Division: Teacher Education

Program Area: Mathematics Education

Course #: TED 7000 (Section 001)

Course Credit: 3 semester hours.

Course Title: Introductory Master’s Seminar (Mathematics Education)

Course Reference #: 16035

Term/Year: Fall 2015

Course Location: 169 Education

Day/Time: Tuesdays, 5:00–7:45 p.m.

Instructor: Dr. S. Aslı Özgün-Koca & Dr. Thomas G. Edwards

Office Address: 249 Education & 265 Education (or 421 Education)

Office Hours: By appointment only.

Office Telephone: (313) 577-0944 & (313)577-0980

E-mail: aokoca@wayne.edu & t.g.edwards@wayne.edu
n.b.: e-mail is our preferred means of communication.

Course Description: Prereq.: Admission to a master's degree program (MEd or MAT) in the Teacher Education Division with a major in mathematics education. Skill development in the three primary areas: information access through the variety of resources available in a university library; comprehension and evaluation of research literature; employment of APA style in writing a research report. This course will prepare students to conduct a research project in partial fulfillment of the requirements for the MEd or MAT degree.

Course Outcomes: The student, as a reflective, innovative urban educator, will:

1. formulate a research question in mathematics education.
2. learn how to utilize a university library to access research literature in mathematics education.
3. develop skill in the interpretation of research literature in
mathematics education.
4. develop the ability to evaluate research in mathematics education.
5. develop a review of research relevant to the research question.
6. select an appropriate research methodology.
7. become familiar with style manual of the American Psychological Association (APA) and employ APA style in all formal writing for the course.

Class Policies: Students are expected to attend and actively participate in every class session. Each class will begin promptly at 5:00 p.m.

Required Text(s):

Journal References:
- Journal for Research in Mathematics Education
- School Science and Mathematics
- The Journal of Mathematical Behavior
- Educational Studies in Mathematics
- Focus on Learning Problems in Mathematics
- For the Learning of Mathematics
- Mathematics Education Research Journal
- International Journal of Mathematics Education in Science and Technology
- Journal of Computer in Mathematics and Science Teaching
- The Journal of Mathematics Teacher Education
- College Mathematics Journal
- Mathematics and Computer Education
- PRIMUS

Additional References

**Grading Criteria:**

1. **Attendance & Participation (10%)**
   - The student attends all classes.
   - The student actively participates in class discussions.

2. **Research Question & Rationale (20%; due 6 Oct.)**
   - A first draft of a research question in the area of mathematics education is formulated.
   - The question is drawn narrow enough to be investigated.
   - A first draft of the rationale for investigating the question is provided.

3. **Literature Review (30%; due 3 Nov.)**
   - A first draft of a review of the literature supporting the research question is provided along with the research question & rationale.
   - The literature review consists of at least 10 references.
   - The literature review indicates what is known already about the research question.
   - The literature review indicates what is not currently known about the question.

4. **Final Draft (40%; due 8 Dec.)**
   - A draft of the methodology chapter is submitted along with the first two chapters- research question & rationale and review of the literature.
   - The criteria for the research question and rationale are maintained.
   - The criteria for the literature review are maintained.
   - An appropriate research methodology is outlined.
   - An oral presentation is made to the rest of the class.

**Grading System:**

The following grading scale will be used:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>(92%, 100%)</td>
</tr>
<tr>
<td>A-</td>
<td>[90%, 92%]</td>
</tr>
<tr>
<td>B</td>
<td>(82%, 88%)</td>
</tr>
<tr>
<td>B-</td>
<td>[80%, 82%]</td>
</tr>
<tr>
<td>C</td>
<td>(72%, 78%)</td>
</tr>
<tr>
<td>C-</td>
<td>[70%, 72%]</td>
</tr>
<tr>
<td>B+</td>
<td>[88%, 90%)</td>
</tr>
<tr>
<td>C+</td>
<td>[78%, 80%)</td>
</tr>
<tr>
<td>F</td>
<td>[0, 70%)</td>
</tr>
</tbody>
</table>

* More detailed rubric is provided at the Blackboard site.
<table>
<thead>
<tr>
<th>CLASS</th>
<th>DATE</th>
<th>TOPICS</th>
<th>ASSIGNMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>8 Sept.</td>
<td>What is research? Introduction to the research process Types of educational research</td>
<td></td>
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<tr>
<td>2</td>
<td>15 Sept.</td>
<td>Library resources, Meet in Lab C, Third Floor, UGL</td>
<td>Think about a possible research question</td>
</tr>
<tr>
<td>3</td>
<td>22 Sept.</td>
<td>Introduction to the research process—Action research Identifying and framing a research question</td>
<td>Read Chapters 1 and 2 in Mertler First draft of research question-Optional</td>
</tr>
<tr>
<td>4</td>
<td>29 Sept.</td>
<td>Identifying and framing a research question (cond.)</td>
<td>Read Chap. 3 in Mertler (pp. 53-71)</td>
</tr>
<tr>
<td>5</td>
<td>6 Oct.</td>
<td>Conducting a review of the research literature Internet Resources</td>
<td><strong>Research Question with Rationale Due</strong></td>
</tr>
<tr>
<td>6</td>
<td>13 Oct.</td>
<td>Writing a review of the research literature</td>
<td>Read Chap. 3 in Mertler (pp. 71-80)</td>
</tr>
<tr>
<td>8</td>
<td>27 Oct.</td>
<td>Understanding the basics of quantitative research</td>
<td>Read Mertler (pp. 137-150)</td>
</tr>
<tr>
<td>9</td>
<td>3 Nov.</td>
<td>Understanding the basics of qualitative and mixed method research</td>
<td>Read Mertler (pp.126-137)</td>
</tr>
<tr>
<td>10</td>
<td>10 Nov.</td>
<td>Introduction to Making Sense of Data</td>
<td><strong>Class will meet on Blackboard</strong></td>
</tr>
<tr>
<td>11</td>
<td>17 Nov.</td>
<td>Analyzing data</td>
<td>Read Chap. 6 in Mertler Optional Methodology Draft Due</td>
</tr>
<tr>
<td>12</td>
<td>24 Nov.</td>
<td>Using and following the APA Style</td>
<td><strong>Class will meet on Blackboard</strong></td>
</tr>
<tr>
<td>13</td>
<td>1 Dec.</td>
<td>Writing Up Action Research</td>
<td>Read Chap. 8 in Mertler</td>
</tr>
<tr>
<td>14</td>
<td>8 Dec.</td>
<td>Oral presentation of research projects</td>
<td><strong>Final Draft Due</strong></td>
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**Academic Dishonesty/Plagiarism**

The College of Education has a “zero tolerance” approach to plagiarism and other forms of academic dishonesty. (See Student Code of [http://doso.wayne.edu/assets/codeofconduct.pdf](http://doso.wayne.edu/assets/codeofconduct.pdf)). Plagiarism includes copying material (any more than 5 consecutive words) from outside texts or presenting outside information as if it were your own by not crediting authors through citations. It can be deliberate or unintended. Specific examples of academic dishonesty, including what constitutes plagiarism, can be found in the University’s Undergraduate Bulletin ([http://bulletins.wayne.edu/ubk-output/index.html](http://bulletins.wayne.edu/ubk-output/index.html)) and Graduate Catalog ([http://www.bulletins.wayne.edu/GBK-output/index.html](http://www.bulletins.wayne.edu/GBK-output/index.html)) under the heading “Student Ethics.” These university policies are also included as a link on Blackboard within each course in which students are enrolled. It is every student’s responsibility to read these documents to be aware which actions are defined as plagiarism and academic dishonesty. Sanctions could include failure in the course involved, probation and expulsion, so students are advised to think carefully and thoroughly, ask for help from instructors if it is needed, and make smart decisions about their academic work.

**Enrollment/Withdrawal Policy**

Students must add classes no later than the end of the first week of classes. This includes online classes. Students may continue to drop classes (with full tuition cancellation) through the first two weeks of the term.

Students who withdraw from a course after the end of the 5th week of class will receive a grade of WP, WF, or WN.

- WP will be awarded if the student is passing the course (based on work due to date) at the time the withdrawal is requested
- WF will be awarded if the student is failing the course (based on work due to date) at the time the withdrawal is requested
- WN will be awarded if no materials have been submitted, and so there is no basis for a grade

Students must submit their withdrawal request on-line through Pipeline. The faculty member must approve the withdrawal request before it becomes final, and students should continue to attend class until they receive notification via email that the withdrawal has been approved.

Beginning the fifth week of class students are no longer allowed to drop but must withdraw from classes. The last day to withdraw will be at the end of the 10th full week of classes. The withdrawal date for courses longer or shorter than the full 15-week terms will be adjusted proportionately.

See the university webpage for full details: [http://reg.wayne.edu/students/information.php](http://reg.wayne.edu/students/information.php)
Attention Students with Disabilities:

If you have a documented disability that requires accommodations, you will need to register with Student Disability Services (SDS) for coordination of your academic accommodations. The Student Disability Services (SDS) office is located at 1600 David Adamany Undergraduate Library in the Student Academic Success Services department. SDS telephone number is 313-577-1851 or 313-202-4216 (video phone). Once you have your accommodations in place, I will be glad to meet with you privately during my office hours to discuss your special needs. Student Disability Services’ mission is to assist the university in creating an accessible community where students with disabilities have an equal opportunity to fully participate in their educational experience at Wayne State University.

Please be aware that a delay in getting SDS accommodation letters for the current semester may hinder the availability or facilitation of those accommodations in a timely manner. Therefore, it is in your best interest to get your accommodation letters as early in the semester as possible.

Religious Observance Policy:

Because of the extraordinary variety of religious affiliations represented in the University student body and staff, the Wayne State University calendar makes no provision for religious holidays. It is University policy, however, to respect the faith and religious obligations of the individual. Students who find that their classes or examinations involve conflicts with their religious observances are expected to notify their instructors well in advance so that alternative arrangements as suitable as possible may be worked out.

Wayne State University Writing Center:

The Writing Center (2nd floor, UGL) provides individual tutoring consultations free of charge for students at Wayne State University. While the center serves both graduate and undergraduate students, undergraduate students in General Education courses, including composition courses, receive priority for tutoring appointments. The Writing Center serves as a resource for writers, providing tutoring sessions on the range of activities in the writing process – considering the audience, analyzing the assignment or genre, brainstorming, researching, writing drafts, revising, editing, and preparing documentation. The Writing Center is not an editing or proofreading service; rather, students are guided as they engage collaboratively in the process of academic writing, from developing an idea to correctly citing sources. To make an appointment, consult the Writing Center website: http://www.clas.wayne.edu/writing/.

To submit material for online tutoring, consult the Writing Center HOOT website (Hypertext One-on-One Tutoring) http://www.clas.wayne.edu/unit-inner.asp?WebPageID=1330.