

• 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 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, 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? 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.

\_\_\_\_\_      Support      Oppose  
Discipline                      Signature                      Date

\_\_\_\_\_      Support      Oppose  
Discipline                      Signature                      Date

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

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

21. Is this a contract topic?      Yes   X   No

22. Enrollment Limit     1    

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

    L m Hoob         5/21/07      
1. Program/Center/Department – Director/Chair                      Date

    [Signature]         5/22/07      
2. College Dean (or Designee)                      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).

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

Completed form received in the Office of Extended Studies

    [Signature]         5/23/07      
4. Associate Vice President for Academic Affairs – Academic Programs                      Date