Application for State Approval of Teacher Preparation Specialty Programs

Michigan Department of Education, Office of Professional Preparation Services
P.O. Box 30008, Lansing, Michigan 48909
Phone: (517) 335-4610 * Fax: (517) 373-0542**

Directions:

- For each new, amended, or experimental program, a separate application is required.
- Application and all documentation are to be submitted electronically.
- Fax or mail only the cover page (Page 1) that is signed by the dean or director.
- All correspondence regarding this application should be addressed to the appropriate consultant identified in Attachment 1.

I. Application Information	
Institution	Northern Michigan University
MDE Endorsement Area and Code (Attachment 2)	Geography Secondary CB
Date of this Application	November 1, 2010
Name and Title of Dean/Director	Rodney Clarken Ph.D. Director of School of Education and Associate Dean of Teacher Education
Signature of Dean/Director	

II. Contact Information for Questions Related to This Application	
Contact Person's Name and Title	Gabe Logan Ph.D.
Contact Person's Phone Number	1-906-227-1744
Contact Person's Fax Number	1-906-227-2229
Contact Person's E-Mail Address	glogan@nmu.edu

III. Type of Request for Approval	**(Indicate One)**
New program for institution	
U.S. Department of Education Classification of Instructional Programs (CIP) Code, if vocational occupational area	
Compliance with State Board of Education new or modified program criteria	x
Experimental program	
Program amendment (See Section IX for guidelines)	

IV. Institutional Representatives

Please list individuals available to serve on Michigan Department of Education Ad-Hoc Committees related to this specialty program (e.g., program review, standards development, test development, forum planning). Include both higher education faculty and K-12 representatives.

Name/Title	Specialty	Mailing Address	E-Mail Address	Phone	Fax
Gabe Logan Ph.D.	Secondary History/ Social Studies	Northern Michigan University Department of History 1401 Presque Isle Ave. Marquette, MI. 49855	glogan@ nmu.edu	1-906-227-1744	1-906-227-2229

V. Program Information

Program Summary	Prepare a program narrative (*5-6 page maximum*) which: • Describes the philosophy, rationale, and objectives of the specialty program and explains how the program is consistent with the philosophy, rationale, and conceptual framework of the unit. • Describes the sequence of courses and/or experiences to develop an understanding of the structures, skills, core concepts, ideas, values, facts, methods of inquiry, and uses of technology. • Describes how candidates are prepared to utilize a variety of instructional approaches to address the various learning styles of students. • Describes any differences that may exist between elementary or secondary preparation to teach in each major or minor area (e.g., instructional resources, field placements, instructional techniques), if applicable. • Describes how the program incorporates gender equity, multi-cultural, and global perspectives into the teaching of the subject area. • Describes how the program prepares candidates to use multiple methods of assessment appropriate to this specialty area.
Program Coursework	Complete Attachment 3 showing the required and elective courses for this program. This list should include the following information. • Contact person for specialty program. • Course title and number. • Number of semester hours for required and elective courses. • Designation for elementary, secondary, or K-12 certification. • Course descriptions. Please refer to the Quick Reference Chart at: http://www.michigan.gov/documents/MinimumRequiredHoursSpecialty-AreaProgramA21931_74344_7.PDF

	for the available program options and required semester hour minimums.

SECONDARY GEOGRAPHY CERTIFICATION PROGRAM APPLICATION PROGRAM SUMMARY

Goals of the NMU Teacher Education Program

The mission of the NMU Teacher Education Program is to provide candidates a challenging, relevant and rewarding experience that will allow candidates to acquire professional competence.

The goals to achieve this mission are as follows:
- Understand the role and operation of the school;
- Respect and work effectively with students of varying backgrounds and cultures;
- Assume the various responsibilities of the classroom teacher;
- Plan instruction and learning experiences that recognize the individual needs and differences of students;
- Organize and manage the classroom environment to maximize learning;
- Manage classroom interactions and student conduct to create a positive climate for learning;
- Identify and use appropriate instructional techniques, media and methods;
- Evaluate learning to determine the extent to which instructional objectives are achieved by students;
- Establish positive and effective communication with students, parents, colleagues, administrators and community members;
- Accept and assume the responsibilities associated with being a competent professional and lifelong learner; and,
- Practice being a reflective teacher.

Conceptual Framework for NMU Teacher Education: Philosophy, Rationale and Objectives

During the Fall of 2006 and Winter of 2007 Northern Michigan University Teacher Education faculty reviewed, revised, and readopted the April 2000 Conceptual Framework presented in full here. Below, we provide an overview of our conceptual framework which begins with a definition of education. Israel Scheffler (1976) offered the following:

> [Education is] the formation of habits of judgment and the development of character, the elevation of standards, the facilitation of understanding, the development of taste and discrimination, the stimulation of curiosity and wondering, the fostering of style and a sense of beauty, the growth of a thirst for new ideas and vision of the yet unknown (p 206).
>
> In addition to a definition of education, three questions shaped the development of our conceptual framework: (1) What is the nature of teaching, both as we practice it and as we wish our candidates to? (2) What are the models of learning we wish to develop in our candidates and practice within our faculty? (3) What is the knowledge base we wish to incorporate in our instructional program? The answers to these questions culminated into five Derivatives that describe our framework. In what follows, we provide a brief introduction to our derivatives with a direct reference to a primary source that helped guide our thinking.
>
> **Derivative** #1: Habits of Judgment and Development of Character [Scheffler (1965, 1976); Schön (1983)]
> Taking this derivative seriously commits us as a faculty to developing both habits of mind and habits of the heart that will lead to a practice steeped in reflection and judgment and based in the

ethics that define good character.

Derivative #2: Teaching as Artistry [Eisner (1998)]
As an ethical activity, teaching requires, among other things, that teachers value their students. Valuing as in appreciation carries a connotation of the aesthetic. That is, teachers must exhibit artistry in the practice of their craft and must develop in becoming a connoisseur of excellent teaching which is essential to becoming an excellent teacher.

Derivative #3: Subject Matter Content as Medium [Shulman &Wilson (2004)]
A derivative that explores subject matter content as medium arises from Scheffler's definition of education and our claim that teaching is an art, grounded in ethical and aesthetic qualities. The artfulness of teaching is a fusing of pedagogy and content that we recognize, as Shulman did, as pedagogical content knowledge. Teachers make pedagogical judgments about what content to address and how to design classroom experiences that will assist students in engaging this content as a means to expand and deepen their own learning. The task of the teacher is to design learning experiences that will enable students to develop their own capacity for understanding (i.e., form habits of judgment, etc.).

Derivative #4: Race, Culture, and Social Justice [Banks & Banks (2004)]
A derivative that explores race, culture, and social justice attempts to call into question the social and political agenda in this country that has long included (and in some ways continues to be) the myth of cultural assimilation and the practice of racial hegemony in the pursuit of multicultural education. Banks and Banks (2004) describe the dimensions of multicultural education as: (1) content integration, (2) the knowledge construction process, (3) prejudice reduction, (4) an equity pedagogy, and (5) an empowering school culture and social structure (p. 20). Drawing on our view of education, as embodied in Scheffler's definition and Banks and Banks multicultural education, we must include a commitment to providing experiences that foster a critical understanding of the central role of race, cultural and social justice.

Derivative #5: Technology [AACTE (2008)]
Technology as a knowledge base, medium of instruction and communication, and medium of research and professional development offers possibilities to educators at all levels. In exploring a derivate that addresses technology, we do not intend to imply that technology in and of itself is as fundamental to our conceptual framework as our other derivatives; however, technology clearly is a component of our work, as a means to an end and not an end in itself. Technology pedagogical content knowledge must serve to promote and ensure collaborative and ethical work, must engage users in critical and creative thinking and problem solving that supports candidate construction of meaning, must be weighted in light of student diversity and cultural differences and most essentially social justice and equity of access and opportunity (the digital divide).

Courses in the content area majors and minors have course goals and objectives aligned with the NMU Conceptual Framework. The conceptual framework and program philosophy for students, cooperating teachers and faculty are outlined for each phase of the program clearly showing how Pre-Methods, Methods and Student teaching coursework align. All degree requirements are made available to students and faculty through the university bulletin.

Sequence of Courses and/or Experiences to Develop an Understanding of the Structures, Skills, Core Concepts, Ideas, Values, Facts, Methods of Inquiry, and Uses of Technology

Our program is designed with an emphasis on candidate development through three program phases, coupled with blocked courses, and integrated field experiences. The phases are: Phase I – Pre-Methods;

Phase II – Methods; and, Phase III – Student Teaching. Each phase is based upon a set of indicators from the Professional Standards for Michigan Teachers that are linked to the Final Evaluation of Student Teacher.

Entry into the Professional Education Sequence, as defined by the Teacher Selection and Retention Standards, requires a 2.7 minimum GPA and a demonstration of basic skills in the areas of reading, writing and math. To maintain enrollment in the education sequence all candidates must maintain a 2.7 GPA in their overall, major(s), minor(s) and professional education sequence areas through all program phases.

NMU requires all graduates to complete a world cultures course prior to graduation.

Upon entry to the Professional Education Sequence candidates complete Phase I: Pre-Methods consisting first of ED 201 Introduction to Education and ED 301 Dimensions of American Education where students explore and situate themselves within the profession. These courses require students to develop their philosophy of education, interview practicing educators, and to define the legal and ethical obligations of their profession. Phase I continues with ED 231 Teaching for Learning in the Secondary Classroom which is a learning theory course situated in a middle school and supervised by the instructor of record. Candidates are placed in their content areas for this experience.

Meeting the GPA requirements in all areas listed above and a passing score in all three areas of the MTTC Basic Skills allows candidates to apply for methods. Phase II: Methods is conducted over the course of two semesters and is situated in local schools and students must complete a methods application to this phase of the program. Building upon their content course requirements and pre-methods learning, candidates complete lesson planning with classroom teachers at all building grade levels focusing on unit development and delivery, reading assessments, individualized and differentiated instruction and instructional technology all consistent with the Michigan High School Content Expectations.

Candidates are expected to integrate their content area into ED 361 Special Education and the General Classroom Teacher to plan and assess for students with special needs; ED 319 Teaching of Reading for Secondary Teachers; ED 483 Educational Media Technology to plan and assess teaching and learning according to PSMT Standard 7; GC 350 Methods and Materials in Teaching Social Studies Education; and ED 349 Teaching for Diversity, Equity and Social Justice in the Secondary School Community.

Candidates in the methods phase are required to actively participate in secondary school settings. Candidates are assigned to classroom teachers for 30 hours in each methods course. Candidates plan and reflect on their teaching under the guidance of an NMU professor and the classroom teacher. Lessons delivered in these settings are designed around the High School Content Expectations and support the local curriculum delivered in the school setting.

Admission to Phase III: Student Teaching requires the candidate to complete a pre-application two semesters prior to the experience and an application one semester prior. Candidates can request a split placement or a full semester placement in their content area. Candidates are individually reviewed to determine which student teaching experience will best support their needs. All elementary candidates complete ED 430 Teaching in the Secondary School where candidates take on the responsibilities of the classroom teacher with mentor support from a cooperating teacher and a university supervisor. To model and guide the reflective practice outlined in our conceptual framework, all candidates participate in ED 450 Seminar in Teaching. All candidates must obtain a level of "Proficient" from their cooperating teacher(s), university supervisor and self in all categories on the Final Evaluation of Student Teacher to successfully complete the program. Candidates who obtain a level of "Proficient," provide evidence of

CPR/First Aid completion and passing scores on all MTTC elementary and subject area tests are recommended to the state for certification.

Preparation to Utilize a Variety of Instructional Approaches to Address Various Learning Styles of Students

All courses in the Professional Education Sequence incorporate the need to address varied individual learning styles through each phase of the program. The Pre-Methods Phase uses ED 201 and ED 301 (foundations) to facilitate understanding of learning styles within the context of society as a whole. ED 231 (teaching for learning) provides classroom instruction and 30 hours of on-site field experiences to allow students to observe and plan for these varied approaches. As candidates move into the Methods Phase there is a direct application of their pre-methods courses as they plan, implement and reflect upon lesson delivery in classrooms with varied populations and learning styles through the integration of GC 350 (social studies), ED 349 (diverse learners), ED 319 (reading), ED 361 (special education) and ED 483 (technology). Application of these learning styles in multiple secondary grade level settings during methods supports the transition to the Student Teaching Phase (ED 430) where they are applied and assessed over the course of a semester through the Final Evaluation of Student Teacher, a final portfolio and a mock interview.

Gender Equity, Multi-cultural, Diversity and Global Perspectives
All courses in the Professional Education address the study of gender, multiculturalism, diversity and global perspectives. NMU requires all students to complete a World Cultures requirement prior to graduation. The pre-methods foundations courses (ED 201 & ED 301) expand on that world view as it relates to schooling. The pre-methods learning theory course (ED 231) expands on this knowledge through its immersion in a local school setting and a required field experience to the Nah Tah Wash School in Escanaba, MI. Nah Tah Wash is a tribal school and affords candidates the opportunity to work extensively with minority students in a secondary setting.

All methods courses (ED 361, ED 319, ED 349, ED 483, GC 350) are field based and situated in the Marquette Area Public Schools which is comprised of male and female students, racially diverse populations (85% white; 3.5% African American; .4% Hispanic; 2.6% Asian; 8.2% Native American), students on free and reduced lunch (26.7%), and inclusive classrooms.

The NMU Teacher Education fully supports a candidate's request to student teach out of the Upper Peninsula. The requests to student teach out-of-area must be rooted in the diversity of the experience the candidate will gain by working with varied populations. Placements in urban and rural areas that meet these criteria are supported around the world. During student teaching, candidates also have the option to complete ED 222 Classroom Management and ED 223 Multicultural Education in addition to the required seminar (ED 450) to facilitate a deeper understanding of these issues per request of the student teacher.

Multiple Methods of Assessment
ED 231 Teaching for Learning in the Secondary Classroom provides an introduction to assessment principles related to teaching and learning. ED 483 Educational Media Technology in methods requires candidates to reflect on their pre-methods learning and to incorporate new learning into a portfolio that demonstrates teaching and learning connected to state and national assessments as supported by the High School Content Expectations in the social studies. The portfolio is a requirement of successful completion of student teaching.

The field based program in the methods phase allows candidates to participate in the development and administration of multiple assessments at local schools under the guidance of classroom teachers and teacher educators.

Lesson plans throughout methods and student teaching are assessed for their ability to measure student achievement as they relate to the individual and interdisciplinary units and plans developed and taught by each candidate. Proficiency in this area is measured throughout the program and assessed upon completion of the program in the Final Evaluation of Student Teacher, a final portfolio and a mock interview.

Collaboration with K – 12 Districts and Regional Service Agencies
Candidates and faculty collaborate with K – 12 districts throughout the Professional Education Sequence. The pre-methods courses begin this collaboration with ED 201 and ED 301 where candidates make individual connections to local classrooms for required assignments. ED 231 is situated in a local school setting and requires 30 hours of participation. Ten of those hours are directly supervised by a teacher educator where candidates be guided in their reflection through common experiences. ED 231 also requires candidates to work in a low-income housing area where they are responsible for developing after school program extensions related to their content area. The methods courses are field based and occur in local middle and high schools.

Support and Professional Development for Teacher Candidates during the Induction Period
Graduates of the elementary program are supported through the induction period in a variety of ways. NMU offers graduate programs in the areas of reading, science, administration, and learning disabilities.. These courses are offered on campus and online.

The School of Education collaborates with the Marquette Alger Educational Resource Agency to provide ongoing professional development through the Action in Education Series offered every summer. Workshops and professional development are provided to teachers in the induction years upon request from local districts.

The following centers, conference and resources on NMU's campus provide ongoing support to teachers during their candidacy, induction years and beyond to help integrate learning across content areas:

- Center for Economic Education and Entrepreneurship
- Seaborg Mathematics and Science Center
- Upper Peninsula Writing Project providing intense summer workshops and course on writing across the curriculum.
- Lydia Olson Learning Resources Center collection of young adult and children's literature. Classroom resource center also available with kits available for checkout in content areas.
- Upper Peninsula Reading Conference offered fall every other year on odd years at NMU in support of reading and writing across the curriculum.
- Upper Peninsula Special Education Conference offered in February every year on NMU's campus.
- Uniting Neighbors In the Experience of Diversity (UNITED) offered every fall on NMU's campus in support of multiculturalism, diversity and equity for all members of the community with a particular focus on schools. Coincides with the UP Indian Education Conference.

Candidate Perceptions of Teacher Preparation Program

Data on candidate performance is collected, analyzed and disseminated by the Associate Dean of Teacher Education and the Director of Field Experiences. Michigan Department of Education data for Secondary Pedagogy in the 2007 – 08 MDE Teacher Exit Survey demonstrate that 93% of candidates felt prepared to teach in their content area. 2008 – 09 MDE Teacher Exit Survey results in Secondary Pedagogy show 94% of candidates felt prepared to teach in their areas. NMU surveys all teacher candidates, cooperating teachers and university supervisors in these areas as well through the use of survey tool (Final Evaluation

of Student Teacher) designed to reflect the Professional Standards for Michigan Teachers. A review of these data for fall 2007 through winter 2010 show that student teachers self report a level of "Proficient" in the areas of "Content Area Knowledge" (94.7%) and "General Knowledge" (93.1%). Cooperating teachers assessed elementary candidates at 98.1% and 95.6% "Proficient" and university supervisors ranking elementary candidates at 94.6% and 93.8% "Proficient" respectively.

Candidate perceptions of the program in the area of technology are also reflected in a 95% efficacy score on ELSMT 7 of the 2007 – 2008 MDE Teacher Exit Survey and a score of 97% on the 2008 – 2009 MDE Teacher Exit Survey ELSMT 7.

VI. Content Guidelines/Standards Matrix

Complete the Content Guidelines/Standards Matrix (a sample format is provided in Attachment 4); appropriate program standards must be selected for each program:

- Standards approved by the State Board of Education (SBE) in matrix format are located at: http://www.michigan.gov/mde/0,1607,7-140-5234_5683_6368-24835--,00.html
- A list of standards to use for each specialty program is located at: http://www.michigan.gov/documents/Standards_to_use_for_Approval_of_Each_Specialty_Program_11_109415_7.04C44693_A74354.doc

VII. Supporting Documentation

Field Experiences	• Describe how candidates for majors and minors in specific specialty programs participate in early field experiences in K-12 schools. • Describe aspects of the student teaching experience for certification candidates that enhance the applicants' abilities to teach in this specific specialty area. Are candidates in your institution assigned to K-12 classrooms as student teachers in both their major and minor (if applicable)?
Instructional Methods	• Describe how candidates are prepared to teach in this specific specialty area.
Course Descriptions	• Provide descriptions of all courses contained on Attachment 3. Descriptions must provide enough information to show that standards could logically be met in these courses.
Syllabi	• Provide a representative syllabus for each required course (those listed on Attachment 3 and referenced in the standards matrix).
Faculty	• Please complete the *Instructional Faculty* table from Attachment 5. • Include all faculty teaching the courses shown on the *Summary of Course Requirements for Specialty Program* (Attachment 3), including those who may be temporary or non-tenure stream. • List additional faculty positions that will be added if this program is approved.
Technology	• Describe how this program will utilize technological resources.
Vocational Work Experience	• If applicable, please describe the structure and content of the required vocational work experience program. How is this evaluated?

SECONDARY EDUCATION GEOGRAPHY CERTIFICATION PROGRAM APPLICATION
SUPPORTING DOCUMENTATION

Field Experiences

Phase I field experiences introduce role orientation and conceptualization.

In role orientation ED 201/301 ((Introduction to Education/Dimensions of American Education), the candidate learns what becoming a teacher requires and is introduced to the profession of teaching. Field experiences at this stage involve visits to schools and classrooms to observe the nature of schooling and teaching to get a general knowledge of the role of the schools, classrooms and teachers. In ED 201/301 students have a field experience requirement of spending one-half day in a 6-12 classroom. This exposure is to help candidates to better know if teaching is for them. They are required to interview the teacher they observe concerning their roles and responsibilities and their feelings about teaching

ED 231 (Teaching and Learning in the Secondary Classroom meets in an area middle school and candidates spend 30 hours in a classroom in their content area. Candidates are required to complete additional course hours by visiting a Native school under the direction of the instructor. The purpose of these field experiences are to provide a significant measure of contact with students in a school setting in order to better understand the course content as it relates to their content area and varied school populations. As the first significant field experience in the education program, this assignment also provides candidates with a beginning opportunity to understand the dynamics of teaching and learning. Each candidate is expected to establish a working relationship with classroom teachers during this field experience. Professional demeanor is both learned and practiced in this field experience.

Phase II Field Experiences result from experiences that allow the candidates to practice various aspects related to teaching, such as lesson planning, teaching small groups or micro-teaching. Phase II of teacher education is characterized by learning to become a teacher by allowing opportunities to practice in a learning community.

Candidates in methods courses integrate technology, assistive technology, reading, and diversity, equity and social justice practices in a secondary classroom setting. Field placements are a combination of on-site courses taught and supervised by a professor and 30 scheduled classroom hours beyond course meeting times where the candidate works with a classroom teacher. The on-site teaching is monitored and critiqued by the candidate and the professors in the methods courses. These observations are purposefully used by the professors to drive integrated instructional and behavioral plans for secondary classrooms.

The secondary schools and faculty assist each other to advance the art of practice, i.e., both faculties support the teaching and learning of students and of the candidates preparing to become teachers. The school sites for the courses delivered on site function like “teaching studios” for “pressing” the artistry of practice and developing teachers who “reach” to other educational communities.

The courses situated in the schools create a setting for faculty to engage the candidates in reflection on the knowledge-base for what they are doing and what is being learned by the

candidate prior to Phase III - Student Teaching. When the candidates begin the semester of student teaching away from these sites, they will not only demonstrate proficiency on the Final Evaluation of Student Teacher, but will also carry with them new ways of extending learning for all students, diverse students included, and new ways to utilize the various curricular frameworks and standards.

During the Phase III 16 week student teaching experience, the Director of Field Experiences, the Teacher Education Advisory Council (TEAC), and the university/classroom supervising faculties discuss issues related to maximizing the candidates' practice teaching field experience in Phase III. These include the Professional Standards for Michigan Teachers (PSMT), the preparation of candidates, roles and responsibilities of the university and classroom supervisors, and the kind of expectations to be made of the candidate such as teacher-parent conferences, after-school responsibilities, and uses of technologies to reflect upon practice. Also, the Unit schedules ED 586: Supervision of Student Teaching to support the classroom supervising teachers in their role. These reflections and the planning that result are carried forward to the candidate to drive reflection and revision in the four required student teaching seminars.

The student teaching experience allows for candidates to teach in a 16 week placement or two 8 week placements dependent upon availability of quality classrooms in the requested areas. Candidates may also teach out of state or overseas.

Instructional Methods
Throughout their coursework at NMU, candidates are presented with numerous models of instructional design, delivery, and assessment. At the core of their studies is the critical examination and interpretation of multiple sources. In addition to coursework in their content area, our candidates learn multiple approaches to teach that content. Prior to student teaching, candidates teach more than 20 content specific lessons to small groups or whole classes of secondary and/or middle school students. Candidates' lesson plans are reviewed by peers and faculty prior to delivery. Those practice lessons are observed by faculty. Following each lesson, candidates reflect on their teaching and its connection to course content.

Course Descriptions
See Form XX (Attachment 3) Below

Syllabi
See Content Guidelines/Standards Matrix at:
http://webb.nmu.edu/Departments/Education/SiteSections/Accreditation/MDEApprovals/GC/geographystandardsfinal.pdf

Faculty
See Instructional Faculty (Attachment 5) at:
http://webb.nmu.edu/Departments/Education/SiteSections/Accreditation/MDEApprovals/GC/geographyfaculty.pdf

Technology
One unique characteristic is that NMU is a laptop university. The Laptop Initiative, beginning in 2000, has provided every student and faculty member with a laptop. Our entire campus is wireless and supports the use of collaborative software to engage students with content and

social networking from around the world. Use of these technologies is evident in the design of the classrooms in Whitman. Each is equipped with data projectors, document cameras, stereo equipment, and wireless access. These technologies permeate the teaching and learning in our Teacher Education Unit. Faculty work diligently to extend these technologies to the local schools we partner with. The addition of WiMax, emitting a 20 mile wireless signal, has allowed candidates to continue to extend their teaching and learning into the local classrooms of which we are such an integral part through a more consistent university supported platform.

All secondary education candidates begin the integration of technology during methods. ED 361: Special Education for the General Education Classroom requires students to incorporate assistive technology and Universal Design into lesson planning. ED 483: Education Methods in Technology requires all candidates to utilize appropriate software and hardware as it relates to lesson planning, communication, assessment, professional portfolios and content area specific strategies and resources related to teaching and learning in the content area.

All secondary candidates have courses throughout their program that access a web-based platform to facilitate reflection and discussion related to teaching and learning. Past practice has been to utilize WebCT/Blackboard with a switch to Moodle occurring in the fall of 2010. ED 319: Teaching of Reading for Secondary Teachers, for example, requires candidates to participate in an online discussion board where the candidate responds to and leads discussions in issue related to their practice. In addition, candidates create podcasts, Power Points, digital storybooks, grading programs, newsletters, professional communications, web pages, etc. when applicable to the teaching and learning within the program.

Candidates and faculty are supported in their use of technology for teaching and learning in the following ways: Help Desk to address software and hardware concerns; Center for Instructional Technology in Education where faculty can go to learn about, experiment with, and get advice and assistance with a variety of instructional technology tools; Instructional Media Services which provides access to instructional media, equipment, support services and works to improve the classroom environment; online communication and information resources related to the program clearly modeled and posted on the School of Education website. Technology integration is assessed through individual courses and assessed on the Final Evaluation of Student Teacher through specific indicators related to technology.

Contact Information for Program Review Consultants

ALL communication regarding the approval of specialty programs should be addressed to the following individuals according to content area:

Bonnie Rockafellow **517-373-7861** **rockafellowb@michigan.gov**	**Steven Stegink** **517-241-4945** **SteginkS@michigan.gov**	**Thomas H. Bell** **517-241-0172** **BellT1@Michigan.gov**
All bilingual education	All science programs	All business education
All English language arts	Computer Science	All social studies & social science
All humanities	Environmental Studies	All vocational
All world languages	Guidance & Counseling	Agricultural Education
Dance	Health	Educational Technology
Early Childhood Education	Middle Level	Family & Consumer Sciences
Elementary	Mathematics	Fine Arts
English as a Second Language	Physical Education	Library Media
Music	Recreation	Industrial Technology
	School Psychologist	Visual Arts Education
	Special Education	

Michigan Department of Education
Endorsement Areas and Codes
September 2008

AX COMMUNICATION ARTS

BX LANGUAGE ARTS
- BA English
- BC Journalism
- BD Speech
- BR Reading Specialist
- BT Reading

RX SOCIAL STUDIES
- CA Economics
- CB Geography
- CC History
- CD Political Science

SOCIAL SCIENCE*[1]
- CE Psychology
- CF Sociology
- CH Anthropology*[4]
- CL Cultural Studies*[4]
- CM Behavioral Studies*[4]

SCIENCE*[1]
- DA Biology
- DC Chemistry
- DE Physics
- DH Earth/Space Science
- DI Integrated Science
- DP Physical Science

EX MATHEMATICS

WORLD LANGUAGE & CULTURE
- FA French
- FB German
- FC Greek
- FD Latin
- FE Russian
- FF Spanish
- FG Other
- FH Italian
- FI Polish
- FJ Hebrew
- FK Arabic (Modern Standard)
- FL Japanese
- FR Chinese (Mandarin)

BILINGUAL EDUCATION
- YA Bilingual French
- YB Bilingual German
- YC Bilingual Greek
- YE Bilingual Russian
- YF Bilingual Spanish
- YH Bilingual Italian
- YI Bilingual Polish
- YJ Bilingual Hebrew

BILINGUAL EDUCATION (Con't.)
- YK Bilingual Arabic
- YL Bilingual Other
- YM Bilingual Vietnamese
- YN Bilingual Korean
- YO Bilingual Servo-Croatian/Bosnian
- YP Bilingual Chaldean
- YR Bilingual Chinese
- YS Bilingual Filipino
- YT Bilingual Japanese

BUSINESS EDUCATION*[1]
- GQ Business, Management, Marketing, and Technology
- GM Marketing Education

HX AGRISCIENCE AND NATURAL RESOURCES

IX INDUSTRIAL TECHNOLOGY

JX MUSIC EDUCATION*[2]
JQ MUSIC EDUCATION

KH FAMILY AND CONSUMER SCIENCES

ART EDUCATION*[1]
LQ VISUAL ARTS EDUCATION
LZ VISUAL ARTS EDUCATION SPECIALIST

HEALTH, PHYSICAL EDUCATION, RECREATION, AND DANCE*[1]
- MA Health
- MB Physical Education
- MD Recreation
- MH Dance

MISCELLANEOUS
- NB National Board Certification
- ND Library Media
- NJ Environmental Studies*[4]
- NP Educational Technology
- NR Computer Science
- NS English as a Second Language
- NT Guidance and Counseling

OX FINE ARTS

PX HUMANITIES*[4]
- PR Academic Study of Religions*[4]
- PS Philosophy*[4]

SPECIAL EDUCATION
- SA Cognitive Impairment
- SB Speech and Language Impairment
- SC Physical or Other Health Impairment
- SE Emotional Impairment
- SK Visual Impairment
- SL Hearing Impairment
- SM Learning Disabilities
- SP Physical Education for Students with Disabilities
- SV Autism Spectrum Disorder

TX TECHNOLOGY AND DESIGN

ZA EARLY CHILDHOOD EDUCATION*[3]
ZD MIDDLE SCHOOL*[3]
ZL MIDDLE LEVEL*[3]
ZG GENERAL EL K-5*[3]

CAREER AND TECHNICAL EDUCATION
- VH Vocational Family and Consumer Sciences

VOCATIONAL NATURAL RESOURCES AND AGRISCIENCE PATHWAY
- VA Vocational Agriscience and Natural Resources

VOCATIONAL BUSINESS, MANAGEMENT, MARKETING, & TECHNOLOGY PATHWAY
- VB Vocational Business Services
- VM Vocational Marketing Education
- VZ Vocational Hospitality

VOCATIONAL HEALTH SCIENCES PATHWAY
- VS Vocational Health Sciences

VOCATIONAL ENGINEERING, MANUFACTURING, INDUSTRIAL, & TECHNOLOGY PATHWAY / VOCATIONAL ARTS AND COMMUNICATION PATHWAY
- VT Vocational Technical

VOCATIONAL HUMAN SERVICES PATHWAY
- VC Vocational Child Care
- VE Vocational Cosmetology
- VF Vocational Law Enforcement/Fire Science
- VG Vocational Teacher Cadet

***1 Endorsements for the Social Science group (formerly CX), the Science Group (formerly DX), the Business Education group (formerly GX), the Arts Education group (formerly LX), or the Health, Physical Education, Recreation, and Dance group (formerly MX) are no longer program options.**

***2 The JX endorsement may not be offered to new candidates after the fall semester of the 2006-2007 academic year.**

***3 The "Z" codes are used only by teacher preparation institutions for recommending these grade levels to the Michigan Department of Education (MDE), and do not appear on a teaching certificate.**

***4 The MDE will discontinue endorsement effective January 1, 2009.**

Attachment 3
Form XX

Summary of Course Requirements for Specialty Program

Institution: Northern Michigan University **Date:** 11-1-10

Specialty Program: Geography Secondary CB

Program Standards: http://www.michigan.gov/mde/1,1607,7-140-5234_5683_6368-24835--,00.html **Standards Date:** 6-9-09

Program Contact Person(s): Gabe Logan Ph.D.

DIRECTIONS: On the matrix below, list the required courses for this specialty studies program. Also, indicate the number of electives and any special considerations that apply. In addition to listing the course title, course number, and course semester hours, please indicate whether the course is required for the secondary major or minor, elementary major or minor, the K-12 major, and/or an additional endorsement.

Course Title	Course Number	Sem. Hours	Elementary		Secondary		K-12 Major	Additional Endorse-ment
			Major	Minor	Major	Minor		
Physical Geography	GC 100	4			X	X		
Human Geography	GC 164	4			X	X		
North America *or* Regional Studies: World Cultures	GC 200 or GC 300	4			X	X		
Introduction to Geographic Research	GC 295	4			X			
Intro to Geographic Research	GC 205	4			X			
Economic Geography or Urban Geography or Geography of Tourism or Population Geography	GC 220 or GC 310 or GC 316 or GC 360	4			X	X		
Introduction to Maps	GC 225	2			X	X		
Quantitative Methods	GC 235	4			X			
Geographic Information Systems or Computer Cartography or Remote Sensing or Spatial Analysis	GC 335 or GC 337 or GC 425 or GC 428	4			X			
Human Impact Upon the Environment	GC 489	4			X			
Population Geography	GC 360	4				X		

Methods and Materials in Teaching Social Studies Education	GC 350	4				X		
PROFESSIONAL EDUCATION SEQUENCE								
Introduction to Education	ED 201	2						
Teaching For Learning in the Secondary Classroom	ED 231	4						
Dimensions of American Education	ED 301	2						
Teaching of Reading for Secondary Teachers	ED 319	3						
Teaching for Diversity, Equality and Social Justice in the Secondary School Community	ED 349	2						
Special Education and the General Classroom Teacher	ED 361	2						
Teaching in the Secondary School	ED 430	11						
Seminar in Teaching	ED 450	1						
Education Media Technology	ED 483	2						
Total number of SEMESTER HOURS ***required*** for each option offered: * If the institution assigns a different type of credit, please convert to semester hours.					34	22-26		

Please provide descriptions for all courses contained on the above listing. Descriptions must provide enough information to show that standards could logically be met in these courses.

GC 100 Physical Geography
4 cr.
Offered: Fall, Winter, Summer

- Applies toward the division III liberal studies requirement.

Examination of the earth's physical phenomena to develop a knowledge and appreciation of the relationships between human activities and environmental processes.
Note: *Note: Course does not meet the laboratory course graduation requirement.*

GC 105 World Regional Geography
4 cr.
Offered: Contact department for information.
Provides a thematic survey of world regions emphasizing environmental, population, cultural, geopolitical and economic development issues.
Note: *May not be applied toward any major offered by the Geography Department.*

GC 164 Human Geography
4 cr.
Offered: Fall, Winter, Summer

- Applies toward the division IV liberal studies requirement.
- Applies toward the world cultures requirement.

Examination of the culturally induced differences in the world pattern of population growth, resource utilization, language, religion, agriculture, industry, political systems and environmental impact.

GC 200 North America
4 cr.
Offered: Fall
Analysis of the physical and cultural geography of Canada and the United States.

GC 202 Soils
4 cr. (3-0-2)
Offered: Fall
Prerequisite: GC 100 or instructor's permission.
Study of soil classification, soil survey applications, laboratory and field procedures and soil management.

GC 205 Introduction to Geographic Research
4 cr.
Offered: Fall, Winter
Prerequisite: AIS 101, EN 211 with a "C" or better, and GC 164 or GC 100.
An introduction to geographic thought, research methods and writing. Research and writing include an examination of professional journals, book reviews, proposal development and literature searches.

GC 210 Earth Hazards
4 cr.
Offered: Summer

This web-based course focuses on how the normal physical processes of the Earth concentrate their energies and impact humans and their structures. Earth system processes such as volcanoes, earthquakes, landslides, floods, subsidence, meteorite impacts, and tsunamis will be studied. Techniques for evaluating the risks associated with these hazards are included in the course.

GC 220 Economic Geography
4 cr.
Offered: Contact department for information
Analysis of the spatial characteristics of the economic environment and principles related to resource use in the private and public sectors.

GC 225 Introduction to Maps
2 cr. (1-0-2)
Offered: Fall, Winter
Prerequisite: MA 100 or higher.
Introduces major concepts and applications in the reading, analysis and interpretation of maps with special emphasis on USGS topographic maps. Lecture sessions cover major concepts and foundational knowledge, while lab sessions emphasize hands-on applications and commonly used techniques.

GC 235 Quantitative Methods
4 cr.
Offered: Fall, Winter
Prerequisite: CIS 110 and MA 103 or higher.
Presentation and interpretation of data, descriptive statistics and measures of spatial patterns, introduction to statistical inference and measures of association, with particular reference to geographic examples.

GC 255 Physical Geology
4 cr. (3-0-2)
Offered: Fall, Winter, Summer

- Applies toward the division III liberal studies requirement.
- Applies toward the laboratory science requirement.

The structures of the earth, minerals, rocks and the development of landforms.

GC 260 Minerals and Rocks

4 cr. (3-0-2)
Offered: Fall
Prerequisite: GC 255.
The study of common rocks and minerals. Special attention is given to Michigan rocks and minerals, their occurrence, formation and economic importance. Field trips are required and are commonly taken in the laboratory period.

GC 295 Special Topics in Geography
2-4 cr.
Offered: On demand
Prerequisite: Instructor's permission.
Special study of problems and/or regions that are not part of the regular offerings.

GC 300 Regional Studies: World Cultures
4 cr.
Offered: Fall, Winter, Summer
- Applies toward the division IV liberal studies requirement.
- Applies toward the upper division liberal studies requirement.
- Applies toward the world cultures requirement.

Prerequisite: EN 211 with a grade of "C" or better or HON 102 and HON 112 and sophomore standing.
Regional focus determined by demand and faculty availability.
Note: *May be repeated if topic differs.*

GC 305 Regional Studies
4 cr.
Offered: Contact department for information
- Applies toward the division IV liberal studies requirement.
- Applies toward the upper division liberal studies requirement.

Prerequisite: EN 211 with a grade of "C" or better or HON 102 and HON 112 and sophomore standing.
Regional focus is determined by demand and faculty availability.
Note: *May be repeated if topic differs.*

GC 310 Urban Geography
4 cr.
Offered: Winter
Prerequisite: GC 164 or GC 220, and GC 205.
Study of the development, form and function of urban places and interactions of humans, cities and regions.

GC 316 Geography of Tourism
4 cr.
Offered: Contact the department for information
Prerequisite: GC 164 and GC 205 or instructor's permission.
Understand the historical development of tourism, its importance to local and national economies and the impact that tourists have on the environment, economy and local cultures.

GC 317 Geography of Food Systems
4 cr.
Offered: Contact department for information
Prerequisite: GC 205 or EN 211 or instructor's permission.
Examines the different forces acting upon commodity flows from producer to consumer. Particular attention is given to the transition from agriculture to food manufacturing, globalization and food production and the environmental impact of food manufacturing.

GC 320 Environmental Policy and Regulation
4 cr.
Offered: Winter
Prerequisite: ENV 101 and junior standing.
Examination of the history and status of land use and environmental laws in the United States at the national, regional and state levels. Included is an introduction to the policy-making process in the U.S. as

related to the area of environmental policy.

GC 330 Planning Theory and Practice
2 cr.
Offered: Fall
Prerequisite: GC 205.
Study of land use planning from its beginnings through contemporary comprehensive and policy plans. The focus is on planning as a technical, political and economic process

GC 335 Geographic Information Systems
4 cr.
Offered: Fall, Winter, Summer
Prerequisite: CIS 110 and GC 225.
The study of computer-based manipulation of geographic information, GIS data integration, visualization and emerging geographic information science issues.

GC 337 Computer Cartography
4 cr. (3-0-2)
Offered: Fall
Prerequisite: GC 335 or instructor's permission.
The study of computer-based visualization of geographic data including thematic mapping, cartographic symbols, mapping in GIS environment, cartogram, interactive mapping and mapping on the World Wide Web.

GC 340 Land Use Controls
2 cr.
Offered: Winter
Prerequisite: GC 330.
Study of land-use controls and the relationship of these controls to planning theory and practice.

GC 350 Methods and Materials in Teaching Social Studies Education
4 cr.
Offered: Fall, Winter
Co-requisite: Concurrent enrollment in ED 349.
Prerequisite: Admission to the methods phase of teacher education.
Strategies, methods, materials and media that can be used to improve the teaching-learning process of geography in grades seven through 12.
Note: *May not be applied toward a non-teaching major or any minor in geography. Can be applied to the secondary education geography minor if required.*

GC 360 Population Geography
4 cr.
Offered: Fall, Winter

- Applies toward the division IV liberal studies requirement.
- Applies toward the upper division liberal studies requirement.

Prerequisite: EN 211 with a grade of "C" or better or HON 102 and HON 112 and sophomore standing.
Satisfies the foundations of social sciences requirement. Satisfies the upper division liberal studies requirement. Examination of demographic processes and how these vary from one society to another. Considers, in depth, data sources, population geography literature and techniques used in analyzing population characteristics and distributions.

GC 365 Historical Geology
4 cr. (3-0-2)
Offered: Every other winter
Prerequisite: GC 255.
Examination of the techniques used by geologists in interpreting earth history. Particular attention is given to the physiographic provinces of the United States with emphasis on the Canadian Shield and interior plains and plateaus.

GC 370 Geomorphology
4 cr. (3-0-2)
Offered: Fall semester of odd-numbered years
Prerequisite: GC 100 or GC 255 or instructor's permission.
The study of earth surface processes and landforms. Surface features created by streams, glaciers, shorelines, groundwater and wind will be studied. Topographic maps, aerial photographs, the Atlas of Landforms and satellite imagery will be used in labs. Field trips are part of the course.

GC 385 Weather and Climate
4 cr. (3-0-2)
Offered: Winter
Prerequisite: GC 100 or instructor's permission.
Advanced examination of atmospheric processes including energy transfer and exchange, global atmospheric circulation, precipitation processes and forms, forms of condensation, weather disturbances and upper-level processes. Global climatic systems, climate change and paleoclimatology, and the impact of human activities on climate are also examined.

GC 390 Oceanography
2 cr.
Offered: Contact department for information
Examination of historical, chemical and physical, aspects of the world's oceans and seas. The course also deals with the interaction of water bodies with the atmosphere, solar energy and gravity.

GC 401 Biogeography
4 cr. (3-0-2)
Offered: Fall
Prerequisite: GC 100, BI 111 or BI 112, and junior standing.
Examination of the spatial distribution of life forms on a global scale from ecological and historical perspectives. Topics include diversity, extinction and dispersal of species.

GC 425 Remote Sensing
4 cr. (3-0-2)
Offered: Winter
Prerequisite: CIS 110, GC 225 and a course in statistics (BI 412, GC 235 or MA 171) and junior standing.
The study of remotely sensed imagery and datasets for spatial analysis. Introduction to aerial photographic interpretation techniques and computer digital image processing of satellite and other spatial datasets, including preprocessing techniques, enhancements, classification and GIS modeling.

GC 428 Spatial Analysis
4 cr.
Offered: Winter
Prerequisite: GC 335 or GC 425.
Examines the collection and management of spatial data. The application of appropriate quantitative, GIS and remote sensing techniques for the analysis of geographic problems is emphasized.

GC 435 Geography of Michigan
4 cr.
Offered: On demand
Prerequisite: Junior standing or instructor's permission.
Study of the physical, historical and cultural geography of Michigan.

GC 445 Advanced Aerial Photograph Interpretation and Photogrammetry
2 cr. (1-0-2)
Offered: Contact the department for information
Prerequisite: GC 100, GC 225, GC 425 and junior standing or instructor's permission.
An advanced examination of the principles of aerial photograph interpretation and photogrammetric methods. Personal student interests are encouraged through completion of an individual air photo interpretation and mapping project.

GC 455 Digital Image Processing

2 cr. (1-0-2)
Offered: Contact the department for information
Prerequisite: GC 225, GC 425 and junior standing or instructor's permission.
Digital image processing of satellite and aircraft-derived remotely sensed data for earth resource management applications.

GC 465 Hydrology
4 cr. (3-0-2)
Offered: Every other fall
Prerequisite: GC 235 or MA 171, junior standing or instructor's permission.
Study of the hydrologic cycle. Precipitation, runoff, interception and groundwater processes are addressed. Measurement techniques and analytical methods are also presented. Informed decision making with regard to the water cycle is stressed. Some field work required.

GC 470 Environmental Ethics
4 cr.
Offered: Contact the department for information
Prerequisite: ENV 101 and GC 205.
Various perspectives and philosophies concerning the natural environment and resource utilization are explored to provide students with a basis to develop an ethical perspective. An in-depth survey of both historical and contemporary viewpoints will be conducted. The human factor in addressing natural resource issues is emphasized.

GC 475 Environmental Impact Assessment
4 cr.
Offered: Fall
Prerequisite: GC 205, GC 320 and senior standing or instructor's permission.
A field course in which students develop and organize an environmental impact assessment for a local project. Involves the laws governing environmental decisions and the laws governing the content of environmental impact statements (as mandated by NEPA).

GC 485 Planning Practicum
4 cr.
Offered: Fall
Prerequisite: GC 205, GC 330, GC 335, GC 340 and senior standing or instructor's permission.
Development of planning skills by working through planning problems in a real world context.

GC 489 Human Impact Upon the Environment
4 cr.
Offered: Fall, Winter
Prerequisite: GC 205, GC 235 and 24 GC credit hours, junior standing or instructor's permission.
Examination of historical and contemporary roles of humans as a major agent of environmental change on Earth. Emphasis will be on anthropogenic changes to plant and animal communities; water, air and soil resources; and the potential for human-induced global climate change.

GC 490 Seminar
2-4 cr.
Offered: On demand
Prerequisite: Departmental major and junior standing or instructor's permission.
The opportunity to apply skills and concepts developed within departmental programs.

GC 491 Internship
2-6 cr.
Offered: Fall, Winter
Graded: S/U
Prerequisite: Overall grade point average of 2.75 and 88 credit hours or instructor's permission.
A practical experience with a private, municipal, county, state and/or federal agency.

GC 492 Research in Water Science
2 cr. (0-0-6)
Offered: On demand

Prerequisite: Water science major and junior standing or instructor's permission.
Introduction to environmentally-related research. Projects are pursued in cooperation with a faculty research adviser. The research adviser and research problem must be selected a semester prior to registration. Students must submit a written and oral final report.

GC 495 Special Topics in Geography
2-4 cr.
Offered: On demand
Prerequisite: Junior standing or instructor's permission.
Special study of problems and/or regions that are not part of the regular offerings.

GC 498 Directed Studies in Geography
1-4 cr.
Offered: On demand
Prerequisite: Major or minor in geography, earth science, conservation or planning, junior standing or instructor's permission.
An opportunity for the student to work on a specific topic.

Professional Sequence (secondary)

- ED 201: An introduction to the field of education as a complex social, economic and political institution and career. Students will gain an understanding of their roles in shaping discussion of significant issues such as equality of opportunity, diversity and multiculturalism within the context of an ever-changing profession.

- ED 231: Course introduces secondary education majors to developmental, behavioral, and cognitive learning theories and processes. Students develop insights into the adolescent learner, secondary classroom practices, and learning. The course includes field experience outside of class.

- ED 301: An exploration of historical, philosophical, ethical and legal dimensions of American education. Students will begin to consider their roles as educational leaders and advocates for social justice for all students in American schools.

- ED 319: Methods the content area teacher can use to help students comprehend course materials more effectively, to determine reading needs of students and to adapt instruction to their needs. Field experience is required.

- ED 349: This course addresses issues of diversity, equity, and social justice at the secondary level within a cross-disciplinary framework, focusing on four areas of knowledge: teaching strategies, authentic performance assessment, classroom management, and uses of technology.

- GC 350: Teaching of the social studies at the secondary level. Course covers the objectives, the organization of subject matter, the evaluation and use of materials and the development of classroom procedures and techniques.

- ED361: An introductory course covering the range of handicapping conditions, designed for the elementary or secondary teacher to develop an awareness of the emotional, educational and social implications of handicaps and to formulate practical applications when working with students with exceptionalities in the general classroom.

- ED 430: The opportunity for a gradual, guided introduction of students in the secondary education curriculum into assuming responsibility for teaching, together with related activities, while they learn to translate theory into practice.

- ED 450: This course is designed to help the student teacher better understand and apply education principles and theories in full-time classroom teaching experience. It focuses on the roles, responsibilities, issues and concerns of student teachers such as classroom management, instruction, assessment, multicultural education, human relations, employment, policy and

practices.

- ED 483: Focuses upon the education/instructional uses of audiovisual media including computers and related technologies. Emphasis will be upon each type of hardware and software and its use as well as the subject-matter areas that most easily integrate the technology.

Attachment 4

See accompanying PDF file located at:
http://webb.nmu.edu/Departments/Education/SiteSections/Accreditation/MDEApprovals/GC/geographystandardsfinal.pdf

Attachment 5

See accompanying PDF file located at:
http://webb.nmu.edu/Departments/Education/SiteSections/Accreditation/MDEApprovals/GC/geographyfaculty.pdf