

## MATH 5102 Analysis II

*This course provides an introduction to measure theory and multivariable calculus in the context of functions on differentiable manifolds.*

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**Text:** *Mathematical Analysis: An Introduction* by Andrew Browder, Springer, 1996.

**Prerequisites:** MATH 5101 Analysis I and MATH 5111 Algebra I, or the equivalent.

**Topics to be covered (Ch. 9-11, 13-14):** Measures, Integration, Manifolds, Differential Forms, Integration on Manifolds (incl. the Stokes and the Divergence Theorems).

**Grading:** Weekly homework problems will be assigned and there will be a take-home final exam.