

Welcome to The Art of Integration! Today, we will explore various techniques to solve challenging integrals.

Topics we will cover:

1. Review of integration concepts
2. U-substitution
3. Trigonometric substitution
4. Partial fraction decomposition
5. Integration by parts
6. Integration tricks

If time permits:

1. Weierstrass substitution
2. King's rule
3. Inverse with fixed-points
4. Iterated integrals
5. Other techniques

A handbook of various integration techniques will be provided at the start of class. This will include a statement/description of each technique, when/how to apply it, an explanation or derivation, and one or more solved examples. The handbook will also include several techniques not covered during the class.

Happy integrating!