Multivariable Calculus, **Vector Calculus**, Complex Variables (MTH203/MATH III)

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Monsoon 2014, Mon (9:00a-10:30a) Thu (9:00a-10:30a), C02 lecture hall, Tutorial Tue (12p-1p), C11
Indraprastha Institute of Information Technology, Delhi (IIIT-D)

Table 1: Schedule for Vector Calculus

Date (day)	Plan
29/9 (Mon)	classify measurements into vectors and scalars; components of a vector; projection of a vector on another; dot product; parallelism
30/9 (Tue)	lecture (instead of tutorial); hw 1 posted; cross product; perpendicularity; equation of a plane;
7/10 (Tue)	tutorial-1; vectors;
9/10 (Thu)	quiz I; hw 1 due; vector functions; curves in space; motion of a particle in 2D/3D; curvature; tangent and normal vector
11/10 (Sat)	hw 2 posted; arc length and line integrals; path length of a particle in 3D; centre of mass; vector field;
13/10 (Mon)	gradient of a scalar field; divergence of vector field
14/10 (Tue)	tutorial-2; line integrals; vector field
16/10 (Thu)	quiz II; hw 2 due; curl of vector field; Green's theorem; surface integrals; hw 3 posted (20/10)
27/10 (Mon)	surface and surface integrals; Stoke's theorem; Gauss' theorem
28/10 (Tue)	tutorial-3; surface integrals; Green's theorem; Gauss' theorem
30/10 (Thu)	review (sample problems in surface integrals, Stoke's theorem and Gauss' theorem) ; hw 3 due;
4/11 (Tue)	topic exam (covers all of vector calculus);

Grading for Vector Calculus

- Homework Assignments (3): 12% — you may collaborate on these but submit your own work
- Tutorial attendance: 3% — one grade point per tutorial
- Weekly quiz (2): 8 % — in-class, these will be based on homeworks; 15-20 minutes each
- Topic exam (covering all of the material in Vector calculus): 12% — location TBD

Office hours

Thursdays: 1:30–3pm

Academic dishonesty

Please carefully read `http://www.iiitd.ac.in/education/resources/academic-dishonesty`. Please discuss with me if you have doubts about what constitutes dishonesty, plagiarism, and cheating. You are responsible for your work!