New Course Proposal

1. Catalog description
   a) Course Number: 5410
   b) Title: Introduction to Research in Mathematics Education
   c) Meeting times and credit: 3-0-3
   d) Term(s) to be offered: SU
   e) Short title: Research Math Ed
   f) Course Description: This course provides experiences in defining problems and in using research techniques to apply, interpret, and evaluate research specific to elementary mathematics education.
   g) Prerequisite(s): Eight semester hours of coursework in the degree program. Graduate standing at the university.
   h) Initial term offered: Summer 2004

2. Objectives and Evaluation of the Course
   a) Objectives: To enable elementary/middle level teachers to read and understand research articles in the field of mathematics education; To allow elementary/middle level teachers to apply research findings to their own teaching; To enable elementary/middle level teachers to write research proposals.
   b) Methods of assessment: Exams, Presentations, and Projects
   c) Course will be offered in a traditional format
   d) Not numbered 4750-4999
   e) Not designated as writing-active, writing-intensive, or writing-centered

3. Outline of the Course
   a) 4 weeks of five 120 minute class periods

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<tr>
<th>Topic</th>
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<tr>
<td>Research methods/designs</td>
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<td>Identifying research problems</td>
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<td>Designing a research study/program/problem</td>
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<td>Doing a literature review, Finding sources</td>
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<td>Sampling, representation, validity</td>
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<td>Qualitative methods</td>
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<td>Quantitative methods</td>
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<td>Ethics and legal issues</td>
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<td>Writing a research proposal</td>
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b) Course will be offered in a traditional format.
4. Rationale
a) The course is necessary to familiarize elementary/middle level teachers with research findings and enable them to use these findings in their own classroom situations. Elementary/middle level teachers must also be able to conduct research of their own to find answers to local issues of teaching methods, student learning, and mathematics. Furthermore, this course will also be aligned with state and national standards as directed by the IBHE.
b) The 5410 level reflects the nature of the course and level of the student.
c) This course will not be similar to any existing university course.
d) This course will comprise no more than 3 semester hours of the Master’s in Mathematics Education – Elementary/Middle Level Mathematics option.

5. Implementation
a) This course may be initially assigned to: Marshall Lassak, Allen Davis, Joyce Bishop, Joan Henn, Andy White, and Cheryl Hawker.
b) No additional costs.
c) Research Methods and Designs – Borden and Abbott (1999); Qualitative Inquiry and Research Design – Creswell (1998); Lessons Learned from Research – NCTM (2002)

6. Community College Transfer
A community college course may not be judged equivalent to this course.

7. Date approved by the department or school: March 31, 2003

8. Date approved by the college curriculum committee: May 2, 2003

9. Date approved by CGS: November 4, 2003