

# Vertex Cover LP

Fill out the poll everywhere for  
Activity Credit!  
Go to [pollev.com/cse417](https://pollev.com/cse417) and login  
with your UW identity

Write an LP for finding the minimum weight vertex cover

A set  $S$  of vertices is a vertex cover if for every edge  $(u, v)$ ,  $u$  is in  $S$ ,  $v$  is in  $S$  or both are in  $S$ .

What are your variables, then how do you constrain them?

Let  $w(u)$  be the weight for a vertex  $u$ . You can treat  $w(u)$  as a constant.