g=TinkerGraph.open().traversal()

g.addV("course").property(id,'CS101').as("CS101").addV("course").property(id,'CS201').as("CS201").addV("course").property(id,'CS220').as("CS220").addV("course").property(id,'CS420').as("CS420").addV("course").property(id,'CS334').as("CS334").addV("course").property(id,'CS681').as("CS681").addV("course").property(id,'CS400').as("CS400").addV("course").property(id,'CS526').as("CS526").addE("requires pre-req").from("CS201").to("CS101").addE("requires pre-req").from("CS220").to("CS201").addE("requires pre-req ").from("CS420").to("CS220").addE("requires pre-req").from("CS334").to("CS201").addE("requires pre-req").from("CS681").to("CS334").addE("requires pre-req").from("CS400").to("CS334").addE("requires pre-req").from("CS526").to("CS400").addE("is a co-req of").from("CS526").to("CS400").addE("is a co-req of").from("CS420").to("CS220")

g.V().as('a').out('is a co-req of').as('b').select('a','b')

g.V('CS526').repeat(out("requires pre-req")).emit()

g.V('CS101').repeat(\_\_.in("requires pre-req")).emit().path().count(local).max()