# CO351 - Network Flow Theory

## Contents

# 1 Graph Theory Primer

**Definition 1.1.** Let $G = (V, E)$ be a graph, where $V$ is the vertex set and $E$ is the edge set. The **degree** of a vertex $v \in V$ (denoted $\deg(v)$) is the nubmer of edges with one end in $v$. (i.e. The size of the set $\{va \mid a \in V, \ a \neq v\}$)