SYLLABUS

1. Integrable functions of several variables.

2. Lebesgue's Theorem.

3. Fubini's theorem.

4. The change of variable formula for multivariable functions.

5. Improper integrals. Differentiation under the integral sign.

6. Arc length, line and path integrals. Green's theorem. Gauss' theorem in the plane.

7. Surface area and surface integrals. Stokes' and Gauss' theorems.

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