IPR 2 Rubric – Capstone Design Project – CH402 AY172 **Cadets:**_____

	1-Needs More	2	3 - Good	4	5 - Excellent
Task organization and completion. □ Have the cadets properly refined the problem statement? □ Have the cadets properly organized subtasks and are all cadets contributing? □ Is there a statement of realistic deliverables? □ Did cadets meet once per week with instructor? Indicate date. □ Is the project report complete?					
Literature review. □ Have cadets explained industrial production of nylon? □ Have made point-of-use citations of chemical engineering references? □ Have the cadets diagrammed the chemical reactions involved? □ Have cadets found the capacity and cost for similar types of units? Have they used price scaling equations to estimate total process capital investment?					
Reactor design. □ Have they identified the feed and product compositions? □ Have the cadets produced a reactor design concept? □ Do the cadets understand the major reactor design issues? □ How have the cadets addressed the issues? □ Have they determined the cost of the reactor(s)?					
Separator design and unit operations. □ Do they understand how many and what type of separators they will need? □ Have they identified the separator feed and product compositions? □ Have they determined the size of the separators? □ Have they calculated the cost of columns? □ Are equipment spec sheets completed?					
Process Economics. □ Table of equipment costs? (Pumps, heat exchangers, reactors, separators? □ Have the cadets calculated capital investments (TCI, WC, and FCI)? □ Have the cadets calculated profitability (ROI, PBP, NPW, DCFR)? □ Have the cadets accounted for inflation and depreciation?					
Quality of Report. □ Are PowerPoint slides organized and clear? □ Did the cadets each speak clearly with correct grammar? □ Did the cadets respond clearly to questions? □ Are flow sheets properly presented (I/O, functions, process, and P&ID)? □ Are chemical drawings properly presented?					
Notes: Total Score:_____					