**MA\*718 Advanced Complex Analysis**

Algebraic Functions and branched coverings of P1 , Sheaves and Analytic continuation, Curves in projective space; resultants, Holomorphic differentials, Sheaf cohomology Line bundles and projective embeddings; canonical curves, Riemann – Roch and Serre duality via distributions, Jacobian variety

**References:**

1. Forster, Lectures on Riemann Surfaces, Springer – Verlag, 1981
2. Buser, Geometry and Spectra of Compact Riemann Surfaces, Birkhauser, 1992