



Pure Mathematics 423

Differential Geometry

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

Course Hours: H(3-0)

Prerequisite(s): [Mathematics 353](#) or [381](#), 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

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95.03.17

Suggested Text reference removed 2009:01:01

Prerequisite change: 2009:07:01