Memorandum

To: General Faculty

Date: October 10, 2011

Regarding: Agenda, Faculty Senate Meeting, October 14th at 3:00 pm TLC 1-303

The agenda for the October 14, 2011 Faculty Senate Meeting will be as follows:

1. Call to Order

2. Roll Call

3. Approval of the minutes of the September 9th meeting (**See Addendum I**)

4. Committee Reports

Committee I: Undergraduate Programs Committee (Chair, Dr. Camilla Gant)

Action Items: (**See Addendum II**)

A) College of Arts and Humanities
   1) History Department
      a) Classical Studies Minor
         Request: Add
         Action: Approved

B) College of Sciences and Mathematics
      a) CHEM 1211- Principles of Chemistry I
         Request: Add
         Action: Approved

      b) CHEM 1211L – Principles of Chemistry I Lab
         Request: Add
         Action: Approved

      c) CHEM 1212- Principles of Chemistry II
         Request: Add
         Action: Approved

      d) CHEM 1212L – Principles of Chemistry II Lab
         Request: Add
         Action: Approved

C) College of Social Sciences
   1) Anthropology Department
      a) ANTH 3110 – Human Osteology
         Request: Add
         Action: Approved

   2) Sociology Department
      a) Bachelor of Science with a Major in Sociology
         Request: Modify – Delete Pre-major criteria
         Action: Approved

      b) Bachelor of Science with a Major in Sociology
         Request: Modify – Require minimum grade of "C" for required courses
         Action: Approved

Information Items:

A) College of Arts and Humanities
   1) English Department
      a) ENGL 2180 – African American Literature
         Request: Modify title
         Action: Approved

      b) ENGL 2190 – Literature by Women
         Request: Modify title
         Action: Approved

      c) ENGL 3200 – Intermediate Creative Writing
         Request: Modify (prerequisite)
         Action: Approved

      d) ENGL 4170 – Studies in African – American Literature
         Request: Modify title
         Action: Approved

      e) ENGL 4210 – Advance Creative Writing
         Request: Modify title (prerequisite)
         Action: Approved

   2) History Department
      a) HIST 4467 – Women in American History to 1877
         Request: Modify (title, prerequisite, description)
         Action: Approved

      b) HIST 4468 – Women in American History Since 1877
         Request: Modify (title, prerequisite, description)
         Action: Approved

B) College of Sciences and Mathematics
   a) CHEM 2411- Organic Chemistry I
      Request: Modify (prerequisite)
      Action: Approved

   b) CHEM 3310K – Analytical Chemistry
      Request: Modify (prerequisite)
      Action: Approved

   c) CHEM 3510 – Survey of Physical Chemistry
      Request: Modify (prerequisite)
      Action: Approved

   d) CHEM 3521 – Quantum Chemistry
      Request: Modify (prerequisite)
      Action: Approved

   e) CHEM 3522 – Chemical Thermodynamics
      Request: Modify (prerequisite)
      Action: Approved

   f) CHEM 4330K – Instrumental Analysis
      Request: Modify (prerequisite)
      Action: Approved

   g) CHEM 4711 - Biochemistry
      Request: Modify (prerequisite)
      Action: Approved

C) College of Social Sciences
   1) Criminology Department
      a) CRIM 3240 – Criminological Theory
         Request: Modify (prerequisite, description)
         Action: Approved

Committee II: Graduate Programs Committee (Chair, Susan Ashford)
Action Item: (See Addendum III)

A) College of Sciences and Mathematics
   1) Department of Mathematics
      a) Master of Science with a Major in Mathematics
         Request: Modify (Change in course requirements)
         Action: Approved

         Request: Modify (Remove language requirement)
         Action: Approved

2) Department of Computer Science
   a) Master of Science with a Major in Applied Computer Science
      Request: Modify (Delete language requirements)
      Action: Approved

3) Department of Biology
   a) Master of Science with a Major in Biology
      Request: Modify (Delete language requirements)
      Action: Approved

4) Department of Geosciences
   a) Geographic Information Systems (CERG)
      Request: Modify (Change in course requirements for Post-Baccalaureate Certificate)
      Action: Approved

B) College of Social Sciences
   1) Psychology Department
      a) Doctor of Philosophy with a Major in Psychology: Consciousness and Society
         Request: Modify (Modify time to complete)
         Action: Approved

         Request: Modify (Changes in response to BOR – catalog description)
         Action: Approved

C) College of Education
   1) Early Learning and Childhood Education
      a) K-5 Mathematics Endorsement - Conversion College
         Request: Add
         Action: Approved

      b) K-5 Mathematics Endorsement
         Request: Add
         Action: Approved

      c) K-5 Science Endorsement
         Request: Add
         Action: Approved

      d) EDME-7271 Elementary Mathematics I
         Request: Add
         Action: Approved

      e) EDME-7271L Elementary Mathematics I Lab
         Request: Add
         Action: Approved

f) EDME-7272 Elementary Mathematics II
Request: Add
Action: Approved

g) EDME-7272L Elementary Mathematics II Lab
Request: Add
Action: Approved

h) EDME-7273 Advanced Strategies for Teaching Elementary Mathematics
Request: Add
Action: Approved

i) EDME-7273L Advanced Strategies for Teaching Elementary Mathematics Lab
Request: Add
Action: Approved

j) EDME-7274 K-5 Mathematics Endorsement Residency
Request: Add
Action: Approved

k) EDSE-7271 Life Science For In-Service Elementary Teachers
Request: Add
Action: Approved

l) EDSE-7272 Physical Science for In-Service Elementary Teachers
Request: Add
Action: Approved

m) EDSE-7273 Earth and Space Science for In-Service Elementary Teachers
Request: Add
Action: Approved

n) EDSE-7274 Pedagogical Strategies & Residency Requirement for Inquiry-Based Elementary Science Instruction
Request: Add
Action: Approved

2) Leadership and Applied Instruction
   a) Master of Education with a Major in Secondary Education
   Request: Modify (Placement of "concentration" on the candidate's transcript)
   Action: Approved

Informational Items

A) College of Arts and Humanities

1) History Department
   a) HIST-5467 Women in American History to 1877
      Request: Modify (redesigned/adjusted chronology)
      Action: Approved

   a) HIST-5468 Women in American History Since 1877
      Request: Modify (redesigned/adjusted chronology)
      Action: Approved

Committee IV: Academic Policies Committee (Chair, Robert Kilpatrick)

Action Items:

A) The committee requests approval of changes to UWG's grade appeals policies. **(See Addendum IV)**

B) The committee requests approval of changes to language regarding transient student status in the Undergraduate Catalog.

The Academic Policies Committee requests approval for the following changes to UWG's transient student policy.

New Transient language for UG catalog is highlighted:
Students wishing to complete classes at another college or university to count towards their degree at West Georgia must maintain good standing at West Georgia and obtain the permission of their advisor, the appropriate chair, and the dean/designee of their major college prior to taking the course(s). To determine if the course will be accepted as transfer credit at UWG and count toward a given degree, students should consult the link found on the Registrar's Office web page, Undergraduate Transfer Course Equivalents, or contact the Registrar's Office. Transient status is given for one semester at a time, and students must have the other college send a transcript of the courses taken to the Registrar at West Georgia in order to receive credit for the work. For final term transient status restrictions, see Graduation Policies in the Undergraduate Catalog.

Current Transient Student Status language:
Students wishing to attend another college or university and take courses there to count towards their degree at West Georgia must have a cumulative grade point average of 2.0 or higher at West Georgia and must obtain permission of the dean of their major college. Students desiring to be transients elsewhere should also consult with their advisor and, if appropriate, the chair of their department. Transient status is given for one semester at a time, and the student must have the other college send a transcript of the courses taken to the Registrar at West Georgia in order to receive credit for the work.

C) The committee request approval of new Friday 150-minute class time slots for Spring 2012 only.

Proposal:

The Academic Policies Committee requests approval of two new time slots on a one-semester trial basis for Spring 2012 scheduling: 1) Friday from 9:00 am - 11:30 am 2) Friday from 1:00 pm - 3:30 pm.

Rationale:

In opening these new time slots the committee seeks to encourage greater Friday classroom utilization at UWG. Additionally, offering these slots would provide an opportunity for departments which prefer longer class periods for pedagogical reasons, but which have been unable to schedule them because of course conflicts or restrictions on scheduling (students in Theater, for instance, use their afternoons and evenings for activities related to performances, so the Theater dept. cannot utilize existing 150-minute slots). There have been requests from faculty members in the recent past for morning or afternoon 150-minute class periods on Wednesdays, but these have been denied because of the pressure they could potentially place on Wednesday scheduling (one 150-minute class would use the space of three 50-minute classes). Since classroom space is extremely underutilized on Fridays, however, opening these proposed slots would likely not create the same pressure. In response to a query sent out by the Academic Policies Committee to the Deans, faculty members from several departments have expressed interest in the slots. As of September 22, 2011, the Spring 2012 course schedule has been posted on Banweb, so the creation of 150-minute classes would only be using classroom space not previously requested and assigned during the regular scheduling process.

Committee IV: Strategic Planning Committee (Chair, Tommy Cox)

Information Items:

A) Progress report on the Strategic Planning Committee work. Based on the Strategic Planning committee's duties, the following three sub-committees have be created:
   1) Assessment/re-statement of the University's Mission and Vision Statements
   2) The new QEP (improving undergraduate student writing)
   3) SACS Assessment/compliance

Committee IX: Facilities and Services Committee (Chair, Shelley Smith)

Action Item: (See Addendum V)

A) University Services Committee recommends to the Faculty Senate the approval of Volunteer Policy (revised September 12, 2011).

[Context: This is a proposal from work not completed from the 2010-2011 General University Matters Committee (Minna Halonen-Rollins, Chair). First proposal was presented at the February 25, 2011 Faculty Senate meeting was sent back to committee for clarification. The purpose of "Volunteer Policy" is to simultaneously protect the university

and our non-paid agents by providing the structure required under the Georgia Tort-Claims Act.]

Information Item:

A) Space utilization study and the possibility of Newnan Campus expansion.

5. New Business

6. Announcements

7. Adjournment

Addendum I

University of West Georgia
Faculty Senate Meeting
Minutes—Draft

September 9, 2011

1. The meeting was convened in room 1-303 of the Technology-enhanced Learning Center and called to order by Chair Chris Huff.

2. Roll Call
   Present
   Cobia (for Ashford), Barnhart, Blair, Bucholz, Cavallin, Chesnut, Cox, Deng, DeNie, Doyle, Gant, Gezon, Halonen-Rollins, Hansen, Hasbun, Hatfield, Hodges, Jenks, Johnson, Kassis, Kramer, Leach, Lloyd, Mayer, Mitchell, Moffeit, Morris, Noori, Packard, Pencoe, Ponder, Pope, Ringlaben, Rutledge, Samples, Sanders, Schmidt, Smith, Snaith, Thompson, Garrett (for Williard), Yeong.

   Absent
   Banford, Hannaford, Parrish, Pitzulo, Thomas.

3. Approval of the minutes of the June 17, 2011 meeting

Minutes were approved as read.

4. Welcoming statements for the new year (**Faculty Senate Chair, Chris Huff**)

5. Committee Reports

Committee I: Undergraduate Programs Committee (Chair, Dr. Camilla Gant)

Action Items:

A) College of Social Sciences
   1) Anthropology
      a) ANTH 2104 - The Prehistoric World
         Request: Delete (course was specific to instructor)
         Action: Approved

      b) ANTH 3105 - Archeology
         Request: Delete (integrated content with ANTH 2001)
         Action: Approved

      c) ANTH 3106 - Physical Anthropology
         Request: Delete (integrated content with ANTH 2003)

Action: Approved

Items A.1.a-c presented in a block and approved by voice vote.

Information Items:

A) Richard College of Business
   1) Accounting and Finance
      a) ACCT 4202 - Financial Statement Analysis
         Request: Modify (title)
         Action: Approved

      b) ACCT 4286 - Business Internship
         Request: Modify (variable credit)
         Action: Approved

      c) FINC 4586 - Business Internship
         Request: Modify (variable credit)
         Action: Approved

B) College of Social Sciences
   1) Anthropology
      a) ANTH 2001 - Introduction to Archaeology
         Request: Modify (title, description)
         Action: Approved

      b) ANTH 2002 - Introduction to Cultural Anthropology
         Request: Modify (title, description)
         Action: Approved

      c) ANTH 2003 - Introduction to Physical Anthropology
         Request: Modify (description)
         Action: Approved

      d) ANTH 4186 - Internship
         Request: Modify (variable credit)
         Action: Approved

Committee II: Graduate Programs Committee (Debra Cobia for Chair, Susan Ashford)
Action Item:

A) College of Education
   1) Collaborative Support and Intervention
      a) Program: Master of Education in Professional Counseling

Request: Modify
Action: Approved

b) Program Ed.D. Professional Counseling and Supervision
Request: Modify
Action: Approved

c) CEPD 6182 Internship: Professional Counseling
Request: Add – students in two different tracks previously enrolling in separate course for clinical experiences – this is a new single course for both tracks.
Action: Approved

d) CEPD 6188 Practicum: Professional Counseling
Request: Add – students in two different tracks previously enrolling in separate courses for clinical experiences – this is a new single course for both tracks.
Action: Approved

e) CEPT 9145 Counselor Education
Request: Delete
Action: Approved

f) CEPD 9185 Doctoral Seminar – Advocacy
Request: Add – new course which is consistent with program mission.
Action: Approved

2) Leadership and Applied Instruction Department (Curriculum and Instruction)
   a) Program: Master of Education: Educational Leadership
   Request: Modify – reactivation of M. Ed. in Educational Leadership program.
   Action: Approved

B) College of Social Sciences
1) Department of Psychology

a) PSYC 8007 Foundations in Critical Psychology
Request: Add
Action: Approved

b) PSYC 8008 Foundations in Humanistic Psychology
Request: Add
Action: Approved

c) PSYC 8009 Foundations in Transpersonal Psychology
Request: Add
Action: Approved

d) PSYC 8010 Theoretical Foundations of Psychological Inquiry

Request: Add
Action: Approved

Item B.1.b corrected to read Humanistic rather than Humanitic. Item B.1.d course name changed from "Philosophy of Inquiry" to "Theoretical Foundations of Psychological Inquiry." Corrections were submitted by Drs. Lloyd and Cobia respectively.

Items A.1.a-f; A.2.a; and, B.1.a-d as corrected were presented in a block and approved by voice vote.

Informational Items

A) College of Education
   1) Collaborative Support and Intervention
      a) CEPD 9184 Doctoral Seminar – Professional Issues
         Request: Modify – course title and description to more closely align with program mission and goals.
         Action: Approved

      b) CEPD 9186 Doctoral Internship
         Request: Modify – revision number of hours (change from variable 1-6 hours to 3 hours); revision of course description; revision of course objectives to more closely align with program learner outcomes.
         Action: Approved

      c) CEPD 9183 Directed Doctoral Research
         Request: Modify – objectives to more closely align with program learner outcomes.
         Action: Approved

      d) CEPD 9171 Program Evaluation
         Request: Modify objectives to align with program learner outcomes
         Action: Approved

B) College of Social Sciences
   1) Psychology Department
      a) PSYC 8003 Historical Foundations of Psychology
         Request: Modify – course title change now reflects the foundational character of the course.
         Action: Approved

Committee IX: Facilities and Services Committee (Chair, Shelley Smith)

Action Item:

A) University Services Committee recommends to the Faculty Senate the approval of Volunteer Policy (revised). Volunteer Policy April, 2011

[Note: This is a proposal from work not completed from the 2010-2011 General University Matters Committee (Minna Halonen-Rollins, Chair). First proposal was presented at the February 25, 2011 Faculty Senate meeting was sent back to committee for clarification. The purpose of "Volunteer Policy" is to simultaneously protect the university and our non-paid agents by providing the structure required under the Georgia Tort-Claims Act.]

Item was withdrawn and will be resubmitted next month.

6. New Business

A) Report from the President's Special Commission to Improve Graduation Rates. Discussion of the draft report and its recommendations.

Following motion presented by Ravic Ringlaben and seconded.

> Each Senate Committee chair will solicit, gather, and report feedback on the President's Special Commission to Improve Graduation Rates. This feedback is to be given to the Executive Committee for preparing a report that will be shared with the Commission. September 16th is the deadline for standing committee members to send this feedback to their Committee Chairs.

Motion approved by voice vote

7. There were no announcements

8. Meeting was adjourned.

Respectively submitted,

Dawn Harmon McCord

Addendum II

Program View Request (Read-Only)

Originator

College of Arts and Humanities (College) | Foreign Languages Department (Department) | MacKinnon, Aran (Originator)

Action

Add | Modify | Deactivate | Terminate | Reactivate

Modifications

Program Name | Program Description | Degree Name | See Modification Details

Program Selection

College of Arts and Humanities (College) | History Department (Department)

Classical Studies (Program Name) | On Campus (Program Location) | Undergraduate (Degree Level)

minor (Degree Name) | Fall 2012 (Effective Semester/Year)

Modification Details

(Max 4000 characters)

Rationale

Please see attached file

(Max 4000 characters)

Planning Info

Library Resources are Adequate

Library Resources Need Enhancement

Present or Projected Annual Enrollment: 30

Comments

(Max 4000 characters)

Document To Upload

Choose File No file chosen

(e.g. syllabi, other supporting documentation)

College Approvals

Howard Goodson [APPROVED 2011-09-01]
Chair, Course Department

Denise Overfield [APPROVED 2011-09-12]
Dean, College of Arts and Humanities

Cross Listing Approvals

N/A
Chair, Cross Listed Department

N/A
Associate Dean, Cross Listed College

Other Approvals

Camilla Gant [APPROVED 2011-10-04]
Chair, Undergraduate Academic Programs Committee

Final Approval

Jon Anderson [REQUIRED]
Chair, Faculty Senate

Proposal for an IDS Minor Program in Classical Studies

Description of the Program and Rationale for Proposing it:

The study of the literature, languages, history, art, philosophy and political thought of the Greeks and Romans develops the mind by requiring students to engage critically with such timeless topics as beauty and esthetics, the ideal relationship of the citizen and the state, the roles of men and women in society, freedom and slavery, the nature of war and peace, the purpose of literature, and the role of religion in public and private life. It is not surprising, therefore, that the Classics have long been considered the ideal foundation of education for the informed citizen in any profession. As shown in the discussion of student interest in the Minor below, the students at UWG realize these benefits of the Classics, and are excited at the prospect of such a program being developed here.

The addition of Classical Studies would enhance the reputation of UWG as an ambitious, growing university with a comprehensive curriculum, and would allow us to compete for students with comparable institutions in the state that do not offer programs in the Classics (e.g., Kennesaw State). Finally, as the list of participating faculty and course offerings below indicates, the creation of such a Minor will not initially require any additional staff or library resources beyond those currently available. Current faculty in several departments, in fact, feel that the creation of the Minor will provide them with the exciting opportunity to develop new courses that they have always wanted to teach (e.g., Meg Pearson and Lori Lipoma in English, Robert Kilpatrick in French, and a collaborative course on the Ancient World between ENGL/HIST/POLS), or to revive old courses that they have not taught in a while (e.g., Rita Tekippe's ART 3220).

Assessment of Student Demand:

The addition of a Minor Program in Classical Studies at UWG will benefit students in a variety of majors, including but not limited to English, Foreign Languages, History, Art History, Philosophy, Political Science, Sociology, and Anthropology, as well as Pre-Law students. A recent email survey of History, English and Honors students showed that there is a significant degree of enthusiasm in such a Minor among current students. A grand total of 22 students from majors as diverse as English, History, and Physics have written personally to Dr. Popov-Reynolds to express their interest in the Minor, and four additional students have expressed their interest to her verbally. One student, currently a Senior, wrote in response to the survey, "when I read the e-mail I was proud of the school for considering such a thing, yet a bit disappointed that I could not take it." Another said about the Minor and, specifically, the possibility of offering Latin in connection with it: "It was the one disappointment for me to come to West Georgia knowing it didn't offer a Latin language course."

Additional proof of interest in the Minor can be found in the popularity of the courses on Greek and Roman topics offered at UWG. When Dr. Teresa Leslie taught an upper-level course on

Greek History in the Spring of 2010, it filled up in one day. The same happened with registration for Dr. Popov-Reynolds' Greek and Roman Warfare upper level, offered in Spring 2011, and the same is true whenever Dr. Louis Howe teaches his course on Ancient and Medieval Political Theory, when Dr. Mark Tietjen offers his survey of Ancient and Medieval Philosophy, and when Dr. Meg Pearson offers her course on Shakespeare. All of these courses, taken by a variety of majors throughout the University, offer a prime recruiting opportunity for the Classical Studies Minor, as well as serving already-declared Minors.

The Program's Congruence with the Institution's Mission and Strategic Plan:

The objectives of this Minor aim to improve the quality of undergraduate education at the University of West Georgia by providing students with access to a program that is more typically found only in highly-ranked Liberal Arts colleges and research institutions. Thus the Minor in Classical Studies will contribute to the University's mission of educational excellence for all students, with a strong emphasis on the liberal arts curriculum as one of the foundations of what makes an educated person. Finally, the creation of this Minor is fully congruent with the University's Strategic plan of growing and establishing a reputation as a highly-ranked prestigious institution.

Readiness of the Institution to Offer the Program:

UWG is ready to offer this Minor right now without the addition of new faculty or new courses. However, the conversations about the potential Minor have already spurred several faculty members across campus to propose three new courses on related topics that they have been wanting to teach for a while. These new courses, while benefiting the Classical Studies Minor, will also benefit the home departments of the faculty who would like to offer them.

Fiscal Implications of the Program, and Expected Sources of Funding:

Because of the interdisciplinary nature of this program, and the fact that the courses that qualify for the Minor have to be offered regardless of whether such a Minor exists, the Program will not be taking away resources from any other program, and will not require any sources of funding at this time. This Minor truly is a case of simply doing more with existing faculty members and resources.

Relationship to Similar Programs Elsewhere:

Of the state universities and colleges in Georgia, only the University of Georgia and Georgia State University offer programs in Classical Studies and Classical Languages. No such programs exist in the institutions with which UWG most commonly competes in recruitment of students – Georgia Southern University and Kennesaw State University. Georgia Southern, however, offers a combined Minor in Classical and Medieval Studies, testifying to its inability, unlike UWG, to staff a fully independent Minor in Classical Studies.

The addition of the Minor in Classical Studies at UWG will, therefore, set the University apart from comparable institutions in the state, and will give UWG an edge in attracting and retaining students.

Program of Study for the Minor in Classical Studies:

1. Students are required to complete a total of 15 credit hours (5 courses) to be drawn from at least **three** different departments. At least 9 credits (3 courses) must be taken at the upper level. Courses are to be selected from the approved lists of courses in the Classical World and the Classical Tradition and its reception after Antiquity (see below), with the caveat that additional courses may qualify for the Minor, subject to the discretion of the Minor committee. Per USG rules, courses taken to satisfy Core areas A-E may not be counted as coursework in the Minor.

2. Students are strongly recommended to take Introduction to Classical Studies, a new 3000-level course that will be created and cross-listed by the Departments of English, History, and Political Science. This course will be offered at least once a year, beginning with the Spring 2012 semester, and will be taught on a rotating basis by interested faculty from English, History, and Political Science.

Courses on the Classical World:

ART 2201 – History of Western Art I (Dr. Rita Tekippe)

ART 3220 – Art of the Ancient World (Dr. Rita Tekippe)

ENGL 2110 – World Literature (Dr. Chad Davidson, Dr. Meg Pearson, Dr. Maria Doyle)

ENGL/HIST/POLS 30?? – Introduction to Classical Studies **(to be developed;** Dr. Howe, Dr. Pearson, Dr. Popov-Reynolds, Dr. Schaefer**)**

ENGL ???? – Greek and Roman Mythology (Dr. Lori Lipoma) **(to be developed)**

HIST 1111 – Survey of World History I

HIST 4423 – Women in the Ancient World (Dr. Teresa Leslie)

HIST 4432 – The Roman Republic (Dr. Nadya Popov-Reynolds)

HIST 4485 – Greek and Roman Warfare (Dr. Nadya Popov-Reynolds)

HIST 4485 – Civic Conflict and Civil War in the Ancient World (Dr. Nadya Popov-Reynolds)

HIST 4485 – Elementary Latin in its Cultural Context (Dr. Nadya Popov-Reynolds)

PHIL 3100 – Ancient and Medieval Philosophy (Dr. Mark Tietjen)

POLS 4601 – Ancient and Medieval Political Thought (Dr. Louis Howe and Dr. Bob Schaefer)

Courses on the Classical Tradition and its Reception after Antiquity:

ENGL 4105 – Renaissance Literature (Dr. Meg Pearson)

ENGL 4106 – Studies in Drama (Dr. Maria Doyle)

ENGL 4110 – Medieval Literature (Dr. John Crafton)

ENGL 4120 – 17th – Century Literature (Dr. Meg Pearson)

ENGL 4188 – Shakespeare (Dr. Meg Pearson)

FORL 4185 – Topics in Language and Literature (Dr. Robert Kilpatrick)

FREN 4230 – Classical French Drama (Dr. Robert Kilpatrick)

SPAN 4280 – The Spanish Golden Age (Dr. Julia Farmer)

Criteria for New Courses in the Minor: In order to qualify for the Minor in Classical Studies, a course must engage to a significant extent with the primary sources from the Classical World. In most (but not all) courses, this amounts to a Classical content of 50% or more, with the understanding that courses focusing on the Classical Tradition and its reception will typically have less than 50% Classical content. The Classical Studies Minor Committee will be responsible for evaluating new courses and deciding whether they should qualify for the Minor.

Program Learning Outcome: Students will demonstrate through written assignments an understanding of the literature, history, art, politics, language, or other aspects of the culture of the classical Mediterranean and Greco-Roman world, or its influence on subsequent civilizations, literature, art, or thought.

Program Assessment Criteria: Students in their final semester of study at UWG will submit a portfolio to a committee of three faculty members from the Minor, who will grade this portfolio on a rubric. The portfolio should contain three writing assignments from courses that they have taken for the Minor and which they feel best represent their progress over the course of the Minor and their achievement of the Program Learning Outcomes. In addition, the portfolio will include a summative statement, defending the student's choice of selections for the portfolio, the validity of these selections in fulfilling the program learning outcomes, and and reflecting on his/her experience in the Minor.

Appendix I: Supporting Faculty

Dr. Chad Davidson (English)

Dr. Maria Doyle (English)

Dr. Julia Farmer (Spanish)

Dr. Louis Howe (Political Science)

Dr. Robert Kilpatrick (French)

Dr. Lori Lipoma (English)

Dr. Meg Pearson (English)

Dr. Nadya Popov-Reynolds (History)

Dr. Robert Schaefer (Political Science)

Dr. Rita Tekippe (Art History)

Dr. Mark Tietjen (Philosophy)

Dr. Daniel Williams (History)

Course Update Request (Add, Delete, Modify)

Originator

Department	College	Originator
Chemistry Department	College of Science and Mathematics	Slattery, Spencer J.

Action

Add | Modify | Delete

Modifications

Prerequisites | Description | Title | Credit | See Comments

Course Details

Prefix	Number	Course Title
CHEM	1211	Principles of Chemistry I

First course in a two-semester sequence covering the fundamentals First course in a two-semester sequence covering the fundamental principles and applications of chemistry for science majors. Topics to be covered include composition of matter, stoichiometry, periodic relations, and nomenclature.

Course Catalog Description

Lec Hrs	Lab Hrs	Credit Hrs	Effective Term	Frequency	Grading
3	0	3	Fall - 2012	Every Term	Letter Grade

Prerequisites

One year of high school chemistry or minimum score on placement test given by the Chemistry Department. Pre-or Co-

Corequisites

Co-requisite:CHEM 1211L

Rationale

The lecture and lab (1211K) have been a combined grade over the past 15 years. The Lab grade is nearly always higher than the lecture garde; hence, when they are combined the lecture grade can go from a low D level to an overall score of a low C or higher. In this situation the student is not prepared well enough with the lecture material to succeed in a sequel course or a course that relies on the student having a good grasp on the lecture material. Separating the lab from the lecture grade will provide a more accurate assessment of the student's knowledge of the course material and thereby prevent the student from entering a sequel course before they are academically prepared.

Planning Info

Library Resources are Adequate

Library Resources Need Enhancement

Present or Projected Annual Enrollment: 550

Comments

College Approvals

Spencer J. Slattery [APPROVED 2011-09-12]
Chair, Course Department

Scott Gordon [APPROVED 2011-09-16]
Coordinator, COSM Curriculum Committee

Cross Listing Approvals

N/A
Chair, Cross Listed Department

N/A
Associate Dean, Cross Listed College

Other Approvals

Camilla Gant [APPROVED 2011-10-04]
Chair, Undergraduate Academic Programs Committee

Final Approval

Jon Anderson [REQUIRED]
Chair, Faculty Senate

(Sample Syllabus)

Principles of Chemistry I

CHEM 1211 - Fall 2012

Course Time: *Tuesday & Thursday 12:30 – 1:45 pm*

Instructor

Dr. XXXXXXX
Office: TLC- XXXX
E-mail: XXXX@westga.edu
Phone: (678)839-XXXX

Office Hours:
M, W: noon – 2 pm F: 9 – 10 am, 11 am - noon
T, R: 11 am – noon, 2 – 3 pm

Purpose

This is the first course in a two-semester sequence covering the fundamental principles and applications of chemistry for science majors. The course satisfies Core Requirement in Area D. A guided inquiry approach will be used in lecture to promote active student learning as well as logical thinking and analytical reasoning in problem solving.

Textbook

General Chemistry: Atoms First by John E. McMurray and Robert C. Fay, 1st edition, Prentice Hall is required. Students Solutions Manual accompanying textbook is optional.

Mastering Chemistry Student Access Kit is optional.

Learning Outcomes

Each student will:

- acquire a basic understanding of the structure and properties of matter, modern atomic structure and properties, chemical bonding, types of chemical reactions, stoichiometry, thermochemistry, gas properties.
- apply scientific reasoning and methods of inquiry to explain natural phenomena
- use appropriate scientific tools and instruments to acquire data, process information, and communicate results

Academic Honesty Policy

We take academic honesty very seriously. Plagiarism of any sort will not be tolerated. Plagiarism is the use of someone else's ideas or words as your own. This definition includes copying another student's exam or assignment, as well as using material from a book or Internet site without acknowledging the source. If you plagiarize any part of an assignment for this course, you will receive a zero for the entire assignment, and disciplinary action will be taken.

Course Policies and Guidelines

- The official communication method between the instructor and students will be through campus e-mail (myUWG email account).
- Some of the course materials including the syllabus, class-notes, sample exams are available through Course Den. You will be responsible to print notes.
- The class meets on Tuesdays and Thursdays from 12:30 pm – 1:45 pm AND the lab meets on Fridays from noon – 1:50 pm in TLC 3108. Please come to class on time, and do not leave early. If you must be excused, please sit close to the door to cause minimum disruption.
- You are expected to behave **professionally** in this course, which means considering the effect that your behavior will have on other people involved in the course. Under normal circumstances, you will NOT be allowed to do the following in class, laboratory or workshop: use personal laptops, cell phones; listen to music; arrive late or leave early; eat or drink; take regular bathroom breaks; catch up on sleep. All of these are distractions for the instructor and your fellow students. If you are found doing any of these, the instructor may ask you to leave the classroom/lab/workshop.
- No make up quizzes or exams will be given. In case of an illness or a dire emergency, the instructor must be contacted prior to the examination in-person, via phone or email. Accommodations for missed exams, quizzes and assignments will be handled depending on the severity of the situation between the student and the instructor.
- Strategies to **succeed** in this class:
  - Before class: Skim ahead in your textbook. You may not understand all of the material, but it will familiarize you with new terms and equations. Print class notes posted on Course Den.
  - In class: Come to class and refrain from unnecessary socializing (text messaging, talking). Bring plenty of notebook paper and pencils/pens so that you can take good notes. Class discussions go more in depth on topics posted on Course Den notes. Your instructor will use ELMO to derive equations and solve numerical problems that will not be posted. If you missed a class, find a reliable classmate who can share notes with you.
  - After class: You should plan to spend **5 – 15 hrs/week** depending on your math aptitude and high school chemistry background to do the following:
    - Review your lecture notes and re-read the textbook more carefully.
    - Work the in-chapter and end-of-chapter problems similar to ones done in class.
    - If you can work the problems without looking anywhere else for help then you know and understand the material. If not, reread the pertinent area of the textbook and lecture notes until you are ready to try the problem again.
    - DO NOT look in the solutions manual until you have finished the problem. Chemistry is best learned by doing, so work as many problems as you can.
    - Practice old tests posted on Course Den. Don't use notes or the textbook and make sure you are managing time. Treat them as real tests!
  - You must keep up. This course will move quickly and if you are not studying daily then you will find it to be quite difficult to manage the huge volume of information.
  - Also, you will have exams from various courses clustered in the same week. Cramming for all the tests the same week will not work.
  - Visit me during my posted office hours or find a FREE tutor (http://www.westga.edu/excel/index_3270.php) or supplemental instructor (http://www.westga.edu/excel/index_16183.php) at the Excel Center.

In-Class Assignments

These assignments include announced/unannounced quizzes where you may need to use a scientific calculator and the textbook. Remember to bring your calculators and textbooks to class everyday since you cannot share these resources. There will be no makeup sessions for missed assignments and late work will not be graded.

Examinations

There will be four examinations and a comprehensive final examination during the semester. Each examination will be closed book and notes. You will need to bring a calculator to the tests. If necessary, I will provide the scantron sheets, periodic charts and conversion tables during the tests. In order to get full credit on tests, quizzes and other assignments, you must SHOW ALL WORK AND CALCULATIONS. Points will be deducted if you have correct responses with incomplete calculations and/or explanations.

The standardized examination (multiple choice) from the American Chemical Society will serve as the final examination. If there is a conflict with the final exam time, you must provide me with written authorization from the Dean of Science and Mathematics to move your final exam time.

Workshop Chemistry

In addition to regularly scheduled lecture and laboratory sessions, you will be REQUIRED to attend a workshop (on Mondays) to discuss chemistry problems and improve your understanding of the material. Your workshop will be led by an upper-level student leader who will facilitate activities that provide practice and build confidence in your ability to solve chemistry problems. Workbooks for the workshop will be distributed in class and must be brought to workshops every week.

Semester Grades

All exam, quiz and lab activity grades will be based on your ability to DEMONSTRATE full understanding of the material. Full credit will only be given if you SHOW ALL YOUR WORK, not just for obtaining the correct answer.

Your grade will be calculated based on the following components:

In-class exams (4 @ 100 points each)	400 points
Final (Comprehensive)	100 points
Quiz	75 points
Workshops	100 points
TOTAL	**675 points**

The grading scale will be as follows:

90% : A; 80 – 89% : B; 70 – 79% : C; 60 – 69% : D; < 60% : F

Tentative Schedule for the Course

WEEK	*Tuesday*	*Thursday*	*Friday*
1	August 23 – Chapter 1	August 25 – Chapter 1/2	August 26 – Concept Maps
2	August 30 – Chapter 2	September 1 – Chapter 2/3	September 2 – Measurements
3	September 6 – Chapter 3	September 8 – Chapter 3	*September 9 – Workshop*
4	September 13 – Chapter 3/4	**September 15 – EXAM 1**	September 16 – Accuracy/Prec.
5	September 20 – Chapter 4	September 22 – Chapter 4	September 23 – Chem/phy ch.
6	September 27 – Chapter 4/5	September 29 – Chapter 5	September 30 – Ionic/Cov.
7	October 4 – Chapter 5	October 6 – Chapter 5	October 7 – Molecular Model
8	**October 11 – EXAM 2**	October 13 – Chapter 6	October 14 – Hydrates
9	October 18 – Chapter 6	October 20 – Chapter 6	October 21 – Balloon Stoi.
10	October 25– Chapter 7	October 27 – Chapter 7	October 28 – Vin Titr.
11	November 1 – Chapter 7	November 3 – Chapter 9	November 3 – Gas Laws
12	**November 8 – EXAM 3**	November 10 – Chapter 9	November 11 – Calorimetry
13	November 15 – Chapter 9/8	November 17 – Chapter 8	**November 18 – Lab Final**
14	*November 22 – No class*	*November 24 – No class*	*November 26 – No lab*
15	November 29 – Chapter 8	**December 1 – EXAM 4**	*December 2 – XC Workshop*
16	*December 6 - No class*	**December 8 – ACS Final** **11 AM – 1 PM**	

Course Update Request (Add, Delete, Modify)

Originator

Chemistry Department	College of Science and Mathematics	Slattery, Spencer J.
Department	College	Originator

Action

Add | Modify | Delete

Modifications

Prerequisites | Description | Title | Credit | See Comments

Course Details

CHEM	1211L	Principles of Chemistry I Lab
Prefix	Number	Course Title

Laboratory exercises supplement the lecture material in CHEM 1211.

Course Catalog Description

0	2	1	Fall - 2012	Every Term	Letter Grade
Lec Hrs	Lab Hrs	Credit Hrs	Effective Term	Frequency	Grading

Prerequisites

Corequisites

CHEM 1211

Rationale

The lecture and lab (1211K) have been a combined grade over the past 15 years. The Lab grade is nearly always higher than the lecture grade; hence, when they are combined the lecture grade can go from a low D level to an overall score of a low C or higher. In this situation the student is not prepared well enough with the lecture material to succeed in a sequel course or a course that relies on the student having a good grasp on the lecture material. Separating the lab from the lecture grade will provide a more accurate assessment of the student's knowledge of the course material and thereby prevent the student from entering a sequel course before they are academically prepared.

Planning Info

Library Resources are Adequate

Library Resources Need Enhancement

Present or Projected Annual Enrollment: 550

Comments

College Approvals

Spencer J. Slattery [APPROVED 2011-09-12]
Chair, Course Department

Scott Gordon [APPROVED 2011-09-16]
Coordinator, COSM Curriculum Committee

Cross-Listing Approvals

N/A
Chair, Cross Listed Department

N/A
Associate Dean, Cross Listed College

Other Approvals

Camilla Gant [APPROVED 2011-10-04]
Chair, Undergraduate Academic Programs Committee

Final Approval

Jon Anderson [REQUIRED]
Chair, Faculty Senate

Chem 1211K Lab Fall 2012

Instructor: Dr. XXXXXX Office: XXXX Phone: 678-839-XXXX email: XXXXX@westga.edu

Objectives: To apply the knowledge obtained in Chem 1211 lecture to problem solving in the laboratory. To develop good laboratory techniques; work safely; take data carefully; record relevant observation, and use time effectively.

Lab Dress Code: No open toed shoes, baggy clothes, excessive jewelry, loose hair.

Lab Behavior: Unnecessary socializing in person, on the phone, texting OR listening to music OR eating and drinking OR bathroom breaks are NOT ALLOWED. All labs plus lab space clean-up must be completed before the end of the lab period.

Tardiness / Missed Lab: Lab attendance is mandatory. Unexcused absences will result in a grade of zero. No make-up labs will be permitted. At the beginning of each laboratory we will discuss the laboratory. You must be present. Lateness will be penalized by deduction from the grade for that lab.

Preparation for Each Lab: The labs will require preparation and careful work to complete in the allotted time. Read all laboratory material before coming to lab. It is important that you understand the theory and procedure of the experiment. The lab material will be posted on Course Den. You need to print out lab material to bring to lab each week.

During the lab: Most labs are to be performed in groups of two. Record all data and observations.

After the lab: Clean up the lab space, clean the glassware and put back in the drawer, and unplug hotplates.

Reports: Laboratory reports are to be turned in one week after the lab is completed. One report per group is required. The reports are to be typed and include the information requested in the lab material. You cannot turn in late lab reports. You cannot turn in lab reports if you did not come to lab on the day of the activity. Any dishonesty will result in all group members receiving a zero.

Academic Misconduct: Honesty in reporting results is one of the essential characteristics of your laboratory work. Little of your grade depends on getting "good" quantitative results. You will be more severely penalized for misrepresenting results than for honestly reporting "poor" results. You may discuss the lab results with other groups, but copying lab reports (any part) shall be considered academic misconduct, and as a result, will be penalized to the fullest extent possible.

Learning Outcomes

1. To communicate chemistry with clarity. Attainment of this learning outcome will be reflected by the students' abilities to:
   - Follow oral and written instructions to successfully complete laboratory assignments.
   - Work with other students in assigned group projects.
   - Write formal laboratory reports as chemists write.
2. Demonstration of a working knowledge of chemistry by successfully completing laboratory assignments.

Grades: Lab activities and a lab final are worth 125 points. The grade earned in lab plus the lab final will be rolled into the grade for the overall course. The grading scale will be as follows:

100-90%: A; 80 – 89% : B; 70 – 79% : C; 60 – 69% : D; < 60% : F

Course Update Request (Add, Delete, Modify)

Originator

Department	College	Originator
Chemistry Department	College of Science and Mathematics	Slattery, Spencer J.

Action

Add | Modify | Delete

Modifications

Prerequisites | Description | Title | Credit | See Comments

Course Details

Prefix	Number	Course Title
CHEM	1212	Principles of Chemistry II

Second course in a two-semester sequence covering the fundamental principles and applications of chemistry for science majors. Topics to be covered include chemical bonding, properties of solids, liquids, and gases, solutions, equilibria, acids, and bases, solubility, thermodynamics, kinetics, and electrochemistry.

Course Catalog Description

Lec Hrs	Lab Hrs	Credit Hrs	Effective Term	Frequency	Grading
3	0	3	Fall - 2012	Every Term	Letter Grade

Prerequisites

Must have completed both CHEM 1211 and MATH 1113 with a grade of C or higher.

Corequisites

CHEM 1212L

Rationale

The lecture and lab (1212K) have been a combined grade over the past 15 years. The Lab grade is nearly always higher than the lecture grade; hence, when they are combined the lecture grade can go from a low D level to an overall score of a low C or higher. In this situation the student is not prepared well enough with the lecture material to succeed in a sequel course or a course that relies on the student having a good grasp on the lecture material. Separating the lab from the lecture grade will provide a more accurate assessment of the student's knowledge of the course material and thereby prevent the student from entering a sequel course before they are academically prepared.

Planning Info

Library Resources are Adequate

Library Resources Need Enhancement

Present or Projected Annual Enrollment: 450

Comments

College Approvals

Spencer J. Slattery [APPROVED 2011-09-12]
Chair, Course Department

Scott Gordon [APPROVED 2011-09-16]
Coordinator, COSM Curriculum Committee

Cross Listing Approvals

N/A
Chair, Cross Listed Department

N/A
Associate Dean, Cross Listed College

Other Approvals

Camilla Gant [APPROVED 2011-10-04]
Chair, Undergraduate Academic Programs Committee

Final Approval

Jon Anderson [REQUIRED]
Chair, Faculty Senate

(Sample Syllabus)

Principles of Chemistry II

CHEM 1212

Instructor

Dr. XXXXX
Office: TLC- 2131
E-mail: xxxxx@westga.edu
Phone: (678)839-xxxx

Office Hours:
M, W, T, R, F

Purpose

This is the second course in a two-semester sequence covering the fundamental principles and applications of chemistry for science majors. The course satisfies Core Requirement in Area D. A guided inquiry approach will be used in the lecture to promote active student learning as well as logical thinking and analytical reasoning in problem solving.

Textbook

General Chemistry: Atoms First by John E. McMurray and Robert C. Fay, 1st edition, Prentice Hall is required. Students Solutions Manual accompanying textbook is optional.

Mastering Chemistry Student Access Kit is required for the workshop.

Learning Outcomes

Each student will:

- acquire a basic understanding of chemical bonding, equilibrium, kinetics, thermodynamics and electrochemistry.
- learn to apply the scientific method in laboratory projects, collect and analyze scientific data and formulate appropriate conclusions from data analysis.
- demonstrate an understanding of basic scientific concepts across disciplines and appreciate the role of science and technology in everyday life.

Course Policies and Guidelines

- The official communication method between the instructor and students will be through campus e-mail (myUWG email account).
- Some of the course materials are available through Course Den.
- You are expected to behave **professionally** in this course, which means considering the effect that your behavior will have on other people involved in the course. Under normal circumstances, you will NOT be allowed to do the following in class, laboratory or workshop: use personal laptops, cell phones; listen to music; arrive late or leave early; eat or drink; take regular bathroom breaks.
- No make up quizzes or exams will be given. In case of an illness or a dire emergency, the instructor must be contacted prior to the examination in-person, via phone or email. Accommodations for missed exams, quizzes and assignments will be handled depending on the severity of the situation between the student and the instructor.
- Strategies to **succeed** in this class
    - Come to class, quit unnecessary socializing (text messaging, talking) during class.
    - Read the textbook, take good notes, participate in productive collaboration with peers, review notes, practice problems and actively participate in workshop.
    - Spend at least 10 hours/week studying chemistry outside the classroom/workshop.
    - Visit me during my posted office hours for additional help.

In-Class Assignments

These assignments include laboratory activities and announced/unannounced quizzes where you may need to use a scientific calculator and the textbook. Remember to bring your calculators and textbooks to class everyday since you cannot share these resources. There will be no makeup sessions and late work will not be graded.

Examinations

There will be four examinations and a comprehensive final examination during the semester. Each examination will be closed book and notes. You will need to bring a calculator to the tests. If necessary, I will provide the scantron sheets, periodic charts and conversion tables during the tests. In order to get full credit on tests, quizzes and other assignments, you must SHOW ALL WORK AND CALCULATIONS. Points will be deducted if you have correct responses with incomplete calculations and/or explanations.

The standardized examination from the American Chemical Society will serve as the final examination. It is cumulative and consists of multiple-choice questions covering topics from both semesters of General Chemistry. If there is a conflict with the final exam time, you must provide me with written authorization from the Dean of Sciences and Mathematics to move your final exam time.

Academic Honesty Policy

We take academic honesty very seriously. Plagiarism of any sort will not be tolerated. Plagiarism is the use of someone else's ideas or words as your own. This definition includes copying another student's exam, lab report or assignment, as well as using material from a book or Internet site without acknowledging the source. If you plagiarize any part of an assignment, you will receive a zero for the entire assignment, and disciplinary action will be taken.

Workshop Chemistry

In addition to regularly scheduled lecture and laboratory sessions, you will be REQUIRED to attend a workshop (on Mondays) to discuss chemistry problems and improve your understanding of the material. Your workshop will be led by an upper-level student leader who will facilitate activities that provide practice and build confidence in your ability to solve chemistry problems. Workbooks for the workshop will be distributed in class and must be brought to workshops every week.

Workshop Grades

You are not judged on actual right answers, but the effort you put. The workshop portion of your grade, will be based on: 1) Attendance. Don't arrive late; don't leave early. 2) Participation in group efforts to solve problems. 3) Preparation. Homework problems will be assigned from *Mastering Chemistry* and you will score full preparation points if you are able to successfully complete 70% of the assigned problems. 4) Attitude.

Semester Grades

All exam and quiz grades will be based on your ability to DEMONSTRATE full understanding of the material. Full credit will only be given if you SHOW ALL YOUR WORK, not just for obtaining the correct answer.

Your grade will be calculated based on the following components:

In-class exams (4 @ 100 points each)	400 points
ACS Comprehensive Final (1211 & 1212)	100 points
Quiz	50 points
Workshops	100 points
TOTAL	**650 points**

The grading scale will be as follows:

100-90% : A; 80 – 89% : B; 70 – 79% : C; 60 – 69% : D; < 60% : F

Tentative Schedule for the Course

WEEK	*Tuesday*	*Thursday*	*Friday*
1	**January 4 – No class**	January 6 – Chapter 10	**Jan 7 – No lab**
2	January 11 – Chapter 10	January 13 – Chapter 10	**Jan 14 – Makeup Workshop**
3	January 18 – Chapter 11	January 20 – Chapter 11	Jan 21 – Clausius Clapeyron
4	**January 25 – EXAM 1**	January 27 – Chapter 11	Jan 28 – Colligative Prop.
5	February 1 – Chapter 12	February 3 – Chapter 12	Feb 4 – Kinetics I
6	February 8 – Chapter 12	February 10 – Chapter 12	Feb 11 – Kinetics II
7	February 15 – Chapter 13	February 17 – Chapter 13	Feb 18 – Equilibrium
8	**February 22 – EXAM 2**	February 24 – Chapter 13	Feb 25 – pH
9	March 1 – Chapter 14	March 3 – Chapter 14	March 4 – Titration I
SPRING BREAK – March 7 - 11			
10	March 15 – Chapter 14	March 17 – Chapter 15	March 18 – Titration II
11	March 22 – Chapter 15	March 24 – Chapter 15	March 25 – Buffers
12	March 29 – Chapter 15	**March 31 – EXAM 3**	April 1 – Solubility of salts
13	April 5 – Chapter 16	April 7 – Chapter 16	April 8 – Qual. Analysis
14	April 12 – Chapter 16	April 14 – Chapter 17	April 15 – Qual. Analysis
15	April 19 – Chapter 17	April 21 – Chapter 17	April 22 – Student Presentation
16	**April 26 – EXAM 4**	**April 28 – No class**	**April 29 – XC Workshop**
	Final Exam Date & Time - XXXXXXXXXX		

Course Update Request (Add, Delete, Modify)

Originator

Department	College	Originator
Chemistry Department	College of Science and Mathematics	Slattery, Spencer J.

Action

Add | Modify | Delete

Modifications

Prerequisites | Description | Title | Credit | See Comments

Course Details

Prefix	Number	Course Title
CHEM	1212L	Principles of Chemistry II Lab

Course Catalog Description: Laboratory exercises supplement the lecture material in CHEM 1212.

Lec Hrs	Lab Hrs	Credit Hrs	Effective Term	Frequency	Grading
0	2	1	Fall - 2012	Every Term	Letter Grade

Prerequisites

Corequisites

CHEM 1212

Rationale

The lecture and lab (1212K) have been a combined grade over the past 15 years. The Lab grade is nearly always higher than the lecture grade; hence, when they are combined the lecture grade can go from a low D level to an overall score of a low C or higher. In this situation the student is not prepared well enough with the lecture material to succeed in a sequel course or a course that relies on the student having a good grasp on the lecture material. Separating the lab from the lecture grade will provide a more accurate assessment of the student's knowledge of the course material and thereby prevent the student from entering a sequel course before they are academically prepared.

Planning Info

Library Resources are Adequate

Library Resources Need Enhancement

Present or Projected Annual Enrollment: 450

Comments

College Approvals

Scott Gordon [APPROVED 2011-09-16]
Coordinator, COSM Curriculum Committee

Spencer J. Slattery [APPROVED 2011-09-12]
Chair, Course Department

Cross Listing Approvals

N/A
Chair, Cross Listed Department

N/A
Associate Dean, Cross Listed College

Other Approvals

Camilla Gant [APPROVED 2011-10-04]
Chair, Undergraduate Academic Programs Committee

Final Approval

Jon Anderson [REQUIRED]
Chair, Faculty Senate

Chem 1212 Lab

Spring XXXX

Instructor: Dr. XXXX Office: XXXX Phone: 678-839-XXXX Email: XXXXX@westga.edu

You must email me from your myUWG account.

Objectives: To apply the knowledge obtained in Chem 1212 lecture to problem solving in the laboratory. To develop good laboratory techniques; work safely; take data carefully; record relevant observation, and use time effectively.

Tardiness / Missed Lab: Lab attendance is mandatory. Unexcused absences will result in a grade of zero. No make-up labs will be permitted. At the beginning of each laboratory we will discuss the laboratory. You must be present. Lateness will be penalized by deduction from the grade for that lab.

Preparation for Each Lab: The labs will require preparation and careful work to complete in the allotted time. Read all laboratory material before coming to lab. It is important that you understand the theory and procedure of the experiment. The lab material will be posted on Course Den. I will distribute the lab handout on the day of the activity.

During the lab: Most labs are to be performed in groups of two. Record all data and observations in a composition book. Use non-erasable ink, and never use white out.

After the lab: Clean up the lab space, clean the glassware and put back in the drawer, and unplug hotplates.

Reports: Laboratory reports are due at the beginning of the next lab period. One report per group (max of 2 students per report) is required for most labs. The reports are to be a minimum 200 words in length, typed and include the information requested in the lab handout. Two individual formal reports will be required during the semester. These are to be done individually. The format for these reports will be provided in a separate document later in the semester. Late reports will incur a 10% penalty for each day the report is late.

Academic Misconduct: Honesty in reporting results is one of the essential characteristics of your laboratory work. Little of your grade depends on getting "good" quantitative results. You will be more severely penalized for misrepresenting results than for honestly reporting "poor" results. You may discuss the lab results with other groups, but copying lab reports (any part) shall be considered academic misconduct, and as a result, will be penalized to the fullest extent possible.

Grades: Laboratory activities and reports are worth 100 points. Two formal lab reports are each worth 20 points for a total of 40 points. A Powerpoint presentation is worth 10 points.

Learning Outcomes

1. To communicate chemistry with clarity. Attainment of this learning outcome will be reflected by the students' abilities to:
   - Follow oral and written instructions to successfully complete laboratory assignments.
   - Work with other students in assigned group projects.
   - Write formal laboratory reports as chemists write.
2. Demonstration of a working knowledge of chemistry by successfully completing laboratory assignments.

TENTATIVE LABORATORY SCHEDULE

Date	*Lab #*	*Experiment*	*Report*
Jan 28	1	Safety, Clausius-Clapeyron: Vaporization of Water	Informal report
Feb 4	2	Colligative Properties: Freezing Point Depression	Informal report
Feb 11	3	Kinetics I	Informal report
Feb 18	4	Kinetics II	Formal report
Feb 25	5	Equilibrium: Le Chatelier's Principle	Informal report
Mar 4	6	pH Measurements, Titration I	Informal report
Mar 18	7	Titration II	Informal report
Mar 25	8	Buffers	Informal report
Apr 1	9	Solubility Equilibria	Informal report
Apr 8	10	Qualitative Analysis	Informal report
Apr 15	11	Qualitative Analysis (cont.)	Formal Report
Apr 22	12	Student Presentations	Powerpoint

Course Update Request (Add, Delete, Modify)

Originator

Anthropology Department	College of Social Sciences	Snipes, Marjorie
Department	College	Originator

Action

Add | Modify | Delete

Modifications

Prerequisites | Description | Title | Credit | See Comments

Course Details

ANTH	3110	Human Osteology
Prefix	Number	Course Title

This course will inrtoduce students to the basics of skeletal biology and learn how to accurately identify the elements of the human skeleton. It will include the major landmarks of each skeletal element with an aim to understanding the functional morphology of bones in an individual and as an anatomical system.

Course Catalog Description

3		3	Spring - 2012	Other	Letter Grade
Lec Hrs	Lab Hrs	Credit Hrs	Effective Term	Frequency	Grading

Prerequisites

Anth 1102 or consent of instructor

Corequisites

Rationale

This is a new course introduced by a new faculty member developing the subfield of Physical Anthropology. This course will serve as an elective to the program and a required course for certain future 4000-level Physical courses.

Planning Info

Library Resources are Adequate

Library Resources Need Enhancement

Present or Projected Annual Enrollment: 35

Comments

College Approvals

Heather Mbaye [APPROVED 2011-09-16]
Coordinator, COSS Executive Committee

Marjorie Snipes [APPROVED 2011-08-31]
Chair, Course Department

Cross Listing Approvals

N/A
Chair, Cross Listed Department

N/A
Associate Dean, Cross Listed College

Other Approvals

Camilla Gant [APPROVED 2011-10-04]
Chair, Undergraduate Academic Programs Committee

Final Approval

Jon Anderson [REQUIRED]
Chair, Faculty Senate

HUMAN OSTEOLOGY 3110
Spring 2012 – University of West Georgia

Course Information

Meeting time	Friday 9:00-11:30 am
Room	Old Auditorium Room 119
Professor	Dr. Kerriann Marden
Contact	Use CourseDen email function for **all** course-related correspondence Alternate e-mail: kmarden@westga.edu Office: Anthropology Department Room 6 Office phone: 678-839-6450 Office hours: Tues/Thurs 10-12, 2-5 or by appointment
Required texts	Tim White and Pieter Folkens 2005. *The Human Bone Manual*, Amsterdam: Elsevier Academic Press. Bass, William M. *Human Osteology: A Laboratory and Field Manual* (5e) Special Publications, Missouri Archaeological Society
Additional resources (on reserve)	Steele DG, Bramblett CA. 1988 . The Anatomy and Biology of the Human Skeleton. Texas A & M Press: College Station, Texas. Baker BJ, Dupras TL, Tocheri MW. 2005. The Osteology of Infants and Children. Texas A & M Press: College Station, Texas. Scheuer L, Black S. 2004. The Juvenile Skeleton. London: Elsevier Academic Press.
Course description	In this course, students will learn the basics of skeletal biology and learn how to accurately identify the elements of the human skeleton. We will study the major landmarks of each skeletal element with an aim to understanding the functional morphology of bones individual and as an anatomical system. Each class will begin with an illustrated lecture, followed by hands-on lab component allowing students to practice bone identification and explore the range of variation in expression of natural skeletal landmarks. In addition, we will discuss practical applications of Human Osteology in archaeological and medicolegal contexts.
Learning outcomes	Students will learn and utilize methods for the accurate identification of whole and fragmentary elements of the human skeleton and determination the side of the body from which the element dervies. Students will gain understanding of the nature and origin of diversity among human populations and how biological factors interact with cultural practices. Students will gain the ability to critically analyze the biomechanical function of human skeletal elements within the musculoskeletal system.

Students will gain an appreciation of the ethical responsibility of working with human skeletal remains and be able to critically evaluate ethical conflicts.

Students will understand broader applications of Physical Anthropology in real-world settings.

Learning outcomes are related to University and Departmental missions to impart broad knowledge, encourage critical thinking, introduce cultural and global literacy, and emphasize disciplinary rigor.

Course Requirements

Course format Lecture and lab. This course also requires regular interface through CourseDen/WebCT (This can be accessed through the student's MyUWG page or directly through http://westga.view.usg.edu). Every student who is officially enrolled in the class will automatically be registered within CourseDen and will be able to access the course materials. The syllabus and policies will be available on CourseDen, as well as supplemental required readings, your assignments, self-quizzes and exercises. Hard copies will not be provided to you.

If you have any difficulties accessing CourseDen, ask for assistance in a campus computer lab or contact their Support Center- available 24 hrs a day/ 365 days a year:

Go to http://help8.view.usg.edu to search for answers
Click on Request Support & Contact Us for live chat
Phone Toll-free 1-866-588-5293
Toll-free for hearing impaired: 1-866-334-9180.

Grading The course is graded based on four major components: class participation, written assignments, two in-class tests, and a final examination. Each course requirement is allocated a specific number of points, and the total accrued points at the end of the semester will constitute the student's grade.

Class participation (10%) Class attendance is left to your discretion, but will be recorded for each class. Absence from class does not excuse the student from responsibility for the material covered. Students are expected to arrive on time and stay until the end of each class period. Late arrival or early departure is disruptive and will not be tolerated.

Participation requires active involvement in lab exercises. This means that you come to class prepared (i.e., having already completed the reading). Even with

perfect attendance, lack of preparedness or engagement in the class will result in a lower overall participation grade.

Note: Use of electronic media during class is considered disruptive. Texting, updating your Facebook status, IM-ing, etc. will not be tolerated. Students observed using electronic communications during class will lose the points for that day's attendance

Labs (20%)

After the lecture portion of class, each week will involve a hands-on laboratory component with an exercise for each lab. There will be thirteen graded lab exercises throughout the semester. You can work together on the labs, but it is important that you do the work yourself in order to learn the material in order to succeed on the quiz. You will have access to the lab outside of class periods to study the materials, but the classroom lab lessons are mandatory and exercises are due at the end of the class period.

Quizzes (20%)

There will be a total of thirteen practical quizzes during the semester, covering the material from the previous week's lab exercise. Each quiz will be given at the start of class, and no extra time will be provided to students who arrive late. Although you are allowed to prepare by completing the lab exercises together, please note that there is **no** team work allowed on the quizzes. Because the goal of this course is to provide the student with a comprehensive understanding of human osteology, the quizzes are cumulative. Therefore, although each will focus on the material covered during the week's lesson, any material covered in any previous week may also be included. Only 12 lab quizzes will be included in the final grade, so each student will be able to drop one quiz grade. **No make-up quizzes will be given.**

Paper (20%)

One short paper will be assigned during the semester. Students will be allowed to choose between: 1) a skeletal case report and 2) a research paper.

Skeletal inventory: Student will be responsible for completing a skeletal inventory using the techniques for element identification and siding discussed throughout the semester. A set of remains from the skeletal collection will be assigned to each student at the start of the semester. Findings will be presented in a brief written report, following the standard template provided at the beginning of the semester.

OR

Research paper: Student will be responsible for producing a short (5-10) page research paper. The topic of research can is the student's choice, provided that it relates closely to material discussed during the course (i.e., human skeletal remains). The instructor can provide assistance in finding a topic of interest id needed.

The paper will be graded in three parts:

1) Initial paper proposal/skeletal inventory 10%
2) Outline and annotated bibliography/case report progress summary 30%
3) Final product 60 %

This "step method" of grading your written work will help each student to maintain timely progress and will allow the instructor to provide feedback at an early stage. A bibliography of resources arranged by topic will be provided on the course website. Your instructor can also provide ideas of articles and help you to refine your research approach as needed.

Exams (30%)

Three **equally weighted** exams will be given during the semester (two during class periods and one during finals week). Each exam will include both a practical and a written component. Like the quizzes, exams will focus on recent material but are cumulative, and will therefore draw on material from previous sections of the course as well. The final, cumulative exam is scheduled for Friday, April 27th, 9:00-11:00 am. If you are late arriving at the exam, you will **not** be allowed extra time to complete the Exam. **Exams cannot be re-scheduled without written authorization from the Chair of the Department and the Dean of the College of Social Sciences.**

Grading scale

A	90-100%
B	80-89%
C	70-79%
D	60-69%
F	below 60%

Grading policies

No extra credit is allowed in this course for any reason. Standards are set to allow for a just and fair system of evaluation for all students.

Students with disabilities, as per class/university policy, must communicate their needs to the professor (with appropriate paperwork) at least two weeks in advance of any tests on which they will be requesting accommodations.

Plagiarism and other forms of cheating are not tolerated and will result in immediate class failure.

Students who arrive late or leave early will be removed from the day's attendance roll unless the student is sick or has prior permission of the professor.

Class disruption of any kind is not tolerated and will be handled by the Dean's Office.

Any changes deemed necessary in this syllabus will be announced in class and revised in CourseDen by the professor.

Course Outline

Week 1 Jan 13	What is Human Osteology? Course Guidelines Skeletal Terminology& Laboratory Orientation	White and Folkens Ch. 1, 6
Week 2 Jan 20	Biology of the Human Skeleton & Normal Human Variation The Skull-- Cranium & Mandible Basic Overview of Genetics	White and Folkens Ch. 4, 7 Text Chapter 3 Evolutionary Genetics
Week 3 Jan 27	Dental Anatomy & Terminology—Adult & Subadult Dentition	White and Folkens Ch. 8
Week 4 Feb 3	**Exam 1 (first hour)** The Hyoid & Vertebrae	White and Folkens Ch. 9
Week 5 Feb 10	The Thorax & Shoulder Complex—Sternum, Ribs, Clavicle & Scapula	White and Folkens Ch. 10 and 11 **Paper proposal/skeletal inventory due in CourseDen Monday by 12pm (noon)**
Week 6 Feb 17	The Arm—Humerus, Radius and Ulna	White and Folkens Ch. 12, 13
Week 7 Feb 24	***No class: American Academy of Forensic Sciences Meeting***	*No new readings: Review period in lab*
Week 8 Mar 2	The Hand – Carpals, Metacarpals & Phalanges	White and Folkens Ch. 13
Week 9 Mar 9	The Pelvis—Sacrum, Coccyx & Os Coxae	White and Folkens Ch. 14
Week 10 Mar 16	Models for Human Origins	Text Chapter 12 The Debate Over Modern Human Origins
Week 11 Mar 23	***No class: Spring Break***	*No new readings: Review period in lab* **Paper outline and bibliography/skeletal case progress report due in CourseDen Monday by 12pm (noon)**
Week 12 Mar 30	**Exam 2 (first hour)** The Leg—Femur, Patella, Tibia & Fibula	White and Folkens Ch. 15

Week 13 Apr 6	The Foot – Tarsals, Metatarsals & Phalanges	White and Folkens Ch. 16
Week 14 Apr 13	Discerning Faunal (nonhuman) and Subadult Bones	White and Folkens Ch. 2 Article on Reserve
Week 15 Apr 20	Archaeological, Forensic and Human Rights Applications of Human Osteology	White and Folkens Ch. 3 Article on Reserve **Final paper /skeletal case report due in CourseDen Monday by 12pm (noon)**
Exam week	**FINAL EXAM Friday, April 27th, 9:00-11:00 am**	

It is critical that you keep up with the assigned readings. The readings provide the structure for the class, and will inform the lectures and labs. Readings are also vital to your successful completion of the exercises, assignments and quizzes. Reading assignments are posted according to the week by which you should have read them.

Program View Request (Read-Only)

Originator

College of Social Sciences (College) | All Departments (Department) | Luken, Paul (Originator)

Action

Add | Modify | Deactivate | Terminate | Reactivate

Modifications

Program Name | Program Description | Degree Name | See Modification Details

Program Selection

College: College of Social Sciences

Program: Bachelor of Science with a Major in Sociology

Program Name: Bachelor of Science with a Major in Sociology

Program Location: On Campus

Degree Level: Undergraduate

Degree Name: Bachelor of Science

Effective Semester/Year: Spring 2012

Modification Details

We wish to eliminate the current requirements for declaring a major in sociology. We wish to eliminate this language from the catalog: "To be admitted into the B.S. program in Sociology, students must first complete 40 credit hours of Core Areas A-E with a cumulative GPA of 2.0 or better AND have earned a satisfactory grade on both the Regents Reading Exam and the Regent's Essay Exam."

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Rationale

Eliminating the existing requirements will streamline the declaration of major process and reduce the amount of paperwork that our office and our students currently undertake. It will also eliminate the need for a presociology major. This modification will also bring us in line with the changes in the regents' policy regarding the previously required exams for UWG students.

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Planning Info

Library Resources are Adequate

Library Resources Need Enhancement

Present or Projected Annual Enrollment: na

Comments

(Max 4000 characters)

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College Approvals

Robert M. Sanders [APPROVED 2011-09-06]
Chair, Course Department

Heather Mbaye [APPROVED 2011-09-16]
Coordinator, COSS Executive Committee

Cross Listing Approvals

N/A
Chair, Cross Listed Department

N/A
Associate Dean, Cross Listed College

Other Approvals

Camilla Gant [APPROVED 2011-10-04]
Chair, Undergraduate Academic Programs Committee

Final Approval

Jon Anderson [REQUIRED]
Chair, Faculty Senate

Program View Request (Read-Only)

Originator

College of Social Sciences — College
Sociology Department — Department
Luken, Paul — Originator

Action

Add | Modify | Deactivate | Terminate | Reactivate

Modifications

Program Name | Program Description | Degree Name | See Modification Details

Program Selection

College of Social Sciences — College
Program — Program
Bachelor of Science with a Major in Sociology — Program Name
On Campus — Program Location
Undergraduate — Degree Level
Bachelor of Science — Degree Name
Fall 2012 — Effective Semester/Year

Modification Details

All required courses in the major must be passed with a grade of C or better.

(Max 4000 characters)

Rationale

Currently a grade of D is acceptable. The required courses are foundational to the sociology BS degree and mastery of their content is a necessary achievement for majors. A grade of D does not signify adequate competence; therfore, we are raising the minimum acceptable grade to C.

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Planning Info

Library Resources are Adequate

Library Resources Need Enhancement

Present or Projected Annual Enrollment: 75

Comments

Currently the required courses are SOCI 4000, 4003, 4053, and 4984.

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(e.g. syllabi, other supporting documentation)

College Approvals

Robert M. Sanders [APPROVED 2011-09-09]
Chair, Course Department

Heather Mbaye [APPROVED 2011-09-16]
Coordinator, COSS Executive Committee

Cross Listing Approvals

N/A
Chair, Cross Listed Department

N/A
Associate Dean, Cross Listed College

Other Approvals

Camilla Gant [APPROVED 2011-10-04]
Chair, Undergraduate Academic Programs Committee

Final Approval

Jon Anderson [REQUIRED]
Chair, Faculty Senate

Addendum III

Program View Request (Read-Only)

Originator

College of Science and Mathematics (College) | Mathematics Department (Department) | Shin, Kwang (Originator)

Action

Add | Modify | Deactivate | Terminate | Reactivate

Modifications

Program Name | Program Description | Degree Name | See Modification Details

Program Selection

College of Science and Mathematics (College) | Program (Program)

Master of Science with a Major in Mathematics (Program Name) | On Campus (Program Location) | Graduate (Degree Level)

Master of Science (Degree Name) | Spring 2012 (Effective Semester/Year)

Modification Details

See the uploaded file for other program modification.

(Max 4000 characters)

Rationale

Math department can offer 3 graduate courses a semester without additional faculty lines and full-time students need to take 3 courses a semester. Our graduate program has two options that have quite different course requirements. So the three courses we offer cannot satisfy our students

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Planning Info

Library Resources are Adequate

Library Resources Need Enhancement

Present or Projected Annual Enrollment: 18

Comments

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College Approvals

Van Nguyen [APPROVED 2011-09-06]
Chair, Course Department

Scott Gordon [APPROVED 2011-09-16]
Coordinator, COSM Curriculum Committee

Cross Listing Approvals

N/A
Chair, Cross Listed Department

N/A
Associate Dean, Cross Listed College

Other Approvals

Final Approval

Jon Anderson [REQUIRED]
Chair, Faculty Senate

Master of Science in Mathematics
DEGREE REQUIREMENTS

Teaching Option

A candidate for the M.S. degree with Concentration in Teaching must complete a minimum of 36 semester hours of graduate work approved by the department graduate committee. These include:

Required Courses (~~24~~ 12 semester hours)

Electives: (~~12~~ 24 semester hours)

Comprehensive Examination

Each candidate for the Concentration in Teaching must perform satisfactorily on a final comprehensive examination.

Courses	Credits
~~**Required Mathematics Education Courses**~~	~~**9**~~
~~MATH 6713 Strategies for Teaching Mathematics~~	~~**3**~~
~~MATH 6723 Assessment and Classroom Management in Mathematics Education~~	~~**3**~~
~~MATH 6733 Research in Mathematics Education~~	~~**3**~~
Required ~~Mathematics~~ Courses	~~**15**~~ **12**
MATH 6043 Topics in Number Theory	**3**
MATH 6233 Geometry	**3**
MATH 6253 Mathematical Analysis I	**3**
~~MATH 6263 Mathematical Analysis II~~	**3**
MATH 6413 Advanced Modern Algebra I	**3**
~~MATH 6513 Applied Linear Algebra~~	**3**
~~MATH 6743 Advanced Perspectives on Secondary Mathematics~~	**3**
Electives (Choose 8 courses)	~~**12**~~ **24**
MATH 6003 Dynamical Systems and Applications MATH 6103 Discrete Optimization ~~MATH 6043 Theory of Numbers~~ MATH 6203 Applied Probability MATH 6213 Statistical Methods MATH 6263 Mathematical Analysis II MATH 6303 Introduction to Mathematical Control Theory MATH 6363 Theory of Partial Differential Equations MATH 6403 Signal processing ~~MATH 6413 Advanced Modern Algebra I~~	

MATH 6423 Advanced Modern Algebra II MATH 6473 Combinatorial Analysis MATH 6483 Theory of Graphs MATH 6503 Numerical Methods in Applied Mathematics MATH 6513 Applied Linear Algebra MATH 6613 Inverse Problems MATH 6733 Research in Mathematics Education MATH 6743 Advanced Perspectives on Secondary Mathematics MATH 6903 Bio-Mathematics MATH 6982 Directed Readings	
Total Program	**36**

Applied Mathematics Option

A candidate for the M.S. degree with Concentration in Applied Mathematics must complete a minimum of 36 semester hours of graduate work approved by the department graduate committee. These include:

Required Courses (~~24~~ 12 semester hours)

Electives: (~~9~~ 24 semester hours)

~~**Research Project** (3)~~

~~All candidates for the Concentration in Applied Mathematics are required to complete an independent project under the supervision of a member of the graduate faculty. The project could involve a specific application to a concrete problem of techniques identified in the literature or studied in other courses.~~

Comprehensive Examination

Each candidate for the Concentration in Applied Mathematics must perform satisfactorily on a final comprehensive examination.

Courses	Credits
Required ~~Mathematics~~ Courses	**~~27~~12**
MATH 6203 Applied Probability	**3**
MATH 6253 Mathematical Analysis I	**3**
MATH 6263 Mathematical Analysis II	**3**
~~MATH 6213 Statistical Methods~~	**~~3~~**
~~MATH 6513 Applied Linear Algebra~~	**~~3~~**
~~MATH 6503 Numerical Methods in Applied Mathematics~~	**~~3~~**
MATH 6363 Theory of Partial Differential Equations	**3**
~~MATH 6003 Dynamical Systems and Applications~~	**~~3~~**
~~MATH 6733 Research Project~~	**~~3~~**

Electives (Choose ~~one sequence and one additional~~ 8 courses)	~~**9**~~ **24**
MATH 6003 Dynamical Systems and Applications MATH 6043 Topics in Number Theory MATH 6103 Discrete Optimization MATH 6213 Statistical Methods MATH 6233 Geometry MATH 6303 Introduction to Mathematical Control Theory MATH 6403 Signal processing MATH 6413 Advanced Modern Algebra I MATH 6423 Advanced Modern Algebra II MATH 6473 Combinatorial Analysis MATH 6483 Theory of Graph MATH 6503 Numerical Methods in Applied Mathematics MATH 6513 Applied Linear Algebra MATH 6613 Inverse Problems MATH 6743 Advanced Perspectives on Secondary Mathematics MATH 6903 Bio-Mathematics MATH 6982 Directed Readings MATH 6983 Graduate Research Project ~~Sequence I: MATH 6473 Combinatorial Analysis and MATH 6483 Theory of Graphs~~ ~~Sequence II: MATH 6403 Signal processing and MATH 6413 Inverse Problems~~	
Total Program	**36**

Comprehensive Examination

As a requirement of the graduate program of MS in Mathematics at UWG, each candidate for any concentration in the program must perform satisfactorily on a final comprehensive examination. The Math Department at UWG will administer such final comprehensive examinations based on the registration of graduation in each semester. Each candidate who has registered for graduation with the Graduate School must contact the Director of Graduate Studies of the Math Department at least three months before the end of the semester for information on his/her examination.

- A final comprehensive examination will cover the contents of at least three courses that represent the breadth of the concentration of the candidate and that include one required course, one analysis, and one algebra or discrete mathematics.

- The Director of Graduate Studies will arrange with the candidate to determine the courses to be covered, with colleagues teaching these courses to have the problems for the examination.
- The examination will be for three hours and arranged to be administered during the examination time period of the semester at UWG.
- The exact date and location of the examination must be announced to the candidate at least one month ahead.
- In order to pass, a student has to score 70% or better on all subjects.
- A candidate, who fails the first examination, can re-take a new examination.
- A candidate cannot take comprehensive examinations more than twice.

It is the candidate's responsibility to keep in touch with the Director of Graduate Studies for any updates on the examination.

Program View Request (Read-Only)

Originator

College of Science and Mathematics (College) | Mathematics Department (Department) | Shin, Kwang (Originator)

Action

Add | Modify | Deactivate | Terminate | Reactivate

Modifications

Program Name | Program Description | Degree Name | See Modification Details

Program Selection

College of Science and Mathematics (College)

Master of Science with a Major in Mathematics (Program)

Master of Science with a Major in Mathematics (Program Name)

On Campus (Program Location)

Graduate (Degree Level)

Master of Science (Degree Name)

Spring 2012 (Effective Semester/Year)

Modification Details

The language requirement will no longer apply to all MA degrees (or all MS degrees), unless specifically added to an individual program's course of study.

(Max 4000 characters)

Rationale

(Max 4000 characters)

Planning Info

Library Resources are Adequate

Library Resources Need Enhancement

Present or Projected Annual Enrollment: 18

Comments

(Max 4000 characters)

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College Approvals

Van Nguyen [APPROVED 2011-09-06]
Chair, Course Department

Scott Gordon [APPROVED 2011-09-16]
Coordinator, COSM Curriculum Committee

Cross Listing Approvals

N/A
Chair, Cross Listed Department

N/A
Associate Dean, Cross Listed College

Other Approvals

Final Approval

Jon Anderson [REQUIRED]
Chair, Faculty Senate

Program View Request (Read-Only)

Originator

College of Science and Mathematics (College) | Computer Science Department (Department) | Rudolph, Edwin (Originator)

Action

Add | Modify | Deactivate | Terminate | Reactivate

Modifications

Program Name | Program Description | Degree Name | See Modification Details

Program Selection

College: College of Science and Mathematics

Program: Master of Science with a Major in Applied Computer Science

Program Name: Master of Science with a Major in Applied Computer Science

Program Location: On Campus

Degree Level: Graduate

Degree Name: Master of Science

Effective Semester/Year: Spring 2012

Modification Details

There shall be no language requirement for the Master of Science with a major in Applied Computer Science.

(Max 4000 characters)

Rationale

The language requirement will no longer apply to all MA degrees (or all MS degrees), unless specifically added to an individual program's course of study.

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Planning Info

Library Resources are Adequate

Library Resources Need Enhancement

Present or Projected Annual Enrollment: 25

Comments

(Max 4000 characters)

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College Approvals

Adel Abunawass [APPROVED 2011-09-01]
Chair, Course Department

Scott Gordon [APPROVED 2011-09-16]
Coordinator, COSM Curriculum Committee

Cross Listing Approvals

Chair, Cross Listed Department

Associate Dean, Cross Listed College

Other Approvals

Final Approval

Jon Anderson [REQUIRED]
Chair, Faculty Senate

Program View Request (Read-Only)

Originator

College of Science and Mathematics — College
Biology Department — Department
Zot, Henry — Originator

Action

Add | Modify | Deactivate | Terminate | Reactivate

Modifications

Program Name | Program Description | Degree Name | See Modification Details

Program Selection

College of Science and Mathematics — College
Master of Science with a Major in Biology — Program
Master of Science with a Major in Biology — Program Name
On Campus — Program Location
Graduate — Degree Level
Master of Science — Degree Name
Fall 2012 — Effective Semester/Year

Modification Details

The language requirement will no longer apply to all MA degrees (or all MS degrees), unless specifically added to an individual program's course of study.

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Rationale

Foreign language requirement has not been enforced during the last 10 or more years. During this span, several students without foreign language credentials graduated without repercussion. Biology faculty do not support

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Planning Info

Library Resources are Adequate

Library Resources Need Enhancement

Present or Projected Annual Enrollment: 15

Comments

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College Approvals

Henry Zot [APPROVED 2011-09-07]
Chair, Course Department

Scott Gordon [APPROVED 2011-09-16]
Coordinator, COSM Curriculum Committee

Cross Listing Approvals

N/A
Chair, Cross Listed Department

N/A
Associate Dean, Cross Listed College

Other Approvals

Final Approval

Jon Anderson [REQUIRED]
Chair, Faculty Senate

Program View Request (Read-Only)

Originator

College of Science and Mathematics — College
Geosciences Department — Department
Seong, Jeong — Originator

Action

Add | Modify | Deactivate | Terminate | Reactivate

Modifications

Program Name | Program Description | Degree Name | See Modification Details

Program Selection

College of Science and Mathematics — College
Geographic Information Systems (CERG) — Program
Geographic Information Systems (CERG) — Program Name
Location — Program Location
Graduate — Degree Level
Post- Baccalaureate Certificate — Degree Name
Spring 2012 — Effective Semester/Year

Modification Details

Please see the attachment.

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Rationale

Please see the attachment.

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Planning Info

Library Resources are Adequate

Library Resources Need Enhancement

Present or Projected Annual Enrollment: 15

Comments

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College Approvals

Curtis L. Hollabaugh [APPROVED 2011-09-07]
Chair, Course Department

Scott Gordon [APPROVED 2011-09-16]
Coordinator, COSM Curriculum Committee

Cross Listing Approvals

N/A
Chair, Cross Listed Department

N/A
Associate Dean, Cross Listed College

Other Approvals

Final Approval

Jon Anderson [REQUIRED]
Chair, Faculty Senate

Request for Program Modification

Geographic Information Systems Certificate Program

Department of Geosciences. September 7, 2011

Course Requirements (CURRENT)

Prerequisites

Students lacking appropriate background may be required to take GEOG 2553 (Introduction to GIS and Mapping Sciences. 3 Cr.). Please consult waiving GEOG2553 with the Department.

Required Courses

Students must take the following three courses:
GEOG 5553 Geographic Information Systems
GEOG 5563 Remote Sensing
GEOG 6753 Advanced GIS and Spatial Analysis

Students must take one from the following courses:
GEOG 5562 Airphoto Interpretation & Photogrammetry
GEOG 5554 Computer Cartography
GEOG 5086 Internship
GEOG 6677 Image Processing
GEOG 7685 Remote Sensing for Teachers
The Certificate will be issued to the students who complete all required courses with B or better grades.

Course Requirements (PROPOSED)

Prerequisites

Students lacking appropriate background may be required to take GEOG 5551 (Introduction to GIS and Mapping Sciences. 3 Cr.). Please consult the Department about waiving GEOG 5551.

Required Courses

Students must take the following two core courses:
GEOG 5553 Geographic Information Systems
GEOG 5563 Remote Sensing

Students must take two from the following elective courses:

GEOG 5086 Internship (3 cr. Max.)
GEOG 5554 Computer Cartography (4 cr.)
GEOG 5562 Airphoto Interpretation and Photogrammetry (4 cr.)
GEOG 6082 Directed Problems (3 cr.)
GEOG 6446 Special Topics (4 cr.)
GEOG 6677 Image Processing (4 cr.)
GEOG 6753 Advanced GIS and Spatial Analysis (4 cr.)
GEOG 6755 GIS Database Design (4 cr.)
GEOG 6757 Programming and Customization in GIS (4 cr.)
GEOG 6893 Practicum in GIS (4 cr.)

Students can substitute an elective course for GEOG 5553 if they have taken GEOG 4553 (Geographic Information Systems) within the three years prior to admission into the GIS Certificate Program. Students can also substitute an elective course for GEOG 5563 if they have taken GEOG 3563 (Remote Sensing) within the three years prior to admission into the GIS Certificate Program.

The Certificate will be issued to students who complete at least 15 credit hours of required courses with a B or better grade.

Rationale

With the approval of GEOG 5551, GEOG 6082, GEOG 6446, GEOG 6755, GEOG 6757 and GEOG 6893 in Spring 2011, graduate students do not need to take the undergraduate course GEOG 2553, and they may have more electives in their program of study.

In addition, if a student had taken GEOG 4553 or GEOG 3563 before joining the GIS Certificate Program, the student needs to be guided to substitute an elective for the core course (GEOG 5553 or GEOG 5563) because GEOG 4553 and GEOG 5553, or GEOG 3563 and GEOG 5563, overlap significantly.

Program View Request (Read-Only)

Originator

College of Social Sciences (College) | Psychology Department (Department) | Malone, Kareen R. (Originator)

Action

Add | Modify | Deactivate | Terminate | Reactivate

Modifications

Program Name | Program Description | Degree Name | See Modification Details

Program Selection

College of Social Sciences (College)

Doctor of Philosophy with a Major in Psychology: Conciousness and Society (Program)

Doctor of Philosophy with a Major in Psychology: Conciousness and Society (Program Name)

On Campus (Program Location)

Graduate (Degree Level)

Doctor of Philosophy (Degree Name)

Spring 2011 (Effective Semester/Year)

Modification Details

In any graduate program, except education, all work (including the comprehensive examinations) must be completed within a six-year period. For degree

(Max 4000 characters)

Rationale

The six year limit is more relevant to Masters level work. This provision does not affect financial support currently oferred in any way. Total time to degree form bacaccalurate to doctorate in 2003 was (median) ten years while

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Planning Info

Library Resources are Adequate

Library Resources Need Enhancement

Present or Projected Annual Enrollment: 30

Comments

(Max 4000 characters)

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College Approvals

Donadrian Rice [APPROVED 2011-09-09]
Chair, Course Department

Heather Mbaye [APPROVED 2011-09-16]
Coordinator, COSS Executive Committee

Cross Listing Approvals

N/A
Chair, Cross Listed Department

N/A
Associate Dean, Cross Listed College

Other Approvals

Final Approval

Jon Anderson [REQUIRED]
Chair, Faculty Senate

Program View Request (Read-Only)

Originator

College of Social Sciences — College
Psychology Department — Department
Malone, Kareen R. — Originator

Action

Add | Modify | Deactivate | Terminate | Reactivate

Modifications

Program Name | Program Description | Degree Name | See Modification Details

Program Selection

College of Social Sciences — College
Program — Program
Doctor of Philosophy with a Major in Psychology: Conciousness and Society — Program Name
On Campus — Program Location
Graduate — Degree Level
Doctor of Philosophy — Degree Name
Spring 2012 — Effective Semester/Year

Modification Details

Please see attached

(Max 4000 characters)

Rationale

Changes are a response to BOR approved change from Psy.D. to Ph.D.

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Planning Info

Library Resources are Adequate

Library Resources Need Enhancement

Present or Projected Annual Enrollment: 30

Comments

Changes were approved by Doctoral Committee unanimously

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College Approvals

Donadrian Rice [APPROVED 2011-08-10]
Chair, Course Department

Heather Mbaye [APPROVED 2011-09-16]
Coordinator, COSS Executive Committee

Cross Listing Approvals

N/A
Chair, Cross Listed Department

N/A
Associate Dean, Cross Listed College

Other Approvals

Final Approval

Jon Anderson [REQUIRED]
Chair, Faculty Senate

New Proposed Curriculum

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Ph.D. IN PSYCHOLOGY

Melson Hall • 678-839-6510

http://www.westga.edu/psydept/index_7688.php

The Department of Psychology at University of West Georgia is accepting applicants for its doctoral program in Psychology: Consciousness and Society. The Doctoral program is dedicated to preparing a new kind of psychologist. The preparation entails focused exploration of the dynamic interface between *consciousness and society*, individual experience and collective social structures. A variety of theoretical perspectives support the exploration. These include the humanistic, critical and transpersonal traditions and other significant approaches: existential-phenomenological, Eastern and Western spiritual and wisdom traditions, psychoanalytic, and neuroscience. The doctoral program entails a strong theoretical core of courses. It also asks the student to be involved in a deep integration of practice, self-reflection, research, and theory in a way that understands human activity in its broadest context. Our doctoral program is not a specifically clinical program.

Students will be admitted for the fall semester only. An interview, as part of the admissions process, may be required. Applicants with a Bachelor's degree will be considered; however a graduate degree is much preferred. Those with degrees outside of psychology are encouraged to apply. Additional courses in the Department of Psychology at the University of West Georgia may be required due to disciplinary background or level of educational attainment. **Applicants will be accepted for Fall enrollment only.** Deadlines and application procedures can be found on the Doctoral Program web site. The address for this website is http://www.westga.edu/psydept/index_7688.php.

Program Requirements

1. Earn 60 credits in approved doctoral level courses.
   These requirements are in accordance with prevailing standards for psychology doctoral programs. At least 48 credits must be attained from the Psychology Department. The remaining 12 may, upon approval, be comprised of coursework from other universities or from other departments at the University of
   West Georgia. At least 40 credits must consist of courses numbered 8000 or above. The remainder may include courses numbered 7000 or above. All required course credits are 4 hours.
2. Earn credit for the following required courses named below. 8000 level courses require permission of instructor if required doctoral courses have not been completed.

I. Core Courses

PSYC 8000 Consciousness and Experience
PSYC 8001 Culture & Subjectivity
PSYC 8002 Studies in Mind/Body

II. Foundations

PSYC 8003 Historical Foundations of Psychology

Take one of the following

PSYC 8007 Foundations in Critical Psychology

PSYC 8008 Foundations in Humanistic Psychology

PSYC 8009 Foundations in Transpersonal Psychology

III. Research Methods

PSYC 8010 Philosophy of Inquiry (Co. or Pre-requisite to PSYC 8005)

PSYC 8005 Human Science Methodologies
PSYC 8006 Advanced Qualitative Research

All teaching assistants are required to take Teaching Practicum (9087).
PSYC 9087 Teaching Practicum before teaching
Students will take or must have taken a graduate class in quantitative methods and approaches – course used to fulfill this requirement must be approved by Director, Advisor and Chair

3. Complete the following additional requirements:

Comprehensive Examinations: Students must demonstrate readiness to advance to doctoral candidacy in accordance with Departmental standards.
Dissertation: Approval of a doctoral dissertation by the student's dissertation committee.

Dissertation Committee:

Before beginning the dissertation proposal, the student should choose a dissertation advisor and committee. The committee should be comprised of 1) a dissertation advisor, who is primarily responsible for the direction of the dissertation and who will be a full-time member of the Department and a member of the Graduate faculty and 2) two faculty members with full-time graduate faculty credentials, one of which may be from outside the Department. The student may also request a fourth member, or external reader, from an outside Department or University. Upon forming the dissertation committee, the student must arrange an initial meeting with the advisor to establish the timetable for the proposal and dissertation. The dissertation committee will work with the student while the dissertation proposal is started, and the names of committee members and proposal title will be given to the designated department administrator. All members of the committee should be kept informed as to the progress of the proposal and of the dissertation at regular intervals. Any changes in committee membership should be followed by notification of all members and the department administrator.

Dissertation Proposal

The nature of the dissertation proposal will reflect the type of dissertation undertaken by the student as approved by the dissertation advisor.

Proposal Defense

Once the proposal is finished, the dissertation committee will meet with the candidate to determine feasibility and scholarship of the proposed project. During the meeting, the committee will suggest revisions and evaluate the viability of the candidate's dissertation project. Approved dissertation proposals will be filed with the proper administrative office. Upon approval and filing of the dissertation proposal, the student is officially admitted to candidacy. The proposal defense will be open to any interested faculty.

Dissertation Defense

The dissertation defense will consist of an oral presentation by the student followed by a question-and-answer period led by the student's advisor. The dissertation defense is open to the public. After the defense, the student will give a department colloquium.

Current Catalog Description

Psy.D. in Psychology

Melson Hall • 678-839-6510

www.westga.edu/psydoc/

The Department of Psychology at University of West Georgia is accepting applicants for its doctoral program in Individual, Organizational, and Community Transformation. The Doctoral program is dedicated to preparing a new kind of psychologist. The preparation entails focused exploration of the dynamic interface between consciousness and society, individual experience and collective social structures. A variety of theoretical perspectives support the exploration. These include the humanistic and transpersonal traditions and other significant approaches: existential-phenomenological, critical, Eastern and Western spiritual and wisdom traditions, psychoanalytic, and neuroscience. The doctoral program entails a strong theoretical core of courses. It also asks the student to be involved in some praxis-based research that requires a deep integration of practice, self-reflection, research, and theory in a way that understands human activity in its broadest context. This program aims toward an integral approach to transformation at various levels of human action, organization, and experience. Our doctoral program is not a specifically clinical program.

Students will be admitted for the fall semester only. An interview, as part of the admissions process, may be required. Applicants with a Bachelor's degree will be considered; however a graduate degree is preferred. Those with degrees outside of psychology are encouraged to apply. Additional courses in the Department of Psychology at the University of West Georgia may be required due to disciplinary background or level of educational attainment. Applicants will be accepted for Fall enrollment only. Deadlines and application procedures can be found on the Doctoral Program web site. The address for this website is http://www.westga.edu/psydept/index_7688.php. Interested applicants may also check for information on the web site of the Graduate School under Academic Programs (http://www.westga.edu/~gradsch/).

Program Requirements

1. Earn 60 credits in approved doctoral level courses.

These include credit for the required internship and are in accordance with prevailing standards for psychology doctoral programs. At least 48 credits must be attained from the Psychology Department. The remaining 12 may, upon approval, be comprised of coursework from other universities or from other departments at the University of West Georgia. At least 40 credits must consist of courses numbered 8000 or above. The remainder may include courses numbered 7000 or above. All required course credits are 4 hours.

2. Earn credit for the following required courses named below. 8000 level courses require permission of instructor if required doctoral courses have not been completed.

Foundations

PSYC 8000 Consciousness and Experience

PSYC 8001 Culture & Subjectivity

PSYC 8002 Studies in Mind/Body

PSYC 8003 Philosophy, Psychology & Social Practice

PSYC 8004 Development, Transformation, & Change

Research Methods

PSYC 8005 Human Science Methodologies

PSYC 8006 Advanced Qualitative Research

Practica

Praxis-based courses that provide increasing levels of integration of theory, complexity of systems, contexts/populations, research & interventions. Two practica will meet this requirement. PSYC 9087, 9187

Practica can include Teaching Seminar. All teaching assistants are required to take Teaching Practicum (9087).

PSYC 9087 Teaching Practicum PSYC 9187 Practica

3. Complete the following additional requirements:

Comprehensive Examinations: Students must demonstrate readiness to advance to doctoral candidacy.

Internship: At minimum a one semester internship at an approved setting leading to/related to research project.

Dissertation: Approval of a doctoral dissertation by the student's dissertation committee.

Comprehensives:

A doctoral student will fulfill the requirements of comprehensives by taking a final examination/project in all the required core academic and research courses. The nature and the grading of the comprehensive exam or final research project will be determined by the professor of record in the course. Copies of all of the exams/projects will be kept in a portfolio maintained by the Department. It is the student's responsibility to make sure that the portfolio stays up to date. A student may augment the portfolio with whatever material he/she deems appropriate. After completing all coursework, comprehensives, and dissertation proposal, the student normally begins the internship and registers for the dissertation.

Internship:

The internship should begin after the comprehensives for all core courses are successfully completed (including research courses and practica) and the student has successfully defended his/her dissertation proposal. The internship ideally provides the field foundation for the dissertation research and spans at least one and perhaps two semesters, with the total number of hours determined by the supervising faculty.

Dissertation Committee:

Before beginning the dissertation proposal, the student should choose a dissertation advisor and committee. The committee should be comprised of 1) a dissertation advisor, who is primarily responsible for the direction of the dissertation and who will be a full-time member of the Department and a member of the Graduate faculty and 2) two faculty members with full-time graduate faculty credentials, one of which may be from outside the Department. The student may also request a fourth member, or external reader, from an outside Department or University. Upon forming the dissertation committee, the student must arrange an initial meeting with the advisor to establish the timetable for the proposal and dissertation. The dissertation committee will work with the student while the dissertation proposal is started, and the names of committee members and proposal title will be given to the designated department administrator. All members of the committee should be kept informed as to the progress of the proposal and of the dissertation at regular intervals. Any changes in committee membership should be followed by notification of all members and the department administrator.

Dissertation Proposal

The nature of the dissertation proposal will reflect the type of dissertation undertaken by the student as approved by the dissertation advisor.

Proposal Defense

Once the proposal is finished, the dissertation committee will meet with the candidate to determine feasibility and scholarship of the proposed project. During the meeting, the committee will suggest revisions and evaluate the viability of the candidate's dissertation project. Approved dissertation proposals will be filed with the proper administrative office. Upon approval and filing of the dissertation proposal, the student is officially admitted to candidacy. The proposal defense will be open to any interested faculty.

Dissertation Defense

The dissertation defense will consist of an oral presentation by the student followed by a question-and-answer period led by the student's advisor. The dissertation defense is open to the public. After the defense, the student will give a department colloquium.

Program View Request (Read-Only)

Originator

College	Department	Originator
College of Education	Early Learning and Childhood Education	Lewis, Barbara

Action

Add | Modify | Deactivate | Terminate | Reactivate

Modifications

Program Name | Program Description | Degree Name | See Modification Details

Program Selection

College: College of Education
Department: Early Learning and Childhood Education
Program Name: K-5 Mathematics Endorsement - Conversion
Program Location: Off Campus
Degree Level: Graduate
Degree Name: Non-Degree Endorsement Program
Effective Semester/Year: Spring 2012

Modification Details

(Max 4000 characters)

Rationale

Please see attached rationale.

(Max 4000 characters)

Planning Info

Library Resources are Adequate

Library Resources Need Enhancement

Present or Projected Annual Enrollment: 30

Comments

(Max 4000 characters)

Document To Upload

Choose File No file chosen

(e.g. syllabi, other supporting documentation)

College Approvals

Donna Harkins [APPROVED 2011-08-24]
Chair, Course Department

Dianne Hoff [APPROVED 2011-08-29]
Associate Dean, College of Education

Cross Listing Approvals

N/A
Chair, Cross Listed Department

N/A
Associate Dean, Cross Listed College

Other Approvals

Final Approval

Jon Anderson [REQUIRED]
Chair, Faculty Senate

Course or Program Addition, Deletion or Modification Request

Department: Early Learning and Childhood Education **College:** College of Education

Current course catalog listing: (for modifications or deletions)

Prefix **Course** **Title** K-5 Mathematics Endorsement - Conversion **Hours:** / / **Lecture/Lab/Total**

Action
☐ Course ☑ Program

☐ Modify ☑ Add ☐ Delete
- ☐ Credit
- ☐ Number
- ☐ Title
- ☐ Description
- ☐ Other

Credit
- ☐ Undergraduate
- ☑ Graduate
- ☐ Other*

*Variable credit must be explained

Frequency
- ☐ Every Term
- ☑ Yearly
- ☐ Other

Rationale: To include a discussion of the impact this change may have on the substance of the major or academic program (attach additional material as necessary) and whether or not existing resources are sufficient to support this change.

☑ Library resources are adequate ☐ Library resources need enhancement

Proposed Course Catalog Listing: (For new courses or for modification)

Prefix **Course** **Title** **Hours:** / / **Lecture/Lab/Total**

Catalog Description (New courses must attach: course objectives/outcomes; text(s) and/or other resources used; grading policy; and a brief class schedule. For 5XXX/4XXX courses please highlight the additional work required for graduate credit and the differences in grading policies):

Prerequisite(s) _____

Present or Projected Enrollment: 30 (Students per year)
*For a new course, one full term must pass between approval and effective date.

Effective Date*: Spring /2012
Term/Year

Grading System: ☐ Letter Grade ☐ Pass/Fail ☐ Other

Approval:

Department Chair	Date	Department Chair (if cross listed)	Date
Dean of College	Date	Dean of College (if cross listed)	Date
Chair of TEAC (if teacher prep. program)	Date		

Final Approval: Submitted by College Dean to Undergraduate Academic Programs Chair and/or Committee on Graduate Studies Chairman (six copies with signature for proposals carrying undergraduate credit only and seven copies with signatures carrying both undergraduate and graduate credit).

Chair, Undergraduate Academic Programs Committee	Date	Chair, Committee on Graduate Studies	Date
Vice President for Academic Affairs	Date		

Revised 1/09/02

Department of Early Learning and Childhood Education

K-5 Mathematics Endorsement – Conversion Rationale

There has been much discussion of educators' ability to teach mathematics effectively at all grade levels. Deepening teachers' knowledge of mathematics content and pedagogy is critical to ensuring academic success for all students.

The K-5 Mathematics Endorsement – Conversion is designed for those educators who previously completed requirements for the K-5 Mathematics Endorsement. It will focus on a series of real applications of the knowledge and skills occurring in K-5 classrooms acquired in courses previously approved for the endorsement. Residency experiences will require demonstration of the content knowledge and pedagogical skills delineated in program content standards. Authentic residency experiences are required.

Educators eligible to enroll in this endorsement conversion must have at least one year of teaching experience and must possess a Clear and Renewable Georgia Teaching Certificate Level 4 or higher in one of the following categories and must be teaching mathematics in grades K-5:

- Early Childhood Education (P-5)
- Middle Grades Mathematics (4-8)
- Special Education General Curriculum/Early Childhood Education (P-5) or
- Any of the following certificates combined with a core academic content concentration in mathematics
    - Special Education General Curriculum (P-12)
    - Special Education Adapted Curriculum (p-12)
    - Special Education Behavior Disorders (P-12)
    - Special Education Learning Disabilities (P-12)
    - Special Education Deaf Education (P-12)
    - Special Education Physical and Health Disabilities (P-12)
    - Special Education Visual Impairment (P-12)
    - Gifted Certificate (P-12)

K-5 MATHEMATICS ENDORSEMENT - CONVERSION
PLAN OF STUDY

Name: _____ ID#: _____

Address _____

Home Phone _____ Work Phone _____ Email _____

PLAN OF STUDY	HRS.	GR	SEMESTER PLANNED	TRF/SUB
EDME 7274 K-5 Mathematics Endorsement Residency	3			
Total	**3**			

NOTE:

1. Educators must have a valid clear renewable Level 4 or higher teaching certificate to enroll in this program.
2. Educators holding Early Childhood Education (P-5) will be eligible for this endorsement.
3. Educators holding Middle Grades Mathematics (4-8) will be eligible for this endorsement if they are assigned to teach mathematics to students in grades 4-5.
4. Educators holding Special Education General Education Curriculum/Early Childhood Education (P-5) will be eligible for this endorsement if they are assigned to teach mathematics to children in grades K-5.
5. Educators holding Special Education General Curriculum (P-12), Special Education Adapted Curriculum (P-12), Special Education Behavior Disorders (P-12), Special Education Learning Disabilities (P-12), Special Education Deaf Education (P-12), Special Education Physical and Health Disabilities (P-12), Special Education Visual Impairment (P-12), or Gifted Education (P-12) will be eligible for this endorsement if they are assigned to teach mathematics to children in grades K-5.
6. Only EDME 7274 is required of educators who want to convert a previously held a K-5 Mathematics Endorsement.

STUDENT SIGNATURE: _____ DATE: _____

DEPARTMENT EVALUATOR: _____ DATE: _____

DEPARTMENT CHAIR SIGNATURE: _____ DATE: _____

Program View Request (Read-Only)

Originator

College	Department	Onginator
College of Education	Early Learning and Childhood Education	Lewis, Barbara

Action

Add | Modify | Deactivate | Terminate | Reactivate

Modifications

Program Name | Program Description | Degree Name | See Modification Details

Program Selection

College: College of Education
Department: Early Learning and Childhood Education
Program Name: K-5 Mathematics Endorsement
Program Location: Off Campus
Degree Level: Graduate
Degree Name: Non-Degree Endorsement Program
Effective Semester/Year: Spring 2012

Modification Details

(Max 4000 characters)

Rationale

Please see attached rationale.

(Max 4000 characters)

Planning Info

Library Resources are Adequate

Library Resources Need Enhancement

Present or Projected Annual Enrollment: 30

Comments

(Max 4000 characters)

Document To Upload

Choose File No file chosen

(e.g. syllabi, other supporting documentation)

College Approvals

Donna Harkins [APPROVED 2011-08-24]
Chair, Course Department

Dianne Hoff [APPROVED 2011-08-29]
Associate Dean, College of Education

Cross Listing Approvals

N/A
Chair, Cross Listed Department

N/A
Associate Dean, Cross Listed College

Other Approvals

Final Approval

Jon Anderson [REQUIRED]
Chair, Faculty Senate

Course or Program Addition, Deletion or Modification Request

Department: Early Learning & Childhood Education **College:** College of Education

Current course catalog listing: (for modifications or deletions)

Prefix **Course** **Title** K-5 Mathematics Endorsement **Hours:** / / **Lecture/Lab/Total**

Action
☐ Course ☑ Program

☐ Modify ☑ Add ☐ Delete
- ☐ Credit
- ☐ Number
- ☐ Title
- ☐ Description
- ☐ Other

Credit
- ☐ Undergraduate
- ☑ Graduate
- ☐ Other*

*Variable credit must be explained

Frequency
- ☐ Every Term
- ☑ Yearly
- ☐ Other

Rationale: To include a discussion of the impact this change may have on the substance of the major or academic program (attach additional material as necessary) and whether or not existing resources are sufficient to support this change.

☑ Library resources are adequate ☐ Library resources need enhancement

Proposed Course Catalog Listing: (For new courses or for modification)

Prefix **Course** **Title** **Hours:** / / **Lecture/Lab/Total**

Catalog Description (New courses must attach: course objectives/outcomes; text(s) and/or other resources used; grading policy; and a brief class schedule. For 5XXX/4XXX courses please highlight the additional work required for graduate credit and the differences in grading policies):

Prerequisite(s) _____

Present or Projected Enrollment: 30 (Students per year)
*For a new course, one full term must pass between approval and effective date.

Effective Date*: Spring /2012
Term/Year

Grading System: ☐ Letter Grade ☐ Pass/Fail ☐ Other

Approval:

Department Chair	Date	Department Chair (if cross listed)	Date
Dean of College	Date	Dean of College (if cross listed)	Date
Chair of TEAC (if teacher prep. program)	Date		

Final Approval: Submitted by College Dean to Undergraduate Academic Programs Chair and/or Committee on Graduate Studies Chairman (six copies with signature for proposals carrying undergraduate credit only and seven copies with signatures carrying both undergraduate and graduate credit).

Chair, Undergraduate Academic Programs Committee	Date	Chair, Committee on Graduate Studies	Date
Vice President for Academic Affairs	Date		

Department of Early Learning and Childhood Education

K-5 Mathematics Endorsement Rationale

There has been much discussion of educators' ability to teach mathematics effectively at all grade levels. Deepening teachers' knowledge of mathematics content and pedagogy is critical to ensuring academic success for all students.

The K-5 Mathematics Endorsement is designed to strengthen K-5 educators' ability to deliver mathematics instruction effectively to all students. This endorsement will reinforce and extend educators' understanding of major mathematics concepts, techniques, and strategies that educators can use to design instruction that is appropriate for K-5 students. In addition, data-driven instruction, grouping for instruction, and the use of technology will be emphasized. Current research and literature related to the content, methodology, skills, and appropriate materials to explore various ways to engage K-5 students in learning mathematics will be used to ensure well-designed, intensive professional development which will have a direct impact on student learning.

Educators eligible to enroll in this endorsement must have at least one year of teaching experience and must possess a Clear and Renewable Georgia Teaching Certificate Level 4 or Higher in one of the following categories and must be teaching mathematics in grades K-5:

- Early Childhood Education (P-5)
- Middle Grades Mathematics (4-8)
- Special Education General Curriculum/Early Childhood Education (P-5) or
- Any of the following certificates combined with a core academic content concentration in mathematics
    - Special Education General Curriculum (P-12)
    - Special Education Adapted Curriculum (p-12)
    - Special Education Behavior Disorders (P-12)
    - Special Education Learning Disabilities (P-12)
    - Special Education Deaf Education (P-12)
    - Special Education Physical and Health Disabilities (P-12)
    - Special Education Visual Impairment (P-12)
    - Gifted Certificate (P-12)

K-5 MATHEMATICS ENDORSEMENT
PLAN OF STUDY

Name: _____ ID#: _____

Address _____

Home Phone _____ Work Phone _____ Email _____

PLAN OF STUDY	HRS.	GR	SEMESTER PLANNED	TRF/SUB
EDME 7271 Elementary Mathematics I	3			
EDME 7271L Elementary Mathematics I Lab	1			
EDME 7272 Elementary Mathematics II	3			
EDME 7272L Elementary Mathematics II Lab	1			
EDME 7273 Advanced Strategies for Teaching Mathematics	3			
EDME 7273L Advanced Strategies for Teaching Mathematics Lab	1			
Total	12			

NOTE:

1. Courses must be taken in the order listed above.
2. Educators must have a valid clear renewable Level 4 or higher teaching certificate and must have at least one year of teaching experience to enroll in this program.
3. Educators holding Early Childhood Education (P-5) will be eligible for this endorsement.
4. Educators holding Middle Grades Mathematics (4-8) will be eligible for this endorsement if they are assigned to teach mathematics to students in grades 4-5.
5. Educators holding Special Education General Education Curriculum/Early Childhood Education (P-5) will be eligible for this endorsement if they are assigned to teach mathematics to children in grades K-5.
6. Educators holding Special Education General Curriculum (P-12), Special Education Adapted Curriculum (P-12), Special Education Behavior Disorders (P-12), Special Education Learning Disabilities (P-12), Special Education Deaf Education (P-12), Special Education Physical and Health Disabilities (P-12), Special Education Visual Impairment (P-12), or Gifted Education (P-12) will be eligible for this endorsement if they are assigned to teach mathematics to children in grades K-5.

STUDENT SIGNATURE: _____ DATE: _____

DEPARTMENT EVALUATOR: _____ DATE: _____

DEPARTMENT CHAIR SIGNATURE: _____ DATE: _____

Program View Request (Read-Only)

Originator

College of Education (College) | Early Learning and Childhood Education (Department) | Lewis, Barbara (Originator)

Action

Add | Modify | Deactivate | Terminate | Reactivate

Modifications

Program Name | Program Description | Degree Name | See Modification Details

Program Selection

College: College of Education

Department: Early Learning and Childhood Education

Program Name: K-5 Science Endorsement

Program Location: Off Campus

Degree Level: Graduate

Degree Name: Non-Degree Endorsement Program

Effective Semester/Year: Spring 2012

Modification Details

(Max 4000 characters)

Rationale

Please see attached rationale.

(Max 4000 characters)

Planning Info

Library Resources are Adequate

Library Resources Need Enhancement

Present or Projected Annual Enrollment: 30

Comments

(Max 4000 characters)

Document To Upload

Choose File No file chosen

(e.g. syllabi, other supporting documentation)

College Approvals

Donna Harkins [APPROVED 2011-08-24]
Chair, Course Department

Dianne Hoff [APPROVED 2011-08-29]
Associate Dean, College of Education

Cross Listing Approvals

N/A
Chair, Cross Listed Department

N/A
Associate Dean, Cross Listed College

Other Approvals

Final Approval

Jon Anderson [REQUIRED]
Chair, Faculty Senate

Course or Program Addition, Deletion or Modification Request

Department: Early Learning & Childhood Education **College:** College of Education

Current course catalog listing: (for modifications or deletions)

Prefix **Course** **Title** K-5 Science Endorsement **Hours:** / / **Lecture/Lab/Total**

Action
- ☐ Course ☑ Program
- ☐ Modify ☑ Add ☐ Delete
  - ☐ Credit
  - ☐ Number
  - ☐ Title
  - ☐ Description
  - ☐ Other

Credit
- ☐ Undergraduate
- ☑ Graduate
- ☐ Other*

*Variable credit must be explained

Frequency
- ☐ Every Term
- ☑ Yearly
- ☐ Other

Rationale: To include a discussion of the impact this change may have on the substance of the major or academic program (attach additional material as necessary) and whether or not existing resources are sufficient to support this change.

☑ Library resources are adequate ☐ Library resources need enhancement

Proposed Course Catalog Listing: (For new courses or for modification)

Prefix **Course** **Title** **Hours:** / / **Lecture/Lab/Total**

Catalog Description (New courses must attach: course objectives/outcomes; text(s) and/or other resources used; grading policy; and a brief class schedule. For 5XXX/4XXX courses please highlight the additional work required for graduate credit and the differences in grading policies):

Prerequisite(s) _____

Present or Projected Enrollment: 30 (Students per year)
*For a new course, one full term must pass between approval and effective date.

Effective Date*: Spring /2012
Term/Year

Grading System: ☐ Letter Grade ☐ Pass/Fail ☐ Other

Approval:

Department Chair Date Department Chair (if cross listed) Date

Dean of College Date Dean of College (if cross listed) Date

Chair of TEAC (if teacher prep. program) Date

Final Approval: Submitted by College Dean to Undergraduate Academic Programs Chair and/or Committee on Graduate Studies Chairman (six copies with signature for proposals carrying undergraduate credit only and seven copies with signatures carrying both undergraduate and graduate credit).

Chair, Undergraduate Academic Programs Committee Date Chair, Committee on Graduate Studies Date

Vice President for Academic Affairs Date

Revised 1/09/02

Department of Early Learning and Childhood Education

K-5 Science Endorsement Rationale

There has been much discussion of educators' ability to teach science effectively at all grade levels. Deepening teachers' knowledge of science content and pedagogy is critical to ensuring academic success for all students.

The K-5 Science Endorsement is designed to strengthen K-5 educators' ability to deliver science instruction effectively to all students. This endorsement will reinforce and extend life, earth and space, and physical science concepts that educators can use to design instruction that is appropriate for K-5 students. Current research and literature related to the content, methodology, skills, and appropriate materials to explore various ways to engage K-5 students in learning science will be used to ensure well-designed, intensive professional development which will have a direct impact on student learning.

Educators eligible to enroll in this endorsement must have at least one year of teaching experience and must possess a Clear and Renewable Georgia Teaching Certificate Level 4 or Higher in one of the following categories and must be teaching science in grades K-5:

- Early Childhood Education (P-5)
- Middle Grades Science (4-8)
- Special Education General Curriculum/Early Childhood Education (P-5) or
- Any of the following certificates combined with a core academic content concentration in science
    - Special Education General Curriculum (P-12)
    - Special Education Adapted Curriculum (p-12)
    - Special Education Behavior Disorders (P-12)
    - Special Education Learning Disabilities (P-12)
    - Special Education Deaf Education (P-12)
    - Special Education Physical and Health Disabilities (P-12)
    - Special Education Visual Impairment (P-12)
    - Gifted Certificate (P-12)

K-5 SCIENCE ENDORSEMENT
PLAN OF STUDY

Name: _____ ID#: _____

Address _____

Home Phone _____ Work Phone _____ Email _____

PLAN OF STUDY		HRS.	GR	SEMESTER PLANNED	TRF/SUB
EDSE 7271	Life Science for In-Service Elementary Teachers	3			
EDSE 7272	Physical Science for In-Service Elementary Teachers	3			
EDSE 7273	Earth and Space Science for In-Service Elementary Teachers	3			
EDSE 7274	Pedagogical Strategies and Residency Requirements for Inquiry-Based Elementary Science Instruction	1-3			
Total		12			

NOTE:

1. Educators must have a valid clear renewable Level 4 or higher teaching certificate and must have at least one year of teaching experience to enroll in this program.
2. Educators holding Early Childhood Education (P-5) will be eligible for this endorsement.
3. Educators holding Middle Grades Science (4-8) will be eligible for this endorsement if they are assigned to teach science to students in grades 4-5.
4. Educators holding Special Education General Education Curriculum/Early Childhood Education (P-5) will be eligible for this endorsement if they are assigned to teach science to children in grades K-5.
5. Educators holding Special Education General Curriculum (P-12), Special Education Adapted Curriculum (P-12), Special Education Behavior Disorders (P-12), Special Education Learning Disabilities (P-12), Special Education Deaf Education (P-12), Special Education Physical and Health Disabilities (P-12), Special Education Visual Impairment (P-12), or Gifted Education (P-12) will be eligible for this endorsement if they are assigned to teach science to children in grades K-5.
6. EDSE 7274 may be repeated for credit. A total of 3 credit hours must be completed for this course.

STUDENT SIGNATURE: _____ DATE: _____

DEPARTMENT EVALUATOR: _____ DATE: _____

DEPARTMENT CHAIR SIGNATURE: _____ DATE: _____
(Designee)

Course Update Request (Add, Delete, Modify)

Originator

Department	College	Originator
Early Learning and Childhood Educat	College of Education	Lewis, Barbara

Action

Add | Modify | Delete

Modifications

Prerequisites | Description | Title | Credit | See Comments

Course Details

Prefix	Number	Course Title
EDME	7271	Elementary Mathematics I

This course focuses on preparing K-5 Mathematics Endorsement candidates to: understand and use the major concepts of number and operations in mathematics for grades K-5, including expressing, transforming, and generalizing patterns and quantitative relationships through a variety of representations, In addition, candidates will: solve problems using multiple strategies, manipulatives, and technological tools; interpret solutions; and determine reasonableness of answers and efficiency of methods; as well select and use a variety of formative and summative assessment techniques to monitor student progress, gauge students' mathematical understanding, and interpret school-based progress. Must be taken concurrently with EDME 7271L.

Course Catalog Description

Lec Hrs	Lab Hrs	Credit Hrs	Effective Term	Frequency	Grading
3	0	3	Spring - 2012	Yearly	Letter Grade

Prerequisites

Corequisites

EDME 7271L

Rationale

This course supports the K-5 Mathematics Endorsement. The K-5 Mathematics Endorsement is designed to strengthen K-5 educators? ability to deliver mathematics instruction effectively to all students. This course will reinforce and extend educators? understanding and use of the major concepts of number and operations in mathematics for grades K-5. Current research and literature related to the content, methodology, skills, and appropriate materials to explore various ways to engage K-5 students in mathematics learning will be used to ensure well-designed, intensive professional development which will have a direct impact on student learning.

Planning Info

Library Resources are Adequate

Library Resources Need Enhancement

Present or Projected Annual Enrollment: 30

Comments

College Approvals

Donna Harkins [APPROVED 2011-07-29]

Chair, Course Department

Dianne Hoff [APPROVED 2011-08-30]

Associate Dean, College of Education

Cross Listing Approvals

N/A

Chair, Cross Listed Department

N/A

Associate Dean, Cross Listed College

Other Approvals

Final Approval

Jon Anderson [REQUIRED]

Chair, Faculty Senate

EDME 7271 – Elementary Mathematics I

Semester Hours	3
Semester/Year	
Instructor	
Office Location	
Office Hours	
Online Hours	
Telephone	Direct Line: Department Line:
E-mail	
Fax	
Online Support:	CourseDen Home Page https://westga.view.usg.edu/ CourseDen Help & Troubleshooting http://www.westga.edu/~distance/webct1/help UWG Distance Learning http://distance.westga.edu/ UWG On-Line Connection http://www.westga.edu/~online/ Distance Learning Library Services http://westga.edu/~library/depts/offcampus/ Ingram Library Services http://westga.edu/~library/info/library.shtml University Bookstore http://www.bookstore.westga.edu/

COURSE DESCRIPTION

This course focuses on preparing K-5 Mathematics Endorsement candidates to: understand and use the major concepts of number and operations in mathematics for grades K-5, including expressing, transforming, and generalizing patterns and quantitative relationships through a variety of representations, In addition, candidates will: solve problems using multiple strategies, manipulatives, and technological tools; interpret solutions; and determine reasonableness of answers and efficiency of methods; as well select and use a variety of formative and summative assessment techniques to monitor student progress, gauge students' mathematical understanding, and interpret school-based progress. Must be taken concurrently with EDME 7271L.

CONCEPTUAL FRAMEWORK

The conceptual framework of the College of Education at UWG forms the basis on which programs, courses, experiences, and outcomes are created. With the goal of *Developing Exemplary Practitioners*, our programs incorporate ten descriptors (knowledgeable, reflective, inquisitive, decisive, adaptive, proactive, leading, collaborative, culturally sensitive, empathetic), clustered into three interrelated and overlapping themes, that demonstrate our commitment to (a) Professional Excellence; (b) Field-Based Inquiry; and (c) the Betterment of Society. These themes and descriptors are integral components of the conceptual framework and provide the basis for developing exemplary practitioners who are prepared to improve schools and communities. National Board for Professional Teaching Standards (NBPTS) also are incorporated as criteria against which candidates are measured.

The mission of the College of Education is to provide excellence in the initial and advanced preparation of professionals for a variety of settings, to foster an innovative learning community, and to empower a faculty committed to teaching and the dissemination of knowledge. This course's objectives, activities, and assignments are related directly to the conceptual framework and national standards, as identified below.

APROACHES TO INSTRUCTION

This course will develop a mathematical and pedagogical knowledge base that reflects the spirit of the NCTM *Principles* and *Standards* (2000) and the *National Board for Professional Teaching Standards* (1998); diverse learning styles; multiple intelligences; and contributions of underrepresented groups and diverse cultures through the use of varied instructional strategies and methods including:

- guided discussion
- modeling and simulations
- cooperative and collaborative grouping student presentations and hands-on activities that actively engage students in the learning process.

COURSE OBJECTIVES

Students will:

1. Understand and use the major concepts of number and operations in mathematics for grades K-5; Kamii, C., 1989, 1994; Kilpatrick, J., Swafford, J. & Findell, B., 2002; NCTM, 2000
   (Conceptual Framework Descriptors: Professional Excellence, Field Based Inquiry, the Betterment of Society)
   (Standards: NBPTS 1, 2)

2. Understand and use the major concepts and techniques of algebra for grades K-5;
   Kamii, C., 1989, 1994; Kilpatrick, J., Swafford, J. & Findell, B., 2002; NCTM, 2000
   (Conceptual Framework Descriptors: Professional Excellence, Field Based Inquiry, the Betterment of Society)
   (Standards: NBPTS 1, 2)

3. Solve problems using multiple strategies, manipulatives, and technological tools;
   Kilpatrick, J., Swafford, J. & Findell, B., 2002; NCTM, 2000
   (Conceptual Framework Descriptors: Professional Excellence, Field Based Inquiry, the Betterment of Society)
   (Standards: NBPTS 1, 2)

4. Demonstrate the use of multiple teaching strategies, the use of manipulatives and technological tools in designing lessons that address various learning styles and multiple intelligences;
   Kilpatrick, J., Swafford, J. & Findell, B., 2002; NCTM, 2000
   (Conceptual Framework Descriptors: Professional Excellence, Field Based Inquiry, the Betterment of Society)
   (Standards: NBPTS 1, 2)

5. Interpret solutions and determine the reasonableness of answers and efficiency of solutions;
   Kilpatrick, J., Swafford, J. & Findell, B., 2002; NCTM, 2000
   (Conceptual Framework Descriptors: Professional Excellence, Field Based Inquiry, the Betterment of Society)
   (Standards: NBPTS 1, 2)

6. Select and use a variety of formative and summative assessment techniques to monitor K-5 students' progress, gauge their mathematical understanding, and interpret school-based progress.
   Evers, W.M. & Walberg, H.J., 2004; NCTM, 2000
   (Conceptual Framework Descriptors: Professional Excellence, Field Based Inquiry, the Betterment of Society)
   (Standards: NBPTS 1, 2)

Technology: Using technology as a tool for learning and doing mathematics and for accessing Web-based instructional materials is a significant component of this course. Suggested tools include the following: an intermediate-level calculator that will convert fractions and decimals and do integer division is recommended for the course such as the *TI-15*, graphing calculators such as the TI-73 Explorer and TI-83 Plus SE; data collection devices such as the Calculator-Based Ranger (CBR) with a built-in motion detector and the Calculator-Based Laboratory (CBL2) with temperature probes, pressure probes, and microphones; TI-Graph Link cable; and software such as *The Geometer's Sketchpad*, *TI-InterActive*!, and *TI-Connect*.

TEXT, READINGS, AND INSTRUCTIONAL RESOURCES

Required Text:
Beckman, S. (2008). *Mathematics for Elementary Teachers* (2nd ed.). Boston: Pearson Addison Wesley.

Instructional Resources: *PSC Standard – 7vi*
Pattern blocks, two-color counters, snap cubes, algebra tiles or algeblocks, Hands-on Equations, graph paper, etc.

References:

Campbell, D.M., Cignetti, P.B., Melenyzer, B.J., Nettles, D.H., & Wyman, R.M. (2010). *How to develop a professional portfolio: A manual for teachers (5th Edition).* Upper Saddle River, NJ: Prentice Hall.

Costantino, P.M., De Lorenzo, D.M. & Tirrell-Corbin, C. (2008). *Developing a professional teaching portfolio: A guide for success* (3rd ed.). Upper Saddle River, NJ: Allyn and Bacon.

Evers, W.M. & Walberg, H.J. (2004). *Testing Student Learning, Evaluating Teaching Effectiveness.* Stanford, CA: The Board of Trustees of Leland Stanford Junior University.

Greenes, C., Findell, C., & Caufield, T. (2003). *The abc's of algebra: Levels 1-5.* Chicago: Creative Publications.

Greenes, C., & Findell, C. (1998). *Groundworks: Algebraic thinking, grades 1-3.* Chicago: Creative Publications.

Greenes, C., & Findell, C. (1998). *Groundworks: Algebra puzzles and problems, grades 4-7.* Chicago: Creative Publications.

Lappan, G., Fey, J. T., Fitzgerald, W., Friel, S. N., & Phillips, E. D. (2002). *Connected Mathematics series.* Glenview, IL: Prentice Hall.

Kamii, C. (1989). *Number.* Reston, VA: National Council of Teachers of Mathematics.

Kamii, C. (1989, 1994). *Young Children Reinvent Arithmetic: Implications of Piaget's theory.* New York: Teacher's College Press.

Kilpatrick, J., Swafford, J. & Findell, B. (Eds.). (2002). *Adding it up: Helping children learn mathematics.* Washington, D.C.: National Academy Press. http://www.nap.edu/catalog/9822.html

Ma, L.P. (2010). *Knowing and teaching mathematics: Teachers' understanding of fundamental mathematics in China and the United States.* Mahwah, NJ: Lawrence Erlbaum Associates, Inc.

Marzano, R.J., & Pickering, D.J. (1997). *Dimensions of Learning.* Aurora, CO: McREL.

Marzano, R.J., Pickering, D.J., & Pollock, J.E. (2001). *Classroom instruction that works* Alexandria, VA: Association for Supervision and Curriculum Development.

NCTM (2000). *Principles and standards for school mathematics*, Reston, VA: Author http://www.nctm.org.

National Research Council (2001). *Knowing and Learning Mathematics for Teaching* Washington, D.C.: National Academy Press. http://www.nap.edu/catalog/10050.html

National Research Council (2001). *Educating Teachers of Science, Mathematics and Technology: New Practices for the New Millennium*. Washington, D.C.: National Academy Press. http://www.nap.edu/catalog/9832.html

Reeves, D. (2004). *The 90/90/90 schools: A case study* Accountability in action (Chapter 19). Available at http://www.makingstandardswork.com/Downloads/AinA%20Ch19.pdf

Schifter, D. (Ed.) (1996). *What's happening in math class? Reconstructing professional identities,* Vols. 1 & 2. New York: Teachers College Press.

Stronge, J.H. (2007). *Qualities of effective teachers.* Alexandria, VA: Association for Supervision and Curriculum Development.

Sutton, J. & Krueger, A. (Eds.) (2002). *EDThoughts: What we know about mathematics teaching and learning*. Aurora, CO: McREL

Tomlinson, C.A. (1999). *The differentiated classroom: Responding to the needs of all learners.* Alexandria, VA: ASCD

Wiggins, G. & McTighe, J. (2005). *Understanding by design.* Alexandria, VA: Association for Supervision and Curriculum Development.

Zemelman, S., Daniels, H., & Hyde, A. (2005). *Best practice: Today's standards for teaching and learning in America's schools*. Portsmouth, NH: Heinemann

ASSIGNMENTS, EVALUATION PROCEDURES, AND GRADING

Student performance will be evaluated through the use of projects, in-class presentations, tests, reflective logs, written analysis of classroom videos, peer and self-assessment, and content and pedagogical proficiency demonstrations.

Assignments:

1. **Pre-Number/Early Number Concepts Project** – This is a *partner project* with 5 parts.
   - Developing Young Children's Skills – Find an activity appropriate for developing young children's skills in **each** of the following areas: classification/sorting, patterns, and comparisons. For each activity, include a reflection on why you believe it will develop young children's skills in that area. Include source.
   - Conservation of Number – What is meant by conservation of number? Why is conservation of number a prerequisite to rational counting? How do you evaluate for conservation of number?
   - Number as an Attribute – Find and/or develop 1 activity to help students recognize number as an attribute of a set. Or, find an article on number as an attribute of a set. Write a summary and reflection of the article. For either choice, answer the following questions: what is meant

by number as an attribute? How do you determine when a child recognizes number as an attribute of a set?

- Benchmark Numbers of 5 and 10 – How do benchmark numbers help students develop number sense? How do benchmark numbers help students learn their basic facts? Select 3 numbers from 1 to 10 and describe the relationship of these numbers to the benchmarks of 5 and 10.
- Counting Strategies – Compare and contrast rote counting and rational counting. Include an example of each type of counting. Describe three different counting strategies – counting on, counting through 10, etc. Provide 1 activity to move children from one strategy to the next. (Course Objectives 1-6)

2. **GPS Investigation** –

Part I

- *With a partner*, examine the **Number & Operations** standards.
  - Examine your grade level as well as the previous and next grade levels. (Kindergarten should consider skills that are taught in Pre-K.)
  - Create a mini-vertical alignment of your findings.
- *Individually*, reflect on your alignment.
  - What concepts and skills are you building on from the previous grade?
  - How will you further develop these concepts and skills in your grade?
  - How will students be using what they learn in your classroom next year?
  - How will you incorporate the process standards into your teaching of number and operations?

Part II

- *With a partner*, examine the **Algebra** standards. *(Note: K-2 does not have a specific algebra strand. You will need to focus on the standards that are algebra-related.)*
  - Examine your grade level as well as the previous and next grade levels. (Kindergarten should consider skills that are taught in Pre-K.)
  - Create a mini-vertical alignment of your findings.
- *Individually*, reflect on your alignment.
  - What concepts and skills are you building on from the previous grade?
  - How will you further develop these concepts and skills in your grade?
  - How will students be using what they learn in your classroom next year?
  - How will you incorporate the process standards into your teaching of number and operations?

(Course Objectives 1-6)

3. **Lesson Plans** - Develop 8 lesson plans that may or may not be part of one unit for your grade level. At least one lesson plan representing the content from each of the GPS strands in this course (Number and Operations and Algebra) shall be included. The lesson plans must include the following:

- Strategies addressing diversity (gender, ethnicity, learning styles, etc.) to support full participation by all students;
- Appropriate use of technology, print and electronic resources, and manipulative and visual materials;
- Interdisciplinary activities and problem solving;
- Effective uses of student groupings such as peer teaching and collaborative grouping;
- Varied instructional strategies based on current research and local, state, and national standards; and
- Formative and summative assessments to determine student achievement.

(Course Objectives 1-6)

7. **Tests** – There will be two tests and a cumulative final exam during the semester. Course Objectives 1-6)

Note: The Mathematics Endorsement requires the completion of portfolio. The portfolio will include three sections describing or illustrating the candidate's effective implementation of appropriate content lessons (Section 1 – Content Implementation; Section 2 – Student Learning; and Section 3 – Technology Integration). The assignments that you complete in each class should be maintained throughout the endorsement program. The completed portfolio will be submitted in the Advanced Strategies course.

Evaluation Procedures:
Assignments will be graded by the course instructor, based on accuracy, completeness, and consistency with deadlines, as well as the guidelines distributed and/or discussed in class. Each assignment will be assigned a specific number of points. Failure to meet deadlines/guidelines for the assignments may result in a grade reduction.

Grading:

Assignments	Points Possible	Evaluation Tool
Pre-Number Project	50	Rubric
GPS Investigation – Numbers and Operations	25	Rubric
GPS Investigation – Algebra	25	Rubric
Lesson Plans	100	Rubric
Tests (2 @ 75 points; Final – 150)	300	Exam
Total Points	**500**	

Final grades will be distributed according to the following scale:

A = $450 \leq x \leq 500$

B = $400 \leq x < 450$

C = $350 \leq x < 400$

F = $x < 350$

CLASS, DEPARTMENT, AND UNIVERSITY POLICIES

Academic Honesty: All work completed in this course must be original work developed this semester. Students are expected to adhere to the highest standards of academic honesty. Plagiarism occurs when a student uses or purchases ghostwritten papers. It also occurs when a student utilizes ideas or information obtained from another person without giving credit to that person. If plagiarism or another act of academic dishonesty occurs, it will be dealt with in accordance with the academic misconduct policy as stated in the latest *Connection and Student Handbook* and the *Graduate Catalog*.

Attendance: Students are expected to attend all class, lab, and clinical experience sessions and are accountable for all materials covered. Course grades are reduced for absences and tardiness.

Disability: All students are provided with equal access to classes and materials, regardless of special needs, temporary or permanent disability, special needs related to pregnancy, etc. If you have any special learning needs, particularly (but not limited to) needs defined under the Americans with Disabilities Act, and require specific accommodations, please do not hesitate to make those known, either yourself or through the Coordinator of Disability Services. Students with documented special needs may expect accommodation in relation to classroom accessibility, modification of testing, special test administration, etc. For more information, please contact Disability Services at the University of West Georgia: http://www.westga.edu/studentDev/index_8884.php. Any student with a disability documented through Student Services is encouraged to contact the instructor right away so that appropriate accommodations may be arranged. In addition, certain accommodations (which will be discussed in class) are available to all students, within constraints of time and space.

Extra Credit: There is no extra credit available for this course.

Late Work: Late work is accepted at the discretion of the instructor. Students are responsible for all missed work and assignments due to absences. Points will be deducted for late work submissions.

Professional Conduct: Students are also expected to actively participate in class activities and discussions and conduct themselves professionally at all times. Course grades are reduced for failure to actively participate and maintain professional conduct.

Student Email Policy: University of West Georgia students are provided a MyUWG email account, which is the official means of communication between the University and student. It is the student's responsibility to check this email account for important University related information.

Class Outline (Tentative)

Class	Topic	Assignment Due
1	Course Introduction and Expectations	
2	Real Numbers and their Characteristics	
3	Factors and Multiples, GCF and LCM Even and Odd Numbers, Prime Numbers	
4	Divisibility Tests Mental Math	Lesson Plans 1-2
5	Properties of the Number System	GPS Investigation – Part I
6	Representing and Comparing Decimals and Fractions	
7	**Test 1**	Lesson Plans 3-4
8	Adding and Subtracting Rational Numbers	Pre-Number Project
9	Multiplying Rational Numbers	GPS Investigation – Part II
10	Dividing Rational Numbers	Lesson Plans 5-6
11	**Test 2**	
12	Ratio and Proportion	
13	Properties of Exponents Numerical and Algebraic Patterns and Sequences	
14	Numerical and Algebraic Expressions	Lesson Plans 7-8
15	Computing with Polynomials Equality and Equations	
16	**Final Exam**	

Course Update Request (Add, Delete, Modify)

Originator

Department	College	Originator
Early Learning and Childhood Educat	College of Education	Lewis, Barbara

Action

Add | Modify | Delete

Modifications

Prerequisites | Description | Title | Credit | See Comments

Course Details

Prefix	Number	Course Title
EDME	7271L	Elementary Mathematics I Lab

Co-requisite: EDME 7271 ? Elementary Mathematics I Supervised and coordinated series of real applications of the knowledge and skills occurring in actual K-5 classroom settings that allow students to further develop and demonstrate the knowledge and skills acquired in coursework. Residency experiences shall require demonstration of the content knowledge and pedagogical skills acquired in Elementary Mathematics I.

Course Catalog Description

Lec Hrs	Lab Hrs	Credit Hrs	Effective Term	Frequency	Grading
0	2	1	Spring - 2012	Yearly	Letter Grade

Prerequisites

Corequisites

Rationale

This course supports the K-5 Mathematics Endorsement. The K-5 Mathematics Endorsement is designed to strengthen K-5 educators? ability to deliver mathematics instruction effectively to all students. This course will require demonstration of the content knowledge and pedagogical skills acquired in EDME 7271 ? Elementary Mathematics I. Current research and literature related to the content, methodology, skills, and appropriate materials to explore various ways to engage K-5 students in mathematics learning will be used to ensure well-designed, intensive professional development which will have a direct impact on student learning. In addition, this course will also satisfy the Professional Standards Commission (PSC) authentic residency requirement.

Planning Info

Library Resources are Adequate

Library Resources Need Enhancement

Present or Projected Annual Enrollment: 30

Comments

College Approvals

Donna Harkins [APPROVED 2011-07-29]

Chair, Course Department

Dianne Hoff [APPROVED 2011-08-01]

Associate Dean, College of Education

Cross Listing Approvals

N/A

Chair, Cross Listed Department

N/A

Associate Dean, Cross Listed College

Other Approvals

Final Approval

Jon Anderson [REQUIRED]

EDME 7271L – ELEMENTARY MATHEMATICS I LAB

Semester Hours 1

Semester/Year

Instructor

Office Location

Office Hours

Telephone Direct Line
Department Line

E-mail

Online Support:

CourseDen Home Page
https://westga.view.usg.edu/

CourseDen Help & Troubleshooting
http://www.westga.edu/~distance/webct1/help

UWG Distance Learning
http://distance.westga.edu/

UWG On-Line Connection
http://www.westga.edu/~online/

Distance Learning Library Services
http://westga.edu/~library/depts/offcampus/

Ingram Library Services
http://westga.edu/~library/info/library.shtml

University Bookstore
http://www.bookstore.westga.edu/

COURSE DESCRIPTION

Co-requisite: EDME 7271 – Elementary Mathematics I
Supervised and coordinated series of real applications of the knowledge and skills occurring in actual K-5 classroom settings that allow students to further develop and demonstrate the knowledge and skills acquired in coursework. Residency experiences shall require

demonstration of the content knowledge and pedagogical skills acquired in *Elementary Mathematics I.*

CONCEPTUAL FRAMEWORK

The conceptual framework of the College of Education at UWG forms the basis on which programs, courses, experiences, and outcomes are created. With the goal of *Developing Exemplary Practitioners*, our programs incorporate ten descriptors, clustered into three interrelated and overlapping themes, that demonstrate our commitment to (a) Professional Excellence [knowledgeable, reflective, inquisitive]; (b) Field-Based Inquiry [decisive, adaptive, proactive, leading]; and (c) the Betterment of Society [collaborative, culturally sensitive, empathetic]. These themes and descriptors are integral components of the conceptual framework and provide the basis for developing exemplary practitioners who are prepared to improve schools and communities. National standards (NBPTS) also are incorporated as criteria against which candidates are measured.

The mission of the College of Education is to provide excellence in the initial and advanced preparation of professionals for a variety of settings, to foster an innovative learning community, and to empower a faculty committed to teaching and the dissemination of knowledge. This course's objectives, activities, and assignments are related directly to the conceptual framework and national standards, as identified below.

APPROACHES TO INSTRUCTION

This course will develop a mathematical and pedagogical knowledge base that reflects the spirit of the NCTM *Principles* and *Standards* (2000) and the *National Board for Professional Teaching Standards* (1998); diverse learning styles; multiple intelligences; and contributions of underrepresented groups and diverse cultures through a supervised and coordinated series of applications of knowledge and skills.

COURSE OBJECTIVES

Students will:

1. demonstrate content knowledge and pedagogical skills through the teaching of lessons in their own classroom.
   Campbell, D.M., Cignetti, P.B., Melenyzer, B.J., Nettles, D.H., & Wyman, R.M., 2010; Costantino, P.M., De Lorenzo, D.M. & Tirrell-Corbin, C., 2008; Evers, W.M. & Walberg, H.J., 2004; NCTM, 2000.
   (Conceptual Framework Descriptors: Professional Excellence, Field Based Inquiry, the Betterment of Society)
   (Standards: NBPTS 1, 2)

2. demonstrate the use of appropriate formative and summative assessment methods to determine students' understanding of mathematics.
Campbell, D.M., Cignetti, P.B., Melenyzer, B.J., Nettles, D.H., & Wyman, R.M., 2010; Costantino, P.M., De Lorenzo, D.M. & Tirrell-Corbin, C., 2008; Evers, W.M. & Walberg, H.J., 2004; NCTM, 2000.
(Conceptual Framework Descriptors: Professional Excellence, Field Based Inquiry, the Betterment of Society)
(Standards: NBPTS 1, 2)

3. demonstrate the use of appropriate technology to support the learning of mathematics.
Campbell, D.M., Cignetti, P.B., Melenyzer, B.J., Nettles, D.H., & Wyman, R.M., 2010; Costantino, P.M., De Lorenzo, D.M. & Tirrell-Corbin, C., 2008; Evers, W.M. & Walberg, H.J., 2004; NCTM, 2000.
(Conceptual Framework Descriptors: Professional Excellence, Field Based Inquiry, the Betterment of Society)
(Standards: NBPTS 1, 2)

4. reflect on the implementation of lessons.
Campbell, D.M., Cignetti, P.B., Melenyzer, B.J., Nettles, D.H., & Wyman, R.M., 2010; Costantino, P.M., De Lorenzo, D.M. & Tirrell-Corbin, C., 2008; Evers, W.M. & Walberg, H.J., 2004; NCTM, 2000.
(Conceptual Framework Descriptors: Professional Excellence, Field Based Inquiry, the Betterment of Society)
(Standards: NBPTS 1, 2)

TEXT, READINGS, AND INSTRUCTIONAL RESOURCES

Required Text: NONE

References:

Campbell, D.M., Cignetti, P.B., Melenyzer, B.J., Nettles, D.H., & Wyman, R.M. (2010). *How to develop a professional portfolio: A manual for teachers (5th Edition).* Upper Saddle River, NJ: Prentice Hall.

Costantino, P.M., De Lorenzo, D.M. & Tirrell-Corbin, C. (2008). *Developing a professional teaching portfolio: A guide for success (3rd Edition).* Upper Saddle River, NJ: Allyn & Bacon.

Evers, W.M. & Walberg, H.J. (2004). *Testing Student Learning, Evaluating Teaching Effectiveness.* Stanford, CA.: The Board of Trustees of Leland Stanford Junior University.

ASSIGNMENTS, EVALUATION PROCEDURES, AND GRADING POLICY

Assignments

1. **Content Implementation**: Students shall implement two of the lessons developed for their classroom. At least one lesson representing content from each of the GPS strands in EDME 7271 shall be implemented. Students shall submit two reflections after implementation of the lesson plans. At least one lesson must be observed by a supervisor.

2. **Experiences Working with Diverse K-5 Students**: Students shall provide evidence of work with diverse students by submitting their own classroom demographics.

3. **Student Work Samples with Teacher Commentary**: Students shall submit at least one sample from each content strand in MATH 7XXX.

4. **Student Assessment Data with Analysis**: Students shall submit sample formative data and a description of how it was used to guide instruction. Students shall submit sample formative data and an analysis of the data.

5. **Technology Integration**: Students will implement a lesson plan that integrates technology into mathematics instruction. Students shall submit a reflection after implementation of the lesson plan.

Note: *The Mathematics Endorsement requires the completion of portfolio. The portfolio will include three sections describing or illustrating the candidate's effective implementation of appropriate content lessons (Section 1 – Content Implementation; Section 2 – Student Learning; and Section 3 – Technology Integration). The assignments that you complete in each class should be maintained throughout the endorsement program. The completed portfolio will be submitted in the Advanced Strategies course.*

Evaluation Procedures

Assignments will be graded by the course instructor, based on accuracy, completeness, and consistency with deadlines, as well as the guidelines distributed and/or discussed in class. Each assignment will be assigned a specific number of points. Failure to meet deadlines/guidelines for the assignments may result in a grade reduction.

Activity	Points available	Assessment Tools
Content Implementation	50	Rubric
Experiences Working with Diverse K-5 Students	25	Rubric
Student Work Samples with Teacher Commentary	50	Rubric
Student Assessment Data with Analysis	50	Rubric
Technology Integration	25	Rubric
TOTAL Points Possible	**200**	

Grading Policy

Final grades will be distributed according to the following scale:

A = $180 \leq x \leq 200$

B = $160 \leq x < 180$

C = $140 \leq x < 160$

F = $x < 140$

CLASS, DEPARTMENT, AND UNIVERSITY POLICIES

Academic Honesty: All work completed in this course must be original work developed this semester. Students are expected to adhere to the highest standards of academic honesty. Plagiarism occurs when a student uses or purchases ghostwritten papers. It also occurs when a student utilizes ideas or information obtained from another person without giving credit to that person. If plagiarism or another act of academic dishonesty occurs, it will be dealt with in accordance with the academic misconduct policy as stated in the latest *Connection and Student Handbook* and the *Graduate Catalog*.

Attendance: Students are expected to attend all class, lab, and clinical experience sessions and are accountable for all materials covered. Course grades are reduced for absences and tardiness.

Disability: All students are provided with equal access to classes and materials, regardless of special needs, temporary or permanent disability, special needs related to pregnancy, etc. If you have any special learning needs, particularly (but not limited to) needs defined under the Americans with Disabilities Act, and require specific accommodations, please do not hesitate to make those known, either yourself or through the Coordinator of Disability Services. Students with documented special needs may expect accommodation in relation to classroom accessibility, modification of testing, special test administration, etc. For more information, please contact Disability Services at the University of West Georgia: http://www.westga.edu/studentDev/index_8884.php. Any student with a disability documented through Student Services is encouraged to contact the instructor right away so that appropriate accommodations may be arranged. In addition, certain accommodations (which will be discussed in class) are available to all students, within constraints of time and space.

Extra Credit: There is no extra credit available for this course.

Late Work: Late work is accepted at the discretion of the instructor. Students are responsible for all missed work and assignments due to absences. Points will be deducted for late work submissions.

Professional Conduct: Students are also expected to actively participate in class activities and discussions and conduct themselves professionally at all times. Course grades are reduced for failure to actively participate and maintain professional conduct.

Student Email Policy: University of West Georgia students are provided a MyUWG email account, which is the official means of communication between the University and student. It is the student's responsibility to check this email account for important University related information.

Course Update Request (Add, Delete, Modify)

Originator

Department	College	Originator
Early Learning and Childhood Educat	College of Education	Lewis, Barbara

Action

Add | Modify | Delete

Modifications

Prerequisites | Description | Title | Credit | See Comments

Course Details

Prefix	Number	Course Title
EDME	7272	Elementary Mathematics II

This course focuses on preparing K-5 Mathematics Endorsement candidates to: understand and use the major concepts of probability and data analysis for grades K-5, solve problems using multiple strategies, manipulatives, and technological tools; interpret solutions; and determine reasonableness of answers and efficiency of methods. In addition, this course will nurture collaboration, critical thinking, hands-on exploration, manipulative use, problem-based inquiry, technology utilization, and activity implementation addressing various learning styles; and will select and use a variety of formative and summative assessment techniques to monitor student progress, gauge students? mathematical understanding, and interpret school-based progress. Must be taken concurrently with EDME 7272L.

Course Catalog Description

Lec Hrs	Lab Hrs	Credit Hrs	Effective Term	Frequency	Grading
3	0	3	Spring - 2012	Yearly	Letter Grade

Prerequisites

Corequisites

Rationale

This course supports the K-5 Mathematics Endorsement. The K-5 Mathematics Endorsement is designed to strengthen K-5 educators' ability to deliver mathematics instruction effectively to all students. This course will reinforce and extend educators' understanding and use of the major concepts of probability and data analysis for grades K-5. Current research and literature related to the content, methodology, skills, and appropriate materials to explore various ways to engage K-5 students in mathematics learning will be used to ensure well-designed, intensive professional development which will have a direct impact on student learning.

Planning Info

Library Resources are Adequate

Library Resources Need Enhancement

Present or Projected Annual Enrollment: 30

Comments

College Approvals

Donna Harkins [APPROVED 2011-07-29]

Chair, Course Department

Dianne Hoff [APPROVED 2011-08-01]

Associate Dean, College of Education

Cross Listing Approvals

N/A

Chair, Cross Listed Department

N/A

Associate Dean, Cross Listed College

Other Approvals

Final Approval

Jon Anderson [REQUIRED]

Chair, Faculty Senate

EDME 7272 – Elementary Mathematics II

Semester Hours	3
Semester/Year	
Instructor	
Office Location	
Office Hours	
Online Hours	
Telephone	Direct Line: Department Line:
E-mail	
Fax	
Online Support:	CourseDen Home Page https://westga.view.usg.edu/ CourseDen Help & Troubleshooting http://www.westga.edu/~distance/webct1/help UWG Distance Learning http://distance.westga.edu/ UWG On-Line Connection http://www.westga.edu/~online/ Distance Learning Library Services http://westga.edu/~library/depts/offcampus/ Ingram Library Services http://westga.edu/~library/info/library.shtml University Bookstore Fax http://www.bookstore.westga.edu/

COURSE DESCRIPTION

This course focuses on preparing K-5 Mathematics Endorsement candidates to: understand and use the major concepts of probability and data analysis for grades K-5, solve problems using multiple strategies, manipulatives, and technological tools; interpret solutions; and determine reasonableness of answers and efficiency of methods. In addition, this course will nurture collaboration, critical thinking, hands-on exploration, manipulative use, problem-based inquiry, technology utilization, and activity implementation addressing various learning styles; and will select and use a variety of formative and summative assessment techniques to monitor student progress, gauge students' mathematical understanding, and interpret school-based progress. Must be taken concurrently with EDME 7272L.

CONCEPTUAL FRAMEWORK

The conceptual framework of the College of Education at UWG forms the basis on which programs, courses, experiences, and outcomes are created. With the goal of *Developing Exemplary Practitioners*, our programs incorporate ten descriptors (knowledgeable, reflective, inquisitive, decisive, adaptive, proactive, leading, collaborative, culturally sensitive, empathetic), clustered into three interrelated and overlapping themes, that demonstrate our commitment to (a) Professional Excellence; (b) Field-Based Inquiry; and (c) the Betterment of Society. These themes and descriptors are integral components of the conceptual framework and provide the basis for developing exemplary practitioners who are prepared to improve schools and communities. National Board for Professional Teaching Standards (NBPTS) also are incorporated as criteria against which candidates are measured.

The mission of the College of Education is to provide excellence in the initial and advanced preparation of professionals for a variety of settings, to foster an innovative learning community, and to empower a faculty committed to teaching and the dissemination of knowledge. This course's objectives, activities, and assignments are related directly to the conceptual framework and national standards, as identified below.

APROACHES TO INSTRUCTION

This course will develop a mathematical and pedagogical knowledge base that reflects the spirit of the NCTM *Principles* and *Standards* (2000) and the *National Board for Professional Teaching Standards* (1998); diverse learning styles; multiple intelligences; and contributions of underrepresented groups and diverse cultures through the use of varied instructional strategies and methods including:

- guided discussion
- modeling and simulations
- cooperative and collaborative grouping student presentations and hands-on activities that actively engage students in the learning process.

COURSE OBJECTIVES

Students will:

1. Understand and use the major concepts and techniques of algebra for grades K-5, including describing and representing mathematical relationships.
   Kamii, C., 1989, 1994; Kilpatrick, J., Swafford, J. & Findell, B., 2002; NCTM, 2000
   (Conceptual Framework Descriptors: Professional Excellence, Field Based Inquiry, the Betterment of Society)
   (Standards: NBPTS 1, 2)

2. Understand and use the major concepts of geometry and measurement for grades K-5, including measurement of two- and three-dimensional objects using customary and metric units and describing/modeling mathematical ideas and real-world constructs.
   Kilpatrick, J., Swafford, J. & Findell, B., 2002; NCTM, 2000
   (Conceptual Framework Descriptors: Professional Excellence, Field Based Inquiry, the Betterment of Society)
   (Standards: NBPTS 1, 2)

3. Understand and use the major concepts of probability and data analysis for grades K-5, including making decisions and predictions through collecting, representing, processing, summarizing, analyzing, and transforming data taken from real-world scenarios.
   Kilpatrick, J., Swafford, J. & Findell, B., 2002; NCTM, 2000
   (Conceptual Framework Descriptors: Professional Excellence, Field Based Inquiry, the Betterment of Society)
   (Standards: NBPTS 1, 2)

4. Solve problems using multiple strategies, manipulatives, and technological tools; interpret solutions; and determine reasonableness of answers and efficiency of methods.
   Evers, W.M. & Walberg, H.J., 2004; NCTM, 2000
   (Conceptual Framework Descriptors: Professional Excellence, Field Based Inquiry, the Betterment of Society)
   (Standards: NBPTS 1, 2)

5. Demonstrate the use of multiple strategies, manipulative, and technological tools to design lessons the address various learning styles and multiple intelligences.

6. Select and use a variety of formative and summative assessment techniques to monitor student progress, gauge students' mathematical understanding, and interpret school-based progress.

Technology: Using technology as a tool for learning and doing mathematics and for accessing Web-based instructional materials is a significant component of this course. Suggested tools include an intermediate-level calculator that will convert fractions and decimals and do integer division is recommended for the course such as the *TI-15*, graphing calculators such as the TI-73 Explorer and TI-83 Plus SE; data collection devices such as the Calculator-Based Ranger (CBR) with a built-in motion detector and the Calculator-Based Laboratory (CBL2) with temperature

probes, pressure probes, and microphones; TI-Graph Link cable; and software such as *The Geometer's Sketchpad*, *TI-InterActive*!, and *TI-Connect*.

TEXT, READINGS, AND INSTRUCTIONAL RESOURCES

Required Text:
Beckman, S. (2008). *Mathematics for Elementary Teachers* (2nd ed.). Boston: Pearson Addison Wesley.

Manipulative Materials: *PSC Standard – 7iv, v, vi, vii, viii*
Pattern blocks, two-color counters, geoboards, snap cubes, algebra tiles or algeblocks, Hands-on Equations, graph paper, compasses, pentominoes, rulers, protractors, polydrons, patty papers, metric and standard weight systems, polyhedras, miras, thermometers, tangrams, cubic centimeters and cubic inches, scales, etc.

Instructional Materials: *PSC Standard – 8*
Beckman, S. (2008). *Mathematics for Elementary Teachers, 2nd edition.* Boston: Pearson Addison Wesley.

References:

Campbell, D.M., Cignetti, P.B., Melenyzer, B.J., Nettles, D.H., & Wyman, R.M. (2010). *How to develop a professional portfolio: A manual for teachers (5th Edition).* Upper Saddle River, NJ: Prentice Hall.

Costantino, P.M., De Lorenzo, D.M. & Tirrell-Corbin, C. (2008). *Developing a professional teaching portfolio: A guide for success* (3rd ed.). Upper Saddle River, NJ: Allyn and Bacon.

Evers, W.M. & Walberg, H.J. (2004). *Testing Student Learning, Evaluating Teaching Effectiveness.* Stanford, CA: The Board of Trustees of Leland Stanford Junior University.

Greenes, C., Findell, C., & Caufield, T. (2003). *The abc's of algebra: Levels 1-5.* Chicago: Creative Publications.

Greenes, C., & Findell, C. (1998). *Groundworks: Algebraic thinking, grades 1-3.* Chicago: Creative Publications.

Greenes, C., & Findell, C. (1998). *Groundworks: Algebra puzzles and problems, grades 4-7.* Chicago: Creative Publications.

Lappan, G., Fey, J. T., Fitzgerald, W., Friel, S. N., & Phillips, E. D. (2002). *Connected Mathematics series.* Glenview, IL: Prentice Hall.

Kamii, C. (1989). *Number.* Reston, VA: National Council of Teachers of Mathematics.

Kamii, C. (1989, 1994) *Young Children Reinvent Arithmetic: Implications of Piaget's theory.* New York: Teacher's College Press.

Kilpatrick, J., Swafford, J. & Findell, B. (Eds.) (2002). *Adding it up: Helping children learn mathematics.* Washington, D.C.: National Academy Press. http://www.nap.edu/catalog/9822.html

Ma, L.P. (2010). *Knowing and teaching mathematics: Teachers' understanding of fundamental mathematics in China and the United States*. Mahwah, NJ: Lawrence Erlbaum Associates, Inc.

Marzano, R.J., & Pickering, D.J. (1997). *Dimensions of Learning*. Aurora, CO: McREL.

Marzano, R.J., Pickering, D.J., & Pollock, J.E. (2001). *Classroom instruction that works* Alexandria, VA: Association for Supervision and Curriculum Development.

NCTM (2000). *Principles and standards for school mathematics*, Reston, VA: Author http://www.nctm.org

National Research Council (2001). *Knowing and Learning Mathematics for Teaching* Washington, D.C.: National Academy Press. http://www.nap.edu/catalog/10050.html

National Research Council (2001). *Educating Teachers of Science, Mathematics and Technology: New Practices for the New Millennium*. Washington, D.C.: National Academy Press. http://www.nap.edu/catalog/9832.html

Reeves, D. (2004). *The 90/90/90 schools: A case study* Accountability in action (Chapter 19). Available at http://www.makingstandardswork.com/Downloads/AinA%20Ch19.pdf

Schifter, D. (Ed.) (1996). *What's happening in math class? Reconstructing professional identities,* Vols. 1 & 2. New York: Teachers College Press.

Stronge, J.H. (2007). *Qualities of effective teachers.* Alexandria, VA: Association of Supervision and Curriculum Development.

Sutton, J. & Krueger, A. (Eds.) (2002). *EDThoughts: What we know about mathematics teaching and learning*. Aurora, CO: McREL.

Tomlinson, C.A. (1999). *The differentiated classroom: Responding to the needs of all learners.* Alexandria, VA: Association of Supervision and Curriculum Development.

Wiggins, G. & McTighe, J. (2005). *Understanding by design.* Alexandria, VA: Association of Supervision and Curriculum Development.

Zemelman, S., Daniels, H., & Hyde, A. (2005). *Best practice: Today's standards for teaching and learning in America's schools*. Portsmouth, NH: Heinemann

Assignments:

1. **GPS Investigation** –

Part I

- *With a partner*, examine the **Geometry and Measurement** standards.
  - Examine your grade level as well as the previous and next grade levels. (Kindergarten should consider skills that are taught in Pre-K.)
  - Create a mini-vertical alignment of your findings.
- *Individually*, reflect on your alignment.
  - What concepts and skills are you building on from the previous grade?
  - How will you further develop these concepts and skills in your grade?
  - How will students be using what they learn in your classroom next year?
  - How will you incorporate the process standards into your teaching of number and operations?

Part II

- *With a partner*, examine the **Probability and Data Analysis** standards.
  - Examine your grade level as well as the previous and next grade levels. (Kindergarten should consider skills that are taught in Pre-K.)
  - Create a mini-vertical alignment of your findings.
- *Individually*, reflect on your alignment.
  - What concepts and skills are you building on from the previous grade?
  - How will you further develop these concepts and skills in your grade?
  - How will students be using what they learn in your classroom next year?
  - How will you incorporate the process standards into your teaching of number and operations?

2. **Lesson Plans** - Develop 8 lesson plans that may or may not be part of one unit for your grade level. At least one lesson plan representing the content from each of the GPS strands in this course (Number and Operations and Algebra) shall be included. The lesson plans must include the following:
   - Strategies addressing diversity (gender, ethnicity, learning styles, etc.) to support full participation by all students;
   - Appropriate use of technology, print and electronic resources, and manipulative and visual materials;
   - Interdisciplinary activities and problem solving;
   - Effective uses of student groupings such as peer teaching and collaborative grouping;
   - Varied instructional strategies based on current research and local, state, and national standards; and
   - Formative and summative assessments to determine student achievement.

3. **Tests** – There will be two tests and a cumulative final exam during the semester.

Note: *The Mathematics Endorsement requires the completion of portfolio. The portfolio will include three sections describing or illustrating the candidate's effective implementation of appropriate content lessons (Section 1 – Content Implementation; Section 2 – Student Learning;*

and Section 3 – Technology Integration). The assignments that you complete in each class should be maintained throughout the endorsement program. The completed portfolio will be submitted in the Advanced Strategies course.

Evaluation Methods:
Student performance will be evaluated through the use of projects, in-class presentations, tests, reflective logs, written analysis of classroom videos, peer and self-assessment, and content and pedagogical proficiency demonstrations.

Grading

Assignments	Points Possible	Evaluation Tool
GPS Investigation – Geometry and Measurement	25	Rubric
GPS Investigation – Data Analysis and Probability	25	Rubric
Lesson Plans	100	Rubric
Tests (2 @ 75 points; Final – 150)	300	Exam
Total Points	**450**	

Final grades will be distributed according to the following scale:

A = $405 \leq x \leq 450$

B = $360 \leq x < 405$

C = $315 \leq x < 360$

F = $x < 315$

Class Outline (Tentative)

Class	Topic	Assignments Due
1	Relations and Functions	
2	Functions and their Characteristics	
3	Equations of Lines and their Characteristics	
4	Solving Equations and Inequalities	Lesson Plans 1-2
5	Solving Systems of Equations and Inequalities	GPS Investigation – Part I
6	**Test 1**	
7	Properties and Characteristics of Two- and Three-Dimensional Figures	Lesson Plans 3-4
8	Coordinate Geometry, Transformations, and Symmetry	
9	Similar and Congruent Figures, Perimeter, Area, and Volume	
10	Temperature, Mass, and Length	GPS Investigation – Part II
11	**Test 2**	
12	Gathering and Displaying Data	Lesson Plans 5-6
13	Measures of Center, Dispersion, and Position	
14	Basic Principles of Probability	Lesson Plans 7-8
15	Simple and Compound Events Odds and Probability	
16	**Final Exam**	

Course Update Request (Add, Delete, Modify)

Originator

Department	College	Originator
Early Learning and Childhood Educat	College of Education	Lewis, Barbara

Action

Add | Modify | Delete

Modifications

Prerequisites | Description | Title | Credit | See Comments

Course Details

Prefix	Number	Course Title
EDME	7273	Advanced Strategies for Teaching Elementary Mathem

Prerequisites: Elementary Mathematics I, Elementary Mathematics II Co-requisite: EDME 7273L Exploration of techniques and strategies for teaching mathematics in the elementary school, including diversity, data-driven instruction, grouping for instruction, and technology in the classroom.

Course Catalog Description

Lec Hrs	Lab Hrs	Credit Hrs	Effective Term	Frequency	Grading
3	0	3	Spring - 2012	Yearly	Letter Grade

Prerequisites

Elementary Mathematics I, Elementary Mathematics II

Corequisites

EDME 7273L

Rationale

This course supports the K-5 Mathematics Endorsement. The K-5 Mathematics Endorsement is designed to strengthen K-5 educators? ability to deliver mathematics instruction effectively to all students. This course will reinforce and extend educators? understanding and use of techniques and strategies for teaching mathematics in grades K-5. Current research and literature related to the content, methodology, skills, and appropriate materials to explore various ways to engage K-5 students in mathematics learning will be used to ensure well-designed, intensive professional development which will have a direct impact on student learning.

Planning Info

Library Resources are Adequate

Library Resources Need Enhancement

Present or Projected Annual Enrollment: 30

Comments

College Approvals

Donna Harkins [APPROVED 2011-07-29]

Chair, Course Department

Dianne Hoff [APPROVED 2011-08-01]

Associate Dean, College of Education

Cross Listing Approvals

Chair, Cross Listed Department

Associate Dean, Cross Listed College

Other Approvals

Final Approval

Jon Anderson [REQUIRED]

Chair, Faculty Senate

EDME 7273

ADVANCED STRATEGIES FOR TEACHING ELEMENTARY MATHEMATICS

Semester Hours 3

Semester/Year

Instructor

Office Location

Office Hours

Online Hours

Telephone — Direct Line:
Department Line:

E-mail

Fax

Online Support: CourseDen Home Page

https://westga.view.usg.edu/

CourseDen Help & Troubleshooting

http://www.westga.edu/~distance/webct1/help

UWG Distance Learning

http://distance.westga.edu/

UWG On-Line Connection

http://www.westga.edu/~online/

Distance Learning Library Services

http://westga.edu/~library/depts/offcampus/

Ingram Library Services

http://westga.edu/~library/info/library.shtml

University Bookstore

http://www.bookstore.westga.edu/

COURSE DESCRIPTION

Prerequisites: Elementary Mathematics I, Elementary Mathematics II
Co-requisite: EDME 7273L
Exploration of techniques and strategies for teaching mathematics in the elementary school, including diversity, data-driven instruction, grouping for instruction, and technology in the classroom.

CONCEPTUAL FRAMEWORK

The conceptual framework of the College of Education at UWG forms the basis on which programs, courses, experiences, and outcomes are created. With the goal of *Developing Exemplary Practitioners*, our programs incorporate ten descriptors (knowledgeable, reflective, inquisitive, decisive, adaptive, proactive, leading, collaborative, culturally sensitive, empathetic), clustered into three interrelated and overlapping themes, that demonstrate our commitment to (a) Professional Excellence; (b) Field-Based Inquiry; and (c) the Betterment of Society. These themes and descriptors are integral components of the conceptual framework and provide the basis for developing exemplary practitioners who are prepared to improve schools and communities. National Board for Professional Teaching Standards (NBPTS) also are incorporated as criteria against which candidates are measured.

The mission of the College of Education is to provide excellence in the initial and advanced preparation of professionals for a variety of settings, to foster an innovative learning community, and to empower a faculty committed to teaching and the dissemination of knowledge. This course's objectives, activities, and assignments are related directly to the conceptual framework and national standards, as identified below.

APPROACHES TO INSTRUCTION

This course will develop a mathematical and pedagogical knowledge base that reflects the spirit of the NCTM *Principles* and *Standards* (2000) and the *National Board for Professional Teaching Standards* (1998); diverse learning styles; multiple intelligences; and contributions of underrepresented groups and diverse cultures through the use of varied instructional strategies and methods including:

- guided discussion
- modeling and simulations
- cooperative and collaborative grouping student presentations and hands-on activities that actively engage students in the learning process.

COURSE OBJECTIVES

Students will:

1. demonstrate knowledge of historical developments in mathematics that includes the contributions of underrepresented groups and diverse cultures.
   Kilpatrick, Swafford,. & Findell, 2002; Ma, 2010; National Council of Teachers of Mathematics, 2000

(Conceptual Framework Descriptors: Professional Excellence, Field Based Inquiry, the Betterment of Society)
(Standards: NBPTS 1, 2)

2. develop or extend strategies and techniques based on current research for teaching elementary school mathematics to diverse student populations. This diversity includes gender, ethnicity, socioeconomic background, language, special needs, and mathematical learning styles.
Clarke, D., 1997; National Council of Teachers of Mathematics, 1989
Kilpatrick, Swafford,. & Findell, 2002; Ma, 2010; National Council of Teachers of Mathematics, 2000
(Conceptual Framework Descriptors: Professional Excellence, Field Based Inquiry, the Betterment of Society)
(Standards: NBPTS 1, 2)

3. develop an understanding of the appropriate use of technology to support the learning of mathematics.
Kilpatrick, Swafford,. & Findell, 2002; Ma, 2010; National Council of Teachers of Mathematics, 2000
(Conceptual Framework Descriptors: Professional Excellence, Field Based Inquiry, the Betterment of Society)
(Standards: NBPTS 1, 2)

4. develop an understanding of the use of formative and summative assessments to determine student understandings of mathematics and to monitor their own teaching effectiveness.
Kilpatrick, Swafford,. & Findell, 2002; Ma, 2010; National Council of Teachers of Mathematics, 2000
(Conceptual Framework Descriptors: Professional Excellence, Field Based Inquiry, the Betterment of Society)
(Standards: NBPTS 1, 2)

5. experience firsthand a variety of problem solving challenges and develop a repertoire of skills and strategies for teaching problem solving
Kilpatrick, Swafford,. & Findell, 2002; Ma, 2010; National Council of Teachers of Mathematics, 2000
(Conceptual Framework Descriptors: Professional Excellence, Field Based Inquiry, the Betterment of Society)
(Standards: NBPTS 1, 2)

6. develop skill in the use of a variety of physical and visual (including print and electronic) resources for the development of mathematical concepts and procedures.
Kilpatrick, Swafford,. & Findell, 2002; Ma, 2010; National Council of Teachers of Mathematics, 2000
(Conceptual Framework Descriptors: Professional Excellence, Field Based Inquiry, the Betterment of Society)
(Standards: NBPTS 1, 2)

TEXT, READINGS, AND INSTRUCTIONAL RESOURCES

Required Text: **NONE**

Other Resources:

National Council of Teachers of Mathematics. (1950-Present). Arithmetic Teacher; Mathematics Teacher; Teaching Children Mathematics; Journal for Research in Mathematics Education. Reston, VA: Author.

References:

Campbell, D.M., Cignetti, P.B., Melenyzer, B.J., Nettles, D.H., & Wyman, R.M. (2010). *How to develop a professional portfolio: A manual for teachers (5th Edition).* Upper Saddle River, NJ: Prentice Hall.

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Greenes, C., & Findell, C. (1998). *Groundworks: Algebraic thinking, grades 1-3.* Chicago: Creative Publications

Greenes, C., & Findell, C. (1998). *Groundworks: Algebra puzzles and problems, grades 4-7.* Chicago: Creative Publications

Lappan, G., Fey, J. T., Fitzgerald, W., Friel, S. N., & Phillips, E. D. (2002). *Connected Mathematics series.* Glenview, IL: Prentice Hall

Kamii, C. (1989). *Number.* Reston, VA: National Council of Teachers of Mathematics

Kamii, C. (1989, 1994) Young Children Reinvent Arithmetic: Implications of Piaget's theory. New York: Teacher's College Press

Kilpatrick, J., Swafford, J. & Findell, B. (Eds.) (2002). *Adding it up: Helping children learn mathematics.* Washington, D.C.: National Academy Press http://www.nap.edu/catalog/9822.html

Ma, L.P. (2010). *Knowing and teaching mathematics: Teachers' understanding of fundamental mathematics in China and the United States.* Mahwah, NJ: Lawrence Erlbaum Associates, Inc.

Marzano, R.J., & Pickering, D.J. (1997). *Dimensions of Learning.* Aurora, CO: McREL

Marzano, R.J., Pickering, D.J., & Pollock, J.E. (2001). *Classroom instruction that works* Alexandria, VA: Association for Supervision and Curriculum Development (ASCD)

National Council of Teachers of Mathematics (2000). *Principles and standards for school mathematics*, Reston, VA: Author http://www.nctm.org

National Research Council (2001). *Knowing and Learning Mathematics for Teaching* Washington, D.C.: National Academy Press. http://www.nap.edu/catalog/10050.html

National Research Council (2001). *Educating Teachers of Science, Mathematics and Technology: New Practices for the New Millennium*. Washington, D.C.: National Academy Press. http://www.nap.edu/catalog/9832.html

Reeves, D. (2004). The 90/90/90 schools: A case study (Chapter 19). *Accountability in action* Available at http://www.makingstandardswork.com/Downloads/AinA%20Ch19.pdf

Schifter, D. (Ed.) (1996). *What's happening in math class? Reconstructing professional identities,* Vols. 1 & 2. New York: Teachers College Press

Stronge, J.H. (2007). *Qualities of effective teachers.* Alexandria, VA: ASCD

Sutton, J. & Krueger, A. (Eds.) (2002). *EDThoughts: What we know about mathematics teaching and learning*. Aurora, CO: McREL

Tomlinson, C.A. (1999). *The differentiated classroom: Responding to the needs of all learners.* Alexandria, VA: ASCD

Wiggins, G. & McTighe, J. (2005). *Understanding by design.* Alexandria, VA: ASCD

Zemelman, S., Daniels, H., & Hyde, A. (2005). *Best practice: Today's standards for teaching and learning in America's schools*. Portsmouth, NH: Heinemann

ASSIGNMENTS, EVALUATION PROCEDURES, AND GRADING POLICY

Assignments:

1. **Biography of a Mathematician** - Select a mathematician from any period in history and write up a biography of that individual. Your biography should include an outline of the person's life and a summary of his or her contributions to mathematics, science, and other fields. Indicate both who influenced your mathematician in significant ways, and who your mathematician influenced. Attach a bibliography.
   (Course Objective 1)

2. **Lesson Plans** - Develop a minimum of 2 lesson plans that may or may not be part of one unit for a grade band that is **different** than your own. The lesson plans must include the following:
   - Strategies addressing diversity (gender, ethnicity, learning styles, etc.) to support full participation by all students;

- Appropriate use of technology, print and electronic resources, and manipulative and visual materials;
- Interdisciplinary activities and problem solving;
- Effective uses of student groupings such as peer teaching and collaborative grouping;
- Varied instructional strategies based on current research and local, state, and national standards; and
- Formative and summative assessments to determine student achievement.

(Course Objectives 2, 3, 4, 5, 6)

3. **Integrating Technology** – Prepare a 15-20 minute activity incorporating technology in the teaching of mathematics. You will present your activity to the class during the designated time. (Course Objective 3)

4. **Problem Solving** – Find at least 10 problem solving activities that are appropriate for an elementary mathematics classroom. For **each** problem solving activity, identify the GPS addressed, the worked out solution (including "in-between" steps) and answers, and assessment ideas.
(Course Objective 5)

5. **Tests** – There will two exams in this course – a midterm and a final. During the designated time, you will be assessed on the knowledge and skills you have gained in the course.
(Course Objectives 2, 3, 4, 5, 6)

6. **Portfolio** – The Mathematics Endorsement requires the completion of portfolio. The portfolio will include three sections describing or illustrating the candidate's effective implementation of appropriate content lessons (Section 1 – Content Implementation; Section 2 – Student Learning; and Section 3 – Technology Integration). See table below for a detailed description of each section.
(Course Objectives 2, 3, 4, 6)

PORTFOLIO GUIDELINES	
Portfolio Section 1: Content Implementation	
Observations	A minimum of three observations of teaching is required. • The observations shall be conducted by a trained/qualified supervisor, a school building administrator, school system coordinator, Instructional Lead Teacher (ILT), or academic coach. • An instrument designed specifically for assessing Math instruction must be used. • If all criteria are met in the first observation, no other observations are required. If all criteria are not met in the first observation, other observations will be required and coursework or learning activities may be prescribed.
Lesson Plans	• Submission of a minimum of 8 lesson plans that may or may not be a part of one unit in your grade band. At least one lesson from each course shall be submitted. • Submission of a minimum of 2 lesson plans that may or may not be a part of one unit in a different grade band.

Reflections	• Submission of a minimum of four reflections after implementation of four of the ten lesson plans referenced in the preceding item.
Portfolio Section 2: Student Learning	
Student Work Samples with Teacher Commentary	A minimum of one sample from each course in the K-5 Mathematics Endorsement program.
Student Assessment Data with Analysis	Provide sample formative data and a description of how it was used to guide instruction. Provide sample summative data and analysis of the data.
Portfolio Section 3: Technology Integration	
Lesson Plan with Technology Integration	Can be the same lesson plan as submitted for section # 1 or 2 above.
Reflection	Written reflection of a lesson incorporating technology into mathematics instruction.

EVALUATION PROCEDURES

Assignments will be graded by the course instructor, based on accuracy, completeness, and consistency with deadlines, as well as the guidelines distributed and/or discussed in class. Each assignment will be assigned a specific number of points. Failure to meet deadlines/guidelines for the assignments may result in a grade reduction.

Activity	Points available	Assessment Tools
Biography of a Mathematician	25	Rubric
Lesson Plans	25	Rubric
Integrating Technology	25	Rubric
Problem Solving	50	Rubric
Portfolio – Section 1	150	Rubric
Portfolio – Section 2	50	Rubric
Portfolio – Section 3	25	Rubric
Midterm	25	Exam
Final Exam	50	Exam
TOTAL Points Possible	**350**	

Grading Policy:

Final grades will be distributed according to the following scale:

A = $315 \leq x \leq 350$

B = $280 \leq x < 315$

C = $245 \leq x < 280$

F = $x < 245$

CLASS, DEPARTMENT, AND UNIVERSITY POLICIES

Academic Honesty: All work completed in this course must be original work developed this semester. Students are expected to adhere to the highest standards of academic honesty. Plagiarism occurs when a student uses or purchases ghostwritten papers. It also occurs when a student utilizes ideas or information obtained from another person without giving credit to that person. If plagiarism or another act of academic dishonesty occurs, it will be dealt with in accordance with the academic misconduct policy as stated in the latest *Connection and Student Handbook* and the *Graduate Catalog*.

Attendance: Students are expected to attend all class, lab, and clinical experience sessions and are accountable for all materials covered. Course grades are reduced for absences and tardiness.

Disability: All students are provided with equal access to classes and materials, regardless of special needs, temporary or permanent disability, special needs related to pregnancy, etc. If you have any special learning needs, particularly (but not limited to) needs defined under the Americans with Disabilities Act, and require specific accommodations, please do not hesitate to make those known, either yourself or through the Coordinator of Disability Services. Students with documented special needs may expect accommodation in relation to classroom accessibility, modification of testing, special test administration, etc. For more information, please contact Disability Services at the University of West Georgia: http://www.westga.edu/studentDev/index_8884.php. Any student with a disability documented through Student Services is encouraged to contact the instructor right away so that appropriate accommodations may be arranged. In addition, certain accommodations (which will be discussed in class) are available to all students, within constraints of time and space.

Professional Conduct: Students are also expected to actively participate in class activities and discussions and conduct themselves professionally at all times. Course grades are reduced for failure to actively participate and maintain professional conduct.

Extra Credit: There is no extra credit available for this course.

Late Work: Late work is accepted at the discretion of the instructor. Students are responsible for all missed work and assignments due to absences. Points will be deducted for late work submissions.

Student Email Policy: University of West Georgia students are provided a MyUWG email account, which is the official means of communication between the University and student. It is the student's responsibility to check this email account for important University related information.

Course Outline:

CLASS	TOPIC	DUE
1	Course Introduction and Portfolio Requirements	
2	Technology in the Classroom	
3	Differentiation	
4	Cooperative Learning and Diversity	
5	Integrating Instruction	Unit Plan Part I
6	Assessment and Evaluation	
7	Strategies in Teaching Problem Solving	
8	Midterm	
9	Strategies in Teaching Whole Number Operations	
10	Strategies in Teaching Fractions, Decimals, and Percents	
11	Strategies in Teaching Algebra	
12	Strategies in Teaching Geometry	
13	Strategies in Teaching Measurement	
14	Strategies in Teaching Graphing	
15	Strategies in Teaching Probability and Statistics	Portfolio
16	Final Exam	

Course Update Request (Add, Delete, Modify)

Originator

Department	College	Originator
Early Learning and Childhood Educat	College of Education	Lewis, Barbara

Action

Add | Modify | Delete

Modifications

Prerequisites | Description | Title | Credit | See Comments

Course Details

Prefix	Number	Course Title
EDME	7273L	Advanced Strategies for Teaching Elementary Mathem

Co-requisite: EDME 7273 ? Advanced Strategies for Teaching Elementary Mathematics Supervised and coordinated series of real applications of the knowledge and skills occurring in actual K-5 classroom settings that allow students to further develop and demonstrate the knowledge and skills acquired in coursework. Residency experiences shall require demonstration of the content knowledge and pedagogical skills acquired in Advanced Strategies for Teaching Elementary Mathematics.

Course Catalog Description

Lec Hrs	Lab Hrs	Credit Hrs	Effective Term	Frequency	Grading
0	2	1	Spring - 2012	Yearly	Letter Grade

Prerequisites

Corequisites

Rationale

This course supports the K-5 Mathematics Endorsement. The K-5 Mathematics Endorsement is designed to strengthen K-5 educators? ability to deliver mathematics instruction effectively to all students. This course will require demonstration of the content knowledge and pedagogical skills acquired in EDME 7273 ? Advanced Strategies for Teaching Elementary Mathematics Current research and literature related to the content, methodology, skills, and appropriate materials to explore various ways to engage K-5 students in mathematics learning will be used to ensure well-designed, intensive professional development which will have a direct impact on student learning. In addition, this course will also satisfy the Professional Standards Commission (PSC) authentic residency requirement.

Planning Info

Library Resources are Adequate

Library Resources Need Enhancement

Present or Projected Annual Enrollment: 30

Comments

College Approvals

Donna Harkins [APPROVED 2011-07-29]

Chair, Course Department

Dianne Hoff [APPROVED 2011-08-01]

Associate Dean, College of Education

Cross Listing Approvals

N/A

Chair, Cross Listed Department

N/A

Associate Dean, Cross Listed College

Other Approvals

Final Approval

Jon Anderson [REQUIRED]

Chair, Faculty Senate

EDME 7273L

ADVANCED STRATEGIES FOR TEACHING ELEMENTARY MATHEMATICS LAB

Semester Hours 1

Semester/Year

Instructor

Office Location

Office Hours

Online Hours

Telephone Direct Line:
Department Line:

E-mail

Fax

Online Support: CourseDen Home Page
https://westga.view.usg.edu/

CourseDen Help & Troubleshooting
http://www.westga.edu/~distance/webct1/help

UWG Distance Learning
http://distance.westga.edu/

UWG On-Line Connection
http://www.westga.edu/~online/

Distance Learning Library Services
http://westga.edu/~library/depts/offcampus/

Ingram Library Services
http://westga.edu/~library/info/library.shtml

University Bookstore
http://www.bookstore.westga.edu/

COURSE DESCRIPTION

Co-requisite: EDME 7273 – Advanced Strategies for Teaching Elementary Mathematics
Supervised and coordinated series of real applications of the knowledge and skills occurring in actual K-5 classroom settings that allow students to further develop and demonstrate the knowledge and skills

acquired in coursework. Residency experiences shall require demonstration of the content knowledge and pedagogical skills acquired in *Advanced Strategies for Teaching Elementary Mathematics*.

CONCEPTUAL FRAMEWORK

The conceptual framework of the College of Education at UWG forms the basis on which programs, courses, experiences, and outcomes are created. With the goal of *Developing Exemplary Practitioners*, our programs incorporate ten descriptors (knowledgeable, reflective, inquisitive, decisive, adaptive, proactive, leading, collaborative, culturally sensitive, empathetic), clustered into three interrelated and overlapping themes, that demonstrate our commitment to (a) Professional Excellence; (b) Field-Based Inquiry; and (c) the Betterment of Society. These themes and descriptors are integral components of the conceptual framework and provide the basis for developing exemplary practitioners who are prepared to improve schools and communities. National Board for Professional Teaching Standards (NBPTS) also are incorporated as criteria against which candidates are measured.

The mission of the College of Education is to provide excellence in the initial and advanced preparation of professionals for a variety of settings, to foster an innovative learning community, and to empower a faculty committed to teaching and the dissemination of knowledge. This course's objectives, activities, and assignments are related directly to the conceptual framework and national standards, as identified below.

APPROACHES TO INSTRUCTION

This course will develop a mathematical and pedagogical knowledge base that reflects the spirit of the NCTM *Principles* and *Standards* (2000) and the *National Board for Professional Teaching Standards* (1998); diverse learning styles; multiple intelligences; and contributions of underrepresented groups and diverse cultures through a supervised and coordinated series of applications of knowledge and skills.

COURSE OBJECTIVES

Students will:

1. demonstrate content knowledge and pedagogical skills through the teaching of lessons in a classroom of a different grade band.
   (Conceptual Framework Descriptors: Professional Excellence, Field Based Inquiry, the Betterment of Society)
   (Standards: NBPTS 1, 2)

2. demonstrate the use of appropriate formative and summative assessment methods to determine students' understanding of mathematics.
   (Conceptual Framework Descriptors: Professional Excellence, Field Based Inquiry, the Betterment of Society)
   (Standards: NBPTS 1, 2)

3. demonstrate the use of appropriate technology to support the learning of mathematics.
   (Conceptual Framework Descriptors: Professional Excellence, Field Based Inquiry, the Betterment of Society)
   (Standards: NBPTS 1, 2)

4. reflect on the implementation of lessons.
   (Conceptual Framework Descriptors: Professional Excellence, Field Based Inquiry, the Betterment of Society)
   (Standards: NBPTS 1, 2)

TEXT, READINGS, AND INSTRUCTIONAL RESOURCES

Required Text: NONE

References:

Campbell, D.M., Cignetti, P.B., Melenyzer, B.J., Nettles, D.H., & Wyman, R.M. (2010). *How to develop a professional portfolio: A manual for teachers (5th Edition).* Upper Saddle River, NJ: Prentice Hall.

Costantino, P.M., De Lorenzo, D.M. & Tirrell-Corbin, C. (2008). *Developing a professional teaching portfolio: A guide for success (3rd Edition).* Upper Saddle River, NJ: Allyn & Bacon.

Evers, W.M. & Walberg, H.J. (2004). *Testing Student Learning, Evaluating Teaching Effectiveness.* Stanford, CA: The Board of Trustees of Leland Stanford Junior University.

ASSIGNMENTS, EVALUATION PROCEDURES, AND GRADING POLICY

Assignments:

1. **Content Implementation**: Students shall implement two lessons developed for a classroom in a different grade band. Students shall submit two reflections after implementation of the lesson plans. At least one lesson must be observed by a supervisor.
   (Course Objectives 1, 4)

2. **Experiences Working with Diverse K-5 Students**: Students shall provide evidence of work with diverse students by submitting demographics of other classrooms taught.
   (Course Objective 1)

3. **Student Work Samples with Teacher Commentary**: Students shall submit at least one sample from one of the lessons implemented.
   (Course Objective 1)

4. **Student Assessment Data with Analysis**: Students shall submit sample formative data and a description of how it was used to guide instruction. Students shall submit sample formative data and an analysis of the data.
   (Course Objective 2)

5. **Technology Integration**: Students will implement a lesson plan that integrates technology into mathematics instruction. Students shall submit a reflection after implementation of the lesson plan.
(Course Objectives 3, 4)

Evaluation Procedures:

Assignments will be graded by the course instructor, based on accuracy, completeness, and consistency with deadlines, as well as the guidelines distributed and/or discussed in class. Each assignment will be assigned a specific number of points. Failure to meet deadlines/guidelines for the assignments may result in a grade reduction.

Activity	Points available	Assessment Tools
Content Implementation	50	Rubric
Experiences Working with Diverse K-5 Students	25	Rubric
Student Work Samples with Teacher Commentary	50	Rubric
Student Assessment Data with Analysis	50	Rubric
Technology Integration	25	Rubric
TOTAL Points Possible	**200**	

Grading Policy:

Final grades will be distributed according to the following scale:

A = $180 \leq x \leq 200$

B = $160 \leq x < 180$

C = $140 \leq x < 160$

F = $x < 140$

CLASS, DEPARTMENT, AND UNIVERSITY POLICIES

Academic Honesty: All work completed in this course must be original work developed this semester. Students are expected to adhere to the highest standards of academic honesty. Plagiarism occurs when a student uses or purchases ghostwritten papers. It also occurs when a student utilizes ideas or information obtained from another person without giving credit to that person. If plagiarism or another act of academic dishonesty occurs, it will be dealt with in accordance with the academic misconduct policy as stated in the latest *Connection and Student Handbook* and the *Graduate Catalog*.

Attendance: Students are expected to attend all class, lab, and clinical experience sessions and are accountable for all materials covered. Course grades are reduced for absences and tardiness.

Disability: All students are provided with equal access to classes and materials, regardless of special needs, temporary or permanent disability, special needs related to pregnancy, etc. If you have any special learning needs, particularly (but not limited to) needs defined under the Americans with Disabilities Act, and require specific accommodations, please do not hesitate to make those known, either yourself or through the Coordinator of Disability Services. Students with documented special needs may expect accommodation in relation to classroom accessibility, modification of testing, special test administration,

etc. For more information, please contact Disability Services at the University of West Georgia: http://www.wcstga.cdu/studentDcv/index_8884.php. Any student with a disability documented through Student Services is encouraged to contact the instructor right away so that appropriate accommodations may be arranged. In addition, certain accommodations (which will be discussed in class) are available to all students, within constraints of time and space.

Profcssional Conduct: Students are also expected to actively participate in class activities and discussions and conduct themselves professionally at all times. Course grades are reduced for failure to actively participate and maintain professional conduct.

Extra Credit: There is no extra credit available for this course.

Late Work: Late work is accepted at the discretion of the instructor. Students are responsible for all missed work and assignments due to absences. Points will be deducted for late work submissions.

Student Email Policy: University of West Georgia students are provided a MyUWG email account, which is the official means of communication between the University and student. It is the student's responsibility to check this email account for important University related information.

Course Update Request (Add, Delete, Modify)

Originator

Department	College	Originator
Early Learning and Childhood Educat	College of Education	Lewis, Barbara

Action

Add | Modify | Delete

Modifications

Prerequisites | Description | Title | Credit | See Comments

Course Details

Prefix	Number	Course Title
EDME	7274	K-5 Mathematics Endorsement Residency

Prerequisites: MATH 7403, MATH 7423, MATH 7413, MATH 7523 Supervised and coordinated series of real applications of the knowledge and skills occurring in actual K-5 classroom settings that allow students to further develop and demonstrate the knowledge and skills acquired in coursework. Residency experiences shall require demonstration of the content knowledge and pedagogical skills delineated in program content standards. Authentic residency experiences shall occur in candidates? assigned classrooms, as well as in settings other than candidates? assigned classrooms to ensure experiences with diverse students and with students in the grade levels of the candidate?s base certificate. The authentic residency includes a portfolio component. Successful completion of this course will allow previous program completers to convert to the new K-5 Mathematics Endorsement.

Course Catalog Description

Lec Hrs	Lab Hrs	Credit Hrs	Effective Term	Frequency	Grading
3	0	3	Spring - 2012	Yearly	Letter Grade

Prerequisites

Prerequisites: MATH 7403, MATH 7423, MATH 7413, MATH 7523

Corequisites

Rationale

This course supports the K-5 Mathematics Endorsement - Conversion. The K-5 Mathematics Endorsement Conversion is designed to strengthen K-5 educators? ability to deliver mathematics instruction effectively to all students. This course will focus on a series of real applications of the knowledge and skills occurring in K-5 classrooms acquired in courses previously approved for the endorsement. Residency experiences will require demonstration of the content knowledge and pedagogical skills delineated in program content standards. Authentic residency experiences are required.

Planning Info

Library Resources are Adequate

Library Resources Need Enhancement

Present or Projected Annual Enrollment: 30

Comments

College Approvals

Donna Harkins [APPROVED 2011-07-29]

Chair, Course Department

Dianne Hoff [APPROVED 2011-08-16]

Associate Dean, College of Education

Cross Listing Approvals

N/A

Chair, Cross Listed Department

N/A

Associate Dean, Cross Listed College

Other Approvals

Final Approval

Jon Anderson [REQUIRED]

Chair, Faculty Senate

EDME 7274

K-5 MATHEMATICS ENDORSEMENT RESIDENCY

Semester Hours	3
Semester/Year	
Instructor	
Office Location	
Office Hours	
Online Hours	
Telephone	Direct Line: Department Line:
E-mail	
Fax	
Online Support	CourseDen Home Page https://westga.view.usg.edu/ CourseDen Help & Troubleshooting http://www.westga.edu/~distance/webct1/help

COURSE DESCRIPTION

Prerequisites: MATH 7403, MATH 7423, MATH 7413, MATH 7523
Supervised and coordinated series of real applications of the knowledge and skills occurring in actual K-5 classroom settings that allow students to further develop and demonstrate the knowledge and skills acquired in coursework. Residency experiences shall require demonstration of the content knowledge and pedagogical skills delineated in program content standards. Authentic residency experiences shall occur in candidates' assigned classrooms, as well as in settings other than candidates' assigned classrooms to ensure experiences with diverse students and with students in the grade levels of the candidate's base certificate. The authentic residency includes a portfolio component. Successful completion of this course will allow previous program completers to convert to the new K-5 Mathematics Endorsement.

CONCEPTUAL FRAMEWORK

The conceptual framework of the College of Education at UWG forms the basis on which programs, courses, experiences, and outcomes are created. With the goal of *Developing*

Exemplary Practitioners, our programs incorporate ten descriptors, clustered into three interrelated and overlapping themes, that demonstrate our commitment to (a) Professional Excellence [knowledgeable, reflective, inquisitive]; (b) Field-Based Inquiry [decisive, adaptive, proactive, leading]; and (c) the Betterment of Society [collaborative, culturally sensitive, empathetic]. These themes and descriptors are integral components of the conceptual framework and provide the basis for developing exemplary practitioners who are prepared to improve schools and communities. National standards (NBPTS) also are incorporated as criteria against which candidates are measured.

The mission of the College of Education is to provide excellence in the initial and advanced preparation of professionals for a variety of settings, to foster an innovative learning community, and to empower a faculty committed to teaching and the dissemination of knowledge. This course's objectives, activities, and assignments are related directly to the conceptual framework and national standards, as identified below.

COURSE OBJECTIVES

Students will:

1. demonstrate content knowledge and pedagogical skills through the development and teaching of lessons in their own classroom.
   (Conceptual Framework Descriptors: Professional Excellence, Field Based Inquiry, the Betterment of Society)
   (Standards: NBPTS 1, 2)

2. demonstrate content knowledge and pedagogical skills through the development and teaching of lessons in a classroom of a different grade band.
   (Conceptual Framework Descriptors: Professional Excellence, Field Based Inquiry, the Betterment of Society)
   (Standards: NBPTS 1, 2)

3. demonstrate the use of appropriate formative and summative assessment methods to determine students' understanding of mathematics.
   (Conceptual Framework Descriptors: Professional Excellence, Field Based Inquiry, the Betterment of Society)
   (Standards: NBPTS 1, 2)

4. demonstrate the use of appropriate technology to support the learning of mathematics.
   (Conceptual Framework Descriptors: Professional Excellence, Field Based Inquiry, the Betterment of Society)
   (Standards: NBPTS 1, 2)

5. reflect on the implementation of lessons.
   (Conceptual Framework Descriptors: Professional Excellence, Field Based Inquiry, the Betterment of Society)
   (Standards: NBPTS 1, 2)

TEXT, READINGS, AND INSTRUCTIONAL RESOURCES

Required Text:

NONE

References:

Campbell, D.M., Cignetti, P.B., Melenyzer, B.J., Nettles, D.H., & Wyman, R.M. (2010). *How to develop a professional portfolio: A manual for teachers (5th Edition).* Upper Saddle River, NJ: Prentice Hall.

Costantino, P.M., De Lorenzo, D.M. & Tirrell-Corbin, C. (2008). *Developing a professional teaching portfolio: A guide for success (3rd Edition).* Upper Saddle River, NJ: Allyn & Bacon.

Evers, W.M. & Walberg, H.J. (2004). *Testing Student Learning, Evaluating Teaching Effectiveness.* Stanford, CA: The Board of Trustees of Leland Stanford Junior University.

ASSIGNMENTS, EVALUATION PROCEDURES, AND GRADING POLICY

Assignments

1. **Lesson Plans** – Students shall develop 8 lesson plans that may or may not be part of one unit. At least one lesson representing the content from each course in the endorsement program shall be included for your grade level. At least two lessons that are appropriate for a different grade band shall be included. The lesson plans must include the following:
   - Strategies addressing diversity (gender, ethnicity, learning styles, etc.) to support full participation by all students;
   - Appropriate use of technology, print and electronic resources, and manipulative and visual materials;
   - Interdisciplinary activities and problem solving;
   - Effective uses of student groupings such as peer teaching and collaborative grouping;
   - Varied instructional strategies based on current research and local, state, and national standards; and
   - Formative and summative assessments to determine student achievement.

   (Course Objectives 1, 2, 3, 4, 5)

2. **Experiences in Other Grade Levels**: Students shall teach a minimum of two lessons, with a minimum of one lesson in each of the following grade bands: K-2 and 3-5. Students will submit a minimum of two reflections after implementation of two of the eight lesson plans referenced in the preceding item.
   (Course Objectives 1, 2, 3, 4, 5)

3. **Experiences Working with Diverse K-5 Students**: Students shall provide evidence of work with diverse students by submitting their own classroom demographics or evidence of demographics of other classes taught.
(Course Objectives 2, 5)

4. **Portfolio** – The Mathematics Endorsement requires the completion of portfolio. The portfolio will include three sections describing or illustrating the candidate's effective implementation of appropriate content lessons (Section 1 – Content Implementation; Section 2 – Student Learning; and Section 3 – Technology Integration). See table below for a detailed description of each section.
(Course Objectives 1, 2, 3, 4, 5)

PORTFOLIO GUIDELINES	
Portfolio Section 1: Content Implementation	
Observations	A minimum of one observation of teaching is required. • The observation shall be conducted by a trained/qualified supervisor, a school building administrator, school system coordinator, Instructional Lead Teacher (ILT), or academic coach. • An instrument designed specifically for assessing Math instruction must be used. • If all criteria are met in the first observation, no other observations are required. If all criteria are not met in the first observation, other observations will be required and coursework or learning activities may be prescribed.
Lesson Plans	• Submission of a minimum of 8 lesson plans that may or may not be a part of one unit. At least one lesson from each course shall be submitted.
Reflections	• Submission of a minimum of two reflections after implementation of two of the eight lesson plans referenced in the preceding item.
Portfolio Section 2: Student Learning	
Student Work Samples with Teacher Commentary	A minimum of one sample from each endorsement course completed as a part of the previous ECE Mathematics Endorsement program.
Student Assessment Data with Analysis	Provide sample formative data and a description of how it was used to guide instruction. Provide sample summative data and analysis of the data.
Portfolio Section 3: Technology Integration	
Lesson Plan with Technology Integration	Can be the same lesson plan as submitted for section # 1 or 2 above.
Reflection	Written reflection of a lesson incorporating technology into mathematics instruction.

EVALUATION PROCEDURES

Assignments will be graded by the course instructor, based on accuracy, completeness, and consistency with deadlines, as well as the guidelines distributed and/or discussed in class. Each assignment will be assigned a specific number of points. Failure to meet deadlines/guidelines for the assignments may result in a grade reduction.

Activity	Points available	Assessment Tools
Experiences Working with Diverse K-5 Students	25	Rubric
Portfolio – Section 1	150	Rubric
Portfolio – Section 2	50	Rubric
Portfolio – Section 3	25	Rubric
TOTAL Points Possible	**250**	

Grading Policy:

Final grades will be distributed according to the following scale:

A = $225 \leq x \leq 250$

B = $200 \leq x < 225$

C = $175 \leq x < 200$

F = $x < 175$

CLASS, DEPARTMENT, AND UNIVERSITY POLICIES

Academic Honesty: All work completed in this course must be original work developed this semester. Students are expected to adhere to the highest standards of academic honesty. Plagiarism occurs when a student uses or purchases ghostwritten papers. It also occurs when a student utilizes ideas or information obtained from another person without giving credit to that person. If plagiarism or another act of academic dishonesty occurs, it will be dealt with in accordance with the academic misconduct policy as stated in the latest *Connection and Student Handbook* and the *Graduate Catalog*.

Attendance: Students are expected to attend all class, lab, and clinical experience sessions and are accountable for all materials covered. Course grades are reduced for absences and tardiness.

Disability: All students are provided with equal access to classes and materials, regardless of special needs, temporary or permanent disability, special needs related to pregnancy, etc. If you have any special learning needs, particularly (but not limited to) needs defined under the Americans with Disabilities Act, and require specific accommodations, please do not hesitate to make those known, either yourself or through the Coordinator of Disability Services. Students with documented special needs may expect accommodation in relation to classroom accessibility, modification of testing, special test administration, etc. For more information, please contact Disability Services at the University of West Georgia:

http://www.westga.edu/studentDev/index_8884.php. Any student with a disability documented through Student Services is encouraged to contact the instructor right away so that appropriate accommodations may be arranged. In addition, certain accommodations (which will be discussed in class) are available to all students, within constraints of time and space.

Professional Conduct: Students are also expected to actively participate in class activities and discussions and conduct themselves professionally at all times. Course grades are reduced for failure to actively participate and maintain professional conduct.

Extra Credit: There is no extra credit available for this course.

Late Work: Late work is accepted at the discretion of the instructor. Students are responsible for all missed work and assignments due to absences. Points will be deducted for late work submissions.

Student Email Policy: University of West Georgia students are provided a MyUWG email account, which is the official means of communication between the University and student. It is the student's responsibility to check this email account for important University related information.

Course Update Request (Add, Delete, Modify)

Originator

Department	College	Originator
Early Learning and Childhood Educat	College of Education	Lewis, Barbara

Action

Add | Modify | Delete

Modifications

Prerequisites | Description | Title | Credit | See Comments

Course Details

Prefix	Number	Course Title
EDSE	7271	Life Science For In-Service Elementary Teachers

This course is designed to reinforce and extend life science concepts for elementary teachers such that they can then design instruction that is appropriate for elementary students. The course will address basic concepts of life science using investigative, problem solving instruction. Students will be involved in concept building through discussion, laboratory, and field based experiences. Data gathering, analysis, and presentation will be a part of each topic. Additional professional resources from current literature will augment the information provided from the text and classroom discussions.

Course Catalog Description

Lec Hrs	Lab Hrs	Credit Hrs	Effective Term	Frequency	Grading
3	0	3	Spring - 2012	Yearly	Letter Grade

Prerequisites

Corequisites

Rationale

This course supports the K-5 Science Endorsement. The K-5 Science Endorsement is designed to strengthen K-5 educators? ability to deliver science instruction effectively to all students. This course will reinforce and extend life science concepts that educators can use to design instruction that is appropriate for K-5 students. Current research and literature related to the content, methodology, skills, and appropriate materials to explore various ways to engage K-5 students in learning life science will be used to ensure well-designed, intensive professional development which will have a direct impact on student learning.

Planning Info

Library Resources are Adequate

Library Resources Need Enhancement

Present or Projected Annual Enrollment: 30

Comments

College Approvals

Donna Harkins [APPROVED 2011-07-29]

Chair, Course Department

Dianne Hoff [APPROVED 2011-08-16]

Associate Dean, College of Education

Cross-Listing Approvals

N/A

Chair, Cross Listed Department

N/A

Associate Dean, Cross Listed College

Other Approvals

Final Approval

Jon Anderson [REQUIRED]

Chair, Faculty Senate

EDME 7271 – Elementary Mathematics I

Semester Hours	3
Semester/Year	
Instructor	
Office Location	
Office Hours	
Online Hours	
Telephone	Direct Line: Department Line:
E-mail	
Fax	
Online Support:	CourseDen Home Page https://westga.view.usg.edu/ CourseDen Help & Troubleshooting http://www.westga.edu/~distance/webct1/help UWG Distance Learning http://distance.westga.edu/ UWG On-Line Connection http://www.westga.edu/~online/ Distance Learning Library Services http://westga.edu/~library/depts/offcampus/ Ingram Library Services http://westga.edu/~library/info/library.shtml University Bookstore http://www.bookstore.westga.edu/

COURSE DESCRIPTION

This course focuses on preparing K-5 Mathematics Endorsement candidates to: understand and use the major concepts of number and operations in mathematics for grades K-5, including expressing, transforming, and generalizing patterns and quantitative relationships through a variety of representations, In addition, candidates will: solve problems using multiple strategies, manipulatives, and technological tools; interpret solutions; and determine reasonableness of answers and efficiency of methods; as well select and use a variety of formative and summative assessment techniques to monitor student progress, gauge students' mathematical understanding, and interpret school-based progress. Must be taken concurrently with EDME 7271L.

CONCEPTUAL FRAMEWORK

The conceptual framework of the College of Education at UWG forms the basis on which programs, courses, experiences, and outcomes are created. With the goal of *Developing Exemplary Practitioners*, our programs incorporate ten descriptors (knowledgeable, reflective, inquisitive, decisive, adaptive, proactive, leading, collaborative, culturally sensitive, empathetic), clustered into three interrelated and overlapping themes, that demonstrate our commitment to (a) Professional Excellence; (b) Field-Based Inquiry; and (c) the Betterment of Society. These themes and descriptors are integral components of the conceptual framework and provide the basis for developing exemplary practitioners who are prepared to improve schools and communities. National Board for Professional Teaching Standards (NBPTS) also are incorporated as criteria against which candidates are measured.

The mission of the College of Education is to provide excellence in the initial and advanced preparation of professionals for a variety of settings, to foster an innovative learning community, and to empower a faculty committed to teaching and the dissemination of knowledge. This course's objectives, activities, and assignments are related directly to the conceptual framework and national standards, as identified below.

APROACHES TO INSTRUCTION

This course will develop a mathematical and pedagogical knowledge base that reflects the spirit of the NCTM *Principles* and *Standards* (2000) and the *National Board for Professional Teaching Standards* (1998); diverse learning styles; multiple intelligences; and contributions of underrepresented groups and diverse cultures through the use of varied instructional strategies and methods including:

- guided discussion
- modeling and simulations
- cooperative and collaborative grouping student presentations and hands-on activities that actively engage students in the learning process.

COURSE OBJECTIVES

Students will:

1. Understand and use the major concepts of number and operations in mathematics for grades K-5; Kamii, C., 1989, 1994; Kilpatrick, J., Swafford, J. & Findell, B., 2002; NCTM, 2000
   (Conceptual Framework Descriptors: Professional Excellence, Field Based Inquiry, the Betterment of Society)
   (Standards: NBPTS 1, 2)

2. Understand and use the major concepts and techniques of algebra for grades K-5; Kamii, C., 1989, 1994; Kilpatrick, J., Swafford, J. & Findell, B., 2002; NCTM, 2000
(Conceptual Framework Descriptors: Professional Excellence, Field Based Inquiry, the Betterment of Society)
(Standards: NBPTS 1, 2)

3. Solve problems using multiple strategies, manipulatives, and technological tools; Kilpatrick, J., Swafford, J. & Findell, B., 2002; NCTM, 2000
(Conceptual Framework Descriptors: Professional Excellence, Field Based Inquiry, the Betterment of Society)
(Standards: NBPTS 1, 2)

4. Demonstrate the use of multiple teaching strategies, the use of manipulatives and technological tools in designing lessons that address various learning styles and multiple intelligences; Kilpatrick, J., Swafford, J. & Findell, B., 2002; NCTM, 2000
(Conceptual Framework Descriptors: Professional Excellence, Field Based Inquiry, the Betterment of Society)
(Standards: NBPTS 1, 2)

5. Interpret solutions and determine the reasonableness of answers and efficiency of solutions; Kilpatrick, J., Swafford, J. & Findell, B., 2002; NCTM, 2000
(Conceptual Framework Descriptors: Professional Excellence, Field Based Inquiry, the Betterment of Society)
(Standards: NBPTS 1, 2)

6. Select and use a variety of formative and summative assessment techniques to monitor K-5 students' progress, gauge their mathematical understanding, and interpret school-based progress. Evers, W.M. & Walberg, H.J., 2004; NCTM, 2000
(Conceptual Framework Descriptors: Professional Excellence, Field Based Inquiry, the Betterment of Society)
(Standards: NBPTS 1, 2)

Technology: Using technology as a tool for learning and doing mathematics and for accessing Web-based instructional materials is a significant component of this course. Suggested tools include the following: an intermediate-level calculator that will convert fractions and decimals and do integer division is recommended for the course such as the *TI-15*, graphing calculators such as the TI-73 Explorer and TI-83 Plus SE; data collection devices such as the Calculator-Based Ranger (CBR) with a built-in motion detector and the Calculator-Based Laboratory (CBL2) with temperature probes, pressure probes, and microphones; TI-Graph Link cable; and software such as *The Geometer's Sketchpad*, *TI-InterActive*!, and *TI-Connect*.

TEXT, READINGS, AND INSTRUCTIONAL RESOURCES

Required Text:
Beckman, S. (2008). *Mathematics for Elementary Teachers* (2nd ed.). Boston: Pearson Addison Wesley.

Instructional Resources: *PSC Standard – 7vi*
Pattern blocks, two-color counters, snap cubes, algebra tiles or algeblocks, Hands-on Equations, graph paper, etc.

References:

Campbell, D.M., Cignetti, P.B., Melenyzer, B.J., Nettles, D.H., & Wyman, R.M. (2010). *How to develop a professional portfolio: A manual for teachers (5th Edition).* Upper Saddle River, NJ: Prentice Hall.

Costantino, P.M., De Lorenzo, D.M. & Tirrell-Corbin, C. (2008). *Developing a professional teaching portfolio: A guide for success* (3rd ed.). Upper Saddle River, NJ: Allyn and Bacon.

Evers, W.M. & Walberg, H.J. (2004). *Testing Student Learning, Evaluating Teaching Effectiveness.* Stanford, CA: The Board of Trustees of Leland Stanford Junior University.

Greenes, C., Findell, C., & Caufield, T. (2003). *The abc's of algebra: Levels 1-5.* Chicago: Creative Publications.

Greenes, C., & Findell, C. (1998). *Groundworks: Algebraic thinking, grades 1-3.* Chicago: Creative Publications.

Greenes, C., & Findell, C. (1998). *Groundworks: Algebra puzzles and problems, grades 4-7.* Chicago: Creative Publications.

Lappan, G., Fey, J. T., Fitzgerald, W., Friel, S. N., & Phillips, E. D. (2002). *Connected Mathematics series.* Glenview, IL: Prentice Hall.

Kamii, C. (1989). *Number.* Reston, VA: National Council of Teachers of Mathematics.

Kamii, C. (1989, 1994). *Young Children Reinvent Arithmetic: Implications of Piaget's theory.* New York: Teacher's College Press.

Kilpatrick, J., Swafford, J. & Findell, B. (Eds.). (2002). *Adding it up: Helping children learn mathematics.* Washington, D.C.: National Academy Press. http://www.nap.edu/catalog/9822.html

Ma, L.P. (2010). *Knowing and teaching mathematics: Teachers' understanding of fundamental mathematics in China and the United States.* Mahwah, NJ: Lawrence Erlbaum Associates, Inc.

Marzano, R.J., & Pickering, D.J. (1997). *Dimensions of Learning.* Aurora, CO: McREL.

Marzano, R.J., Pickering, D.J., & Pollock, J.E. (2001). *Classroom instruction that works* Alexandria, VA: Association for Supervision and Curriculum Development.

NCTM (2000). *Principles and standards for school mathematics*, Reston, VA: Author http://www.nctm.org.

National Research Council (2001). *Knowing and Learning Mathematics for Teaching* Washington, D.C.: National Academy Press. http://www.nap.edu/catalog/10050.html

National Research Council (2001). *Educating Teachers of Science, Mathematics and Technology: New Practices for the New Millennium*. Washington, D.C.: National Academy Press. http://www.nap.edu/catalog/9832.html

Reeves, D. (2004). *The 90/90/90 schools: A case study* Accountability in action (Chapter 19). Available at http://www.makingstandardswork.com/Downloads/AinA%20Ch19.pdf

Schifter, D. (Ed.) (1996). *What's happening in math class? Reconstructing professional identities,* Vols. 1 & 2. New York: Teachers College Press.

Stronge, J.H. (2007). *Qualities of effective teachers.* Alexandria, VA: Association for Supervision and Curriculum Development.

Sutton, J. & Krueger, A. (Eds.) (2002). *EDThoughts: What we know about mathematics teaching and learning*. Aurora, CO: McREL

Tomlinson, C.A. (1999). *The differentiated classroom: Responding to the needs of all learners.* Alexandria, VA: ASCD

Wiggins, G. & McTighe, J. (2005). *Understanding by design.* Alexandria, VA: Association for Supervision and Curriculum Development.

Zemelman, S., Daniels, H., & Hyde, A. (2005). *Best practice: Today's standards for teaching and learning in America's schools*. Portsmouth, NH: Heinemann

ASSIGNMENTS, EVALUATION PROCEDURES, AND GRADING

Student performance will be evaluated through the use of projects, in-class presentations, tests, reflective logs, written analysis of classroom videos, peer and self-assessment, and content and pedagogical proficiency demonstrations.

Assignments:

1. **Pre-Number/Early Number Concepts Project** – This is a *partner project* with 5 parts.
   - Developing Young Children's Skills – Find an activity appropriate for developing young children's skills in **each** of the following areas: classification/sorting, patterns, and comparisons. For each activity, include a reflection on why you believe it will develop young children's skills in that area. Include source.
   - Conservation of Number – What is meant by conservation of number? Why is conservation of number a prerequisite to rational counting? How do you evaluate for conservation of number?
   - Number as an Attribute – Find and/or develop 1 activity to help students recognize number as an attribute of a set. Or, find an article on number as an attribute of a set. Write a summary and reflection of the article. For either choice, answer the following questions: what is meant

by number as an attribute? How do you determine when a child recognizes number as an attribute of a set?

- Benchmark Numbers of 5 and 10 – How do benchmark numbers help students develop number sense? How do benchmark numbers help students learn their basic facts? Select 3 numbers from 1 to 10 and describe the relationship of these numbers to the benchmarks of 5 and 10.
- Counting Strategies – Compare and contrast rote counting and rational counting. Include an example of each type of counting. Describe three different counting strategies – counting on, counting through 10, etc. Provide 1 activity to move children from one strategy to the next. (Course Objectives 1-6)

2. **GPS Investigation** –

Part I

- *With a partner*, examine the **Number & Operations** standards.
  - Examine your grade level as well as the previous and next grade levels. (Kindergarten should consider skills that are taught in Pre-K.)
  - Create a mini-vertical alignment of your findings.
- *Individually*, reflect on your alignment.
  - What concepts and skills are you building on from the previous grade?
  - How will you further develop these concepts and skills in your grade?
  - How will students be using what they learn in your classroom next year?
  - How will you incorporate the process standards into your teaching of number and operations?

Part II

- *With a partner*, examine the **Algebra** standards. *(Note: K-2 does not have a specific algebra strand. You will need to focus on the standards that are algebra-related.)*
  - Examine your grade level as well as the previous and next grade levels. (Kindergarten should consider skills that are taught in Pre-K.)
  - Create a mini-vertical alignment of your findings.
- *Individually*, reflect on your alignment.
  - What concepts and skills are you building on from the previous grade?
  - How will you further develop these concepts and skills in your grade?
  - How will students be using what they learn in your classroom next year?
  - How will you incorporate the process standards into your teaching of number and operations?

(Course Objectives 1-6)

3. **Lesson Plans** - Develop 8 lesson plans that may or may not be part of one unit for your grade level. At least one lesson plan representing the content from each of the GPS strands in this course (Number and Operations and Algebra) shall be included. The lesson plans must include the following:

- Strategies addressing diversity (gender, ethnicity, learning styles, etc.) to support full participation by all students;
- Appropriate use of technology, print and electronic resources, and manipulative and visual materials;
- Interdisciplinary activities and problem solving;
- Effective uses of student groupings such as peer teaching and collaborative grouping;
- Varied instructional strategies based on current research and local, state, and national standards; and
- Formative and summative assessments to determine student achievement.

(Course Objectives 1-6)

7. **Tests** – There will be two tests and a cumulative final exam during the semester. Course Objectives 1-6)

Note: The Mathematics Endorsement requires the completion of portfolio. The portfolio will include three sections describing or illustrating the candidate's effective implementation of appropriate content lessons (Section 1 – Content Implementation; Section 2 – Student Learning; and Section 3 – Technology Integration). The assignments that you complete in each class should be maintained throughout the endorsement program. The completed portfolio will be submitted in the Advanced Strategies course.

Evaluation Procedures:
Assignments will be graded by the course instructor, based on accuracy, completeness, and consistency with deadlines, as well as the guidelines distributed and/or discussed in class. Each assignment will be assigned a specific number of points. Failure to meet deadlines/guidelines for the assignments may result in a grade reduction.

Grading:

Assignments	Points Possible	Evaluation Tool
Pre-Number Project	50	Rubric
GPS Investigation – Numbers and Operations	25	Rubric
GPS Investigation – Algebra	25	Rubric
Lesson Plans	100	Rubric
Tests (2 @ 75 points; Final – 150)	300	Exam
Total Points	**500**	

Final grades will be distributed according to the following scale:

A = $450 \leq x \leq 500$

B = $400 \leq x < 450$

C = $350 \leq x < 400$

F = $x < 350$

CLASS, DEPARTMENT, AND UNIVERSITY POLICIES

Academic Honesty: All work completed in this course must be original work developed this semester. Students are expected to adhere to the highest standards of academic honesty. Plagiarism occurs when a student uses or purchases ghostwritten papers. It also occurs when a student utilizes ideas or information obtained from another person without giving credit to that person. If plagiarism or another act of academic dishonesty occurs, it will be dealt with in accordance with the academic misconduct policy as stated in the latest *Connection and Student Handbook* and the *Graduate Catalog.*

Attendance: Students are expected to attend all class, lab, and clinical experience sessions and are accountable for all materials covered. Course grades are reduced for absences and tardiness.

Disability: All students are provided with equal access to classes and materials, regardless of special needs, temporary or permanent disability, special needs related to pregnancy, etc. If you have any special learning needs, particularly (but not limited to) needs defined under the Americans with Disabilities Act, and require specific accommodations, please do not hesitate to make those known, either yourself or through the Coordinator of Disability Services. Students with documented special needs may expect accommodation in relation to classroom accessibility, modification of testing, special test administration, etc. For more information, please contact Disability Services at the University of West Georgia: http://www.westga.edu/studentDev/index_8884.php. Any student with a disability documented through Student Services is encouraged to contact the instructor right away so that appropriate accommodations may be arranged. In addition, certain accommodations (which will be discussed in class) are available to all students, within constraints of time and space.

Extra Credit: There is no extra credit available for this course.

Late Work: Late work is accepted at the discretion of the instructor. Students are responsible for all missed work and assignments due to absences. Points will be deducted for late work submissions.

Professional Conduct: Students are also expected to actively participate in class activities and discussions and conduct themselves professionally at all times. Course grades are reduced for failure to actively participate and maintain professional conduct.

Student Email Policy: University of West Georgia students are provided a MyUWG email account, which is the official means of communication between the University and student. It is the student's responsibility to check this email account for important University related information.

Class Outline (Tentative)

Class	Topic	Assignment Due
1	Course Introduction and Expectations	
2	Real Numbers and their Characteristics	
3	Factors and Multiples, GCF and LCM Even and Odd Numbers, Prime Numbers	
4	Divisibility Tests Mental Math	Lesson Plans 1-2
5	Properties of the Number System	GPS Investigation – Part I
6	Representing and Comparing Decimals and Fractions	
7	**Test 1**	Lesson Plans 3-4
8	Adding and Subtracting Rational Numbers	Pre-Number Project
9	Multiplying Rational Numbers	GPS Investigation – Part II
10	Dividing Rational Numbers	Lesson Plans 5-6
11	**Test 2**	
12	Ratio and Proportion	
13	Properties of Exponents Numerical and Algebraic Patterns and Sequences	
14	Numerical and Algebraic Expressions	Lesson Plans 7-8
15	Computing with Polynomials Equality and Equations	
16	**Final Exam**	

Course Update Request (Add, Delete, Modify)

Originator

Department	College	Originator
Early Learning and Childhood Educat	College of Education	Lewis, Barbara

Action

Add | Modify | Delete

Modifications

Prerequisites | Description | Title | Credit | See Comments

Course Details

Prefix	Number	Course Title
EDSE	7272	Physical Science for In-Service Elementary Teachers

This course is designed to reinforce and extend physical science concepts for elementary teachers such that they can then design instruction that is appropriate for elementary students. The course will address basic concepts of the physical sciences using investigative, problem solving instruction. Students will be involved in concept building through discussion, laboratory, and field based experiences. Data gathering, analysis, and presentation will be a part of each topic. Additional professional resources from current literature will augment the information provided from the text and classroom discussions.

Course Catalog Description

Lec Hrs	Lab Hrs	Credit Hrs	Effective Term	Frequency	Grading
3	0	3	Spring - 2012	Yearly	Letter Grade

Prerequisites

Corequisites

Rationale

This course supports the K-5 Science Endorsement. The K-5 Science Endorsement is designed to strengthen K-5 educators? ability to deliver science instruction effectively to all students. This course will reinforce and extend physical science concepts that educators can use to design instruction that is appropriate for K-5 students. Current research and literature related to the content, methodology, skills, and appropriate materials to explore various ways to engage K-5 students in learning life science will be used to ensure well-designed, intensive professional development which will have a direct impact on student learning.

Planning Info

Library Resources are Adequate

Library Resources Need Enhancement

Present or Projected Annual Enrollment: 30

Comments

College Approvals

Donna Harkins [APPROVED 2011-07-29]

Chair, Course Department

Dianne Hoff [APPROVED 2011-08-16]

Associate Dean, College of Education

Cross Listing Approvals

N/A

Chair, Cross Listed Department

N/A

Associate Dean, Cross Listed College

Other Approvals

Final Approval

Jon Anderson [REQUIRED]

Chair, Faculty Senate

EDSE7272 PHYSICAL SCIENCE FOR IN-SERVICE ELEMENTARY TEACHERS
(Elementary Science Endorsement Only)

Semester Hours: 3

Semester/Year:

Instructor:

Office:

Office Hours:

Telephone: Direct line:
Department:

E-mail:

CourseDen Home Page https://westga.view.usg.edu/
CourseDen Help & Troubleshooting http://www.westga.edu/~distance/webct1/help
Ingram Library Services http://westga.edu/~library/info/library.shtml
University Bookstore http://www.bookstore.westga.edu/
Georgia Department of Education: www.gadoe.org
Georgia Performance Standards: www.georgiastandards.org
National Science Education Standards: – www.nap.edu/html/nses/html

COURSE DESCRIPTION

This course is designed to reinforce and extend physical science concepts for elementary teachers such that they can then design instruction that is appropriate for elementary students. The course will address basic concepts of the physical sciences using investigative, problem solving instruction. Students will be involved in concept building through discussion, laboratory, and field based experiences. Data gathering, analysis, and presentation will be a part of each topic. Additional professional resources from current literature will augment the information provided from the text and classroom discussions.

CONCEPTUAL FRAMEWORK

The conceptual framework of the College of Education at UWG forms the basis on which programs, courses, experiences, and outcomes are created. With the goal of *Developing Exemplary Practitioners*, our programs incorporate ten descriptors, clustered into three interrelated and overlapping themes, that demonstrate our commitment to (a) Professional Excellence [knowledgeable, reflective, inquisitive]; (b) Field-Based Inquiry [decisive, adaptive, proactive, leading]; and (c) the Betterment of Society [collaborative, culturally sensitive, empathetic].. These themes and descriptors are integral components of the conceptual framework and provide the basis for developing exemplary practitioners who are prepared to improve

schools and communities. National Board for Professional Teaching Standards (NBPTS), National Science Education Standards (NSES), and National Science Teachers Association (NSTA) also are incorporated as criteria against which candidates are measured.

The mission of the College of Education is to provide excellence in the initial and advanced preparation of professionals for a variety of settings, to foster an innovative learning community, and to empower a faculty committed to teaching and the dissemination of knowledge. This course's objectives, activities, and assignments are related directly to the conceptual framework and national standards, as identified below.

APROACHES TO INSTRUCTION

This course will develop scientific and pedagogical knowledge base that reflects the spirit of the NSES and NSTA standards, diverse learning styles, multiple intelligences, and contributions of underrepresented groups and diverse cultures through the use of varied instructional strategies and methods including:

- guided discussion
- modeling and simulations
- cooperative and collaborative grouping student presentations and hands-on activities that actively engage students in the learning process.

OBJECTIVES

This program will prepare candidates who:

1. Describe and explain the properties by which substances are classified and organized;
   (Merkin, 1993; Pearce, 1999; Shipman, Todd, & Wilson, 2009).
   (Conceptual Framework Descriptors: Professional Excellence)
   (Standards: NBPTS, 2; NSES/NSTA, 1)

2. Explain and apply the Laws of Conservation of Matter and Energy;
   (Merkin, 1993; Pearce, 1999; Shipman, Todd, & Wilson, 2009).
   (Conceptual Framework Descriptors: Professional Excellence)
   (Standards: NBPTS, 2; NSES/NSTA, 1)

3. Explain the basics of the atomic theory, atomic structure, and the interaction of substances in various types of chemical reactions;
   (Merkin, 1993; Pearce, 1999; Shipman, Todd, & Wilson, 2009).
   (Conceptual Framework Descriptors: Professional Excellence)
   (Standards: NBPTS, 2; NSES/NSTA, 1)

4. Apply the laws of motion to describe the movement and position of objects;
   (Merkin, 1993; Pearce, 1999; Shipman, Todd, & Wilson, 2009).
   (Conceptual Framework Descriptors: Professional Excellence)
   (Standards: NBPTS, 2; NSES/NSTA, 1)

5. Explain electricity and the relationship between electricity and magnetism;
   (Merkin, 1993; Pearce, 1999; Shipman, Todd, & Wilson, 2009).
   (Conceptual Framework Descriptors: Professional Excellence)
   (Standards: NBPTS, 2; NSES/NSTA, 1)

6. Explain the properties of light and sound; and
   (Merkin, 1993; Pearce, 1999; Shipman, Todd, & Wilson, 2009).
   (Conceptual Framework Descriptors: Professional Excellence)
   (Standards: NBPTS, 2; NSES/NSTA, 1)

7. Explain how heat is produced, transferred, and measured.
   (Merkin, 1993; Pearce, 1999; Shipman, Todd, & Wilson, 2009).
   (Conceptual Framework Descriptors: Professional Excellence)
   (Standards: NBPTS, 2; NSES/NSTA, 1)

In relation to Objectives 1-7, will

8. apply the concepts of system, order, and organization in their exploration and explanation of concepts;
   (Merkin, 1993; Pearce, 1999; Shipman, Todd, & Wilson, 2009).
   (Conceptual Framework Descriptors: Professional Excellence)
   (Standards: NBPTS, 2; NSES/NSTA, 5)

9. use data gathered from investigations to provide evidence and explanation for conclusions drawn from the data;
   (Merkin, 1993; Pearce, 1999; Shipman, Todd, & Wilson, 2009).
   (Conceptual Framework Descriptors: Professional Excellence)
   (Standards: NBPTS, 2; NSES/NSTA, 5)

10. recognize misconceptions or misinterpretations of data in their own work and that of others, including literature and popular media;
    (Merkin, 1993; Pearce, 1999; Shipman, Todd, & Wilson, 2009).
    (Conceptual Framework Descriptors: Professional Excellence)
    (Standards: NBPTS, 2; NSES/NSTA, 5)

11. recognize evidences of constancy, change, evolution, and equilibrium within the various systems of earth and space;
    (Merkin, 1993; Pearce, 1999; Shipman, Todd, & Wilson, 2009).
    (Conceptual Framework Descriptors: Professional Excellence)
    (Standards: NBPTS, 2; NSES/NSTA, 5)

12. apply various means for and recognize the need for quantitative measurements in scientific investigations;
    (Merkin, 1993; Pearce, 1999; Shipman, Todd, & Wilson, 2009).
    (Conceptual Framework Descriptors: Professional Excellence)
    (Standards: NBPTS, 2; NSES/NSTA, 5)

13. recognize and provide examples of how form and function are related in various systems;
    (Merkin, 1993; Pearce, 1999; Shipman, Todd, & Wilson, 2009).

(Conceptual Framework Descriptors: Professional Excellence)
(Standards: NBPTS, 2; NSES/NSTA, 5)

14. demonstrate the nature of science and habits of mind of a scientist during investigations and the ability to embed these in their instructional plans for students; and
(Merkin, 1993; Pearce, 1999; Shipman, Todd, & Wilson, 2009).
(Conceptual Framework Descriptors: Professional Excellence)
(Standards: NBPTS, 2; NSES/NSTA, 3)

15. show awareness of current science applications in "real world" situations.
(Merkin, 1993; Pearce, 1999; Shipman, Todd, & Wilson, 2009).
(Conceptual Framework Descriptors: Professional Excellence)
(Standards: NBPTS, 2; NSES/NSTA, 2)

TEXTS, READINGS, AND INSTRUCTIONAL RESOURCES

Required Text: Tillery, Bill (2011). *Physical Science* (9th ed.). New York: McGraw-Hill

Recommended for Additional Reading:

Pearce, C. R. (1999). *Nurturing inquiry: Real science for the elementary classroom.* Portsmouth, NH: Heinemann.

National Research Council. (2000). *Inquiry and the national science education standards: A guide for teaching and learning.* Washington, D.C.: National Academy Press.

National Research Council. (1996). *National science education standards.* Washington, D.C.: National Academy Press.

Recommended Websites:

Georgia Department of Education – www.doe.k12.ga.us
Georgia Performance Standards – www.gcorgiastandards.org
National Science Education Standards- www.nap.edu/html/nses/html/
National Science Teachers Association – www.nsta.org
Georgia Science Teachers Association – www.georgiascienceteacher.org

References:

Merken, M. (1993). *Physical science with modern applications,* 5th edition. Philadelphia :Saunders College.

Shipman, J., Todd, A., & Wilson, J. D. (2009). *An Introduction to Physical Science,* 12th edition. St. Paul, MN : Brooks/Cole Publishing Co.

ASSIGNMENTS, EVALUATION PROCEDURES, AND GRADING POLICY

1. **Text Assignments**. Submit as assigned to complement work done in class.
(Objectives 1- 15)
Points: 100

2. **Assigned readings from professional literature**
(Objectives 1- 15)
Points: 100

3. **Reports of Laboratory Investigations**. Selected investigations will be reported and analyzed in written, diagrammatic, or technical format.
(Objectives 1- 15)
Points: 200

4. **Midterm Examination**. Comprehensive over course material to the midpoint.
(Objectives 1 – 3, and 8-15)
Points: 200

5. **Final Examination**. Comprehensive over all course material.
(Objectives 1 – 15)
Points: 200

6. **Participation and Dispositions**. Regular attendance, being in class on time, and active participation are expected.
(Objectives 1- 15)
Points: 100

SUMMARY OF ASSIGNMENTS, EVALUTIONS, AND GRADING

Assignment	Points	Evaluation Method	Points Earned
Text Assignments	100	Checklist/Points	
Professional Literature	100	Checklist	
Reports of Laboratory Investigations	200	Rubric	
Midterm Examination	200	Points	
Final Examination	200	Points	
Attendance/Participation	100	Attendance Record/Observations	
Total No. of Points	**1000**		

Grading Policy: Total Course Points = 1000

A = 900-1000 pts B = 800-899 pts C = 700-799 pts F = less than 700 pts

CLASS, DEPARTMENT, AND UNIVERSITY POLICIES

Academic Honesty: All work completed in this course must be original work developed this semester. Students are expected to adhere to the highest standards of academic honesty. Plagiarism occurs when a student uses or purchases ghostwritten papers. It also occurs when a student utilizes ideas or information obtained from another person without giving credit to that person. If plagiarism or

another act of academic dishonesty occurs, it will be dealt with in accordance with the academic misconduct policy as stated in the latest *Connection and Student Handbook* and the *Graduate Catalog*.

Attendance/Participation: It is imperative that you attend and participate in all classes. A portion of your course grade is based on participation. Absences that are not excused* will result in a 5 points per absence deduction from your participation points. Each tardy in excess of 15 minutes will result in a 5 point deduction from your participation points.

***Personal or immediate family (spouse, children) illness, or death in immediate family is the only excused absences. A DOCTOR'S NOTE OR FUNERAL PROGRAM MUST BE PRESENTED TO YOUR PROFESSOR UPON YOUR RETURN TO CLASS. WORK DUE ON THE DATE OF AN ABSENCE CANNOT BE MADE UP IF NEITHER OF THE PREVIOUSLY MENTIONED ITEMS IS PRESENTED.**

Disability: All students are provided with equal access to classes and materials, regardless of special needs, temporary or permanent disability, special needs related to pregnancy, etc. If you have any special learning needs, particularly (but not limited to) needs defined under the Americans with Disabilities Act, and require specific accommodations, please do not hesitate to make those known, either yourself or through the Coordinator of Disability Services. Students with documented special needs may expect accommodation in relation to classroom accessibility, modification of testing, special test administration, etc. For more information, please contact Disability Services at the University of West Georgia: http://www.westga.edu/studentDev/index_8884.php. Any student with a disability documented through Student Services is encouraged to contact the instructor right away so that appropriate accommodations may be arranged. In addition, certain accommodations (which will be discussed in class) are available to all students, within constraints of time and space.

Submitting Assignments. All written assignments should be word processed. Use standard one inch margins and a 10 or 12 point standard font (i.e. Times New Roman). Guidelines for line spacing may be given for particular assignments, but if not specified, one and one half or double spacing should be used. **Include a header with your name, title of the assignment, and page numbers on all papers.**

Extra Credit: There is no provision in this course for extra credit nor will any work from other courses substitute for assignments.

Late Work: Students are expected to submit assignments on the due date. If you have any type of difficulty with the assignment, contact the professor as soon as possible **before** the assignment is due. If an assignment is late and there has been no prior contact with the professor, a 10% grade reduction can be assigned.

Professional Conduct: Students are expected to conduct themselves in a professional manner. This is an essential quality for all professionals who will be working in schools. Professionalism includes, but is not limited to the following behaviors: a) Collaborating and working equitably with classmates,
b) participating in interactions and class activities in a positive manner, c) turning in assignments on time, d)arriving to and leaving class punctually, e) treating all individuals with respect in and out of the classroom in any type of communication, including emails., and f) eliminating

interruptions in class including cell phones, beepers, talking out of turn or while others are talking, etc. (**Please keep all cell phones and other communications devices silenced during class.**)

The primary responsibility for managing the classroom environment rests with the faculty. Students who engage in any prohibited or unlawful acts that result in the disruption of a class may be directed by the faculty member to leave the class for the remainder of the class period. Longer suspensions from the class, or dismissal on disciplinary grounds, must be proceeded by a disciplinary action or hearing as provided for in the University of West Georgia Student Handbook.

The term "prohibited acts" includes behavior prohibited by the instructor verbally (e.g. no smoking, no eating; speaking without being called on, refusing to be seated or refusal to change seats when directed by the instructor, refusing to leave when directed, or leaving or entering the room without authorization) or contained in the syllabus (e.g. tardiness, absenteeism, cell-phones). This provision is not intended to be used as a means to punish classroom dissent or for open discourse of ideas. The lawful expression of a disagreement with the teacher is not in itself "disruptive" behavior.

Student Email Policy: University of West Georgia students are provided a MyUWG email account, which is the official means of communication between the University and the student. It is the student's responsibility to check this email account for important University related information. **For this course all communications will be through CourseDen email. You should check it frequently in case there are communications that you need regarding the class.**

COURSE SCHEDULE

Week	Date	What I Need to Do for Class This Week	Class Activities This Week
1		Review syllabus	Introductions; discuss syllabus; What is matter?
2		Text assignment; quiz	Particle nature of matter; solids, liquids, gases
3		Article summary; lab report	Physical changes; conservation of matter
4		Text assignment; quiz	Physical changes; conservation of matter
5		Article summary; lab report	Chemical change; conservation of matter
6		Text assignment; quiz	Chemical change; conservation of matter
7		Article summary; lab report	Midterm examination;
8		Text assignment; quiz	Laws of motion and movement of objects
9		Article summary; lab report	Laws of motion and movement of objects
10		Text assignment; quiz	Heat production and transfer; measurement of heat
11		Article summary; lab report	Properties and measurement of sound
12		Text assignment; quiz	Properties and measurement of light
13		Article summary; lab report	Electricity and magnetism
14		Text assignment; quiz	Electricity and magnetism
15		Prepare for final exam	Review
16		Final exam	

Course Update Request (Add, Delete, Modify)

Originator

Department	College	Originator
Early Learning and Childhood Educat	College of Education	Lewis, Barbara

Action

Add | Modify | Delete

Modifications

Prerequisites | Description | Title | Credit | See Comments

Course Details

Prefix	Number	Course Title
EDSE	7273	Earth and Space Science for In-Service Elementary Tea

This course is designed to reinforce and extend earth science concepts for elementary teachers such that they can then design instruction that is appropriate for elementary students. The course will address basic concepts of the earth sciences using investigative, problem solving instruction. Students will be involved in concept building through discussion, laboratory, and field based experiences. Data gathering, analysis, and presentation will be a part of each topic. Additional professional resources from current literature will augment the information provided from the text and classroom discussions.

Course Catalog Description

Lec Hrs	Lab Hrs	Credit Hrs	Effective Term	Frequency	Grading
3	0	3	Spring - 2012	Yearly	Letter Grade

Prerequisites

Corequisites

Rationale

This course supports the K-5 Science Endorsement. The K-5 Science Endorsement is designed to strengthen K-5 educators? ability to deliver science instruction effectively to all students. This course will reinforce and extend earth and space science concepts that educators can use to design instruction that is appropriate for K-5 students. Current research and literature related to the content, methodology, skills, and appropriate materials to explore various ways to engage K-5 students in learning life science will be used to ensure well-designed, intensive professional development which will have a direct impact on student learning.

Planning Info

Library Resources are Adequate

Library Resources Need Enhancement

Present or Projected Annual Enrollment: 30

Comments

College Approvals

Donna Harkins [APPROVED 2011-07-29]
Chair, Course Department

Dianne Hoff [APPROVED 2011-08-16]
Associate Dean, College of Education

Cross-Listing Approvals

N/A
Chair, Cross Listed Department

N/A
Associate Dean, Cross Listed College

Other Approvals

Final Approval

Jon Anderson [REQUIRED]

Chair, Faculty Senate

EDSE 7273 EARTH AND SPACE SCIENCE FOR IN-SERVICE ELEMENTARY TEACHERS
(Elementary Science Endorsement Only)

Semester Hours: 3

Semester/Year:

Instructor:

Office:

Office Hours:

Telephone: Direct line
Department line

Fax:

E-mail:

CourseDen Home Page https://westga.view.usg.edu/
CourseDen Help & Troubleshooting http://www.westga.edu/~distance/webct1/help
Ingram Library Services http://westga.edu/~library/info/library.shtml
University Bookstore http://www.bookstore.westga.edu/
Georgia Department of Education: www.gadoe.org
Georgia Performance Standards: www.georgiastandards.org
National Science Education Standards: – www.nap.edu/html/nses/html

COURSE DESCRIPTION

This course is designed to reinforce and extend earth science concepts for elementary teachers such that they can then design instruction that is appropriate for elementary students. The course will address basic concepts of the earth sciences using investigative, problem solving instruction. Students will be involved in concept building through discussion, laboratory, and field based experiences. Data gathering, analysis, and presentation will be a part of each topic. Additional professional resources from current literature will augment the information provided from the text and classroom discussions.

CONCEPTUAL FRAMEWORK

The conceptual framework of the College of Education at UWG forms the basis on which programs, courses, experiences, and outcomes are created. With the goal of Developing Exemplary Practitioners, our programs incorporate ten descriptors, clustered into three interrelated and overlapping themes, that demonstrate our commitment to (a) Professional Excellence [knowledgeable, reflective, inquisitive]; (b) Field-Based Inquiry [decisive, adaptive,

proactive, leading]; and (c) the Betterment of Society [collaborative, culturally sensitive, empathetic].. These themes and descriptors are integral components of the conceptual framework and provide the basis for developing exemplary practitioners who are prepared to improve schools and communities. National Board for Professional Teaching Standards (NBPTS), National Science Education Standards (NSES), and National Science Teachers Association (NSTA) also are incorporated as criteria against which candidates are measured.

The mission of the College of Education is to provide excellence in the initial and advanced preparation of professionals for a variety of settings, to foster an innovative learning community, and to empower a faculty committed to teaching and the dissemination of knowledge. This course's objectives, activities, and assignments are related directly to the conceptual framework and national standards, as identified below.

OBJECTIVES

This program will prepare candidates who:

1. Describe and explain the properties by which earth materials are classified and organized;
   (Murphy & Nance, 1998; Thomson, 2007)
   (Conceptual Framework Descriptors: Professional Excellence)
   (Standards: NBPTS, 2; NSES/NSTA, 1)

2. Describe and model the structure of the earth, including its evolutionary history;
   (Murphy & Nance, 1998; Thomson, 2007)
   (Conceptual Framework Descriptors: Professional Excellence)
   (Standards: NBPTS, 2; NSES/NSTA, 1)

3. Describe, explain causes for, and effects of various constructive and destructive changes that occur in the earth;
   (Murphy & Nance, 1998; Thomson, 2007)
   (Conceptual Framework Descriptors: Professional Excellence)
   (Standards: NBPTS, 2; NSES/NSTA, 1)

4. Describe the structure and motions of the earth and moon as part of the solar system and the effects of these motions on conditions and events on earth; and
   (Murphy & Nance, 1998; Thomson, 2007)
   (Conceptual Framework Descriptors: Professional Excellence)
   (Standards: NBPTS, 2; NSES/NSTA, 1)

5. Relate the earth system to other objects and systems outside the solar system and to the patterns of continual change within these systems;
   (Murphy & Nance, 1998; Thomson, 2007)
   (Conceptual Framework Descriptors: Professional Excellence)
   (Standards: NBPTS, 2; NSES/NSTA, 1)

In conjunction with Objectives 1-5 will:

6. apply the concepts of system, order, and organization in their exploration and explanation of concepts;
   (Murphy & Nance, 1998; Thomson, 2007)
   (Conceptual Framework Descriptors: Professional Excellence)
   (Standards: NBPTS, 2; NSES/NSTA, 5)

7. use data gathered from investigations to provide evidence and explanation for conclusions drawn from the data;
   (Murphy & Nance, 1998; Thomson, 2007)
   (Conceptual Framework Descriptors: Professional Excellence)
   (Standards: NBPTS, 2; NSES/NSTA, 5)

8. recognize misconceptions or misinterpretations of data in their own work and that of others, including literature and popular media;
   (Murphy & Nance, 1998; Thomson, 2007)
   (Conceptual Framework Descriptors: Professional Excellence)
   (Standards: NBPTS, 2; NSES/NSTA, 5)

9. recognize evidences of constancy, change, evolution, and equilibrium within the various systems of earth and space;
   (Murphy & Nance, 1998; Thomson, 2007)
   (Conceptual Framework Descriptors: Professional Excellence)
   (Standards: NBPTS, 2; NSES/NSTA, 5)

10. apply various means for and recognize the need for quantitative measurements in scientific investigations;
    (Murphy & Nance, 1998; Thomson, 2007)
    (Conceptual Framework Descriptors: Professional Excellence)
    (Standards: NBPTS, 2; NSES/NSTA, 5)

11. recognize and provide examples of how form and function are related in various systems;
    (Murphy & Nance, 1998; Thomson, 2007)
    (Conceptual Framework Descriptors: Professional Excellence)
    (Standards: NBPTS, 2; NSES/NSTA, 5)

12. demonstrate the nature of science and habits of mind of a scientist during investigations and the ability to embed these in their instructional plans for students; and
    (Murphy & Nance, 1998; Thomson, 2007)
    (Conceptual Framework Descriptors: Professional Excellence)
    (Standards: NBPTS, 2; NSES/NSTA, 3)

13. show awareness of current science applications in "real world" situations.
    (Murphy & Nance, 1998; Thomson, 2007)
    (Conceptual Framework Descriptors: Professional Excellence)
    (Standards: NBPTS, 2; NSES/NSTA, 2)

TEXTS, READINGS, AND INSTRUCTIONAL RESOURCES

Required Text:

Tarbuck, E. J., Lutgens, F. K., & Tasa, D. (2011). *Earth Science* (13th ed.).. Upper Saddle River, NJ : Prentice Hall.

Recommended for Additional Reading:

Pearce, C. R. (1999). *Nurturing inquiry: Real science for the elementary classroom.* Portsmouth, NH: Heinemann.

National Research Council. (2000). *Inquiry and the national science education standards: A guide for teaching and learning.* Washington, D.C.: National Academy Press.

National Research Council. (1996). *National science education standards.* Washington, D.C.: National Academy (Press.

Recommended Websites:

Georgia Department of Education – www.doe.k12.ga.us
Georgia Performance Standards – www.georgiastandards.org
National Science Education Standards- www.nap.edu/html/nses/html/
National Science Teachers Association – www.nsta.org
Georgia Science Teachers Association – www.georgiascienceteacher.org

References:

Thomson, J.M.T. (2007). *Advances in Earth Science: From Earthquakes to Global Warming.* London: Imperial College Press

Murphy, B., & Nance, D. (1998). Earth *Science Today.* St. Paul, MN: Brooks/Cole Publishing Co.

ASSIGNMENTS, EVALUATION PROCEDURES, AND GRADING POLICY

1. **Text Assignments**. Submit as assigned to complement work done in class.
   (Objectives 1-12)
   Points: 100

2. **Assigned readings from professional literature**
   (Objectives 1-12)
   Points: 100

3. **Reports of Laboratory Investigations**. Selected investigations will be reported and analyzed in written, diagrammatic, or technical format.
   (Objectives 1-12)
   Points: 200

4. **Midterm Examination**. Comprehensive over course material to the midpoint.
   (Objectives 1 – 3, 6-12)
   Points: 200

5. **Final Examination**. Comprehensive over all course material.
(Objectives 1 –12)
Points: 200

6. **Participation and Dispositions**. Regular attendance, being in class on time, and active participation are expected.
(Objectives 1-12)
Points: 100

SUMMARY OF ASSIGNMENTS, EVALUTIONS, AND GRADING

Assignment	Points	Evaluation Method	Points Earned
Text Assignments	100	Checklist/Points	
Professional Literature	100	Checklist	
Reports of Laboratory Investigations	200	Rubric	
Midterm Examination	200	Points	
Final Examination	200	Points	
Attendance/Participation	100	Attendance Record/ Observations	
Total No. of Points	**1000**		

Grading Policy: Total Course Points = 1000

A = 900-1000 pts B = 800-899 pts C = 700-799 pts F = less than 700 pts

CLASS, DEPARTMENT, AND UNIVERSITY POLICIES

Academic Honesty: All work completed in this course must be original work developed this semester. Students are expected to adhere to the highest standards of academic honesty. Plagiarism occurs when a student uses or purchases ghostwritten papers. It also occurs when a student utilizes ideas or information obtained from another person without giving credit to that person. If plagiarism or another act of academic dishonesty occurs, it will be dealt with in accordance with the academic misconduct policy as stated in the latest *Connection and Student Handbook* and the *Graduate Catalog*.

Attendance/Participation: It is imperative that you attend and participate in all classes. A portion of your course grade is based on participation. Absences that are not excused* will result in a 5 points per absence deduction from your participation points. Each tardy in excess of 15 minutes will result in a 5 point deduction from your participation points.

***Personal or immediate family (spouse, children) illness, or death in immediate family is the only excused absences. A DOCTOR'S NOTE OR FUNERAL PROGRAM MUST BE PRESENTED TO YOUR PROFESSOR UPON YOUR RETURN TO CLASS. WORK DUE ON THE DATE OF AN ABSENCE CANNOT BE MADE UP IF NEITHER OF THE PREVIOUSLY MENTIONED ITEMS IS PRESENTED.**

Disability: All students are provided with equal access to classes and materials, regardless of special needs, temporary or permanent disability, special needs related to pregnancy, etc. If you have any special learning needs, particularly (but not limited to) needs defined under the Americans with Disabilities Act, and require specific accommodations, please do not hesitate to make those known, either yourself or through the Coordinator of Disability Services. Students with documented special needs may expect accommodation in relation to classroom accessibility, modification of testing, special test administration, etc. For more information, please contact Disability Services at the University of West Georgia: http://www.westga.edu/studentDev/index_8884.php. Any student with a disability documented through Student Services is encouraged to contact the instructor right away so that appropriate accommodations may be arranged. In addition, certain accommodations (which will be discussed in class) are available to all students, within constraints of time and space.

Submitting Assignments. All written assignments should be word processed. Use standard one inch margins and a 10 or 12 point standard font (i.e. Times New Roman). Guidelines for line spacing may be given for particular assignments, but if not specified, one and one half or double spacing should be used. **Include a header with your name, title of the assignment, and page numbers on all papers.**

Extra Credit: There is no provision in this course for extra credit nor will any work from other courses substitute for assignments.

Late Work: Students are expected to submit assignments on the due date. If you have any type of difficulty with the assignment, contact the professor as soon as possible **before** the assignment is due. If an assignment is late and there has been no prior contact with the professor, a 10% grade reduction can be assigned.

Professional Conduct: Students are expected to conduct themselves in a professional manner. This is an essential quality for all professionals who will be working in schools. Professionalism includes, but is not limited to the following behaviors: a) Collaborating and working equitably with classmates,
b) participating in interactions and class activities in a positive manner, c) turning in assignments on time, d)arriving to and leaving class punctually, e) treating all individuals with respect in and out of the classroom in any type of communication, including emails., and f) eliminating interruptions in class including cell phones, beepers, talking out of turn or while others are talking, etc. **(Please keep all cell phones and other communications devices silenced during class.)**

The primary responsibility for managing the classroom environment rests with the faculty. Students who engage in any prohibited or unlawful acts that result in the disruption of a class may be directed by the faculty member to leave the class for the remainder of the class period. Longer suspensions from the class, or dismissal on disciplinary grounds, must be proceeded by a

disciplinary action or hearing as provided for in the University of West Georgia Student Handbook.

The term "prohibited acts" includes behavior prohibited by the instructor verbally (e.g. no smoking, no eating; speaking without being called on, refusing to be seated or refusal to change seats when directed by the instructor, refusing to leave when directed, or leaving or entering the room without authorization) or contained in the syllabus (e.g. tardiness, absenteeism, cell-phones). This provision is not intended to be used as a means to punish classroom dissent or for open discourse of ideas. The lawful expression of a disagreement with the teacher is not in itself "disruptive" behavior.

Student Email Policy: University of West Georgia students are provided a MyUWG email account, which is the official means of communication between the University and the student. It is the student's responsibility to check this email account for important University related information. **For this course all communications will be through CourseDen email. You should check it frequently in case there are communications that you need regarding the class.**

COURSE SCHEDULE

Week	Date	What I Need to Do for Class This Week	Class Activities This Week
1		Review syllabus	Introductions; review of syllabus; intro to earth in space, evolutionary history of universe
2		Text assignment; quiz	Earth materials – geological concepts
3		Article summary; lab report	Earth materials - geological concepts
4		Text assignment; quiz	Earth materials – atmospheric concepts
5		Article summary; lab report	Earth materials – atmospheric concepts
6		Text assignment; quiz	Earth materials – hydrological concepts
7		Article summary; lab report	Earth materials –hydrological concepts
8		Prepare for midterm	Midterm Examination
9		Text assignment; quiz	Constructive forces in and on the earth
10		Article summary; lab report	Destructive forces in and on the earth
11		Text assignment; quiz	Sun - earth – moon system; effects of relative motions
12		Article summary; lab report	Earth in the solar system
13		Text assignment; quiz	Long term historical and predicted changes in earth systems
14		Article summary; lab report	Systems and events beyond the solar system
15		Prepare for final exam	Review
16		Final Examination	

Course Update Request (Add, Delete, Modify)

Originator

Department	College	Originator
Early Learning and Childhood Educat	College of Education	Lewis, Barbara

Action

Add | Modify | Delete

Modifications

Prerequisites | Description | Title | Credit | See Comments

Course Details

Prefix	Number	Course Title
EDSE	7274	Pedagog Strat & Residen Require for Inquiry-Based Ele

Candidates will use current research and literature related to the content, methodology, skills, and appropriate materials to explore various ways to engage P-5 children in learning life, earth, and physical sciences. Instructional approaches will be based on the premises that all students can learn science and that effective science learning occurs when students utilize the various processes of science. Candidates will initially engage in peer teaching accompanied by collaborative feedback and self-reflections. Through this course candidates will also develop and complete the ?authentic residency? requirements for completion of the K-5 Science Endorsement as described in PSC Rule 505-3.69. The residency requirements include a supervised and coordinated series of real applications of the knowledge and skills in actual classroom settings that allow further development and demonstration of the knowledge and skills acquired in coursework. These requirements must be met in the candidate?s classroom and in other settings to ensure experiences with diverse students within the grade levels of the candidate?s base certificate. The residency requirement also includes development of a portfolio which will include, but not be limited to: sample lesson plans, supervisors? observations, student work samples indicating the application of various instructional strategies (including technology), and self-reflections. Completion of or taken concurrently with: EDSE 7271 Life Science for In-Service Elementary Teachers EDSE 7272 Physical Science for In-Service Elementary Teachers EDSE 7273 Earth and Space Science For In-Service Elementary Teachers

Course Catalog Description

Lec Hrs	Lab Hrs	Credit Hrs	Effective Term	Frequency	Grading
1-3	0	1-3	Spring - 2012	Yearly	Letter Grade

Prerequisites

Corequisites

Completion of or taken concurrently with:
EDSE 7271 Life Science for In-Service

Rationale

This course supports the K-5 Science Endorsement. The K-5 Science Endorsement is designed to strengthen K-5 educators? ability to deliver science instruction effectively to all students. This course will reinforce and the premise that all students can learn science and that effective science learning occurs when students utilize the various processes of science. In addition, this course will also satisfy the Professional Standards Commission (PSC) authentic residency requirement. Current research and literature related to the content, methodology, skills, and appropriate materials to explore various ways to engage K-5 students in learning science will be used to ensure well-designed, intensive professional development which will have a direct impact on student learning.

Planning Info

Library Resources are Adequate

Library Resources Need Enhancement

Present or Projected Annual Enrollment: 30

Comments

Title too large for space allotment. It is abbreviated. Refer to attachment for full title.

College Approvals

Donna Harkins [APPROVED 2011-07-29]

Chair, Course Department

Cross Listing Approvals

N/A

Chair, Cross Listed Department

Dianne Hoff [APPROVED 2011-08-16]

Associate Dean, College of Education

N/A

Associate Dean, Cross Listed College

Other Approvals

Final Approval

Jon Anderson [REQUIRED]

Chair, Faculty Senate

EDSE 7274 PEDAGOGICAL STRATEGIES and RESIDENCY REQUIREMENTS FOR INQUIRY-BASED ELEMENTARY SCIENCE INSTRUCTION
(Elementary Science Endorsement Only)

Semester Hours: 1-3 (May be repeated for credit)

Semester/Year:

Instructor:

Office:

Office Hours:

Telephone: Direct line
Department line

Fax:

E-mail:

CourseDen Home Page https://westga.view.usg.edu/
CourseDen Help & Troubleshooting http://www.westga.edu/~distance/webct1/help
Ingram Library Services http://westga.edu/~library/info/library.shtml
University Bookstore http://www.bookstore.westga.edu/
Georgia Department of Education: www.gadoe.org
Georgia Performance Standards: www.georgiastandards.org
National Science Education Standards: – www.nap.edu/html/nses/html

COURSE DESCRIPTION

Candidates will use current research and literature related to the content, methodology, skills, and appropriate materials to explore various ways to engage P-5 children in learning life, earth, and physical sciences. Instructional approaches will be based on the premises that *all students can learn science* and that *effective science learning occurs when students utilize the various processes of science.* Candidates will initially engage in peer teaching accompanied by collaborative feedback and self-reflections. Through this course candidates will also develop and complete the "authentic residency" requirements for completion of the K-5 Science Endorsement as described in PSC Rule 505-3.69. The residency requirements include a supervised and coordinated series of real applications of the knowledge and skills in actual classroom settings that allow further development and demonstration of the knowledge and skills acquired in coursework. These requirements must be met in the candidate's classroom and in other settings to ensure experiences with diverse students within the grade levels of the candidate's base certificate. The residency requirement also includes development of a portfolio which will include, but not be limited to: sample lesson plans, supervisors' observations, student work samples indicating the application of various instructional strategies (including technology), and self-reflections.

Completion of or taken concurrently with :

EDSE 7271 Life Science for In-Service Elementary Teachers
EDSE 7272 Physical Science for In-Service Elementary Teachers
EDSE 7273 Earth and Space Science For In-Service Elementary Teachers

CONCEPTUAL FRAMEWORK

The conceptual framework of the College of Education at UWG forms the basis on which programs, courses, experiences, and outcomes are created. With the goal of Developing Exemplary Practitioners, our programs incorporate ten descriptors, clustered into three interrelated and overlapping themes, that demonstrate our commitment to (a) Professional Excellence [knowledgeable, reflective, inquisitive]; (b) Field-Based Inquiry [decisive, adaptive, proactive, leading]; and (c) the Betterment of Society [collaborative, culturally sensitive, empathetic].. These themes and descriptors are integral components of the conceptual framework and provide the basis for developing exemplary practitioners who are prepared to improve schools and communities. National Board for Professional Teaching Standards (NBPTS), National Science Education Standards (NSES), and National Science Teachers Association (NSTA) also are incorporated as criteria against which candidates are measured.

The mission of the College of Education is to provide excellence in the initial and advanced preparation of professionals for a variety of settings, to foster an innovative learning community, and to empower a faculty committed to teaching and the dissemination of knowledge. This course's objectives, activities, and assignments are related directly to the conceptual framework and national standards, as identified below.

OBJECTIVES

This program will prepare candidates who:

1. Apply the concepts of constructivism, inquiry in standards based science lessons that engage *all* students in the development of science concepts and in describing how science relates to their daily lives and the exploration of the world around them;
   (Abruscato, 2001; Barba, 1998; Martin, Sexton, & Gerlovich, 2002).
   (Conceptual Framework Descriptors: Professional Excellence, Field-Based Inquiry, Betterment of Society)
   (Standards: NBPTS, 1, 3, 4; NSES/NSTA, 5, 7)

2. Relate science to other areas of human endeavor by integrating science with other disciplines and by utilizing resources in the community beyond the school;
   (Abruscato, 2001; Barba, 1998; Martin, Sexton, & Gerlovich, 2002).
   (Conceptual Framework Descriptors: Professional Excellence, Field-Based Inquiry, Betterment of Society)
   (Standards: NBPTS, 5; NSES/NSTA, 5, 7)

3. Use and plan for student use of a various forms of technology to help locate information, collect and analyze data, and to communicate results of investigations;
(Abruscato, 2001; Barba, 1998; Martin, Sexton, & Gerlovich, 2002).
(Conceptual Framework Descriptors: Professional Excellence, Field-Based Inquiry, Betterment of Society)
(Standards: NBPTS, 1, 3, 4; NSES/NSTA, 3, 5)

4. Plan, develop, and use a variety of authentic assessments, appropriate evaluative methods, and varied instructional strategies that reflect the student actions indicated by the standards;
(Abruscato, 2001; Barba, 1998; Martin, Sexton, & Gerlovich, 2002).
(Conceptual Framework Descriptors: Professional Excellence, Field-Based Inquiry, Betterment of Society)
(Standards: NBPTS, 3; NSES/NSTA 8)

5. Develop and implement plans that provide for a physically, psychologically, socially, and ethically safe environment in which students can engage in science and can relate what is learned to other areas of human endeavor;
(Abruscato, 2001; Barba, 1998; Martin, Sexton, & Gerlovich, 2002).
(Conceptual Framework Descriptors: Professional Excellence, Field-Based Inquiry, Betterment of Society)
(Standards: NBPTS, 1, 3, 4; NSES/NSTA, 4, 7)

6. Effectively teach science lessons to at least two different grades (K-5) representing diverse types of students; and
(Abruscato, 2001; Barba, 1998; Martin, Sexton, & Gerlovich, 2002).
(Conceptual Framework Descriptors: Professional Excellence, Field-Based Inquiry, Betterment of Society)
(Standards: NBPTS, 1, 3, 4; NSES/NSTA, 1-9)

7. Develop a record (portfolio) that chronicles the work that demonstrates teaching abilities, documents supervisors' critiques, student work, evaluation of student work, ways in which students are engaged with technology, self-reflections, and contributions to the professional community.
(Abruscato, 2001; Barba, 1998; Martin, Sexton, & Gerlovich, 2002).
(Conceptual Framework Descriptors: Professional Excellence, Field-Based Inquiry, Betterment of Society)
(Standards: NBPTS, 1, 3, 4; NSES/NSTA, 10)

TEXTS, READINGS, AND INSTRUCTIONAL RESOURCES

Required Text:

Martin, R., Sexton, C., Franklin, T., Gerlovich, J., & McElroy, D. (2011). *Teaching science for all children: An inquiry approach*. Boston: Allyn and Bacon.

Recommended for Additional Reading:

Pearce, C. R. (1999). *Nurturing inquiry: Real science for the elementary classroom*. Portsmouth, NH: Heinemann.

National Research Council. (2000). *Inquiry and the national science education standards: A guide for teaching and learning*. Washington, D.C.: National Academy Press.

National Research Council. (1996). *National science education standards*. Washington, D.C.: National Academy Press.

Recommended Websites:

Georgia Department of Education – www.doe.k12.ga.us
Georgia Performance Standards – www.georgiastandards.org
National Science Education Standards- www.nap.edu/html/nses/html/
National Science Teachers Association – www.nsta.org
Georgia Science Teachers Association – www.georgiascienceteacher.org

References:

Abruscato, J. (2001). *Teaching children science: Discovery methods for the elementary and middle grades*. Boston: Allyn and Bacon.

Barba, R. H. (1998). *Science in the multicultural classroom* (2nd ed.). Boston: Allyn and Bacon.

Bell, R. L. (2008). *Teaching the nature of science through process skills*. Boston: Pearson Education, Inc.

Carin, A. A., & Bass, J. E. (2001). *Teaching science as inquiry* (9th ed.). Upper Saddle River: NJ: Merrill Prentice Hall.

Eichenger, J. (2009). *Activities linking science with math, K-4*. Arlington, VA: NSTA Press.

Eichenger, J. (2009). *Activities linking science with math, 5-8*. Arlington, VA: NSTA Press.

Friedl, A. E., & Koontz, T. Y. (2001). *Teaching science to children: An inquiry approach* (5th ed.). New York: McGraw-Hill.

Keeley, P., Eberle, F., & Farrin, L. (2005). *Uncovering student ideas in science. Formative Assessment Probes* (Vol. 1:25). Arlington, VA: NSTA Press. (See also Volumes 2-4)

Keeley, P. *Science Formative Assessment*. (2008). . Arlington, VA: NSTA Press.

Martin, D. J. (2003). *Elementary science methods: A constructivist approac*h (3rd ed.). Albany, NY: Delmar Publishers.

Martin, R., Sexton, C., & Gerlovich, J. (2002). *Teaching science for all children: Methods for constructing understanding* (2nd ed.). Boston: Allyn and Bacon.

National Research Council. (1996). *National science education standards*. Washington, DC: National Academy Press.

NSTA. (2002). Outstanding science trade books for students K-12. *Science and Children*, 39(6), 31-38.

Rezba, R. J., Sprague, C., McDonnough, J. T., & Matkins, J. J.. (2007). *Learning and assessing science process skills*. Dubuque, IA: Kendall/Hunt Publishing Company.

Tippins, D. J., Koballa, Jr., T. R., & Payne, B. D. (2002). *Learning from cases: Unraveling the complexities of elementary science teaching*. Boston: Allyn and Bacon.

ASSIGNMENTS, EVALUATION PROCEDURES, AND GRADING POLICY

1. **Text Assignments**. Submit as assigned to complement work done in class.
   (Objectives 1- 6)
   Points: 100

2. ***Science and Children.*** Summarize articles as assigned.
   (Objectives 1-6)
   Points: 100

3. **In-Class Inquiry Lesson Presentation**. Based on instructions provided during class, lead hands-on inquiry-based science lesson with mathematics integration. Directions provided in class.
   (Objectives 1-6)
   Points: 200

4. **Inquiry Lesson (In-Class) Reflections**. Following each presentation there will be some follow up questions focusing on basic science concepts.
   (Objectives 1-6)
   Points: 100

5. **Classroom Based Lessons.** Design and teach an inquiry based science lesson in at least two P-5 classrooms that are at different grade levels. Arrange to observe (either in person or through videotape) a presentation in a school with different demographics from home school. Directions provided in class.
   (Objectives 1-6)
   Points: 300

6. **School Based Presentation on the Science Endorsement Program.** Arrange with the principal, a presentation at a faculty meeting in which you explain the Science Endorsement and how this will contribute to improved science teaching at your school.
   (Objective 6)
   Points: 100

7. **Participation and Dispositions**. Regular attendance, being in class on time, and active participation are expected.
   (Objectives 1-6)
   Points: 100

SUMMARY OF ASSIGNMENTS, EVALUTIONS, AND GRADING

Assignment	Points	Evaluation Method	Points Earned
Text Assignments	100	Checklist/Points	
Science and Children Summaries	100	Checklist	
In-Class Inquiry Lesson Presentation	200	Rubric	
Inquiry (In-Class) Lesson Reflections	100	Rubric	
Classroom Based Lessons	300	Rubric	
School Based Presentation	100	Rubric	
Attendance/Participation	100	Attendance Record/Observations	
Total No. of Points	**1000**		

Grading Policy: Total Course Points = 1000

A = 900-1000 pts B = 800-899 pts C = 700-799 pts F = less than 700 pts

CLASS, DEPARTMENT, AND UNIVERSITY POLICIES

Academic Honesty: All work completed in this course must be original work developed this semester. Students are expected to adhere to the highest standards of academic honesty. Plagiarism occurs when a student uses or purchases ghostwritten papers. It also occurs when a student utilizes ideas or information obtained from another person without giving credit to that person. If plagiarism or another act of academic dishonesty occurs, it will be dealt with in accordance with the academic misconduct policy as stated in the latest *Connection and Student Handbook* and the *Graduate Catalog*.

Attendance/Participation: It is imperative that you attend and participate in all classes. A portion of your course grade is based on participation. Absences that are not excused* will result in a 5 points per absence deduction from your participation points. Each tardy in excess of 15 minutes will result in a 5 point deduction from your participation points.

***Personal or immediate family (spouse, children) illness, or death in immediate family is the only excused absences. A DOCTOR'S NOTE OR FUNERAL PROGRAM MUST BE PRESENTED TO YOUR PROFESSOR UPON YOUR RETURN TO CLASS. WORK DUE ON THE DATE OF AN ABSENCE CANNOT BE MADE UP IF NEITHER OF THE PREVIOUSLY MENTIONED ITEMS IS PRESENTED.**

Disability: All students are provided with equal access to classes and materials, regardless of special needs, temporary or permanent disability, special needs related to pregnancy, etc. If you have any

special learning needs, particularly (but not limited to) needs defined under the Americans with Disabilities Act, and require specific accommodations, please do not hesitate to make those known, either yourself or through the Coordinator of Disability Services. Students with documented special needs may expect accommodation in relation to classroom accessibility, modification of testing, special test administration, etc. For more information, please contact Disability Services at the University of West Georgia: http://www.westga.edu/studentDev/index_8884.php. Any student with a disability documented through Student Services is encouraged to contact the instructor right away so that appropriate accommodations may be arranged. In addition, certain accommodations (which will be discussed in class) are available to all students, within constraints of time and space.

Submitting Assignments. All written assignments should be word processed. Use standard one inch margins and a 10 or 12 point standard font (i.e. Times New Roman). Guidelines for line spacing may be given for particular assignments, but if not specified, one and one half or double spacing should be used. **Include a header with your name, title of the assignment, and page numbers on all papers.**

Extra Credit: There is no provision in this course for extra credit nor will any work from other courses substitute for assignments.

Late Work: Students are expected to submit assignments on the due date. If you have any type of difficulty with the assignment, contact the professor as soon as possible **before** the assignment is due. If an assignment is late and there has been no prior contact with the professor, a 10% grade reduction can be assigned.

Professional Conduct: Students are expected to conduct themselves in a professional manner. This is an essential quality for all professionals who will be working in schools. Professionalism includes, but is not limited to the following behaviors: a) Collaborating and working equitably with classmates,
b) participating in interactions and class activities in a positive manner, c) turning in assignments on time, d)arriving to and leaving class punctually, e) treating all individuals with respect in and out of the classroom in any type of communication, including emails., and f) eliminating interruptions in class including cell phones, beepers, talking out of turn or while others are talking, etc. **(Please keep all cell phones and other communications devices silenced during class.)**

The primary responsibility for managing the classroom environment rests with the faculty. Students who engage in any prohibited or unlawful acts that result in the disruption of a class may be directed by the faculty member to leave the class for the remainder of the class period. Longer suspensions from the class, or dismissal on disciplinary grounds, must be proceeded by a disciplinary action or hearing as provided for in the University of West Georgia Student Handbook.

The term "prohibited acts" includes behavior prohibited by the instructor verbally (e.g. no smoking, no eating; speaking without being called on, refusing to be seated or refusal to change seats when directed by the instructor, refusing to leave when directed, or leaving or entering the room without authorization) or contained in the syllabus (e.g. tardiness, absenteeism, cell-phones). This provision is not intended to be used as a means to punish classroom dissent or for

open discourse of ideas. The lawful expression of a disagreement with the teacher is not in itself "disruptive" behavior.

Student Email Policy: University of West Georgia students are provided a MyUWG email account, which is the official means of communication between the University and the student. It is the student's responsibility to check this email account for important University related information. **For this course all communications will be through CourseDen email. You should check it frequently in case there are communications that you need regarding the class.**

COURSE SCHEDULE

Week	Date	What I Need to Do for Class This Week	Class Activities This Week
1		Review syllabus	Introductions; Explanation of syllabus Exploration in inquiry and constructivism
2		Text Assignment	Development/Planning of Inquiry Science Lesson
3		Literature Assignment	Implementation of Inquiry Science Lesson
4		Text Assignment	In-class Lesson Presentations
5		Literature Assignment; Lesson Reflection	In-Class Lesson Presentations
6		Text Assignment; Lesson Reflection	In-Class Lesson Presentations
7		Literature Assignment; Lesson Reflection	In- Class Lesson Presentations
8		Planning for first in school lesson; Lesson Reflection	Online meeting – question/answer session for lesson planning
9		Documentation of/Reflection on First Lesson	Speaker from NASA
10		Planning for second in school lesson	Online meeting – question/answer session for lesson planning
11		Documentation of/Reflection on Second Lesson	Web resources for elementary science
12		Planning for Other School Observation	Online meeting – question/answer session for lesson planning
13		Documentation of/Reflection on Other School Observation	Speaker from GSTA/NSTA
14		Documentation of School Based Presentation On Sci. Endorsement	Update from GA DOE on Science Instruction
15		----	Final Course Evaluations

Program View Request (Read-Only)

Originator

College of Education (College) | Leadership and Applied Instruction (Department) | Butts, Frank (Originator)

Action

Add | Modify | Deactivate | Terminate | Reactivate

Modifications

Program Name | Program Description | Degree Name | See Modification Details

Program Selection

College of Education (College) | Program (Program)

Master of Education with a Major in Secondary Education (Program Name)

On Campus (Program Location) | Graduate (Degree Level)

Master of Education: Secondary Education-Concentration (one of areas approve (Degree Name)

Spring 2012 (Effective Semester/Year)

Modification Details

This modification request is to revert back to a previous UWG practice whereby the concentration content area is included in the candidate's

(Max 4000 characters)

Rationale

This request is to meet the new requirements of the Professional Standards Commission (PSC) in order for students to be given credit for an advanced degree in their pursuit of a certificate upgrade. It is important for students

(Max 4000 characters)

Planning Info

Library Resources are Adequate

Library Resources Need Enhancement

Present or Projected Annual Enrollment: 20

Comments

Please note that this submission is necessary before the Provost's Office will approve the Registrar placing the above mentioned concentrations on the candidate's transcript.

(Max 4000 characters)

Document To Upload

Choose File No file chosen

(e.g. syllabi, other supporting documentation)

College Approvals

Frank Butts [APPROVED 2011-08-23]
Chair, Course Department

Dianne Hoff [APPROVED 2011-08-29]
Associate Dean, College of Education

Cross Listing Approvals

N/A
Chair, Cross Listed Department

N/A
Associate Dean, Cross Listed College

Other Approvals

Final Approval

Jon Anderson [REQUIRED]
Chair, Faculty Senate

MASTER OF EDUCATION
SECONDARY EDUCATION
ADVISEMENT SHEET

Name: _____ ID# _____

Home Telephone: _____ Advisor: _____

Permanent Address: _____

Work/Campus Address: _____

Telephone: _____ FAX: _____ Email: _____

Work Phone: _____ Initial Assessment Date: _____

Undergraduate Degree/Major: _____

Colleges and Dates Previously Attended: _____
_____

Present Certification (Field and Level):_____

GACE, Praxis II, or TCT Date Passed: _____ Area: _____

ADMISSION REQUIREMENTS	**COMPLETION DATES**
_____ Undergraduate Degree	_____ Initial Advising
_____ Teaching Certificate	_____ Department Comprehensive Exam
_____ 2.7 Undergraduate GPA	_____ Application for Graduation

Program Notes

1. Content courses must be taken in the area of certification. Fields available are Biology, Broad Field Science, Economics, English, History, Math, Political Science, and Earth Science. Advanced Instructional Strategies must be taken in the area of certification. Content courses have Arts and Sciences prefixes unless a substitution is approved by an advisor.
2. Admission to this program requires a Level 4 Secondary clear professional teaching certificate.
3. If not taken prior to admission, SPED 2706, Introduction to Special Education, must be completed to meet Georgia certification requirements.
4. It is the student's responsibility to apply for graduation in a timely manner.
5. Only four courses of this program may be taken off campus. Transfer courses count as off-campus courses.
6. Transfer credit must carry at least a grade of B. The suitability of the course for transfer is the decision of the advisor and the Department of Leadership and Applied Instruction.
7. Students must meet all requirements imposed by the College of Education, and the Department of Leadership and Applied Instruction.

MASTER OF EDUCATION
SECONDARY EDUCATION: Concentration _____
PLAN OF STUDY

Name: _____ ID#: _____

PLAN OF STUDY	**HRS.**	**GR**	**TRF/ SUB**		
Professional Education	**15**			**Content Choices**	
1. CEPD 6101 Psy of Classroom Learning	3			**(Selected With Advisor's Approval)**	
2. EDFD 7303 Culture & Society in Ed or	3				
EDFD 7305 History of American Ed or					
EDFD 7307 Critical Issues in Ed or					
EDFD 7309 Philosophical Found of Ed					
3. SEED 7261 Advanced Instructional Strategies for English Ed or	3				
SEED 7262 Advanced Instructional Strategies for Social Studies Ed or					
SEED 7263 Advanced Instructional Strategies for Science Ed or					
SEED 7264 Advanced Instructional Strategies for Mathematics Ed					
4. SEED 7271 Advanced Study of the Secondary School Curriculum	3				
5. Elective	3				
Content Specialization	**18**				
1.	3				
2.	3				
3.	3				
4	3				
5.	3				
6.	3				
Research	**3**				
1. EDRS 6301 Research in Education or	3				
EDRS 6302 Research Methods in Ed Studies					
Total Program	**36**				

SEE PROGRAM NOTES ON REVERSE SIDE.

STUDENT SIGNATURE: _____ DATE: _____

ADVISOR SIGNATURE: _____ DATE: _____

DEPARTMENT DESIGNEE SIGNATURE: _____ DATE: _____

Addendum IV

Proposed Changes are highlighted in yellow; deletions are highlighted in red. These changes are proposed to clarify the policy and to bring the written policy in line with the current practices of the university.

207 ~~Cheating and Plagiarism~~ Academic Honesty/Dishonesty

Academic Honor at West Georgia

~~At West Georgia, the student is urged to seek truth and beauty in and for themselves, as well as skills needed for a productive life.~~ Academic honesty is essential in preserving one's own integrity, the integrity of the institution, and in gaining a true education. ~~The West Georgia student pledges not to lie, cheat, or steal in the pursuit of his or her studies and is encouraged to report those who do.~~ The UWG Honor Code states that "we believe that academic and personal integrity are based upon honesty, trust, fairness, respect and responsibility." The code further states that UWG students assume responsibility for upholding the honor code and that they "pledge to refrain from engaging in acts that do not maintain academic and personal integrity. These include, but are not limited to, plagiarism, cheating, fabrication, aid of academic dishonesty, lying, bribery or threats, and stealing."

Just as complete honesty should be the Professor's standard in his or her presentation of material, this same standard should be demanded from students when they ~~respond for purpose of evaluation through~~ complete assignments. (For example, tests, reports, projects, and term papers.) Every professor has the responsibility to inculcate in students the ideal of academic honesty and to take all practical precautions against its violation.

~~Improper academic conduct~~ Academic dishonesty on the part of the student shall be interpreted to mean cheating, i.e., the obtaining and using of information during an examination by means other than those permitted by the instructor, including the supplying of such information to other students. ~~Improper academic conduct~~ Academic dishonesty shall also include plagiarism, i.e., the purchase and use of ghost-written papers and reports, or excessive collaboration (incorporating into a report, term theme, research paper, or project, ideas and information obtained from another person without giving credit to the person from whom such information was obtained). Further, inclusion of the published or unpublished writings of another person without duly noting these sources according to normal scholarly procedures shall be considered plagiarism. No material prepared to meet the requirements in one course may be used to fulfill the requirements in another without permission of the instructor. The above definition of academic ~~misconduct~~ dishonesty applies equally to improper use of electronic devices and electronic sources of information and opinion (e.g. online translators).

All faculty members should promote academic honesty, not only through their own ~~high~~ standards of scholarly conduct, but also by anticipating conditions which may lead to dishonesty on the student's part. Suspicion is not a sound basis for a healthy educational environment, and

the professor must judge those instances where his or her trust will encourage responsibility rather than cheating.

Specific ways in which dishonesty may be discouraged include:

1. Testing in such a way that cheating is difficult. This may be enhanced by avoiding purely objective tests. Professors should also monitor the classroom during testing. Allowing only school or departmental secretaries to type and duplicate tests. Allowing student assistants to handle testing materials sometimes places them in a compromising position where students intent on cheating exert pressures to supply advance information.
2. Safeguarding tests until the time they are to be administered. Tests should never be left in an unlocked office.
3. ~~Using student assistants to grade only simple, uncritical tests or laboratory work.~~ ~~All~~ Grading of major tests, papers, and final examinations should be ~~graded~~ done by the professor or designated graduate teaching assistants.
4. Discouraging term papers, research papers, or projects which are merely a re-statement of printed material. Personal interpretation and evaluation should be required.
5. Designing paper assignments in such a way that completion can only be accomplished satisfactorily by reference to material specific to the course.
6. Adequately preparing students to the proper method of adapting source material.
7. Conducting private conferences both before and after written reports are made to insure that the student understands proper procedures and to evaluate the student's assimilation of material.

In cases of obvious or suspected dishonesty, ~~the professor should, in private consultation,~~ the professor shall~~ould~~ confront the student with the evidence and determine and enforce the penalty if a penalty is warranted. The student or the professor has the right to have another faculty member present when the discussion about obvious or suspected dishonesty takes place. The outcome may consist of a change in grade which can range from the lowering of a grade for a particular class project or test to failure for the course. The student may appeal this action ~~immediately~~ to the department chair and through regular administration channels to the Grade Appeals Subcommittee of the Academic Policies and Procedures Committee (please see Section 208 of the Faculty Handbook).

~~In addition to, or in lieu of, a grade penalty, the faculty member may refer the matter to the Office of the Provost and Vice President for Academic Affairs for resolution in the discipline system of the University. A student has the right to appeal an unfavorable decision through the appeals procedure outlined in the Student Conduct Code and Disciplinary Procedures (see these procedures in the Student Handbook.)~~

~~**Academic Honor at West Georgia** (This section was moved to the beginning.)~~

~~At West Georgia, the student is urged to seek truth and beauty in and for themselves, as well as skills needed for a productive life. Academic honesty is essential in preserving one's own integrity, the integrity of the institution, and in gaining a true education. The West Georgia~~

~~student pledges not to lie, cheat, or steal in the pursuit of his or her studies and is encouraged to report those who do.~~

-

~~This above all: to thine own self be true,~~
~~And it must follow, as the night the day,~~
~~Thou canst not then be false to any man.~~

~~Shakespeare, Hamlet, Act 1, Sc. 3, In 77~~

208 Procedures Governing the Appointment and Functioning of the Appeals Subcommittee of the Academic Policies ~~and Procedures~~ Committee

208.01 Confidentiality

Due to the sensitive nature of any appeals hearing, confidentiality will be respected in a manner consistent with relevant state law and University System of Georgia ~~regent~~ policy.

208.02 Timetable for All Academic Appeals

All academic appeals, regardless of their nature, shall be ~~concluded~~ initiated no later than the end of the semester following the ~~infraction and~~ assignment of the ~~course~~ grade.

~~All academic appeals, regardless of their nature, shall be concluded no later than the following semester after cause for the appeal occurred.~~

208.03 Academic Based Appeals

There are two categories of academic appeals. Academic based appeals are defined as student appeals concerning (1) general appeals of merit for admission to the University, (Section 208.04) and (2) academic dishonesty and grade determination appeals. (Section 208.05) The following paragraphs identify the two University Subcommittees of the Academic Policies ~~and Procedures~~ Committee of the Faculty Senate established to hear such appeals and the general processes and procedures that should be followed~~. Given that it is impossible and impractical to determine procedures to govern every circumstance that might occur during a given appeal, the chairperson of a respective Subcommittee has the responsibility and authority to decide upon appropriate action(s) as issues present themselves.~~ Given the variability and uniqueness of individual

circumstances, the chairperson of a respective subcommittee may, in consultation with respective parties, suggest alternative actions/processes as issues present themselves.

208.04 The Subcommittee for General Appeals

A. Comments. After a student has petitioned the appropriate administrative officials in the Office of Admissions, he or she has the right to appeal (in writing with supporting evidence) an adverse decision by such officials in cases of (1) admission or (2) other similar matters.
B. Subcommittee Membership and Responsibilities. The chairperson of this subcommittee, in consultation with the chairperson of the Academic Policies ~~and Procedures~~ Committee, will be responsible for appointing members ~~in April~~ no later than May of each year. Membership on the subcommittee will run from summer semester through spring semester of the following year. The subcommittee will be comprised of at least three faculty members ~~a faculty member from each of the University's three colleges~~ (one of which should be a member of the Academic Policies ~~and Procedures~~ Committee), one University official, and one student. Faculty members will serve a term of two years, the University official and student representative will serve a one-year term. Committee members should not be reappointed for consecutive terms. The chairperson of the subcommittee will be responsible, in conjunction with the Office of Admissions, for distributing appropriate materials to committee members, for announcing in advance the time and place of each scheduled appeal(s) hearing, and will convey recommendations of the subcommittee to the Director of Admissions. Any three members of the subcommittee, at least two of which shall be Faculty, shall constitute a quorum.

208.05 The Subcommittee for ~~Academic~~ Dishonesty Appeals and Grade Determination Appeals (Referred to below and in Section 207 of the Faculty Handbook as the Grade Appeals Subcommittee)

~~**Comments.** Students have the right to appeal a final course grade. A student must first submit in writing why they are appealing a grade (along with any supporting evidence) through appropriate administrative channels, that is, his or her department chairperson and dean. After consulting with the student and the concerned faculty member, it should be apparent to officials as to why the grade was assigned. If the faculty member assigned the grade due to an allegation of cheating, plagiarism, or some other act of academic dishonesty and the student wishes to pursue the appeals, his or her case should be considered a Dishonesty Grade Appeal. On the other hand, if the reasons underlying the appeal are based on policy disagreements or alleged charges of arbitrary or unfair treatment by the involved faculty member, the appeal should be considered a Grade Determination Appeal. The deans of the University's three respective colleges should inform the Academic Vice President as to their appeals clarification decision in writing when forwarding documentation to that office.~~

~~Educational institutions have the responsibility for the establishment and maintenance of high standards of personal conduct and scholarship among all members within the academic community. All parties involved in appeal hearings at the University~~

~~of West Georgia should understand that the process should be considered as fact finding with the intent to demonstrate a preponderance of evidence. The hearings will be conducted in a tone of civility where both parties can present their case with the Appeals Subcommittee considering the presented matter.~~

A. Comments. Students have the right to appeal a course grade. Grade appeals must be submitted in writing, using the UWG Student Grade Appeal Form available from the Provost's website and following the procedures outlined below.

1. Initiation of Appeal

Grade determination appeals (see definition in 3b below) must be made during the semester immediately following the semester in which the course grade is assigned. Appeals of grades assigned due to an allegation of Academic Dishonesty (see definition in 3a below) may be made as soon as a grade penalty on the grounds of academic dishonesty has been levied against a student.

2. Documentation Required for the Appeal

A student must submit the form and any supporting paperwork to the Department Chair. It is the responsibility of the Chair, after consultation with the student and the faculty member, to determine whether ~~a~~ the grade appeal should be considered a Dishonesty Grade Appeal or a Grade Determination Appeal.

3. Definitions

a. **Dishonesty Grade Appeal.**
If the faculty member assigned the grade due to an allegation of cheating, plagiarism, or some other act of academic dishonesty and the student wishes to pursue the appeal, his or her case should be considered a Dishonesty Grade Appeal ~~(see #3.a, below)~~. ~~.~~

b. **Grade Determination Appeal.**
If the reasons underlying the appeal are based on policy disagreements or alleged charges of arbitrary or unfair treatment by the involved faculty member, the appeal should be considered a Grade Determination Appeal ~~(see #3.b, below).~~.

4. Procedure: Upon submission of an appeal, determination of the type of appeal, and after examination of the available evidence, the Chair should either grant the appeal and change the grade, or deny the appeal. If the appeal is denied, the Chair should advise the student as to his or her further options for appeal in the following order: the Dean's Office and then the Provost's Office for submission to the Grade Appeals Subcommittee.

In the case of denial of the appeal, at any level, the student may accept the decision and withdraw the appeal. If the student wishes to further appeal the

Chair's decision or subsequent decisions at each level, the appeal and all related decisions and documentation is sent to the next level. The appeal is reviewed and a decision is rendered, either granting or denying the appeal. Final resolution (and recommended action/s) at any level is forwarded to the Provost's Office for information, review and any additional action. (For example, change of grade or further judicial sanctions.) Ultimately, final authority for all student appeals rests with the president of the institution. (See Section 4.7.1 Student Appeals, BOR Manual.)

Grade Appeals Subcommittee Review Purpose:

a. ~~Academic Dishonesty Appeals.~~ Dishonesty Grade Appeals. ~~Procedures should be established to deal with those situations where there are allegations of academic improprieties.~~ In cases where there are allegations of academic improprieties, it is assumed that these cases will be related to the classroom. ~~and~~ It would be expected that a professor who has noted improprieties ~~and has, as would be expected,~~ would have taken some form of corrective action. The purpose of the Grade Appeals Subcommittee in hearing this type of student complaint is (1) to determine if academic improprieties did take place and (2) to review the appropriateness of the faculty ~~members'~~ member's corrective action as it relates to final grade assignment~~.~~

~~**b. Grade Determination Appeals.** Educational institutions have the responsibility for evaluating students by standards and a grading system that is publicized and known to faculty and students. Procedures should be established for students who feel simply unfairly treated by a faculty member in terms of final grade assignment. The responsibility for determining the grade of each student rests on the faculty member who has responsibility for teaching the course in which the student is enrolled. The purpose of the Grade Appeals Subcommittee hearing this type of student complaint is to review the totality of the student's performance in relationship to his or her final grade.~~

b. Grade Determination Appeals. Educational institutions have the responsibility for evaluating students by standards and a grading system that is publicized and known to faculty and students. The responsibility for determining the grade of each student rests on the faculty member who has responsibility for teaching the course in which the student is enrolled.

Procedures should be established for students who feel ~~simply~~ unfairly treated by a faculty member in terms of final grade assignment. The purpose of the Grade Appeals Subcommittee hearing this type of student complaint is to review the totality of the student's performance in relationship to his or her final grade.

5. Faculty Availability. If a faculty member is permanently unavailable for a grade appeals hearing because he or she is no longer employed by the University, the Department Chair is responsible for the grade and will attend the hearings. In such a case, the Department Chair is acting in the stead of the faculty member who assigned the grade.

If a faculty member is temporarily unavailable, for example, on temporary leave, out of the country, or ill, and the outcome of the hearing *does not* affect a student's continued enrollment, financial aid, or graduation, the grade appeal hearing will be delayed until the faculty member returns.

However, if a faculty member is temporarily unavailable and the outcome of the hearing *does* affect a student's continued enrollment, financial aid, or graduation, the grade appeal hearing will not be delayed. Under such circumstances, the faculty member will be represented by his or her college Dean (or Dean's designee), rather than the department chair. The Chairperson of the Grade Appeals Subcommittee shall schedule an appropriately timed hearing with the Dean or his or her designee. Given these circumstances, and in the event of finding for the involved student, the Dean or his or her designee is authorized to make the appropriate grade change or other remedies congruent with the appeal finding.

~~(At times, the outcome of a grade determination appeal will impact a student's continued enrollment, financial aid, or similar matter and the involved faculty member is not available (out of country, sick, no longer employed by UWG, etc.) for an appeals hearing. Under such circumstances, the Chairperson of the Grade Appeals Subcommittee shall schedule an appropriately timed hearing with the faculty member's dean or his or her designee providing representation. Given these circumstances, and in the event of finding for the involved student, the dean or his or her designee is authorized to make the appropriate grade change or other remedies congruent with the appeal finding. Grade appeals that do not impact a student's continued enrollment, financial aid, or similar matter will be delayed until the return of the involved faculty member.~~

~~A grade originally assigned by a faculty member to a student can only be changed with the consent of the faculty member responsible for the grade, except as noted in #3 above. However, if finding for the student in either classification of appeals, the Subcommittee will attempt to counsel the faculty member, or in his/her absence, the assigned representative, to voluntarily readdress the grievance. In the event counseling is not effective, the Subcommittee will refer the matter to the Provost or his or her designee.~~

A. Committee Membership. ~~The membership of the Grade Appeals Subcommittee will include three faculty members, one each from the three colleges of the University. These three faculty members will be appointed by the chairperson of the Academic Policies and Procedures Committee in May of each year from those members of that committee with remaining time to serve or from newly appointed faculty.~~ Faculty membership of the Grade Appeals Subcommittee will be determined no later than May of each year by the Chair of the Academic Policies ~~and Procedures~~ Committee, and shall consist of one representative from each college and from the School of Nursing. ~~at least three faculty members.~~ In addition, the ~~chairperson~~ Chair of the Academic Policies Committee will appoint one additional University official and a student representative to serve. The length of service on this committee shall be for one full year starting with summer semester. Any ~~three~~ five members of the subcommittee, at least ~~two~~ three of wh~~om~~~~ich~~ are faculty, shall constitute a quorum. For Academic Dishonesty Appeals, the Chief Judicial Officer of the University will be invited to sit on the committee to ensure that all due process requirements are met.

B. Fairness and Procedural Safeguards ~~Procedures~~ Governing Cases of Academic Dishonesty

In order to guarantee fairness and proper procedural safeguards for all concerned, the subcommittee shall be guided by the following procedures:

1. The subcommittee will hear a case only if the student has exhausted all administrative remedies through the appropriate department chair and his or her college dean
2. The subcommittee chairperson will consult with both the faculty member and student concerning the hearing procedures, the time, date, and place of the hearing and will ensure relevant materials reach all parties in a timely fashion.
3. The burden of demonstrating a preponderance of evidence shall rest upon the officials or faculty member who originated an action against a student or assigned for cause a particular grade.
4. The student appearing before the committee shall have the right to be assisted by an advisor of his or her choice.
5. During the hearing the student shall have the opportunity to testify and to present evidence and witnesses own his or her behalf. He or she shall have opportunity to hear and question adverse witnesses. In no case shall the subcommittee consider statements against a student unless the student has been given an opportunity to rebut unfavorable inferences that might otherwise be drawn.
6. All matters upon which a decision will be based must be introduced at the proceeding before the subcommittee. Any conclusions drawn by the subcommittee shall be based solely upon such evidence.
7. In the absence of a transcript, an audio ~~tape~~ recording of the hearing shall be made.

8. Appellants who fail to appear after proper notice will have their cases heard in absentia.
9. The chairperson of the subcommittee will submit in writing conclusions and recommendations to the Provost and Vice President for Academic Affairs.

C. Fairness and Procedural Safeguards ~~Procedures~~ Governing Grade Determination Appeals.

In order to guarantee procedural fairness to both the student and the faculty member involved, the following procedures shall guide such hearings:

1. The subcommittee will hear the case only if the student has exhausted all administrative remedies through the appropriate department chair and his or her college dean.
2. The subcommittee chairperson will consult with both the faculty member and student concerning the hearing procedures, the time, date, and place of the hearing and will ensure relevant materials reach all parties in a timely fashion.
3. The burden of demonstrating a preponderance of evidence of arbitrary or unfair grading rests on the student. The student should realize such a charge is a serious one and refrain from taking capricious action.
4. Both the student and faculty member shall be given an opportunity to present his or her case and to refute the case presented by the other.
5. All matters upon which a recommendation will be based must be introduced during the hearing before the Subcommittee. Recommendations shall be based solely upon such evidence.
6. Appellants who fail to appear after proper notice will have their cases heard in absentia.
7. The chairperson of the subcommittee will submit in writing conclusions and recommendations to the Provost and Vice President for Academic Affairs.

Addendum V

University of West Georgia Policy on Volunteers

The university benefits from the efforts of non-paid persons who contribute to the overall success of the institution. The Georgia Tort-Claims Act only extends liability coverage to non-paid agents if they are part of a structured volunteer program. Employing non-paid agents without a structured program represents an uninsured financial risk to both the university and the individual.

Purpose

This purpose of this policy is to simultaneously protect the university and our non-paid persons by providing the structure required under the Georgia Tort-Claims Act.

Definitions

Community-service worker: An individual who is referred by the court or by the student judicial process and ordered to perform work as part of a disciplinary sanction or restitution.

Non-paid intern: A person who works without pay to gain practical experience as part of an academic curriculum. In reference to this policy, an individual is only considered a non-paid intern if (1) he or she conducts university business, and (2) is not paid for this work.

Non-paid person: Any community-service worker, intern, or volunteer who works for or represents the university without monetary compensation.

University business: Activities which are endorsed by an individual's chain-of-command, and:

- Are defined in an individual's job description, or;
- Accomplish departmental objectives, or;
- Help support university or divisional missions, or;
- Contribute to efforts that are specifically identified by USG or the State of Georgia.

University employee: Any individual who performs work for, and receives a paycheck from, the university, including student assistants, graduate assistants, paid interns, and those who are enrolled in a contracted-employment program.

Volunteer: A person who voluntarily offers himself or herself for a service or undertaking without pay.

Text

Departments are permitted to engage the services of non-paid persons (community service workers, volunteers, non-paid interns) for efforts provided the following conditions are met:

- The efforts of the non-paid person(s) will support or accomplish university business, and;
- The effort or work is coordinated or supervised by a university employee, and;

- The effort or work is in compliance with all applicable laws, codes, and regulations, including USG and UWG policies, and the Fair Labor Standards Act, and;
- The department/unit has notified Risk Management/EHS (RM/EHS) of the effort, and has complied with all requirements identified by RM/EHS.

Oversight of this policy is the responsibility of the Division of Business & Finance.