

Graduate Council Meeting  
Wednesday, February 23, 2005: 3:30  
Graduate School Conference Room  
Minutes

The Graduate Council Met February 23 in the Graduate School Conference Room. Present were Drs Ford, Harding, Hill, Humphrey for Agnew, Huss for Bednarz, McDaniel, Peck, Saleh, Sustich, Wheeler and Zibluk. Drs Teddlie and Russell were guests. The meeting ended with #2j. and resumed on March 3 at 3:00. Present were Drs. Ford, Hill, McDaniel, Peck and Sustich.

1. New Program - M.A. in Criminal Justice  
**Approved with the understanding that the Graduate School cannot fund graduate assistants without new funds earmarked for this program**
  
2. New Courses
  - a. COUN 6043 Career Development Services - **Approved**
  - b. COUN 6053 Ethical, Legal, and Professional Issues in Counseling - **Approved**
  - c. COUN 6463 Intro to Couples and Family Counseling - **Approved**
  - d. GEOL 5331 Hydrogeology Laboratory  
**Tabled with the recommendation to make clarification of costs and suggestion that lecture and lab combine to a four credit course**
  - e. MIS 6573 Advanced Data Mining - **Approved**
  - f. SPAN 6801-2-3 Independent Study - **Approved**
  - g. CHEM 5254 Fundamentals of Mass Spectrometry  
**Tabled for clarification of costs, contact hours, and one extra week**
  - h. ENT 5103 Forensic Entomology  
**Approved with a friendly amendment that this course should be taken with the permission of professor**
  - i. PSSC 5932 Cotton Production and Harvesting - **Approved/Special Course**
  - j. PSSC 6543 Advanced Geographic Info Systems  
**Tabled for clarification of prerequisites and number of weeks**
  - k. ESPE 6533 Lab Tech In Exercise Physiology - **Approved**
  - l. BIOL 5343/CHEM 5343 (cross-listed) Pharmacology - **Approved**
  - m. STAT 6623 Stat. Methods with SAS Programming - **Approved**
  - n. EDMA 5563 Methods & Materials for teaching Math in the Sec. School  
**Approved with condition that 14 week schedule is corrected**
  - o. SCOM 5303 Rhetoric of Western Thought - **Tabled for clarification**
  - p. SCOM 5323 Communication in Personal Relationships - **tabled for clarification**
  - q. PSY 6633/7633 Physiological Psychology and Psychopharmacology- **Approved**
  
3. Course Deletions - See Coun 6043 Career Dev. Services (2a.)

- a. COUN 6063 Information and Services in Career Development - **Approved**
  - b. COUN 6043 Career and Lifestyle Development - **Approved**
4. Bulletin Changes - College of Business - **All approved**
- a. Change BUED 5503 High Tech. Office Meth. To BTEC 5503 Business Tech. Meth.
    - Change BUED 5513 Dir. Field Experience to BTEC 5513 Business Tech. Field experience
    - Change BUED 6523 Improvement of Instruction in Keyboarding & Word Processing to BTEC 6523 Instruction Strategies I
    - Change BUED 6543 Improvement of Instruction in Business Admin. Programs to BTEC 6543 Instructional Strategies II
    - Change BUED 6593 Testing and Evaluation in Business Tech. To BTEC 6593 Testing and Evaluation in Business Technology
    - Change BUED 6603 Improvement of Instruction in Computerized Accounting to BTEC 6603 Instructional Strategies III
    - Change BUED 6613 Microcomputer Applications for Educators to BTEC 6613 Business Technology Applications
    - Change BUED 6683 Seminar in Business Tech. To BTEC 6683 Seminar in Business Technology
    - Change BUED 6701-6 Thesis to BTEC 6701-6 Thesis
    - Change BUED 6801-3 Independent Study to BTEC 6801-3 Independent Study
  - b. Change Course Prefix from MBA 6593 to IBS 6593
  - c. Page 106 - Replace BUED 6523, BUED 6543 & BUED 6603 with BTEC 6523, BTEC 6543 and BTEC 6603
  - d. Change title of MIS 6473 from Decision Support Systems and Data Mining to Data Mining
  - e. Delete BSYS 5513 Technological Office Procedures
5. Bulletin Changes
- a. MSE School Counseling - MAT requirement changes - **Approved**
  - b. Pg 134 - Delete COUN 6903 Intro to Couples and Family & insert COUN 6463 Intro to Couples and Family - **Not necessary to submit proposal**
  - c. Pg. 100 - Changes to MRC Program required courses & recommended electives **Approved**
  - d. Pg. 104 - Changes in required courses in MS in College Student Personnel Services **Approved**
  - e. Pg. 217 - Add co-requisite GEOL 5331 to GEOL 5333 Hydrogeology. **Course was tabled**
  - f. Pg. 109 - Change course requirements for MSE School Counseling - **Approved**
  - g. Pg. 105 - HPESS - Changes to the “purpose of degree” for the MSE in Physical Education and the MS in Exercise Science **Approved with editorial changes**
  - h. Addition of thesis option to the MSE in Physical Ed and MS in Exercise Science **Approved with contingency of not listing everything twice**
  - i. Insertion of new program - MS in Environmental Sciences

## **Approved**

6. Discussion - Graduate Faculty Status - Draft 6 - sent out electronically - **to be continued**
7. Discussion - 6000/7000 level courses
8. Applications for Graduate Faculty Status - **All approved**  
Dr. Elizabeth Hood, Vice Chancellor for Research & Technology Transfer (Full)  
Dr. Jack Zibluk, Journalism (Full)  
Dr. Kirk Russell Jones, Decision Sciences (Full)  
Dr. Farhad Moeeni, Decision Sciences (Full)  
Dr. John Seydel, Computer & Information Technology (Full)

### New/Special Course Proposal-Bulletin Change Transmittal Form

Undergraduate Curriculum Council (An electronic copy should be sent to [sjohnson@astate.edu](mailto:sjohnson@astate.edu) and paper copy with original signatures should be sent to Academic Affairs.)  
 Graduate Council (14 copies plus 1 original)

New Course or  Special Course (Check one box)  
 Please complete the following and attach a copy of the catalogue page(s) showing what changes are necessary. Also, please be sure to include the suggested course sequence page.

Department Curriculum Committee Chair	Date	COPE Chair (if applicable)	Date
Department Chair	Date	General Education Committee Chair (if applicable)	Date
College Curriculum Committee Chair	Date	Undergraduate Curriculum Council Chair	Date
College Dean	Date	Graduate Curriculum Committee Chair	6/17/05 Date
		Vice Chancellor for Academic Affairs	Date

<b>1. Proposed Course Prefix and Number</b>	EDMA 5563
<b>2. Course Title as it should appear in the bulletin and if title is 32 characters (spaces included) or more, please provide short title to be used on transcripts.</b>	Methods and Materials for teaching Mathematics in the Secondary School  Transcript title: Meth/Mat Teach Math
<b>3. Brief course description (40 words or less) as it should appear in the bulletin, including prerequisites, and semester(s) course will be offered. Do you want the student information system to enforce the prerequisites?</b>	Historical and current trends in teaching mathematics at the secondary school level. Major emphasis on content and concept development and their application in the mathematics classroom. Practice in use of appropriate technologies, applying teaching techniques, and formulation student evaluations will be emphasized. (S only)
<b>4. Contact Person (Name, Name of Institution, Address, Email Address, Phone Number)</b>	Mike Hall, Arkansas State University, Department of Mathematics and Statistics, PO Box 70, State University, AR 72467 <a href="mailto:mhall@csm.astate.edu">mhall@csm.astate.edu</a> 870-972-3090
<b>5. Proposed Starting Term/Year</b>	Spring 2005
<b>6. Is this course in support of a new program? If yes, what program?</b>	Yes, Masters in Educational Theory and Practice
<b>7. a. Does this course replace a course being deleted?</b> <b>b. If yes, what course?</b> <b>c. Has this course number been used in the past?</b>	No  N/A No
<b>Attach Course Deletion Proposal-Bulletin Change Transmittal Form.</b>	
<b>8. Does this course affect another program? If yes, provide contact information from the Dean, Department Head, and/or Program Director whose area this affects.</b>	No

**9. Justification should include:**

A. Academic rationale and goals for the course (skills or level of knowledge students can be expected to attain).

Students who earn a B.S in Mathematics may use this course in to gain a mathematics teaching license through the Masters in Educational Theory and Practice. The Methods course, if approved, will be a requirement for the Masters program. The science teaching methods course is a critical component of the National Council of Teachers of Mathematics (NCTM) standards for mathematics teacher preparation. This course would fulfill various requirement stated in the NCTM's standards and allow students the opportunity to gain an understanding of the Arkansas Science Frameworks and the National Science Education Standards (NSES).

The goals for the course are for students:

- to gain an understanding of mathematics content and processes as they apply to the teaching of secondary mathematics
- elaborate on unifying themes and determine relevance of the subject material
- recognize, develop and utilize a variety of teaching methods
- incorporate the processes of investigative inquiry into her/his teaching strategies
- develop classroom management skills that assure instructional efficiency and a positive learning climate.

B. How does the course fit with the mission established by the department for the curriculum? If course is mandated by an accrediting or certifying agency, include the directive.

The undergraduate Math Methods course has been an integral component for preparing preservice teachers for successful teaching internships for many years. The graduate course will continue with the same goals and objectives of the undergraduate course with the addition of increased performance standards for graduate students to meet the graduate program requirements.

C. Student population served.

Students who have earned a B.S. in Mathematics and enroll in the Masters in Educational Theory and Practice. Students who have successfully completed an undergraduate secondary math methods course or an equivalent course can not enroll in this course.

D. Rationale for the level of the course (lower, upper, or graduate).

Students in the METP must have a methods course in secondary science to fulfill state licensure standards and to meet NSRA/NCATE program standards.

**10. Outline** (The course outline should be topical by weeks and should be sufficient in detail as to allow for judgment of the content of the course.)

**COURSE OUTLINE**

**WEEK**

1. Introduction and orientation to the course, professional organizations and literature, history of curriculum projects in mathematics education, trends and new curriculum projects in mathematics education

NCTM student membership

Assignment: Find NCTM.ORG on the WEB and complete the student member application. This will give you access to the Mathematics Teacher publication.

From the library, locate issues of the Mathematics Teacher and select two articles for summary:

- a) Article having to do with the use of calculators in the classroom.
  - b) Article with emphasis on a current Mathematics curriculum project. (may use middle or secondary)
- Have prepared written summaries of the Articles and be prepared to discuss your findings with the class.

Establish links to sites for the following:

NCTM STANDARDS

ADE Course Content Guides

Teacher Talk

2. Presentations of assigned readings  
Developing a success oriented classroom  
Selecting and sequencing subject matter
3. Strategies and moves in teaching a mathematics concept  
Roles of various technologies in teaching mathematics
4. Student presentations in teaching generalizations  
Developing student assessment materials
5. Teaching problem solving  
Strategies of problem solving  
Methods of teaching problem solving strategies
6. Presentations on problem solving strategies
7. Teaching by guided discovery  
Textbook comparisons and selection
8. Presentations and evaluations regarding the guided discovery approach

- 9. Manipulatives and technology in guiding discovery of concepts  
Diagnosis and remediation of student difficulties  
The use of concrete materials to facilitate learning and analyze errors
- 10. Purchasing instructional aids  
Lab activities with computer software  
Models with the Algebra Standard
- 11. Modeling instruction with the Geometry Standard
- 12. Modeling the Representation Standard, Addressing Assessment with small learning groups and learning activities
- 13. Presentations involving student centered activities
- 14. Teaching an understanding of proofs

**11. Course requirements** (e.g. research papers, projects, interviews, tests, etc.)

This course will require graduate students to write five refereed journal article reviews (in addition to what undergraduates are required to do)

Students will be required to develop a novel instructional approach to teaching mathematics at the secondary school level

Course evaluation will be as follows:

- Presentation of NCTM journal reading on trends and issues
- Five refereed journal articles
- Presentation of findings accessed regarding NAEP, TIMMS, or other network assignments
- Written lesson plan with objectives
- Textbook comparison (written)
- Presentations based on ‘Standards:’
  - Generalizations: internal connections to mathematics
  - Problem solving from external connections to mathematics
  - Discovery, data analysis, or probability
  - Geometry presentation utilizing manipulative or media
  - Algebra with manipulatives or technology
- Short answer midterm (Proficiency with manipulatives and technology)

**12. Special features** (e.g. labs, exhibits, site visitations, etc.)

N/A

**13. Required reading**

The required reading for the course includes assigned readings of articles and textbook chapters. Students enrolling for graduate credit must complete additional readings from refereed journals to complete requirements of the course

**14. Department staffing and classroom/lab resources** (Will this require additional faculty, supplies, etc.?)

The class will be a dual enrollment with EDMA 4563(which is taught each spring semester by the math educator) and will therefore not require additional staffing

**15. How will this course be assessed?**

Assessment for this course will include in-class testing, presentations, journal article summaries, and curriculum development(See item 11)

**16. If this course is to be used for general education, how does it fulfill the goals of general education?**

N/A

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Please complete the following and attach a copy of the catalogue page(s) showing what changes are necessary. Also, please be sure to include the suggested course sequence page.

Lu Miao 1/28/05 \_\_\_\_\_  
 Department Curriculum Committee Chair      Date      COPE Chair (if applicable)      Date

[Signature] 1/28/05 \_\_\_\_\_  
 Department Chair      Date      General Education Committee Chair (if applicable)      Date

\_\_\_\_\_  
 College Curriculum Committee Chair      Date      Undergraduate Curriculum Council Chair      Date

\_\_\_\_\_  
 College Dean      Date      Graduate Curriculum Committee Chair      Date

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- 15. Teaching slow learners and high ability learners

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