Agenda Item #16-10
Effective: Summer 2016

Eastern Illinois University

New/Revised Course Proposal Format

(Approved by CAA on 4/3/14 and CGS on 4/15/14, Effective Fall 2014)

Banner/Catalog Information (Coversheet)

1. **__X__New Course or _____Revision of Existing Course**
2. **Course prefix and number:** _MAT 5300_____
3. **Short title:** __Curriculum & Assessment-Math_____
4. **Long title:** ___ Curriculum and Assessment in Mathematics Education _____
5. **Hours per week:** _3_ Class _0_ Lab _3_ Credit
6. **Terms:** ___ Fall ___ Spring _X_ Summer ___ On demand
7. **Initial term**: ___ Fall ___ Spring _X_ Summer Year: _2016_
8. **Catalog course description:** _Examination of a broad range of issues related to assessment and curriculum in mathematics education at all levels; alignment of assessment, standards, and curriculum; implications for planning, implementing, and evaluating mathematics instruction._____
9. **Course attributes:**

   General education component: _____

   ___ Cultural diversity ___ Honors ___ Writing centered ___ Writing intensive ___Writing active
10. **Instructional delivery**
    Type of Course:

    _X_ Lecture ___ Lab ___ Lecture/lab combined ___ Independent study/research

    ___ Internship ___ Performance ___ Practicum/clinical ___ Other, specify: _____

    Mode(s) of Delivery:

    _X_ Face to Face ___ Online ___ Study Abroad

    ___ Hybrid, specify approximate amount of on-line and face-to-face instruction_____
11. Course(s) to be deleted from the catalog once this course is approved. MAT 4800
12. **Equivalent course(s):** None

    a. Are students allowed to take equivalent course(s) for credit? ___ Yes __X__ No
13. **Prerequisite(s):** Experience teaching in grades K-12

    a. Can prerequisite be taken concurrently? ___ Yes _X_ No

    b. Minimum grade required for the prerequisite course(s)? ___

    c. Use Banner coding to enforce prerequisite course(s)? ___ Yes _X__ No

d. Who may waive prerequisite(s)?

___ No one __X_ Chair __X_ Instructor ___ Advisor __X_ Other (specify): Mathematics Education Graduate Coordinator

14. Co-requisite(s): __None_____

15. Enrollment restrictions

a. Degrees, colleges, majors, levels, classes which <u>may</u> take the course: __All_____

b. Degrees, colleges, majors, levels, classes which may <u>not</u> take the course: __None_____

16. Repeat status: _X_ May not be repeated ___ May be repeated once with credit

17. Enter the limit, if any, on hours which may be applied to a major or minor: ___

18. Grading methods: _X_ Standard ___ CR/NC __ Audit ___ ABC/NC

19. Special grading provisions:

___ Grade for course will <u>not</u> count in a student's grade point average.

___ Grade for course will <u>not</u> count in hours toward graduation.

___ Grade for course will be removed from GPA if student already has credit for or is registered in: _____

___ Credit hours for course will be removed from student's hours toward graduation if student already has credit for or is registered in: _____

20. Additional costs to students:
Supplemental Materials or Software___None_____

Course Fee _X_No ___Yes, Explain if yes_____

21. Community college transfer:

___ A community college course may be judged equivalent.

_X__ A community college may <u>not</u> be judged equivalent.

Note: Upper division credit (3000+) will <u>not</u> be granted for a community college course, even if the content is judged to be equivalent.

Rationale, Justifications, and Assurances (Part I)

1. _X__Course is required for the major(s) of _MA Mathematics (Elementary/Middle School and Secondary Mathematics Education Options)___
   ___Course is required for the minor(s) of _____
   ___Course is required for the certificate program(s) of _____
   ___ Course is used as an elective
2. **Rationale for proposal** : This course fills a gap in our graduate program in Mathematics Education. Currently, there is no course that focuses on issues specific to assessment, especially how assessment is aligned with standards and curriculum. These issues are of central importance to teachers working to implement the Common Core State Standards.
3. **Justifications for (answer N/A if not applicable)**
   Similarity to other courses: Some aspects of this proposed course are addressed in MAT 4800: Diagnosis and Remediation, however this proposed course will focus more on different models of assessment rather than on remediation strategies. If this course is approved MAT 4800 will be removed from the catalog.
   Prerequisites: This course focuses on the professional activity of teaching mathematics and requires experience teaching at the primary, middle, or secondary level.
   Co-requisites: N/A
   Enrollment restrictions: N/A
   Writing active, intensive, centered: N/A
4. **General education assurances (answer N/A if not applicable)**
   General education component: N/A
   Curriculum: N/A
   Instruction: N/A
   Assessment: N/A
5. **Online/Hybrid delivery justification & assurances (answer N/A if not applicable)**
   Online or hybrid delivery justification: N/A
   Instruction: N/A
   Integrity: N/A
   Interaction: N/A

Model Syllabus (Part II)

Please include the following information:

1. Course number and title
2. Catalog description
3. Learning objectives.
4. Course materials.
5. Weekly outline of content.
6. Assignments and evaluation, including weights for final course grade.
7. Grading scale.
8. Correlation of learning objectives to assignments and evaluation.

MAT 5300 – Curriculum and Assessment in Mathematics Education

Description: Examination of a broad range of issues related to assessment and curriculum in mathematics education at all levels; alignment of assessment, standards, and curriculum; implications of assessment for planning, implementing, and evaluating mathematics instruction.

Learning Objectives:

At the end of the course, students will be able to:

1. Identify and evaluate students' mathematical thinking to diagnose conceptions and misconceptions. (Effective critical thinking and problem solving)
2. Extend and refine their perspective of assessment in the mathematics classroom. (Depth of content knowledge)
3. Describe how curriculum plays a role in, and affects, teaching. (Effective oral and written communication)
4. Investigate and articulate issues of assessment and curriculum in the scholarly literature. (Advanced scholarship through research or creative activity)
5. Develop facility with formative assessment techniques. (Depth of content knowledge)
6. Identify curricular goals and adapt summative assessment practices to them. (Effective critical thinking and problem solving)

Materials

Collins, A. M. (ed.) (2011). *Using Classroom Assessment to Improve Student Learning*. Reston, VA: National Council of Teachers of Mathematics

Keeley, P. & Tobey, C. R. (2011). *Mathematics Formative Assessment: 75 Practical Strategies for Linking Assessment, Instruction, and Learning.* Thousand Oakes, CA: Corwin.

Lilburn, P., & Ciurak, A. (2010). *Investigations, Tasks, & Rubrics to Teach & Assess Math: Grades 1 – 6.* Sausalito, CA: Math Solutions.

National Council of Teachers of Mathematics. (2014). *Principles to Action: Ensuring Mathematical Success for All.* Reston, VA: Author.

Senk, S. L. & Thompson, D. R. (Eds). (2013). *Standards-based school mathematics curricula.* Mahway, NJ: Erlbaum.

Thompson, D. R. Usiskin, Z. (2014). *Enacted Mathematics Curriculum.* Charlotte, NC: Information Age Publishing

Outline

Week 1: Introduction to Curriculum & Assessment

Week 2: Perspectives on Curriculum

Week 3: Common Core State Standards

Week 4: Mathematics Texts

Week 5: Teachers and Mathematics Curriculum

Week 6: Perspectives on Understanding and Learning

Week 7: Assessing with interviews and work samples

Week 8: Formative Assessment

Week 9: Assessing Problem Solving

Week 10: Improving Learning through Questioning

Week 11: Evaluation and Grading

Week 12: Rubric Development

Week 13: State Testing/PARCC

Week 14: Research on Assessment and Curriculum

Week 15: Linking Assessment and Curriculum

Assignment Categories

(20%) Reading & Writing Assignments

(20%) Formative Assessment Techniques Presentation

(20%) Textbook Analysis Project

(20%) Research Project

(20%) Unit Assessment Project

Grading Scale

Final Grades will be given on an A, B, C, D, F scale.

Correlation of Learning Objectives to Assignments

	Reading & Writing Assignments (20%)	Formative Assessment Techniques Presentation (20%)	Textbook Analysis Project (20%)	Research Project (20%)	Unit Assessment Project (20%)
Identify and evaluate students' mathematical thinking to diagnose conceptions and misconceptions.	X	X			
Extend and refine their perspective of assessment in the mathematics classroom.	X			X	
Describe how curriculum plays a role in, and affects teaching.	X		X	X	X
Investigate and articulate issues of assessment and curriculum in the scholarly literature.	X			X	
Develop facility with formative assessment techniques.		X			X
Identify curricular goals and adapt summative assessment practices to them.	X		X		X

Date approved by the department or school: 11/30/15
Date approved by the college curriculum committee: 12/11/15
Date approved by the Honors Council *(if this is an honors course):*
Date approved by CAA: CGS: