

# Ideals

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The aim of these lectures is to study the ideals of Leavitt path algebras. First, two-sided ideals, maximal ideals, prime ideals and primitive ideals of a ring will be discussed. Since Leavitt path algebras are  $\mathbb{Z}$ -graded, it is important to determine the structure and generators of the graded ideals. We will also consider ideals of Leavitt path algebras that are not graded. The structure of maximal ideals of Leavitt path algebras will be examined and the characterization of prime ideals will be given. We will prove that a graded ideal is an intersection of primitive ideals.