California State University, San Marcos

- 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, perpendiculare to a line, angle bisectors, parallel lines, points of concurrency, and centroids.
   Transformations and tessellations -
   Symmetry, isometrics, 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.
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18. Does this topic impact any other disciplines? Note: This number can be skipped if answer to part 9 is "yes."
   Yes [ ] No [X] If yes, obtain signature(s). Any objections should be stated in writing and attached to this form.

   Discipline ___________________________ Signature ___________________________ Date ____________ Support [ ] Oppose [ ]
   ___________________________ Signature ___________________________ Date ____________ Support [ ] Oppose [ ]

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

SIGNATURES

1. Program/Center/Department — Director/Chair
   [Signature] ___________________________ Date ____________

2. College Dean (or Designee)
   [Signature] ___________________________ 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)
   [Signature] ___________________________ Date 05/22/07

   Completed form received in the Office of Extended Studies

4. Associate Vice President for Academic Affairs — Academic Programs
   [Signature] ___________________________ Date 05/23/07

   For Academic Programs Use Only: ______ Banner ______ Excel

   Revised 07/08/05