

EngrD 2190 - Chemical Process Design & Analysis
Process Design & Operation Plan - 2025

Name _____ Cornell NetID _____

Equipment Purchases:

Reactor: Type: _____ (1 or 2)
Size: _____ (capacity in mol/day)

Separator I: Type: _____ (1 or 2)
Size: _____ (capacity in mol/day)

Separator II: Type: _____ (1 or 2)
Size: _____ (capacity in mol/day)

Operating Parameters:

Reactant *A* flow rate: _____ (mol of *A* per day)

Fraction of Separator I liquid bottoms to purge: _____

Fraction of Separator I liquid bottoms to recycle*: _____

Due Monday October 20 at noon

* The recycle stream bypasses Separator II. If you do not purchase a second separator, the recycle fraction equals 1 minus the purge fraction. Note: If you purchase a separator II, you must decide how much unpurged “Separator I Bottoms” to send through Separator II. That is, if you purchase a Separator II, you might specify “purge fraction = 0.1 and recycle fraction = 0.4.” This would send 50% of the “Separator I Bottoms” through Separator II.