BACHELOR OF SCIENCE (BS) IN MIDDLE GRADES EDUCATION
WITH CONCENTRATIONS IN MATHEMATICS AND SCIENCE
Major Codes: 470 C, D (Teaching)
2012-2013

Department of Curriculum and Instruction
Reich College of Education

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I. General Education Requirements 44 SH

SPECIAL NOTE: Middle Grades Education majors should refer to page 3 of this Program of Study for important information for recommended General Education courses that can be taken and count in the major. Courses identified for Middle Grades Education majors on page 3 also meet the requirements for General Education. Students should contact their advisor or the Middle Grades Coordinator (identified above) for questions relating to General Education recommendations and requirements.

II. Professional Education Requirements 24 SH

All courses must be completed with “C” (2.0) or better.

C 1 2300 Teaching and Learning in the Digital Age (2) Entry course to teacher education. Required prior to admission to teacher education.
FDN 2400 Critical Perspectives on Teaching and Learning (2) Required prior to admission to teacher education. Prerequisite or Co-requisite: C 1 2300.
PSY 3010 Psychology Applied to Teaching (3) May be taken prior to or after admission to teacher education. Prerequisite or Co-requisite: C 1 2300.
SPE 3300 Creating Inclusive Learning Communities (3) Admission to teacher education required. Prerequisites: C 1 2300, FDN 2400, PSY 3010.
CI 4400 Policies and Practices in Educational Assessment (2) Admission to teacher education required. Prerequisites: C 1 2300, FDN 2400, PSY 3010.
C 1 4900 Student Teaching (12) (Graded on S/U basis) All courses in professional education core must be completed with grades of C (2.0) or better prior to student teaching, along with other courses (including methods and reading) identified within the major to be completed prior to student teaching and/or requiring C (2.0) or better.

Praxis Exams:
PRAXIS I: Academic Skill Assessments: *CBT Reading  *CBT Writing  *PPST/CBT Mathematics
PRAXIS II: Subject/Assessment Exam(s) _________

III. Major Requirements 69 SH

(-12 Gen Ed)

A. Middle Grades Academic Concentrations: Mathematics, Science
(See attached listing of courses and meet with advisor.)

MACHTHEMATICS CONCENTRATION SCIENCE CONCENTRATION
______________  _______________  ______________  ______________
______________  _______________  ______________  ______________
______________  _______________  ______________  ______________

B. The following courses must be taken using the cohort model. Please note that all cohort internships and student teaching can be done only in schools that have been identified by ASU as professional development schools. (See following page for additional information)

Block I (Second Semester Junior year. Please note that this block is offered only during the SPRING SEMESTER.)
**#+ CI 3900 Middle Grades Internship (3)
**#+ CI 3910 Middle Level Education (3)
**#+ CI 3920 Teaching Young Adolescents (3)
Courses from academic concentrations

Block II (First Semester Senior Year. Please note that this block is offered only in the FALL TERM.)
**#+ CI 4490 Middle Grades Curriculum, Instruction, and Assessment (4)
**#+ RE 4630 Reading in the Content Area (2)
**#+ CI/RE 4300 Literacy, Language, and Culture in the Middle Grades (3)
**#+ CI 4040 Mathematics in the Middle Grades (3)
**#+ GS 4403 Teaching Science in the Middle and High Schools (3)

#Cannot be taken before being admitted to Teacher Education
*Should be taken before junior year (Pre-requisite to enter Teacher Education)
+Must have “C” (2.0) or higher for COE
**Must be taken before student teaching

C. CI 4450 Portfolio/Exhibition (1) is to be taken during the student teaching semester.

IV. Second Academic Concentration Second academic concentration requirements are met upon successful completion of middle grades content concentrations.

V. Electives 3 SH

TOTAL 128 SH
MIDDLE GRADES CONCENTRATIONS

MATHEMATICS CONCENTRATION (24 SH)

MAT 1110 Calculus with Analytic Geometry I (4) (Gen Ed: Quantitative Literacy) (Prerequisite: MAT 1025, with a grade of “C-” or higher, or equivalent)
MAT 3910 Introduction to the Logic and Structure of Mathematics I (4) (Prerequisite: junior or senior standing or permission of the instructor)
MAT 3920 Introduction to the Logic and Structure of Mathematics II (4) (Prerequisite: MAT 3910 or permission of instructor)
CI 4040 Mathematics in the Middle Grades (3) (Block Two, Fall only) (Prerequisite: senior standing in mathematics or permission of the instructor)

Select at least one of the following courses:
STT 2810 Introduction to Data Analysis and Statistical Inference (3) (Prerequisite: MAT 1010 or equivalent)
MAT 4930 Basic Concepts of Probability and Statistics (3)

Select at least one of the following courses:
MAT 3610 Introduction to Geometry (3) (Prerequisites: MAT 1120 and MAT 2110)
MAT 4910 Informal Geometry (3) (Prerequisite: MAT 3910 or MAT 3920 or permission of the instructor)

Additional courses may be selected from the following list. Courses not listed may be taken with permission from your advisor.
MAT 1120 Calculus with Analytic Geometry II (4) (Prerequisite: MAT 1110 (with a grade of “C-” or higher)
MAT 2240 Introduction to Linear Algebra (3) (Prerequisite: MAT 1120 or permission of the instructor)
MAT 3010 History of Mathematics (2)
MAT 3110 Introduction to Modern Algebra (3) (Prerequisites: MAT 2110 and MAT 2240 or permission of instructor and ENG 2001 or its equivalent)
MAT 3520 Instructional Assistance (1)

SCIENCE CONCENTRATION (26 SH)
The Science Inquiry Perspective requires 8 semester hours from one theme (underlined). Courses in themes marked with an * must be taken sequentially. Check the course descriptions for any pre and co- requisites.

Eight semester hours (8 SH) from one of the General Education Science Inquiry perspectives listed below:

Biology and Society: ____ BIO 1101, ____ BIO 1102
The Blue Planet: _______ GLY 1104, _______ GLY 1105
* Chemistry Connections to Our Changing World: ____ CHE 1101/ CHE 1110 , ____ CHE 1102/ CHE 1120
* How Things Work: ____ PHY 1101, ____ PHY 1102
* The Physics of Our Technological World: _______ PHY 1103, ____ PHY 1104
* Physics of Self Expression: _______ PHY 1101, _______ PHY 1810, _______ PHY 1812, _______ PHY 1814
* Physics with Calculus: _______ PHY 1150, _______ PHY 1151
Restless Planet: Earth, Environment and Evolution: _______ GLY 1101, _______ GLY 1102, _______ GLY 1103

Required: One four hour (4 SH) science course from each of the remaining three sciences for a total of 12 sh:

Biology Chemistry Geology Physics

GS 3300 Educational Applications of Science Concepts (3) (Prerequisites: MAT 1010 or higher and at least sophomore standing.)
GS 4403 Teaching Science in the Middle and High Schools (3) (Block Two, Fall only)
FALL YEAR SEMINAR (required)  
______ UCO 1200 or HON 1515 or WGC 1103 (3 s.h.)
or______ UCO MET* (3 s.h.)
*applies to students who transfer at least 30 s.h. AND are at least one year out of high school. Students using this option will have 41 s.h. of General Education.

WRITING ACROSS THE CURRICULUM (6-9 s.h. required)  
______ ENG 1000 or LLC 1000 or WGC 1103
______ ENG 2001 or WGC 2001

MAJOR REQUIREMENTS  
_______ Junior Writing in the Discipline**
_______ Senior Capstone Experience **

**These hours count in the major requirements, not the 44 hours of General Education requirements.

AESTHETIC PERSPECTIVE (6-9 s.h. from one theme; with the exception of "Creative Expressions of Culture," students must take courses from at least two disciplines in their chosen theme)  
- Analyzing Style and Form: ____ DAN 2010 (FA), ____ MUS 2111 (FA), ____ PHL 2013, ____ THR 2010 (FA)
- The Body: Expression, Presentation and Representation: ____ DAN 3430 (FA), ____ IDS 2210, ____ THR 3640 (FA)
- Creative Expressions of Culture: ____ WGC 2300-2399, ____ WGC 3300-3399 (Check online course listing for information on specific courses offered each semester.)
- Cultivating Creative Expression: ____ ART 2202 (FA), ____ MUS 2202 (FA), ____ THR 2222 (FA)
- Expressions of Belief: ____ ANT 2100, ____ COM 3315, ____ REL 2010 (LS), ____ REL 2020 (LS)
- How We Tell Stories: ____ ENG 2170, ____ IDS 3210, ____ LLC 2025 (LS), ____ PHL 1502, ____ REL 2020 (LS), ____ THR 2005 (FA), ____ THR 2610 (FA)
- Shaping the Human Environment: ____ COM 3531, ____ FCS 1000, ____ IND 2012
- Social Change Through the Arts: ____ ART 2019 (FA)/SOC 1100, ____或 THR 2017 (FA)/SOC 1100 (Linked classes must be taken together) – Check online course listing for details, ____ MUS 2613 (FA)
- Traditions and Innovations: ____ ART 2130 (FA), ____ ENG 2050 (LS), ____ HIS 1110 (HS), ____ MUS 2611 (HS), ____ MUS 2612 (HS), ____ MUS 2614 (HS), ____ MUS 3611 (HS), ____ PHL 2013

HISTORICAL AND SOCIAL PERSPECTIVE (6-9 s.h. from one theme; with the exception of "Understanding Culture Through Social Practice," students must take courses from at least two disciplines in their chosen theme)  
- Ancient Worlds: ____ ANT 1420, ____ ANT 2030 (FA), ____ HIS 2312 (HS), ____ REL 2010 (LS)
- Appalachia: ____ A S 2410, ____ A S 2411, ____ A S/GLY 2301, ____ COM 3118, ____ HIS 3726 (HS), ____ A S/MUS 2016, ____ SOC 3710
- Capitalism and its Critics: ____ ECO 2030, ____ FIN 2860, ____ HIS 3524, ____ MGT 3040, ____ P S 3410
- Cultural Diversity: ____ ANT 1415, ____ ART 2011 (FA), ____ HAY 1040, ____ HIS 1120 (HS), ____ MUS 2023 (FA), ____ REL 1110, ____ SOC 4560, ____ W S 2421
- Individual and Society: ____ ANT 2420, ____ FCS 2111, ____ PHL 2000, ____ P S 1100, ____ P S 2020
- Mind: ____ HIS 3923 (HS), ____ IDS 3260, ____ LLC 2050, ____ PHL 1501, ____ PHL 1200
- Religion, Myth and Society: ____ ANT 2430, ____ ART 2030 (FA), ____ IDS 3261, ____ REL 1110, ____ THR 3730
- Revolutions and Social Change: ____ COM 3532, ____ HIS 1501 (HS), ____ IDS 2200 (HS), ____ MUS 2015 (FA), ____ P H 3030, ____ REL 2120, ____ SOC 1100
- This American Life: ____ ECO 2030, ____ ENG 2350 (LS), ____ HIS 1200 (HS), ____ IDS 2000, ____ MUS 2014 (FA), ____ P S 1100, ____ P S 3722, ____ S 2020
- Understanding Culture Through Social Practice: ____ WGC 2000-2099, ____ WGC 3000-3099 (Check online course listing for information on specific courses offered each semester.)

LOCAL TO GLOBAL PERSPECTIVE (6-9 s.h. from one theme; with the exception of WGC 1104 in “Investigations Global,” students must take courses from at least two disciplines in their chosen theme)  
- Democracy and Personal Life: ____ COM 2112, ____ ENG 2130 (LS), ____ P S 1200, ____ SOC 1110, ____ SOC 1530, ____ W S 2600
- Empire, Colonialism, and Globalization: ____ ANT 1415, ____ ART 2013 (FA), ____ ENG 2040 (LS), ____ GLS 2000, ____ HIS 1400 (HS), ____ HIS/MSL 3823 (HS)
- Global Resources: ____ ECO 2620, ____ GHI 1020, ____ IDS 3010, ____ NUT 2351, ____ TEC 2601
- Identity, Culture and Media: ____ ART 2011 (FA), ____ COM 3531, ____ ENG 2170, ____ MUS 2018 (FA), ____ MUS 2615 (FA), ____ MUS 2616 (FA), ____ PHL 1503

**These courses are offered in alternate years.**

**Investigations Global: ____ WGC 1104 (6 s.h.) (This course is available only to Watauga Global Community students.)
- Global Resources: ____ ECO 2620, ____ GHI 1020, ____ P S 1200, ____ SOC 1100, ____ TEC 2601**

**These courses are 3 s.h. courses and do not fulfill the Quantitative Literacy requirement on their own. All other courses listed above are 4 s.h. courses and will fulfill the Quantitative Literacy requirement by themselves.**

WELLNESS LITERACY (2 s.h. required)  
1 s.h. courses:  
______ P E 1530-1545, ____ P E 1700-1877
2 s.h. courses:  
______ H P 1105 ______ HED 1000 ______ DAN 1400 ______ DAN 1400
______ DAN 1240 ______ DAN 2400 ______ DAN 2410 ______ DAN 2420
______ MUS 3280 ______ MUS 3480 ______ MUS 3580 ______ MSL 1101
3 s.h. courses (additional hour counts as elective):  
______ DAN 4460 ______ NUT 2202
______ P E 1718 ______ P E 1768 ______ P E 1769 ______ P E 3008

DESIGNATIONS in Perspectives (3 s.h. of each required):  
____ Fine Arts (FA), ____ Historical Studies (HS), ____ Literary Studies (LS)

PERSPECTIVES:  
Select one theme (underlined) from each of the following three Perspectives. Complete at least 6 semester hours in each of the themes and 9 semester hours in one of the themes (21 total s.h. required). Within the three Perspectives, you must have 3 s.h. in each of the three Designations: Fine Arts (FA), Historical Studies (HS) and Literary Studies (LS). Italicized courses appear in multiple themes; however, courses may only be applied to one theme.

AESTHETIC PERSPECTIVE

- Local to Global Perspective
- Historical and Social Perspective
- Aesthetic Perspective

APPALACHIAN STATE UNIVERSITY GENERAL EDUCATION 2012-2013 (44 Semester Hours)

http://generaleducation.appstate.edu
The **SCIENCE INQUIRY PERSPECTIVE** requires 8 semester hours from one theme (underlined). Courses in themes marked with an * must be taken sequentially. Check the course descriptions for any pre and co-requisites. *Italicized courses appear in multiple themes; however, courses may only be applied to one theme.*

**SCIENCE INQUIRY PERSPECTIVE (8 s.h. from one theme)**

- **Biology and Society:** BIO 1101, BIO 1102
- **The Blue Planet:** GLY 1104, GLY 1105
- **Chemistry Connections to Our Changing World:** CHE 1101/ CHE 1110, CHE 1102/ CHE 1120
- **How Things Work:** PHY 1101, PHY 1102
- **The Physics of Our Technological World:** PHY 1103, PHY 1104
- **Physics of Self Expression:** PHY 1101, PHY 1810, PHY 1812, PHY 1814
- **Physics with Calculus:** PHY 1150, PHY 1151
- **Restless Planet: Earth, Environment and Evolution:** GLY 1101, GLY 1102, GLY 1103