test results, and dispositions for teaching.

REQUIREMENTS FOR TEACHER CERTIFICATION

Disciplinary Course Requirements and Pedagogy Course Requirements

For some majors, disciplinary courses in addition to, or in lieu of, the courses that are required for the bachelor's degree in the disciplinary major are required for teacher certification. Furthermore, for some disciplines, pedagogy courses in addition to, or in lieu of, the following courses are required for teacher certification: Teacher Education 150, 301, 403, 404, 405, 406, 501, 502, 801,

802, 803, and 804; Teacher Education 250 or Counseling, Educational Psychology and Special Education 240.

For additional information concerning disciplinary course requirements and pedagogy course requirements, refer to teacher certification options in the catalog sections for the colleges, departments, and schools that administer disciplinary majors that are available for teacher certification.

General–Liberal Education Requirements

The State of Michigan requires applicants for provisional certification to have completed at least 40 semester credits in a program of general or liberal education, which is designed to ensure that teachers understand the substance, concepts, and methods of the principal areas of human knowledge, and possess the skills essential to communication and inquiry in modern society. The courses used to fulfill the university's Integrative Studies and Tier I writing requirements will count for 30 of the 40 credits required in general-liberal education.

Observation and Field Experience Requirements

Included in the requirements for teacher certification are courses that involve observations and field experiences in schools. Students are responsible for their transportation to and from observations and field experiences as well as any associated costs (e.g. transportation).

Teacher Certification Internship Year Studies Program

Persons may gain access to the Teacher Certification Internship Year Studies Program as follows:

1. **Elementary Teacher Certification:**
 - a. Students who complete the requirements for the bachelor's degree with a major in child development, education, or special education along with the teaching major, Planned Program for Elementary Education and all elementary program requirements are thereby qualified to pursue the Internship Year Studies Program.
 - b. Michigan State University students who were admitted to the Teacher Certification Program with a disciplinary major other than those referenced in item 1. a. above, who complete the requirements for a bachelor's degree at Michigan State University, and who complete the requirements for teacher certification referenced in items 2. and 3. a. (1) through (3) in the section "Prerequisites for Admission to the Internship Year Studies Program" below are thereby qualified to pursue the Internship Year Studies Program.
 - c. Students who complete the requirements for a bachelor's degree at another educational institution, or who complete the requirements for a bachelor's degree at Michigan State University without having been admitted to the Teacher Certification Program, must meet the requirements referenced in the section "Prerequisites for Admission to the Internship Year Studies Program" below in order to be considered for admission to that program.

Students who plan to direct preschool programs must, and students who plan to teach children under five years of age should, meet the requirements for the Bachelor of Arts degree with a major in Child Development (teacher certification emphasis) and meet the requirements referenced in items 3. a. (1) through (3) in the section "Prerequisites for Admission to the Internship Year Studies Program" below in order to be considered for admission to the Internship Year Studies Pro-

gram. Students who plan to teach kindergarten or early elementary grades may gain access to the Internship Year Studies Program via any one of the three alternatives referenced in item 1. above.

2. **Secondary Teacher Certification:**

- a. Michigan State University students who were admitted to the Teacher Certification Program with a disciplinary major other than those referenced in item 1. a. above and those referenced in items 3. a. and b. below, who complete the requirements for a bachelor's degree at Michigan State University, and who complete the requirements for teacher certification referenced in items 2. and 3. b. (1) through (3) in the section on "Prerequisites for Admission to the Internship Year Studies Program" below are thereby qualified to pursue the Internship Year Studies Program.
- b. Students who complete the requirements for a bachelor's degree at another educational institution, or who complete the requirements for a bachelor's degree at Michigan State University without having been admitted to the Teacher Certification Program, must meet the requirements referenced in the section on "Prerequisites for Admission to the Internship Year Studies Program" below in order to be considered for admission to that program.

3. **Secondary Teacher Certification K-12 Endorsed Subject Areas:**

- a. Michigan State University students who were admitted to the teacher certification program with a music education disciplinary major and who complete the requirements for teacher certification referenced in items 2. and 3. b. (1) and (2) in the section on "Prerequisites for Admission to the Internship Year Studies Program" below are thereby qualified to pursue the Internship Year Studies Program.
- b. Michigan State University students who were admitted to the Teacher Certification Program with an art education disciplinary major, who complete the requirements for a bachelor's degree from Michigan State University, and who complete the requirements for teacher certification referenced in items 2. and 3. b. (1) and (2) in the section on "Prerequisites for Admission to the Internship Year Studies Program" below are thereby qualified to pursue the Internship Year Studies Program.
- c. Michigan State University students who were admitted to the Teacher Certification Program with a disciplinary major other than those referenced in items 2. and b. above, who complete the requirements for a bachelor's degree at Michigan State University, and who complete the requirements for teacher certification referenced in items 2. and 3 b. (1) and (2) under the heading "Prerequisites for Admission to the Internship Year Studies Program" below are thereby qualified to pursue the Internship Year Studies Program.
- d. Students who complete the requirements for a bachelor's degree at another educational institution, or who complete the requirements for a bachelor's degree at Michigan State University without having been admitted to the Teacher Certification Program, must meet the requirements referenced in the section on "Prerequisites for Admission to the Internship Year Studies Program" below in order to be considered for admission to that program.

Prerequisites for Admission to the Internship Year Studies Program

All students seeking admission to the Internship Year Studies Program must have:

1. A baccalaureate degree from a recognized educational institution with a cumulative grade-point average of at least 2.5.
2. Passed all portions of the Michigan Test for Teacher Certification (MTTC), Professional Readiness Examination (PRE), or demonstrated proficiency using approved alternative pass measures and completed the State of Michigan Department of Education's technology requirement.
3. Completed the following undergraduate requirements for teacher certification:

a. **Undergraduate Requirements for Elementary Teacher Certification:**

- (1) The professional education courses listed in the "Undergraduate Professional Education and Planned Program Course Requirements for Elementary Teacher Certification" section below.
- (2) The Planned Program for Elementary Education listed in the "Undergraduate Professional Education and Planned Program Course Requirements for Elementary Teacher Certification" section below.
- (3) The following requirements for subject matter teaching preparation:

A given course may not be counted toward the credit requirements for both the required elementary teaching major and the Planned Program for Elementary Education.

- (a) One of the four approved teaching majors for elementary teacher certification (language arts, social studies, mathematics, and integrated science), with a grade-point average of at least 2.5. The teaching majors are described below in the section "MSU Subject Matter Teaching Majors for Teacher Preparation and Certification" and their requirements are listed in the section "Requirements for the Teaching Majors."
- (b) An optional disciplinary major for elementary teacher certification, in addition to the required teaching major with a grade-point average of at least 2.5. The approved disciplinary majors for elementary teacher certification are listed below in the section on "Options for Acceptable Subject Matter Teaching Majors and Minors for Elementary Teacher Certification." Courses for an optional disciplinary major or a Second Teaching Major may be double-counted with the required teaching major and the Planned Program for Elementary Education.
- (c) Optional disciplinary teaching minors for teacher certification, in addition to the required teaching major, with a grade-point average of at least 2.5. The approved disciplinary teaching minors for elementary teacher certification and their requirements are listed below in the section on "Options for Acceptable Subject Matter Teaching Majors and Minors for Elementary Teacher Certification." Courses for an optional teaching minor may be double-counted with the required teaching major and the Planned Program for Elementary Education.

EDUCATION
Department of Teacher Education

b. Undergraduate Requirements for Secondary Teacher Certification:

- (1) The Professional Education Courses listed below in the section on the "Undergraduate Professional Education Course Requirements for Secondary Teacher Certification."
 - (2) An approved disciplinary major for secondary teacher certification, with a grade-point average of at least 2.5. The approved disciplinary majors for secondary teacher certification are listed below in the section on "Options for Acceptable Subject Matter Teaching Majors and Minors for Secondary Teacher Certification."
 - (3) An approved disciplinary teaching minor for secondary teacher certification, with a grade-point average of at least 2.5. The approved disciplinary teaching minors for secondary teacher certification and their requirements are listed below in the section on "Options for Acceptable Subject Matter Teaching Majors and Minors for Secondary Teacher Certification."
4. Earned a grade point average of 2.5 or above for pre-internship professional education courses required for teacher certification with no individual grade below 2.0.
 5. Completed any disciplinary courses and pedagogy courses that are required in addition to the courses that are required for the disciplinary major and the courses that are referenced in item 3.a.(1) or 3.b.(1) above.
 Any additional disciplinary courses and any additional pedagogy courses that are required for teacher certification are referenced in the sections on teacher certification options in the catalog sections for the colleges, departments, and schools that administer the disciplinary majors that are available for teacher certification.
 6. Passed the required State of Michigan certification tests for elementary teaching or the appropriate major subject area test for secondary teaching.
 7. Submitted a complete conviction disclosure form; and
 8. Met professional criteria as specified by the College of Education.

Undergraduate Professional Education and Planned Program Course Requirements for Elementary Teacher Certification

All courses are required unless otherwise stated. Some of the courses below are also required for or applicable to the Elementary Teaching Majors but the Planned Program must total at least 20 credits that are not double-counted with the required teaching major.

GPA Standards: All elementary teacher candidates must pass each Elementary Planned Program and Professional Education course with a minimum grade of 2.0.

- a. Professional Education Courses (21 credits):
 - (1) All of the following courses (21 credits):

TE 150	Reflections on Learning	3
TE 250	Human Diversity, Power, and Opportunity in Social Institutions	3
TE 301	Literacy, Learners, and Learning in Context - Elementary (W)	3
TE 403	Teaching of Science to Diverse Learners - Elementary	3
TE 404	Teaching of Social Studies to Diverse Learners - Elementary	3
TE 405	Teaching of Language and Literacy to Diverse Learners - Elementary	3
TE 406	Teaching of Mathematics to Diverse Learners - Elementary	3

Students with a major in Special Education are required to complete Counseling, Educational Psychology and Special Education 240 in lieu of Teacher Education 250.

Students with a major in child development are required to complete Counseling, Educational Psychology and Special Education 240 in lieu of Teacher Education 250.

- b. Planned Program for Elementary Education (minimum of 20 credits):

- (1) Both of the following mathematics courses (6 credits):

MTH 201	Elementary Mathematics for Teachers I	3
MTH 202	Elementary Mathematics for Teachers II	3

 The completion of Mathematics 201 may also satisfy the university mathematics requirement. These courses are required for the Elementary Mathematics Teaching Major in which case 0 credits count toward the Planned Program. Mathematics 201 and 202 are a prerequisite for Teacher Education 406 and must be completed with a minimum grade of 2.0 prior to enrollment in Teacher Education 406.
 - (2) The following course in children's literature (3 credits):

TE 348	Reading and Responding to Children's Literature	3
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 This course is required for the Language Arts Teaching Major in which case 0 credits count toward the Planned Program. Teacher Education 348 is a prerequisite for Teacher Education 405 and must be completed with a minimum grade of 2.0 prior to enrollment in Teacher Education 405.
 - (3) One of the following language acquisition and development courses (3 or 4 credits):

CEP 345	Language and Literacy Development Disorders	3
CSD 333	Oral Language Development	3
ENG 302	Introduction to English Language Studies	3
LIN 200	Introduction to Language	3
LIN 401	Introduction to Linguistics	4

 Language Arts Elementary Teaching Majors may count one of the above courses toward the major, in which case 0 credits count toward the Planned Program.
- Special education majors must take Counseling, Educational Psychology and Special Education 345, which is also required for the learning disabilities area of emphasis. This course will count toward the major requirements.
- (4) The following science in elementary schools course (3 credits):

ISE 301	Science for Elementary Schools	3
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 This course is waived for the Integrated Science Teaching Major. Integrated Science Education 301 is a prerequisite for Teacher Education 403 and must be completed with a minimum grade of 2.0 prior to enrollment in Teacher Education 403.
 - (5) The following U.S. history course (4 credits):

HST 202	U.S. History to 1876	4
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 This course is required for the Social Studies Teaching Major, in which case 0 credits count toward the Planned Program.
 - (6) The following geography course (3 credits):

GEO 204	World Regional Geography	3
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 This course is required for the Social Studies Teaching Major, in which case 0 credits count toward the Planned Program.
 - (7) One of the following arts courses (4 credits):

IAH 208	Music and Culture (I)	4
IAH 209	Art, the Visual, and Culture (D)	4
IAH 241A	Creative Arts and Humanities: Music and Society in the Modern World (D)	4
IAH 241C	Creative Arts and Humanities: Cultural and Artistic Traditions of Europe (I)	4
IAH 241D	Creative Arts and Humanities: Theater and Society in the West (I)	4
IAH 241E	Creative Arts and Humanities: The Creative Process (D)	4
IAH 241F	Creative Arts and Humanities: Traditions in World Art I (I)	4

 Students may use Integrative Arts and Humanities 208 or 209 to satisfy the IAH "A" component and Integrative Arts and Humanities 241A, 241C, 241D, 241E or 241F to satisfy the IAH "B" component of the University's Integrative Studies requirement in Arts and Humanities. (4 credits may count toward both the Planned Program and the University's Integrative Studies requirement in Arts and Humanities).

Students may use Integrative Arts and Humanities 208 or 209 to satisfy the IAH "A" component and Integrative Arts and Humanities 241A, 241C, 241D, 241E or 241F to satisfy the IAH "B" component of the University's Integrative Studies requirement in Arts and Humanities. (4 credits may count toward both the Planned Program and the University's Integrative Studies requirement in Arts and Humanities).

- (8) One of the following creative arts courses (3 credits):

MUS 463	Methods and Materials of Elementary Music	3
TE 430	Introduction to Arts in the Classroom	3
TE 431	Learning through Drama	3
TE 432	Learning Through Movement	3
THR 421	Creative Dramatics	3
THR 422	Children's Theatre	3

 Language Arts Teaching Majors may apply one of these courses to the Language Arts requirements, in which case 0 credits count toward the Planned Program.
- (9) The following health and physical education course (3 credits):

KIN 355	Physical Activity and Health Education for Elementary Teachers	3
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Undergraduate Professional Education Course Requirements for Secondary Teacher Certification

1. The following Professional Education Courses (20 or 21 credits):

		CREDITS
a.	All of the following courses (20 credits):	
	TE 150 Reflections on Learning	3
	TE 250 Human Diversity, Power, and Opportunity in Social Institutions	3
	TE 302 Learners and Learning in Context - Secondary (W)	4

TE	407 Teaching of Subject Matter to Diverse Learners - Secondary (W)	5
TE	408 Crafting Teaching Practices - Secondary (W)	5
b.	The following course if the teaching major and minor are in different subject matter:	
TE	409 Crafting Teaching Practices in the Secondary Teaching Minor	1

The pedagogy courses that are required for students with a disciplinary major in music education are specified in the section on *TEACHER CERTIFICATION OPTIONS* in the College of Music section of this catalog. Students with a disciplinary major in music education must complete Teacher Education 150, Teacher Education 250, Teacher Education 302 and Music 277 to be considered for admission to the Music Education student teaching experience. Teacher Education 409 is required if the student pursues a minor. It is not required of the major.

Students with a disciplinary major in art education must complete Studio Art 481 and 482 in lieu of Teacher Education 407 and 408.

Admission to the Internship Year Studies Program

The section on admission to the Internship Year Studies Program pertains to all students who complete the requirements for a bachelor's degree at another educational institution, or who complete the requirements for a bachelor's degree at Michigan State University without having been admitted to the Teacher Certification Program.

The number of students admitted to the Internship Year Studies Program is established by the university. Enrollment in the program is limited. The criteria and procedures for the selection of students for admission to the Internship Year Studies Program are established by the College of Education.

Requirements for the Internship Year Studies Program

		CREDITS
1.	All of the following Professional Education Courses:	24
TE	501 Internship in Teaching Diverse Learners I	6
TE	502 Internship in Teaching Diverse Learners II	6
TE	801 Professional Roles and Teaching Practice I	3
TE	802 Reflection and Inquiry in Teaching Practice I	3
TE	803 Professional Roles and Teaching Practice II	3
TE	804 Reflection and Inquiry in Teaching Practice II	3
2.	Meet all professional standards for the internship year as specified by the College of Education.	

Students with a music education disciplinary major must complete approved alternative courses in lieu of Teacher Education 501, 502, 801, 802, 803, and 804.

Students who fulfill all of the requirements for a Master of Arts degree with a major in Communicative Sciences and Disorders will have completed the courses that are required in lieu of Teacher Education 502, 801, 802, 803, and 804.

Students with a special education disciplinary major who are seeking both teacher certification and endorsement in learning disabilities must complete Counseling, Educational Psychology and Special Education 502A, 801A, 802A, 803A, and 804A in lieu of Teacher Education 502, 801, 802, 803, and 804. Those courses contain disciplinary content, as well as pedagogical content. Therefore, those courses are also counted toward the requirements for endorsement in the area of learning disabilities. Students who completed Teacher Education 502, 801, 802, 803, and 804 and who are seeking endorsement in learning disabilities must complete Counseling, Educational Psychology and Special Education 502A, 801A, 802A, 803A, and 804A.

Internship Placements

Students seeking teacher certification are required to complete extended internships during the Internship Year Studies Program. Interns who desire to be placed in secondary schools must pass the Michigan Test for Teacher Certification (MTTC) subject tests in their teaching major. Elementary interns, including Special Education and Child Development majors, must pass, at minimum, the MTTC test in Elementary Education prior to placement in grades K-5. For the full criteria to be admitted to the internship year, see *Prerequisites for Admission to the Internship Year Studies Program*.

Although students are given an opportunity to express their preferences concerning possible internship placement sites, the placement of students in internships is the sole responsibility of the College of Education. The College will not honor student-arranged internship placements.

Each student's subject areas, the availability of field instructors, the voluntary willingness of schools to accept interns and visitors, and the College's commitment to providing service to public schools are considered in internship placement decisions. Given the number of factors that influence internship placement decisions, the College cannot guarantee that placements will be available in the vicinity of East Lansing or in a location that a student prefers.

Students are responsible for their transportation to and from internships. Students are responsible for costs associated with internships; e.g., moving to and living in the community in which a student's internship placement is located.

For additional information, students should contact the faculty who are responsible for internship placements.

Relationship of the Internship Year Studies Program to Master's Degree Programs

Students may be admitted to the Internship Year Studies Program without being admitted to a master's degree program. Students who are admitted to both the Internship Year Studies Program and a master's degree program may pursue both programs simultaneously and may be allowed to apply 800-level courses from the Internship Year Studies Program to their master's degree with the approval of the units that administer the master's degree program.

Students in any master's program in the College of Education may apply a maximum of 12 credits earned through any combination of courses taken through lifelong education, graduate certification, or in transfer from another institution. Each program may determine if courses are appropriate for the master's program and may allow fewer than 12 credits to be applied to the specific master's program.

For additional information about the 800-level courses that are required for the Internship Year Studies Program, refer to the section on "Requirements for the Internship Year Studies Program."

MSU SUBJECT MATTER TEACHING MAJORS AND MINORS FOR TEACHER PREPARATION AND CERTIFICATION

Michigan State University offers three options for subject matter teacher preparation and certification.

MSU Teaching Majors for Elementary Teacher Certification

The State of Michigan requires a minimum of 36 semester credits for a group (multiple subject) teaching major and a minimum of 30 semester credits for a single subject teaching major for elementary teacher certification. Four teaching majors are available for prospective elementary school teachers:

Group (multiple subject) teaching majors

- Language Arts
- Social Studies
- Integrated Science

Single subject teaching major

- Mathematics

These majors, which are housed in the College of Education, provide prospective elementary teachers with the opportunity to focus academic studies in a set of closely allied subject areas that are central to the core curriculum in elementary and middle schools and that are aligned with Michigan Department of Education standards. To enroll in one of these teaching majors, students must be admitted to the Elementary Teacher Certification

EDUCATION
Department of Teacher Education

Program in the College of Education. The specific course requirements for each of the teaching majors are listed below.

Students in the special education major are recommended for elementary teaching certification and K-12 for their special education endorsement area.

MSU Disciplinary Majors for Elementary and Secondary Teacher Certification

The State of Michigan requires a minimum of 30 semester credits for a single–subject disciplinary teaching major, a minimum of 36 semester credits for a group disciplinary teaching major, and a minimum of 50 semester credits for a comprehensive teaching major. If the minimum number of credits required for teacher certification is not required in the student’s disciplinary major, the student must complete additional credits as necessary for teacher certification. Comprehensive majors are not required to have a separate disciplinary minor.

All of the disciplinary majors are undergraduate majors.

Students in the art education, communicative sciences and disorders, and music education majors are recommended only for secondary teacher certification: K-12 endorsed subject area.

Below, the disciplinary majors that are available for teacher certification are identified, along with the colleges that administer them. Group disciplinary majors and comprehensive majors are also identified, and other information is provided.

Some of the disciplinary majors lead to the Bachelor of Arts or the Bachelor of Science degree. Either degree is appropriate for teacher certification. The student should refer to the relevant college section for additional information about a given major.

MSU Disciplinary Teaching Minors for Elementary and Secondary Teacher Certification

The State of Michigan requires a minimum of 20 semester credits for a single–subject disciplinary teaching minor, and a minimum of 24 semester credits for a group subject disciplinary teaching minor, for elementary or secondary teacher certification. Below, the disciplinary teaching minors that are available for teacher certification are identified, and other information is provided.

OPTIONS FOR ACCEPTABLE SUBJECT MATTER TEACHING MAJORS AND MINORS FOR ELEMENTARY TEACHING CERTIFICATION

Teaching Majors Available for Elementary Teacher Certification

- Language Arts
- Social Studies
- Integrated Science
- Mathematics

Disciplinary Majors Available for Elementary Teacher Certification

Students electing to complete the requirements for an optional disciplinary teaching major in addition to their required teaching major should make their choices from the list below.

MAJOR	COLLEGE
Arabic	Arts and Letters
Chinese	Arts and Letters
French	Arts and Letters
German	Arts and Letters
Japanese	Arts and Letters
Spanish	Arts and Letters
Special Education (Learning Disabilities)	Education

Disciplinary Teaching Minors Available for Elementary Teacher Certification

Students electing to complete a disciplinary teaching minor(s) in addition to their required major should make their choices from the list below.

MINOR	COLLEGE
Arabic	Arts and Letters
Chinese	Arts and Letters
Computer Science	Engineering
Early Childhood-General and Special Education	Social Science
English	Arts and Letters
French	Arts and Letters
German	Arts and Letters
Japanese	Arts and Letters
Mathematics-Elementary	Natural Science
Russian	Arts and Letters
Spanish-Elementary	Arts and Letters
Teaching English to Speakers of Other Languages	Arts and Letters

Undergraduate Degree Majors Leading to Endorsements on an Elementary Teacher Certificate

MAJOR	COLLEGE
Child Development	Social Science
Special Education	Education

Note that child development majors (with the teacher certification emphasis) and special education majors must also complete the requirements for a teaching major, the Planned Program for Elementary Education and all elementary program requirements as specified in the section above, *Requirements for Teacher Certification*. Child development and special education majors take Counseling, Educational Psychology and Special Education 240 in lieu of Teacher Education 250.

Language arts, social studies, and integrated science are group majors, requiring 36 or more semester credits.

A given course may not be counted toward both the credit requirements for the teaching major and the credit requirements for the Planned Program. Courses for optional teaching majors or minors may be double-counted, including credits toward the Planned Program.

OPTIONS FOR ACCEPTABLE SUBJECT MATTER TEACHING MAJORS AND MINORS FOR SECONDARY TEACHING CERTIFICATION

Disciplinary Majors Available for Secondary Teacher Certification

MAJOR	COLLEGE
Agriculture, Food and Natural Resources Education	Agriculture and Natural Resources
Arabic	Arts and Letters
Biological Science–Interdepartmental	Natural Science
Chemistry	Natural Science
Chinese	Arts and Letters
Comparative Cultures and Politics	James Madison College
Earth Science–Interdepartmental	Natural Science
English	Arts and Letters
French	Arts and Letters
German	Arts and Letters
History Education	Social Science
Interdisciplinary Studies in Social Science: Social Science Education	Social Science
International Relations	James Madison College
Japanese	Arts and Letters
Mathematics	Natural Science
Mathematics, Advanced	Natural Science
Physical Science–Interdepartmental	Natural Science
Physics	Natural Science
Political Theory and Constitutional Democracy	James Madison College
Social Relations and Policy	James Madison College
Spanish	Arts and Letters

Disciplinary Teaching Minors Available for Secondary Teacher Certification

MINOR	COLLEGE
Agriculture, Food and Natural Resources Education	Agriculture and Natural Resources
Arabic	Arts and Letters
Biology	Natural Science
Chemistry	Natural Science
Chinese	Arts and Letters
Computer Science	Engineering
Earth Science	Natural Science
Economics	Social Science
English	Arts and Letters
French	Arts and Letters
Geography	Social Science
German	Arts and Letters
History	Social Science
Italian	Arts and Letters
Japanese	Arts and Letters
Journalism	Communication Arts and Sciences
Latin	Arts and Letters
Mathematics-Secondary	Natural Science
Physics	Natural Science
Political Science	Social Science
Psychology	Social Science
Sociology	Social Science
Spanish-Secondary	Arts and Letters
Teaching English to Speakers of Other Languages	Arts and Letters

The economics, geography, and political science disciplinary teaching minors are available only to students pursuing a major in comparative cultures and politics, international relations, political theory and constitutional democracy, social relations and policy, interdisciplinary studies in social science: social science education, or history education.

Undergraduate Degree Majors Leading to K-12 Endorsements on a Secondary Teaching Certificate

MAJOR	COLLEGE
Arabic	Arts and Letters
Art Education	Arts and Letters
Chinese	Arts and Letters
French	Arts and Letters
German	Arts and Letters
Japanese	Arts and Letters
Music Education	Music
Spanish	Arts and Letters

Agriculture, food and natural resources education is a group major requiring 36 or more semester credits.

Art education, comparative cultures and politics, interdisciplinary studies in social science: social science education, international relations, music education, physical science - interdepartmental, political theory and constitutional democracy, and social relations are comprehensive group majors requiring a minimum of 50 semester credits, and are exempt from the requirement to complete a separate teaching minor.

A given course may not be counted toward the credit requirements for both a disciplinary major and a disciplinary minor. Courses for an optional extra teaching minor or major may be double-counted.

REQUIREMENTS FOR THE TEACHING MAJORS

Language Arts Teaching Major for Elementary Teacher Certification

At least 36 credits with a minimum of 17 to 18 credits at the 300-400 level.

	CREDITS
1. Language, Literacy, and Culture (11 to 15 credits):	36 to 46
a. One of the following courses (3 or 4 credits):	
ENG 302 Introduction to English Language Studies	3
LIN 200 Introduction to Language	3
LIN 401 Introduction to Linguistics	4
One of these courses is also required for the Elementary Planned Program, but the credits will count toward Language Arts and requires a minimum grade of 2.0.	
b. One of the following courses (3 credits):	
ANP 420 Language and Culture	3
CEP 345 Language and Literacy Development and Disorders	3
CSD 333 Oral Language Development	3
ENG 406 Topics in English Language Studies	3

LIN 424 Introduction to Phonetics and Phonology	3
LIN 434 Introduction to Syntax	3
LIN 437 Semantics and Pragmatics	3
LIN 450 Child Language Acquisition	3
LLT 346 Pedagogical English Grammar for English Teachers	3
PHL 360 Philosophy of Language	3
Counseling, Educational Psychology and Special Education 345 is required for special education majors.	
c. Two of the following courses (6 to 8 credits):	
COM 310 Intercultural Communication	3
COM 320 Diversity and Communication	3
IAH 231C Themes and Issues: Roles of Language in Society (D)	4
LIN 471 Sociolinguistics	3
LLT 307 Methods of Second and Foreign Language Teaching	3
LLT 361 Second and Foreign Language Learning	3
2. Writing, Rhetoric, and Design (6 to 8 credits):	
a. One of the following courses (3 credits):	
ENG 223 Introduction to Creative Nonfiction Writing	3
ENG 226 Introduction to Creative Writing	3
ENG 228 Introduction to Fiction Writing	3
ENG 229 Introduction to Poetry Writing	3
ENG 232 Writing as Exploration	3
JRN 200 Writing and Reporting News I	3
TE 458 Reading, Writing, and Teaching Poetry	3
WRA 260 Rhetoric, Persuasion, and Culture	3
WRA 308 Invention in Writing	3
WRA 320 Technical Communication (W)	3
b. One of the following courses (3 or 4 credits):	
CEP 416 Teaching and Learning with Technology	3
JRN 310 Photojournalism	3
JRN 336 Designing for Print and Digital Media	3
JRN 445 Images and Messages	3
JRN 491 Journalism Skills Topics	3
JRN 409 Advising Student Publications	3 or 4
STA 110 Drawing I	3
STA 113 Color and Design	3
STA 114 Three-Dimensional Form	3
STA 371 Art, Education and Society	3
WRA 210 Introduction to Web Authoring	3
WRA 360 Visual Rhetoric	4
3. Text, Media, and Interpretation (12 to 16 credits)	
Two courses must be at the 300-400 level:	
a. One of the following courses (3 or 4 credits):	
ENG 126 Introduction to Literary Genres	4
ENG 129 Introduction to Reading Poetry	4
ENG 204 Topics in North American Literatures	3
ENG 205 Topics in British Literatures	3
ENG 206 Topics in Global Literatures	3
ENG 210 Foundations of Literary Study I	3
ENG 314 Readings in North American Literatures	3
ENG 315 Readings in British Literatures	3
ENG 316 Readings in Irish Literature and Culture	3
b. One or two of the following courses (3 to 8 credits):	
COM 275 Effects of Mass Communication	3
ENG 130 Film and Society	4
ENG 140 Literature and Society	4
ENG 142 Introduction to Popular Literary Genres	4
ENG 231 Film and Literature	4
ENG 340 Theory and Methods of Popular Culture Studies	3
ENG 342 Readings in Popular Literary Genres	3
ENG 478A Literature, Technology, and Representation	3
ENG 478B Literature and Visual Culture	3
FLM 230 Introduction to Film	4
FLM 355 Studies in Film Genres	3
FLM 380 Classical Film and Media Theory	3
JRN 108 The World of Media	3
WRA 260 Rhetoric, Persuasion, and Culture	3
WRA 415 Digital Rhetoric	3
c. One or two of the following courses (3 to 8 credits):	
AL 431 European Fairy Tale Tradition	3
ENG 153 Introduction to Women Authors	4
ENG 218 Introduction to Shakespeare	3
ENG 318 Readings in Shakespeare	3
ENG 320A Methodologies of Literary History: Genre	4
ENG 320B Methodologies of Literary History: Region, School, or Movement	4
ENG 320C Methodologies of Literary History: Canon Formation	4
ENG 323 Readings in Non-Fiction	3
ENG 324 Readings in Epic	3
ENG 326 Readings in Drama and Performance Studies	3
ENG 328 Readings in Novel and Narrative	3
ENG 329 Readings in Poetry and Poetics	3
ENG 350 Readings in African, African-American, or African Diaspora Literature	3
ENG 351 Readings in Chicano and Latino Literatures	3
ENG 352 Readings in Asian/Asian American/Asian Diaspora Literature and Visual Culture	3
ENG 353 Readings in Women Writers	3
ENG 354 Readings in Native American Literature	3
ENG 355 Readings in Sexuality and Literature	3
ENG 356 Readings in Jewish Literature	3
RUS 231 19 th -Century Russian Literature in Translation	3
RUS 232 20 th -Century Russian Literature in Translation	3

EDUCATION

Department of Teacher Education

TE 448	Issues of Diversity in Children's and Adolescent Literature	3
4.	Speech, Performance, and Communication (3 to 4 credits):	
a.	One of the following courses (3 to 4 credits):	
CEP 460	Communication Skill Training for the Helping Professional	3
COM 100	Human Communication	3
COM 225	An Introduction to Interpersonal Communication	3
COM 240	Introduction to Organizational Communication	4
TE 430	Introduction to Arts in the Classroom	3
TE 431	Learning Through Drama	3
TE 432	Learning Through Movement	3
THR 101	Acting I	3
THR 421	Creative Dramatics	3
THR 422	Children's Theatre	3
5.	Children's Literature (3 credits):	
a.	The following course (3 credits):	
TE 348	Reading and Responding to Children's Literature	3
	This course is also required for the Elementary Planned Program but the credits will count towards Language Arts and requires a minimum grade of 2.0.	
6.	Electives. Additional credits in courses in English, linguistics, language learning and teaching, communications, journalism, theatre, or writing, rhetoric, and American cultures as needed to satisfy the requirement of at least 36 credits in this teaching major.	

PHY 231	Introductory Physics I	3
PHY 232	Introductory Physics II	3
PHY 251	Introductory Physics Laboratory I	1
PHY 252	Introductory Physics Laboratory II	1
7.	One of the following statistics courses (3 or 4 credits):	
STT 200	Statistical Methods	3
STT 201	Statistical Methods	4

Integrated Science, Secondary Education, Comprehensive Endorsement

A secondary education endorsement in Integrated Science is available for students in the undergraduate teaching certification program who are working on their initial certification. This endorsement must be completed in combination with either an approved science major or approved science minor at Michigan State University. When completed with a science major, the Integrated Science courses as a comprehensive teaching endorsement of 50 or more credits waives the requirement for a separate additional minor. Students interested in completing the Integrated Science secondary endorsement should contact an advisor in the College of Education, 134 Erickson Hall, for more information.

Social Studies Teaching Major For Elementary Teacher Certification

The following requirements for the major (49 credits):		CREDITS
1.	All of the following courses (46 credits):	
EC 201	Introduction to Microeconomics	3
EC 202	Introduction to Macroeconomics	3
GEO 204	World Regional Geography	3
GEO 221	Introduction to Geographic Information	3
GEO 330	Geography of the United States and Canada	3
GEO 333	Geography of Michigan and the Great Lakes Region	3
HST 140	World History to 1500	4
HST 150	World History since 1500	4
HST 201	Historical Methods and Skills	3
HST 202	U.S. History to 1876	4
HST 203	U.S. History since 1876	4
HST 320	History of Michigan	3
PLS 100	Introduction to American Politics	3
PLS 140	Introduction to Comparative Politics	3
2.	One of the following courses (3 credits):	
HST 310	African American History to 1876	3
HST 311	African American History since 1876	3
HST 312	African American Women	3
HST 313	Women in the United States to 1869	3
HST 314	Women in the United States since 1869	3
HST 327	History of Mexican Americans in the United States	3
HST 378	Native Americans in North American History to 1830	3
HST 379	Native Americans in North American History from 1830	3

Mathematics Teaching Major for Elementary Teacher Certification

The following requirements for the major (28 credits):		CREDITS
1.	All of the following courses (28 credits):	
MTH 132	Calculus I	3
MTH 133	Calculus II	4
MTH 201	Elementary Mathematics for Teachers I	3
MTH 202	Elementary Mathematics for Teachers II	3
MTH 301	Foundations of Higher Mathematics	3
MTH 304	Algebra for Elementary and Middle School Teachers	3
MTH 305	Functions and Calculus for Elementary and Middle School Teachers (W)	3
MTH 330	Higher Geometry	3
MTHE 430	History of Mathematics	3
	For Elementary Mathematics Teaching Majors, Mathematics 201 and 202 will count for 0 credits in the planned program.	
2.	One of the following courses (4 credits):	
STT 201	Statistical Methods	4
STT 250	Statistics and Probability for K-8 Teachers	4

Integrated Science Teaching Major For Elementary Teacher Certification

The following requirements for the major (56 to 59 credits):		CREDITS
1.	All of the following biology courses (17 credits):	
BS 161	Cell and Molecular Biology	3
BS 162	Organismal and Population Biology	3
BS 171	Cell and Molecular Biology Laboratory	2
BS 172	Organismal and Population Biology Laboratory	2
IBIO 355	Ecology	3
PSL 250	Introductory Physiology	4
	Students may use Biological Science 161 and 171 to satisfy the Integrative Studies in Biological Sciences and laboratory components of the University's Integrative Studies requirement	
2.	All of the following chemistry courses (8 credits):	
CEM 141	General Chemistry	4
CEM 142	General and Inorganic Chemistry	3
CEM 161	Chemistry Laboratory I	1
	Students may use 3 credits of Chemistry 141 to satisfy the Integrative Studies in Physical Sciences component of the University's Integrative Studies requirement.	
3.	All of the following earth science courses (10 credits):	
AST 207	The Science of Astronomy	3
GEO 203	Introduction to Meteorology	3
GLG 201	The Dynamic Earth	4
4.	One of the following mathematics courses (3 or 5 credits):	
MTH 114	Trigonometry	3
MTH 116	College Algebra and Trigonometry	5
5.	All of the following natural science courses (7 credits):	
ISE 120	Seminar in Integrated Science for Elementary Schools	1
ISE 320	Integrated Science for Elementary Schools	3
ISE 420	Integrated Science Research	3
6.	All of the following physics courses (8 credits):	

REQUIREMENTS FOR THE DISCIPLINARY TEACHING MINORS

AGRICULTURE, FOOD AND NATURAL RESOURCES EDUCATION		CREDITS
ABM 100	Decision-making in the Agri-Food System	3
ANS 110	Introductory Animal Agriculture	4
CSS 101	Introduction to Crop Science	3
CSS 210	Fundamentals of Soil Science	3
CSUS 200	Introduction to Sustainability	3
CSUS 322	Leadership for Community Sustainability	3
CSUS 343	Community Food and Agricultural Systems	3
HRT 203	Principles of Horticulture	2
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ARABIC		
Complete a minimum of 20 credits from the following:		
1.	All of the following courses:	
ARB 201	Second-Year Arabic I	5
ARB 202	Second-Year Arabic II	5
ARB 301	Third-Year Arabic I	4
2.	One of the following courses:	
ARB 360	Arabic Language and Society	3
ARB 460	Special Topics in Arabic Culture (W)	3
ARB 461	Introduction to Arabic Literature (W)	3
3.	The following course:	
LLT 307	Methods of Second and Foreign Language Teaching	3
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BIOLOGY

One of the following groups of courses (9 or 10 credits):

(1) BS 161	Cell and Molecular Biology	3
BS 162	Organismal and Population Biology	3
BS 171	Cell and Molecular Biology Laboratory	2
BS 172	Organismal and Population Biology Laboratory	2
(2) BS 181H	Honors Cell and Molecular Biology	3
BS 182H	Honors Organismal and Population Biology	3
BS 191H	Honors Cell and Molecular Biology Laboratory	2
BS 192H	Honors Organismal and Population Biology Laboratory	2
(3) LB 144	Biology I: Organismal Biology	4
LB 145	Biology II: Cellular and Molecular Biology	5

All of the following courses (14 to 16 credits):

IBIO 341	Fundamental Genetics	4
IBIO 355	Ecology	3
IBIO 355L	Ecology Laboratory (W)	1
PSL 250	Introductory Physiology	4
Or		
PSL 310	Physiology for Pre-Health Professionals	4
Or		
PLB 301	Introductory Plant Physiology	3
BMB 200	Introduction to Biochemistry	4
Or		
MMG 301	Introductory Microbiology	3

23 to 26

CHEMISTRY

One of the following sequences:

CEM 151	General and Descriptive Chemistry	4
and		
CEM 152	Principles of Chemistry	3
or		
CEM 141	General Chemistry	4
and		
CEM 142	General and Inorganic Chemistry	3

Required Courses:

CEM 161	Chemistry Laboratory I	1
CEM 162	Chemistry Laboratory II	1
CEM 262	Quantitative Analysis	3

One of the following sequences:

CEM 251	Organic Chemistry I	3
and		
CEM 252	Organic Chemistry II	3
and		
CEM 255	Organic Chemistry Laboratory	2
or		
CEM 351	Organic Chemistry I	3
and		
CEM 352	Organic Chemistry II	3
and		
CEM 355	Organic Laboratory I	2

The following course:

CEM 383	Introductory Physical Chemistry I	3
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23

CHINESE

1. All of the following courses:		
CHS 201	Second-Year Chinese I	5
CHS 202	Second-Year Chinese II	5
CHS 301	Third-Year Chinese I	4
CHS 302	Third-Year Chinese II	4
LLT 307	Methods of Second and Foreign Language Teaching	3
2. One of the following courses:		
CHS 350	Studies in Chinese Language	3
CHS 360	Chinese Film Studies	3
CHS 366	Chinese Culture: Tradition and Modernity (W)	3
CHS 401	Fourth-Year Chinese I	3
CHS 402	Fourth-Year Chinese II	3
CHS 410	Chinese Short Stories	3
CHS 411	Advanced Spoken Chinese	3
CHS 466	Modern Chinese Literature and Films (W)	3

24

COMPUTER SCIENCE

All of the following courses (19 credits)

CSE 131	Introduction to Technical Computing	3
CSE 231	Introduction to Programming I	4
CSE 232	Introduction to Programming II	4
CSE 260	Discrete Structures in Computer Science	4
CSE 320	Computer Organization and Assembly Language Programming	4

One additional 300-400 level course in the Department of Computer Science and Engineering selected from the following: CSE 331, CSE 410, CSE 420, or CSE 460. The total credits for the teaching minor will be 22 or 23 credits.

CSE 131, 231, 232, 260, and 320 will be available without restriction to students who meet the prerequisites. Students will need to submit a plan for the teaching minor to the Department of Computer Science and Engineering. If the student's overall grade-point average and technical grade-point average (courses in mathematics, the physical and biological sciences, and engineering) meet the standards required of Computer Science majors for admission to upper level studies, the student's plan will be approved, and the Department of Computer Science and Engineering will approve access to additional Computer Science and Engineering courses in the minor.

EARLY CHILDHOOD-GENERAL AND SPECIAL EDUCATION

CEP 240	Diverse Learners in Multicultural Perspective	3
HDFS 211	Child Growth and Development	3
HDFS 320	Interaction with Children in Groups	3
HDFS 320L	Interaction with Children-Laboratory	1
HDFS 321	Curriculum for Children (W)	3
HDFS 321L	Curriculum for Children-Laboratory	1
HDFS 322	Infant Development and Program Planning	3
HDFS 421	Assessment of the Young Child	3
HDFS 424	Student Teaching in an Early Childhood Program	6

26

EARTH SCIENCE

GLG 201	The Dynamic Earth	4
GLG 303	Oceanography	4
GLG 304	Physical and Biological History of the Earth	4
GLG 401	Plate Tectonics (W)	4
AST 207	The Science of Astronomy	3
GEO 203	Introduction to Meteorology	3

22

ECONOMICS

(Available only to students pursuing a major in comparative cultures and politics, international relations, political theory and constitutional democracy, social relations and policy, interdisciplinary studies in social science, interdisciplinary studies in social science: social science education, or history with a teacher certification option)

EC 201	Introduction to Microeconomics	3
EC 202	Introduction to Macroeconomics	3
EC 301	Intermediate Microeconomics	3
EC 302	Intermediate Macroeconomics	3
Electives from Economics Courses at 300 or 400 level		9

21

ENGLISH

1. Both of the following courses:		6
ENG 210	Foundations of Literary Study I	3
ENG 302	Introduction to English Language Studies	3
2. One of the following courses:		3
ENG 308	Readings in Literature for Young Adults	3
TE 348	Reading and Responding to Children's Literature	3
Students pursuing elementary certification must take TE 348.		
Students pursuing secondary certification must take ENG 308.		
3. One of the following courses (3 or 4 credits):		3 or 4
ENG 280	Foundations of Literary Study II	3
FLM 230	Introduction to Film	4
4. One of the following courses (4 credits):		4
ENG 320A	Methodologies of Literary History: Genre	4
ENG 320B	Methodologies of Literary History: Region, School, or Movement	4
ENG 320C	Methodologies of Literary History: Canon Formation	4
5. One of the following courses (3 or 4 credits):		3
ENG 360	Studies in Postcolonial and Diaspora Literature (W)	3
ENG 362	Studies in Modern/Contemporary Literature (W)	3
ENG 364	Studies in 18th-/19th-Century Literature (W)	3
ENG 368	Studies in Medieval/Early Modern Literature (W)	3
ENG 408	Socio-Psycholinguistic Approaches to Reading in the Disciplines	4
Students pursuing elementary certification may not select English 408.		
6. At least one 300-400 level ENG course (3 or 4 credits).		
Students pursuing elementary certification may not use ENG 413, 490 or 493 to meet this requirement. Students pursuing secondary certification may not use ENG 490 or 493 to meet this requirement. Students may substitute TE 448, Issues of Diversity in Children's and Adolescent Literature, to fulfill this requirement.		

22 to 25

EDUCATION
Department of Teacher Education

FRENCH

FRN 320	Self-Expression in Writing (W)	3
FRN 321	Oral Expression	3
FRN 330	French Phonetics	3
FRN 340	Introduction to Reading French Literature (W)	3
FRN 415	Introduction to French Studies I: Metropolitan France	3
FRN 416	Introduction to French Studies II: Francophone Cultures	3
FRN 425	Advanced Studies in French Language	3
or		
FRN 430	French Linguistics	3
LLT 307	Methods of Second and Foreign Language Teaching	3
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		24

GEOGRAPHY

(Available only to students pursuing a major in comparative cultures and politics, international relations, political theory and constitutional democracy, social relations and policy, interdisciplinary studies in social science, interdisciplinary studies in social science: social science education, or history with a teacher certification option)

GEO 204	World Regional Geography	3
GEO 206	Physical Geography	3
GEO 206L	Physical Geography Laboratory	1
GEO 221	Introduction to Geographic Information	3
GEO 330	Geography of the United States and Canada	3
GEO 333	Geography of Michigan and the Great Lakes Region	3
One of the following courses:		
GEO 113	Introduction to Economics Geography	3
GEO 151	Cultural Geography	3
One additional course in Geography at the 300 or 400 level		3
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		22

Students enrolled in the disciplinary teaching minor in geography must have their programs approved by the department.

GERMAN

1. Two of the following courses:		
GRM 301	Third-Year German I	3
GRM 302	Third-Year German II	3
GRM 311	Business German	3
2. All of the following courses:		
GRM 341	German Literature and Culture Before 1918	3
GRM 342	German Literature and Culture since 1918	3
GRM 420	Advanced German (W)	3
GRM 460	Linguistic Analysis of Modern German	3
GRM 461	Teaching German Language and Culture	3
LLT 307	Methods of Second and Foreign Language Teaching	3
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		24

HISTORY

The student must complete all of the following courses:		
GEO 204	World Regional Geography	3
GEO 221	Introduction to Geographic Information	3
GEO 330	Geography of the United States and Canada	3
HST 140	World History to 1500	4
HST 150	World History since 1500	4
HST 201	Historical Methods and Skills	3
HST 202	U.S. History to 1876	4
HST 203	U.S. History since 1876	4
HST 320	History of Michigan	3
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		31

ITALIAN

ITL 201	Second-Year Italian I	4
ITL 202	Second-Year Italian II	4
ITL 320	Advanced Grammar and Composition	3
ITL 340	Phonetics and History of the Italian Language	3
ITL 350	Introduction to Italian Literature	3

One of the following:

ITL 330	Italian Culture and Civilization	3
ITL 360	Topics in Italian Language and Culture	3
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		20

JAPANESE

All of the following courses (24 credits):		
JPN 201	Second-Year Japanese I	5
JPN 202	Second-Year Japanese II	5
JPN 301	Third-Year Japanese I	4
JPN 302	Third-Year Japanese II	4
JPN 369	Introduction to Japanese Literature and Culture	3
LLT 307	Methods of Teaching English to Speakers of Other Languages	3
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JOURNALISM

JRN 200	Writing and Reporting News	3
JRN 203	Visual Storytelling	3
JRN 310	Photojournalism	3
JRN 336	Designing for Media	3
JRN 430	News Media Law and Ethics	3
JRN 409	Advising Student Publications	3
Electives approved by the School		3
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		21

Students are encouraged to choose electives from the following list:

JRN 305	Editing for Print and Digital	3
JRN 206	Video Storytelling with Cell Phones	3
JRN 325	Journalism History	3

LATIN

One of the following courses:		
LTN 206	Nepos and Latin Prose	3
LTN 211	Livy and Roman Historiography	3
One of the following courses:		
LTN 208	Catullus and Lucretius	3
LTN 221	Virgil and Latin Poetry	3
One of the following courses:		
LTN 306	The Works of Cicero (W)	3
LTN 311	Augustine and His Age (W)	3
One of the following courses:		
LTN 308	Roman Comedy (W)	3
LTN 321	The Works of Ovid (W)	3
One of the following courses:		
LTN 406	Senior Seminar: Tacitus (W)	3
LTN 408	Senior Seminar: Virgil (W)	3
LTN 411	Senior Seminar: Petronius and Apuleius (W)	3
LTN 421	Senior Seminar: Horace (W)	3
All of the following courses:		
CLA 310	Roman Civilization	3
HST 331	Ancient Roman History 200 BCE to 500 CE	3
LTN 499	Senior Thesis	1
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MATHEMATICS-ELEMENTARY

All of the following courses:		
MTH 132	Calculus I	3
MTH 133	Calculus II	4
MTH 301	Foundations of Higher Mathematics	3
MTH 330	Higher Geometry	3
SME 430	History of Mathematics	3
STT 201	Statistical Methods	4
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MATHEMATICS-SECONDARY

1. All of the following courses (11 credits):		
MTH 132	Calculus I	3
MTH 133	Calculus II	4
MTH 234	Multivariable Calculus	4
2. One of the following, either a. or b. (3 or 7 credits):		
a. MTH 299	Transitions	4
MTH 309	Linear Algebra	3
b. MTH 317H	Honors Linear Algebra	3
3. One of the following courses (3 credits):		
MTH 330	Higher Geometry	3
MTH 432	Axiomatic Geometry	3
4. One of the following courses (3 credits):		
STT 351	Probability and Statistics for Engineering	3
STT 441	Probability and Statistics I: Probability	3
STT 430	Introduction to Probability and Statistics	3
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		20 to 24

PHYSICS

PHY 183	Physics for Scientists and Engineers I	4
PHY 184	Physics for Scientists and Engineers II	4
PHY 191	Physics Laboratory for Scientists, I	1
PHY 192	Physics Laboratory for Scientists, II	1
PHY 215	Thermodynamics and Modern Physics	3
PHY 431	Optics I	3
PHY 440	Electronics	4
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POLITICAL SCIENCE

(Available only to students pursuing a major in Comparative Cultures and Politics, International Relations, Political Theory and Constitutional Democracy, Social Relations and Policy, Interdisciplinary Studies in Social Science, Interdisciplinary Studies in Social Science: Social Science Education, or History with a teacher certification option.)

All of the following courses (12 credits):

PLS 100	Introduction to American National Government	3
PLS 140	Government and Politics of the World	3
PLS 160	Introduction to International Relations	3
PLS 170	Introduction to Political Philosophy	3

At least three of the following courses (9 or 10 credits):

PLS 301	American State Government	3
PLS 302	Urban Politics	3
PLS 304	Minority Politics	3
PLS 310	Public Bureaucracy in the Public Policy Process	3
PLS 313	Public Policy Analysis	3
PLS 320	The American Judicial Process	3
PLS 321	American Constitutional Law	3
PLS 322	Comparative Legal Systems	3
PLS 323	Religion and Politics	4
PLS 324	American Legislative Process	3
PLS 325	American Executive Process	3
PLS 331	Political Parties and Interest Groups	3
PLS 333	Political Socialization and Public Opinion	3
PLS 334	Campaigns and Elections	3
PLS 342	Comparative Political Economy	3
PLS 344	Politics in the Third World	3
PLS 351	African Politics	3
PLS 352	Latin American Politics	3
PLS 354	Politics of Asia	3
PLS 356	West European Politics	3
PLS 357	Politics of English Speaking Democracies	3
PLS 358	Politics of the U.S.S.R. and Its Successor States	3
PLS 362	Foreign Policy	3
PLS 363	International Political Conflict	3
PLS 364	International Organization and Cooperation	3
PLS 371	Classical Political Philosophy	3
PLS 372	Modern Political Philosophy	3
PLS 377	American Political Thought	3

21 or 22

PSYCHOLOGY

PSY 101	Introductory Psychology	4
PSY 200	Cognitive Psychology	3
PSY 209	Brain and Behavior	3
PSY 235	Social Psychology	3
PSY 244	Developmental Psychology: Infancy through Childhood	3
PSY 295	Data Analysis in Psychological Research	3
PSY 424	Child and Family Psychopathology	3
or		
PSY 344	Developmental Psychology: Adolescent Through Youth	3

22

SOCIOLOGY

Each of the following:

SOC 100	Introduction to Sociology	4
SOC 241	Social Psychology	3
SOC 313	Education and Society	3
SOC 488	Sociological Theory	3
One of the following:		
SOC 215	Race and Ethnicity	3
SOC 216	Sex and Gender	3
SOC 330	Social Stratification	3
Two elective courses at the 300–400 level		6

22

SPANISH-ELEMENTARY

LLT 307	Methods of Teaching English to Speakers of Other Languages	3
SPN 310	Basic Spanish Grammar	3
SPN 320	Cultural Readings and Composition (W)	3
SPN 330	Phonetics and Pronunciation	3
SPN 342	Media and Conversation	3
SPN 350	Introduction to Reading Hispanic Literature (W)	3
SPN 440	The Structure of Spanish	3
One of the following courses:		
SPN 420	Spain and its Literature	3
SPN 432	Latin America and its Literature	3

24

SPANISH-SECONDARY

FLT 807	Foreign Language Teaching Methods	3
or		
LLT 307	Methods of Second and Foreign Language Teaching	3
SPN 310	Basic Spanish Grammar	3
SPN 320	Cultural Readings and Composition (W)	3
SPN 330	Phonetics and Pronunciation	3
SPN 342	Media and Conversation	3
SPN 350	Introduction to Reading Hispanic Literature (W)	3
SPN 412	Topics in Hispanic Culture	3
SPN 440	The Structure of Spanish	3

24

TEACHING ENGLISH TO SPEAKERS OF OTHER LANGUAGES

1. One of the following courses:		3 or 4
LIN 200	Introduction to Language	3
LIN 401	Introduction to Linguistics	4
2. All of the following courses:		14
LLT 307	Methods of Teaching English to Speakers of Other Languages	3
LLT 346	Pedagogical English Grammar for English Teachers	3
LLT 361	Second and Foreign Language Learning	3
TE 494	Field Experience in Teacher Education	5
3. Complete either a. or b.:		3 or 7
a. ANP 420	Language and Culture	3
b. COM 391	Topics in Verbal, Intercultural, or Gender Communication	4
LIN 471	Sociolinguistics	3

20 to 25

The Teaching English to Speakers of Other Languages minor must be completed in combination with an academic core major. Students should see an academic advisor in the College of Education for more information.

TEACHER CERTIFICATION REGULATIONS IN THE STATE OF MICHIGAN

All persons teaching in Michigan public schools must be certified by the State Board of Education. Candidates who complete an approved teacher education program apply for teacher certification and are recommended to the State of Michigan by the university. Holders of the Michigan Elementary Provisional Teaching Certificate are eligible to teach in the State of Michigan grades K–5 all subjects, K–8 Self-Contained Classrooms and grades 6–8 in subject areas. Holders of the Michigan Secondary Provisional Teaching Certificate are eligible to teach in the State of Michigan grades 6–12 in subject areas and grades K–12 in specified subject areas.

In order for Michigan State University to recommend a person for a teaching certificate, that person must complete the requirements for the teacher certification program including the Internship Year Studies Program.

Initially, *Michigan Provisional Teaching Certificates*, elementary or secondary, are recommended by Michigan State University upon the satisfactory completion of program requirements and are generally valid for six years.

To be qualified to teach at the expiration of the provisional certificate, one must either qualify for a *professional education certificate* or for the renewal of the provisional certificate. Ultimately, teachers must fulfill the requirements for the Michigan Professional Education Certificate. Current requirements for advancing to the Professional Education Certificate or renewing a Provisional Certificate can be found on the Michigan Department of Education Web site at: <http://www.michigan.gov/mde>.

The detailed requirements for teacher certification are not set forth here. Students who plan to teach should consult their academic advisors early in their programs of study to obtain information about the requirements for the particular teaching certificate in which they are interested. Admission to the teacher certification program requires application and satisfaction of minimum admission requirements. Refer to *Admission to the Teacher Certification Program under Teacher Certification* in the *Department of Teacher Education* section of this catalog for additional information.

EDUCATION
Department of Teacher Education

Students who intend to pursue a teaching certificate should know that certification requires payment of a fee to the Michigan Department of Education. Payment of the fee is a certificate requirement that must be met prior to issuance of the teaching certificate. The *Administrative Rules Governing the Certification of Michigan Teachers* require that an application for certification must be made no later than five years after credit requirements have been met. Furthermore, the *Administrative Rules Governing the Certification of Michigan Teachers* ® 390.1201 states that:

- (1) The state board may refuse to grant or renew, or may revoke or suspend for a fixed term, or may impose reasonable conditions on, a teaching certificate granted pursuant to these rules for the following reasons:
 - (a) Fraud, material misrepresentation, or concealment in the application for a certificate.
 - (b) Failure or ineligibility of the applicant or certificate holder to meet the criteria for eligibility for the certificate.
 - (c) Conviction, as an adult, of an act of immoral conduct contributing to the delinquency of a child, or of a felony involving moral turpitude.

The College of Education solicits information that is used in making decisions regarding admission, continued enrollment in teacher certification programs, internship placements, and recommendations for teacher certification. Information concerning the procedures that the College follows in soliciting and acting on such information may be obtained in the College of Education Student Affairs office. Since the State of Michigan enters into reciprocal agreements with other states in regard to teacher certification, students should be aware that although other states have requirements similar to those of the State of Michigan, other states may impose additional requirements.

Students who intend to pursue a teaching certificate should also be apprised of the following:

- (2) Beginning July 1, 1992, the State Board of Education shall only issue a teaching certificate to a person who has passed all portions of the Michigan Test for Teacher Certification (MTTC) as follows:
 - (a) For a secondary level teaching certificate, has passed both a basic skills test and the appropriate available subject area test for each subject area (major or minor) in which he or she applies to be certified. At the secondary level, completion of course work for at least one major and one minor are required.
 - (b) For an elementary level teaching certificate, has passed a basic skills test and the elementary certification test, and has passed the appropriate available subject area test for each subject area, if any, in which he or she applies to be certified.
- (10) The Michigan Department of Education, or if approved by the state board, a private testing service, may assess fees for taking a basic skills test, the elementary certification test, and the subject area tests.

ENDORSEMENTS

Persons who hold a valid State of Michigan teaching certificate may earn additional certificate endorsements. Certificate endorsements signify that the certificate holder is highly qualified to teach in the endorsement area at the appropriate grade levels.

The holder of an elementary or secondary provisional, permanent, continuing or professional education certificate may qualify for an additional endorsement by meeting the course work requirements for any Michigan State University disciplinary teaching major or minor. The planned program for meeting course work requirements must include a minimum of 20 semester hours and be approved by a College of Education advisor. In addition to completing required course work in the endorsement area, the candidate must pass the corresponding MTTC subject test.

A K-12 reading specialist (BR) endorsement or an elementary or secondary reading (BT) endorsement can be obtained by completing the requirements for Michigan State University's Master of Arts degree program in Teaching and Curriculum and a Graduate Specialization in Literacy and Language Instruction. A K-12 special education endorsement can be obtained in learning disabilities or autism spectrum disorders by completing the requirements for Michigan State University's Master of Arts degree program in Special Education. A K-12 special education endorsement may be placed on either an elementary or secondary teaching certificate. A elementary or secondary Educational Technology (NP) endorsement can be added to an elementary or secondary certificate, respectively, by completing the requirements for Michigan State University's Master of Arts degree program in Educational Technology or by completing a prescribed 21-credit program in educational technology. An English as a Second Language endorsement can be added to either an elementary or a secondary certificate by completing the requirements for Michigan State University's Master of Arts degree program in Teaching and Curriculum or by completing a prescribed 23 credit program in English as a Second Language. A vocational endorsement in agricultural education can be obtained by meeting specified requirements.

To be recommended for certification, students completing course work required for endorsement areas must pass the appropriate Michigan Test for Teacher Certification Subject Test. Individuals who are interested in seeking additional endorsements must contact an academic advisor in the Office of Student Affairs, College of Education.

GRADUATE STUDY

Graduate study in the Department of Teacher Education leads to the Master of Arts or Doctor of Philosophy degree. Graduate Specializations are also available in Language and Literacy Education for doctoral students, Literacy and Language Instruction for master's students, and in K-12 English as a Second Language for master's students. A Graduate Certificate in Children's and Young Adult Literature and a Graduate Certificate in Elementary STEM Education are available online. Graduate certificates at the doctoral level are also available in Science Education, Urban Education, English Language Learner Education, and Qualitative Research Methods.

TEACHING and CURRICULUM

Master of Arts

The master's program in teaching and curriculum is designed principally for persons who wish to acquire advanced professional knowledge related to teaching and curriculum diverse learners in K-12 schools. The program is offered in face-to-face, online, and hybrid formats.

This master's program in teaching and curriculum consists of (1) designated areas of integrated, practice-centered inquiry in professional, disciplinary, and foundational studies and (2) sustained, simultaneous inquiry in both university and public-school settings. The program is designed for certified teachers and other educators who wish to continue their professional studies in teaching and curriculum.

Students wishing to add an Arabic or an English as a Second Language endorsement, a Classroom Reading Teacher (BT) endorsement, or Reading Specialist certification (BR) to their Michigan teaching certificate, as part of their Master of Arts in Teaching and Curriculum program may do so by completing the specified requirements for this endorsement or certification that have been approved by the Michigan Department of Education.

The program also considers applications from students who wish to pursue Michigan teacher certification in tandem with earning the master's degree in curriculum and teaching. Such students need to apply to and be accepted into the Teacher Certification Program, through which they will meet current Michigan teacher certification requirements in a program of study and in a year-long internship that will be tailored to their teaching aspirations and their previous academic background. [For additional information on the requirements for teacher certification and for admission into Michigan State University's Teacher Certification Program, see the **TEACHER CERTIFICATION** section of this catalog.]

In addition to meeting the requirements of the university and of the College of Education, students must meet the requirements specified below.

Admission

Applications for admission to the master's program are reviewed by faculty who look for evidence of appropriate preparation for advanced disciplinary and professional study at the master's level and the likelihood of academic success, as indicated by an applicant's prior educational record, work experience, statement of professional goals, letters of recommendation, and an assigned professional essay.

Requirements for the Master of Arts Degree in Teaching and Curriculum

The program is available only under Plan B (without thesis). Students must complete 30 credits distributed as follows:

	CREDITS	
1. Professional Development and Inquiry Core:	9	
a. One of the following courses:		
TE 807 Professional Development and Inquiry	3	
TE 808 Inquiry into Classroom Teaching and Learning	3	
b. One of the following courses:		
TE 801 Professional Roles and Teaching Practice I	3	
TE 818 Curriculum in Its Social Context	3	
Students who have completed Teacher Education 801 in the College's Internship Year Studies program may use it to fulfill this requirement.		
c. One of the following capstone courses:		
TE 870 Curriculum Design, Development, and Deliberation in Schools	3	
TE 872 Teachers as Teacher Educators	3	
TE 873 Literacy Leadership	3	
2. Concentration:	9	
Complete 9 credits in course work selected from one of the following:		
a. Three 3-credit courses at the 400-level or above from a list of approved courses available in the department.		
b. Three 3-credit courses at the 400-level or above from one of the areas of concentration on an approved list available in the department.		
3. Electives:	12	
a. Three 3-credit Teacher Education courses at the 400-level or above from a list of approved courses available in the department. Students who have completed Teacher Education 802 and 804 in the College's Internship Year Studies program may use those courses to fulfill this requirement.		
b. Three additional credits of electives as approved by the student's academic advisor.		
4. A synthesis paper acceptable to the student's examining committee. This paper must be submitted near the end of the student's program of study. The submission of an acceptable synthesis paper and professional portfolio satisfies the University requirement of a final examination or evaluation.		
5. A professional portfolio developed by the student throughout the master's program, beginning in Teacher Education 807 or 808. The portfolio is reviewed by two faculty members. A third reviewer is required if the first two reviewers do not reach consensus regarding the acceptability of the portfolio. The submission of an acceptable portfolio satisfies the University's requirement of a final examination or evaluation.		

GRADUATE CERTIFICATE IN CHILDREN'S AND YOUNG ADULT LITERATURE

The Graduate Certificate in Children's and Young Adult Literature is designed to provide in-service elementary and secondary teachers with materials and methods for teaching international children's and young adult literature. The focus of the program is on multimodal texts, exploration of the kinds of conversations that surround pieces of literature, and whether those texts are written for children, adults, or both. The program aids understanding classics and awards winners in children's and young adult literature by and about people and communities who have been and continue to be marginalized by and underrepresented in the school curriculum in the United States. The graduate certificate is available only online.

Admission

Students who wish to complete the graduate certificate and are currently enrolled in a graduate degree program at Michigan State University must complete the Intent to Enroll form on the program Web site.

Requirements for the Graduate Certificate in Children's and Young Adult Literature

		CREDITS
Students must complete 9 credits from the following courses:		
1. The following courses (3 credits):		
TE 849 Methods and Materials for Teaching Children's and Adolescent Literature		3
2. Two of the following courses (6 credits):		
TE 836 Awards and Classics of Children's Literature		3
TE 838 Children's Literature and Film		3
TE 850 Critical Reading for Children and Adolescents		3
TE 883 Seminars in Literacy Instruction		1 to 4
TE 891 Special Topics in Teaching, Curriculum, and Schooling		1 to 4
A children's or young adult literature course outside the department, as approved by the student's academic advisor.		

GRADUATE CERTIFICATE IN ELEMENTARY STEM EDUCATION

The Graduate Certificate in Elementary STEM Education is designed to provide in-service elementary teachers with knowledge about student learning and engagement and instructional practices in STEM disciplines. The primary focus of the program is understanding inquiry-oriented practices across STEM disciplines. The graduate certificate is available only online.

Admission

Students who wish to complete the graduate certificate and are currently enrolled in a graduate degree program at Michigan State University must complete the Intent to Enroll form on the program Web site.

Requirements for the Graduate Certificate in Elementary STEM Education

		CREDITS
Students must complete three courses from at least two of the categories below (9 credits):		
Science Education		
TE 860 Practice and Inquiry in Science Education		3
TE 861A Teaching Science for Understanding		3
TE 861B Inquiry, Nature of Science, and Science Teaching		3
TE 861C Action Research in K-12 Science Mathematics Classrooms		3

EDUCATION
Department of Teacher Education

Technology Education			
CEP	810	Teaching for Understanding with Technology	3
CEP	811	Adapting Innovative Technologies to Education	3
CEP	812	Applying Educational Technology to Issues of Practices . . .	3
TE	831	Teaching School Subject Matter with Technology	3
Elementary Education			
TE	809	Inquiry-Oriented Instructional Strategies for the Elementary Classroom	3
Mathematics Education			
CEP	805	Learning Mathematics with Technology	3
TE	855	Teaching School Mathematics	3
TE	857	Teaching and Learning Mathematical Problem Solving . . .	3
Special Topics			
TE	891	Special Topics in Teaching, Curriculum, and Schooling. . . .	1 to 4

CURRICULUM, INSTRUCTION, AND TEACHER EDUCATION

Doctor of Philosophy

The doctoral program in curriculum, instruction, and teacher education is designed for persons who are interested in and show promise of becoming scholars and leaders in the domains of curriculum, teaching, teacher education, and educational policy at the K–12 or college level, or in local, state, regional, national, or international institutions or agencies. The program is characterized by its interdisciplinary and interinstitutional perspectives on problems and issues of educational practice.

Doctoral students in curriculum, instruction, and teacher education link their areas of concentration with one or more of the following emphasis areas:

1. Curriculum, Teaching, and Learning.

Faculty and doctoral students who are associated with this emphasis area are interested in the interactive relationships among curriculum; the teaching and learning of school subjects; and the ideological, social, and disciplinary contexts of teaching and learning within and across subject areas. The curriculum, teaching, and learning emphasis area supports concentration in language education, literacy, mathematics, science, and social studies. Among the areas of central inquiry are curriculum theories, history, design, and development; relationships between disciplines and school subjects; and debates about what knowledge is of most worth, for whom, and for what purposes.

2. Educational Policy and Social Analysis.

Faculty and doctoral students who are associated with this emphasis area share an interest in the critical analysis of educational policy. The courses that are related to the educational policy and social analysis emphasis area focus on a wide range of issues, including the social–historical contexts within which particular educational policies arise, the process by which educational policies are formulated, and the effects that educational policies produce. In analyzing these issues, faculty and students draw on a wide range of perspectives from the social sciences.

3. Teacher Education and Teacher Learning.

Faculty and doctoral students who are associated with this emphasis area are concerned with the relationship between teacher education and teacher learning at the preservice, induction, and inservice levels. The courses that are related to the teacher education and teacher learning emphasis area focus on the enterprise of teacher education, the practices of teacher educators, and the formal and informal learning of prospective, beginning, and experienced teachers over time and in different settings.

Students who are enrolled in the Doctor of Philosophy degree program in Curriculum, Instruction, and Teacher Education in the Department of Teacher Education may elect a specialization in language and literacy. For additional information, refer to the statement on *Graduate Specialization in Language and Literacy* below.

In addition to meeting the requirements of the university and of the College of Education, students must meet the requirements specified below.

Admission

Persons who hold degrees in a wide range of disciplines may apply for admission to the doctoral program. Applicants with limited backgrounds in education, however, may be required to complete collateral work in this field. Applicants must submit a sample of scholarly writing.

Review of applicants focuses on their study and experience in education, on the compatibility between their professional goals and the doctoral program, and on their potential for successful advanced degree work.

Requirements for the Doctor of Philosophy Degree in Curriculum, Instruction, and Teacher Education

Students must complete the following courses:

1. Core Proseminar sequence. Both of the following courses:

			CREDITS
TE	901	Proseminar in Curriculum, Instruction, and Teacher Education I	3
TE	902	Proseminar in Curriculum, Instruction, and Teacher Education II	3
2. Research Requirement - Educational inquiry and research.
 - a. The following course:

CEP	930	Educational Inquiry	3
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 - b. One of the following courses in quantitative methodology:

CEP	932	Quantitative Methods in Educational Research I	3
TE	934	Introduction to Quantitative Methods in Educational Research	3
 - c. One of the following courses in conceptual or qualitative methodology:

TE	931	Introduction Qualitative Methods in Educational Research	3
TE	939A	Special Topics in Advanced Qualitative Methodology	3
TE	939B	Advanced Qualitative Methods: Critical Ethnography	3
TE	939C	Advanced Qualitative Methods: Discourse Analysis	3
TE	939D	Advanced Qualitative Methods: Case Studies	3
TE	939E	Advanced Qualitative Methods: Humanities Oriented Research	3
TE	939F	Advanced Qualitative Methods: Phenomenology	3
TE	939G	Advanced Qualitative Methods: Humanizing Research-Decolonizing Qualitative Inquiry	3

A course used to fulfill this requirement may not be used to fulfill another requirement.
 - d. One 3 or 4 credit course in advanced methodology approved in advance by the guidance committee.
 - e. A research practicum to be taken after the student has completed the courses reference in items 2.a., 2.b., or 2.c. above:

TE	995	Research Practicum in Curriculum, Instruction, and Teacher Education	1 to 3
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3. Core studies in education.

Three courses from a list of approved courses that are designed to provide broad and diverse perspectives on education. The approved list is available from the Department of Teacher Education.
4. Area of concentration.

At least five additional courses in the student's area of concentration. **Both** the area **and** the related courses must be approved by the student's guidance committee.
5. Successful completion and defense of the dissertation. Students may not earn more than 30 credits in TE 999 Doctoral Dissertation Research.

GRADUATE CERTIFICATE IN ENGLISH LANGUAGE LEARNER EDUCATION

The Graduate Certificate in English Language Learner Education is designed for students in doctoral programs who wish to gain a comprehensive understanding of the multiple complexities in educating English Language Learners (ELL) including the influence of the socio-historical, local, and policy contexts and the challenges of teaching learners with diverse levels of English proficiency and prior formal schooling experiences in both English as a second language and content-area classrooms. The graduate certificate provides an overview of the different sociocultural, socio-historical, and sociopolitical factors that influence ELL education; demonstrates different theories, methods, and program models in English as a second language teaching, bilingual education, and content-area teaching; stresses the importance of affirming the linguistic and cultural diversity of ELL's; and offers the knowledge-base and skills in ELL education that students can apply in their own research and teaching in the field of education.

Admission

To be considered for admission to the Graduate Certificate in English Language Learner Education students must be pursuing a doctoral degree program within the College of Education.

Requirements for the Graduate Certificate in English Language Learner Education

	CREDITS
Students must complete 12 credits from the following:	
1. Four of the following courses (12 credits):	
EAD 907 Educational Policy for Immigrant and ELL Students	3
LLT 808 Assessment for Language Teaching and Research	3
LLT 860 Second Language Acquisition	3
SOC 852 Migration and Social Change	3
TE 904 ELL/ESL Research and Practice: K-12	3
TE 908 Sociohistorical Perspectives on English Language Learners and Second Language Education in the U.S.	3
TE 909 English Language Learners in Content Areas: Constructing Research Communities and Resources	3
Students who wish to take an alternative course (3 or 4 credits) on English Language Learners in substitution of a course above must request formal permission from the graduate certificate program faculty. Only one substitution request will be accepted.	
2. An English Language Learners Education research project focusing on issues related to teaching and learning, curriculum, policy, counseling, or leadership as they pertain to understanding problems, issues, and potential solutions in ELL education. This requirement can be met through a student's doctoral research practicum requirement or through an independent study project arrangement with a faculty member. The project's topic must be preapproved by the certificate program faculty. The project must result in a paper with a minimum length of 25 pages with references.	

GRADUATE CERTIFICATE IN QUALITATIVE RESEARCH METHODS

The Graduate Certificate in Qualitative Research Methods is designed for doctoral students enrolled in College of Education doctoral programs. It focuses on enhancing doctoral students' theoretical and practical preparation and expertise in conceiving, designing, conducting, analyzing, and reporting qualitative research studies as well as preparing them to teach both introductory and advanced courses in qualitative research methods when assuming faculty positions elsewhere.

Admission

To be considered for admission to the Graduate Certificate in Qualitative Research Methods students must be pursuing a doctoral degree program within the College of Education.

Requirements for the Graduate Certificate in Qualitative Research Methods

	CREDITS
Students must complete 15 credits from the following:	
1. Both of the following courses (6 credits):	
CEP 930 Educational Inquiry	3
TE 931 Introduction to Qualitative Methods in Educational Research	3
2. At least three of the following courses (9 credits):	
HST 803 Seminar in Methodology of Historical Research	3
SOC 985 Qualitative Field Research	3
TE 938 Qualitative Data Analysis	3
TE 939A Special Topics in Advanced Qualitative Methods	3
TE 939B Advanced Qualitative Methods: Critical Ethnography	3
TE 939C Advanced Qualitative Methods: Discourse Analysis	3
TE 939D Advanced Qualitative Methods: Case Studies	3
TE 939E Advanced Qualitative Methods: Humanities Oriented Research	3
TE 939F Advanced Qualitative Methods: Phenomenology	3
TE 939G Advanced Qualitative Methods: Humanizing Research: Decolonizing Qualitative Inquiry	3
WRA 870 Research Methodologies in Rhetoric and Composition	3

GRADUATE CERTIFICATE IN SCIENCE EDUCATION

The Graduate Certificate in Science Education, which is administered by the Department of Teacher Education in the College of Education, is designed for doctoral students who are interested in developing expertise in science education across and within a range of theoretical and methodological perspectives. Cognition, sociocultural, and feminist-critical perspectives along with both qualitative and quantitative methodologies are studied.

Persons who hold degrees in a wide range of disciplines may apply for admission to the certificate program. Applicants without sufficient science or science education background will be required to complete collateral course work or demonstrate proficiency through other means. Collateral course work will not count towards the certificate program. Review of applicants focuses on their study and experience in science and education, on the compatibility between their professional goals and the certificate program, and the potential for successful advanced degree work.

With approval of the College of Education, the certificate is available as an elective to any qualified student who is enrolled in a Doctor of Philosophy degree program in the College of Agriculture and Natural Resources, College of Natural Science, or the College of Education. Students must meet the requirements of the certificate specified below, in addition to the requirements for the student's Doctor of Philosophy degree program.

Requirements for the Graduate Certificate in Science Education

	CREDITS
1. Both of the following courses (9 credits):	
TE 936 Topics in Research on Teaching and Learning Science	6
TE 937 Topics in Social, Historical, Philosophical Foundations of Science Education	3
Students will enroll in two 3-credit enrollments for Teacher Education 936.	
2. Students must complete a project under the supervision of a Teacher Education science education faculty member. College of Education students may fulfill the project requirement through a science education-focused research practicum by enrolling in Teacher Education 995 for 1 to 3 credits. Students outside the College of Education can meet this requirement by enrolling in a 1-credit section of Teacher Education 990 Independent Study experience with a Teacher Education faculty member.	

GRADUATE SPECIALIZATION IN K-12 ENGLISH AS A SECOND LANGUAGE

The Graduate Specialization in K-12 English as a Second Language, which is administered by the Department of Teacher Education in the College of Education, is designed for students who aspire to become endorsed to teach English as a Second Language at the elementary and/or secondary level in a K-12 setting.

The graduate specialization is available to master's students who are enrolled in the Master of Arts degree in Teaching and Curriculum, the Master of Arts degree in Education, and the Master of Arts degree in Special Education at Michigan State University. With the approval of the department and college that administers the student's degree program, the courses that are used to satisfy the graduate specialization may also be used to satisfy the requirements for the master's degree. The planned program of courses meets the content knowledge requirements set for by the Michigan Department of Education for the K-12 Endorsement in English as a Second Language (NS).

Requirements for the Graduate Specialization in K-12 English as a Second Language

	CREDITS
Students must complete 23 credits from the following:	
1. All of the following courses (8 credits):	
LLT 846 English Structures and Functions	3
TE 892 ESL/FL Classroom Practices: K-12 Literacy Instruction	3
TE 896 ESL/FL Practicum: K-12	2
2. One of the following courses (3 credits):	
TE 845 Language Diversity and Literacy Instruction and Assessment.	3
TE 846 Accommodating Differences in Literacy Learners.	3
3. One of the following courses (3 credits):	
<i>Elementary Certified Students</i>	
TE 843 Secondary Reading Assessment and Instruction	3
<i>Secondary Certified Students</i>	
TE 842 Elementary Assessment and Instruction.	3
Michigan Department of Education (MDE) requires whenever teachers add a K-12 endorsement, they must have reading course work for both levels of certification - elementary and secondary. It is assumed, to be in compliance with MDE standards for initial certification, that an elementary certified teacher has already had course work related to elementary reading and, likewise, secondary certified teachers have already had a course in cross-content secondary reading. To earn the K-12 endorsement, teachers need to add the reading course that would extend their certification to include the other level.	
4. One of the following courses (3 credits):	
FLT 807 Foreign Language Teaching Methods	3
LLT 807 Language Teaching Methods	3
5. One of the following courses (3 credits):	
FLT 808 Assessment for Foreign Language Teaching	3
LLT 808 Assessment for Language Teaching and Research	3
6. One of the following courses (3 credits):	
FLT 860 Foreign Language Acquisition.	3
LLT 860 Second Language Acquisition.	3

GRADUATE SPECIALIZATION IN LANGUAGE AND LITERACY EDUCATION

The Graduate Specialization in Language and Literacy Education, which is administered by the Department of Teacher Education, is designed for students who aspire to be scholars, curriculum developers, and policy leaders in literacy at school, district, state, national, and international levels. The specialization focuses on literacy theory, research, and education. It is for students who wish to address issues of language and literacy development, literacy use, literacy instruction, literacy contexts of social, cultural, and linguistic differences, and the possibilities of transforming how people read and take action in their worlds.

The graduate specialization is available as an elective to students who are enrolled in the Doctor of Philosophy degree in Educational Psychology and Educational Technology and the Doctor of Philosophy degree in Curriculum, Instruction and Teacher Education and the Doctor of Philosophy degree in Special Education. Students must meet the requirements of the specialization speci-

fied below, in addition to the requirements for the Doctor of Philosophy degree in Educational Psychology and Educational Technology or the Doctor of Philosophy degree in Curriculum, Instruction and Teacher Education or the Doctor of Philosophy degree in Special Education. With the approval of the department and college that administers the student's degree program, the courses that are used to satisfy the specialization may also be used to satisfy the requirements for the doctoral degree.

For further information visit the Language and Literacy Web site at: <http://education.msu.edu/academics/graduate-specializations-certificates/>.

Requirements for the Graduate Specialization in Language and Literacy Education

	CREDITS
1. All of the following courses (9 credits):	
CEP 930 Educational Inquiry	3
TE 946 Current Perspectives in Literacy Research and Instruction	3
TE 931 Introduction to Qualitative Methods in Educational Research	3
2. One advanced inquiry/research course related to the student's field of interest	3
3. Four of the following courses (12 credits):	
CEP 912 Reading Comprehension: Research and Theory	3
CEP 915 Literacy in Sociocultural Context	3
CEP 941 Academic Issues in Special Education for At-Risk Students	3
CEP 980 Writing, Research and Theory	3
CEP 981 Research on Literacy and Technology	3
TE 904 ELL/ESL Research and Practice: K-12	3
TE 944 Seminar in English Education	3
TE 945 Current Issues in Children's and Adolescent Literature	3
TE 958 History of Literacy Research and Instruction	3
TE 959 Acquisition and Development of Language and Literacy.	3
TE 991B Special Topics in Language and Literacy Education	3
TE 994 Laboratory and Field Experience in Curriculum, Instruction and Teacher Education.	3
4. One of the following research practicums (1 to 3 credits):	
CEP 995 Practicum in Research Design and Data Analysis	1 to 3
TE 995 Research Practicum in Curriculum, Instruction and Teacher Education	1 to 3
The practicum should be focused on a problem in language and literacy education.	

GRADUATE SPECIALIZATION IN LITERACY AND LANGUAGE INSTRUCTION

The Graduate Specialization in Literacy and Language Instruction, which is administered by the Department of Teacher Education in the College of Education, is designed for students who aspire to develop strong expertise in literacy and language instruction. The specialization is available only online.

The specialization is available as an elective to students who are enrolled in master's degree programs at Michigan State University. With the approval of the department and college that administers the student's degree program, the courses that are used to satisfy the specialization may also be used to satisfy the requirements for the master's degree.

Requirements for the Graduate Specialization in Literacy and Language Instruction

	CREDITS
Students must complete the following (21 credits):	
1. All of the following courses (18 credits):	
TE 807 Professional Development and Inquiry	3
TE 845 Language Diversity and Literacy Instruction and Assessment.	3
TE 848 Writing Assessment and Instruction	3
TE 849 Methods and Materials for Teaching Children's and Adolescent Literature	3
TE 853 Assessing and Responding to Literacy Learning Difficulties I	3
TE 873 Literacy Leadership.	3

- 2. One of the following courses (3 credits):
 - TE 842 Elementary Reading Assessment and Instruction 3
 - TE 843 Secondary Reading Assessment and Instruction 3