FLORIDA STATE COLLEGE AT JACKSONVILLE

COLLEGE CREDIT COURSE OUTLINE

COURSE NUMBER:	MTG 2204
COURSE TITLE:	Geometry for Teachers
PREREQUISITE(S):	None
COREQUISITE(S):	None
CREDIT HOURS:	3
CONTACT HOURS/WEEK:	3
CONTACT HOUR BREAKDOWN:	
Lecture/Discussion:	3
Laboratory:	
Other _____:	
FACULTY WORKLOAD POINTS:	3
STANDARDIZED CLASS SIZE ALLOCATION:	24

CATALOG COURSE DESCRIPTION:

Emphasizes Euclidean plane geometry with an introduction to the non-Euclidean geometries. The problems, proofs, and constructions involve line segments, angles, triangles, polygons, circles, parallel lines and similarity.

This course is specifically intended for middle/high school teachers according to profile from the State of Florida.

SUGGESTED TEXT(S):	Elementary Geometry. Alexander, Houghton-Mifflin, Current Edition ISBN: 0395-87055-0 College Geometry. Kay, Addision-Wesley, Current Edition ISBN: 0-321-04624-2
IMPLEMENTATION DATE:	Fall Term, 1999
REVIEW OR MODIFICATION DATE:	Fall Term, 2002 (20031) Fall Term, 2004 (20051) Fall Term, 2008 (20091) - Outline Review 2007

COURSE TOPICS			CONTACT HOURS PER TOPIC
I.	Euclidean Geometry		19
	A. Logic	(3)	
	B. Overview and History	(1)	
	C. Euclid's Approach: Constructions, Congruence, and Parallels	(6)	
	D. Euclid-Modern Axiomatics: Systems, Models	(5)	
	E. Similar Figures	(2)	
	F. Three-Dimensional Geometry	(2)	
II.	Analytic Geometry		11
	A. Overview and History	(1)	
	B. Conics and Locus Problems	(2)	
	C. Parametric Equations	(2)	
	D. Polar Coordinates	(2)	
	E. Computer-Aided Design	(2)	
	F. Three-Dimensional Analytic Geometry	(2)	
III.	Algebra of Geometry		4
	A. Perimeter	(1)	
	B. Area	(1)	
	C. Volume	(1)	
	D. Surface Area of Solids	(1)	
IV.	Transformational Geometry		5
	A. Overview and History	(1)	
	B. Isometries and Affine Transformations	(3)	
	C. Computer-Aided Geometry	(1)	
V.	Symmetry		2
	A. Overview and History	(1)	
	B. Symmetry in the Plane	(1)	

COURSE TOPICS (continued)

CONTACT HOURS
PER TOPIC

VI.	Non-Euclidean Geometry			2
	A.	Overview	(.5)	
	B.	Types	(.5)	
	C.	Fractals	(1)	
VII.	Presentation of a Topic			2

**No attempt has been made to sequence the topics in this outline. The order of presentation of topics is left to the instructor

Florida State College At Jacksonville

Course Learning Outcomes & Assessment
For All College Credit Courses

NOTE: Use either the Tab key or mouse click to move from field to field. The box will expand to accommodate your entry.

Section 1	
COURSE PREFIX AND NUMBER: **MTG 2204**	SEMESTER CREDIT HOURS: **3**
COURSE TITLE: **Geometry for Teachers**	

Section 2

TYPE OF COURSE: (Click on the box to check all that apply)

- ☐ **AA Elective**
- ☐ **AS Required Professional Course**
- ☐ **College Prep**
- ☐ **AS Professional Elective**
- ☐ **AAS Required Professional Course**
- ☐ **Technical Certificate**
- X **Other Certification**
- ☐ **General Education: (For General Education courses, you must also complete Section 3 and Section 7)**

Section 3 (If applicable)

INDICATE BELOW THE DISCIPLINE AREA FOR GENERAL EDUCATION COURSES:

- ☐ **Communications**
- ☐ **Social & Behavioral Sciences**
- X **Mathematics**
- ☐ **Natural Sciences**
- ☐ **Humanities**

Section 4

INTELLECTUAL COMPETENCIES:

- ☐ **Reading**
- ☐ **Speaking**
- X **Critical Analysis**
- X **Quantitative Skills**
- ☐ **Scientific Method of Inquiry**
- ☐ **Writing**
- ☐ **Listening**
- ☐ **Information Literacy**
- X **Ethical Judgment**
- X **Working Collaboratively**

Section 5 **LEARNING OUTCOMES**		**METHOD OF ASSESSMENT**
•	1) The student will be able to understand and teach Euclidean Geometry.	1) Tests and quizzes
•	2) The student will be able to understand and teach Analytical Geometry.	2) Classroom presentations
•	3) The student will be able to understand and teach the Algebra of Geometry.	
•	4) The student will be able to understand and teach Transformational Geometry.	
•	5) The student will be able to understand and teach Symmetry.	
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Section 6

Name of Person Completing This Form: Roger Breen, Lee Seltzer, Libby Holt Date: 08/26/2004