



## PURE MATHEMATICS 423 "DIFFERENTIAL GEOMETRY"

**Calendar Description:** H(3-0)

Fundamentals of the Gaussian theory of surfaces. Introduction to Riemannian geometry. Some topological aspects of surfaces.

**Prerequisite:** Mathematics 353 or consent of the Division.

### *Syllabus*

#### **Topics**

- Ch. 1      Review of vector algebra and elementary vector analysis
- Ch. 2      Local curve theory, Frenet-Serret formulas and applications
- Ch. 4      Local surface theory, Geodesics, Gaussian curvature
- Ch. 6      Global theory of surfaces, Gauss-Bonnet Theorem

\* \* \* \* \*

95.03.17

Suggested Text removed 2009:01:01