

# Lectures Notes from All the Maths You Missed

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## 1 Introduction

After finishing a undergraduate degree in maths, one should be able to comprehend the following concepts:

1. Linear Algebra
2.  $\varepsilon$  and  $\delta$
3. Calculus for Vector-Valued Functions
4. Point Set Topology
5. Classical Stokes' Theorem
6. Differential Forms and Stokes' Theorem
7. Curvature for Curves and Surfaces
8. Geometry
9. Complex Analysis
10. Countability and the Axiom of Choice
11. Algebra
12. Lebesgue Integration
13. Fourier Analysis
14. Differential Equations
15. Combinatorics and Probability
16. Algorithms

### 1.1