- 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**


9. Has this topic been offered previously? **Yes X 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, perpendicularly 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? **X Yes No**
   Faculty Credential Analyst Dean **X** Program/Center/Department - Director/Chair

15. Is topic crosslisted? **Yes X 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.
18. Does this topic impact any other disciplines? Note: This number can be skipped if answer to part 9 is "yes."

- Yes  X  No  If yes, obtain signature(s). Any objections should be stated in writing and attached to this form.

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19. Location (if topic not offered at main campus)

20. Is this course being offered on-line?  X  No

21. Is this a contract topic?  X  No

22. Enrollment Limit

23. Requested Bldg/Room  None

    Please call Extended Studies first to reserve the room.

Please note: A separate Form E-T must be submitted for each section offered.

**SIGNATURES**

1. Program/Center/Department - Director/Chair  
   
   5/21/07  
   Date

2. College Dean (or Designee)  
   
   5/22/07  
   Date

The academic credentials of the instructor listed above are known to the Program/Center/Department (either regular faculty, or adjunct faculty with a curriculum vitae on file in the Program/Center/Department Office). The instructor is qualified to deliver the topic as described in part 9 (or on a previous Form T or Form E-T in the case of a topic that has already been offered).

3. Dean of Extended Studies (or Designee)  
   05/22/07  
   Date

Completed form received in the Office of Extended Studies

4. Associate Vice President for Academic Affairs - Academic Programs  
   5/23/07  
   Date