

• AUTHORIZATION TO OFFER TOPICS COURSES FOR ACADEMIC CREDIT
THROUGH EXTENDED STUDIES •

(Note: Extended Studies sections of topic classes for which the appropriate form E-T is not on file in the Office of Academic Programs will be removed from BANNER as periodic audits of course offerings are performed.)

Note: Any proposed topic can only be offered two times before being converted to a non-topics course. Academic Programs will assign the appropriate suffix and edit the topic description provided.

1. College of: Arts & Sciences 2. Center/Program/Department: Mathematics
3. Instructor Dr. Linda Holt
(If more than one instructor will be teaching the course, list full name of the "instructor of record.")
4. Topic Abbreviation and Number: Math 409 - Topics in Mathematics for Teachers - Geometry
6. Term: Summer - 30 7. Year: 2007 8. Variable Units* 1
9. Has this topic been offered previously? Yes No If yes, indicate term(s): _____ Year: _____
10. Topic Title: Topics in Mathematics for Teachers - Geometry
11. **Topic Description:** Note: This part can be skipped if answer to part 9 is "yes." (NOTE: Please provide detailed information about the topic. Please type. You may also attach the topic description on a separate sheet if you do not have enough space.)

Reasoning in geometry –

Inductive and deductive reasoning, graphs, reasoning about angle relationships.

Using the tools of geometry –

using ruler and compass constructions for angle and segment duplication, perpendicular bisectors, perpendiculars to a line, angle bisectors, parallel lines, points of concurrency, and centroids.

Transformations and tessellations –

Symmetry, isometries, compositions of transformations, tessellations with regular and nonregular polygons.

Geometry as a mathematical system –

axioms, direct and indirect proofs, proving theorems about triangles, quadrilaterals and circles, non-Euclidean geometry.

12. Does this topic have prerequisites? Math 210 and Math 212
13. Does this topic have co-requisites? No
14. Does the topic require consent for enrollment? Yes No
 Faculty Credential Analyst Dean Program/Center/Department - Director/Chair
15. Is topic crosslisted: Yes No If yes, indicate which course _____ and obtain signature in #18.
16. What resources are needed to offer this topic (including technology)?
None
17. Justification for offering this topic.
Student requires teaching mathematical concept reinforcement, in this case specifically geometry.

* Enter units only if this is a variable-units topic course.

