AN INTRODUCTION TO UNIFORM ALGEBRAS

We will introduce uniform algebras and discuss some of the basic results from the theory of uniform algebras. We will focus our discussion on the disk algebra $\mathcal{A}$, which is the algebra of all functions that are continuous on the closed unit disk and holomorphic on the open unit disk with the supremum norm. In particular, we will discuss results regarding its maximal ideal space, generators, structure of its closed ideals, and properties of the set of the real parts of functions in $\mathcal{A}$.