

MATH 71000- DIFFERENTIAL GEOMETRY II  
GRADUATE CENTER, CUNY  
SECTION 01, SPRING 2025  
MONDAY 9:30AM - 11:00 AM, WEDNESDAY 2:00PM - 3:30PM, ROOM: GC 6417.

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INSTRUCTOR: Mehdi Lejmi                      OFFICE: 4301  
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OFFICE PHONE NUMBER: 718-289-5415  
COURSE PAGE: <https://fsw01.bcc.cuny.edu/mehdi.lejmi/>

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REFERENCES:

1. “Riemannian Geometry” by Sylvestre Gallot, Dominique Hulin and Jacques Lafontaine.
2. “Riemannian Geometry” by Manfredo Do Carmo.
3. “Introduction to Riemannian Geometry” by John Lee.

COURSE OUTLINE: The main topics will be:

1. Riemannian metrics.
2. Connections.
3. Geodesics.
4. Curvature.
5. Jacobi fields.
6. (If time permits) Elements of Kähler Geometry.

GRADING: Grades will be based on a midterm and a final exam (25% each) and Homeworks (50%). You are encouraged to work together on homework, although each student must submit an individual write-up.