

NPRE 421

01/21

TODAY

1. General Admin [yang - 217 NEL]
2. Web
3. Disc. Chap 1 + Inertial Energy (IE)
4. Assignments

- Finish reading chp 1 + Read IE = web
- HW#1 due next week THURS.

① check Fusion Power associates website (fusionpower.org) + 2 other websites. — Who has the best explanation of what fusion is & why we should expedite its development? (limit ans. to 2 #)

② as energy czar you are to develop a future (30 yr) program using fusion ~~vs. or "future gen"~~ clean coal. Discuss figures of merit for comparison using a table — make a decision & justify

→ fusion vs. clean coal | assume fusion plant is by FSL in Illinois. ex. assume ITER type

	Fusion	CC
Cost	high	med.
time		
envrmt.		

③ From textbook: 1.2, 1.5 + compare to 1 lb TNT, 1.8 (Joules)  
 (Hint for 1.8: see ~3.9, relation between cms + lab angles)

④ Optional Extra Credit, 20% : Carbon Cycle  
 How is the carbon created to start with?  
 Is the creation energetically favorable (i.e. what are the Q values of the reaction you prepare)?