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U.S. LSC Use Only
Number: 00-385

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Submission Date:

Only:



Part II

1. Description of the Curricular Change

A. Catalog Description

GEOS 123: Applied Mathematics in the Geosciences

1 lecture hour

0 lab hour

(1c-0l-1sh)

Co-requisites: Concurrent enrollment in MATH 121 or MATH 123, or permission of instructor

For geoscience majors enrolled in either MATH 121 or MATH 123. Applications of the

of problems in geochemistry and geophysics. Topics will involve geoscience

(1 hr).

3. Differentiation: Commonly used expressions will be used to illustrate the principles of

F. Special Resource Requirements

G. Bibliography

D. J. 1990. *The Earth: Blackwell Scientific Publications, Brookline*

Village, MA, 366 p.

Carr, J., 1995, Numerical analysis for the geosciences; Prentice Hall, Englewood Cliffs, NJ, 592 p.

Consolmagno, G. J., and Schaefer, M. W., 1994, Worlds Apart: A textbook in planetary sciences: Prentice Hall, Englewood Cliffs, NJ, 320 p.

Fowler, C. M. R., 1990. The solid Earth: Cambridge University Press. New York. NY.

472 p.

H. Justification /Rationale for Curricular addition

It is well recognized that calculus is the language with which scientists construct physical models and communicate their ideas. Unfortunately, many GeoScience majors, having

_____ fail to understand the relevance of calculus to their

_____ professional career. In part, this is due to the fact that calculus is introduced in GEOS

society.

Section B: Interdisciplinary Implications

- B1 Only one instructor will teach this course.
- B2 The overall design of this course is to closely follow the syllabus of MATH121. The specific content, though, will differ from MATH121; problems related to the application of mathematical methods in the geosciences will be emphasized.
- B3 Seats will be made available to the School of Continuing Education.

Part III - Letters of Support

Mathematics Department:

9/19/00

Dr. Putirka: