**ECHE 362 Senior Laboratory**

**Fall 2015**

**Organization of the course:**

The class will be divided into groups of three or four students. Each group will perform six experiments in rotation.

***Sequence of Experiments***

With 4 groups in each lab section (groups A, B, C, D)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Experiment | Lab #1 | Lab #2 | Lab #3 | Lab #4 | Lab #5 | Lab #6 |
| Batch Distillation | A |  |  | D | C | B |
| Heat Exchange | B | A |  |  | D | C |
| Fuel Cell | C | B | A |  |  | D |
| Gas Membrane | D | C | B | A |  |  |
| PFR/CSTR |  | D | C | B | A |  |
| Methanol Reformer |  |  | D | C | B | A |

At the first meeting of each class section, we will set up the groups and decide which group is A, B, C, or D for that section.

For each experiment, a foreman’s report will be prepared by one member of the group. A written report is due two weeks after you perform the experiment. These will be either in a memo or short form format. Details on the requirements for each of these reports are given in a separate document. Your first, 3rd and 5th experiments will be the short form, memo reports will be completed for the 2nd, 4th and 6th experiments.

Oral reports will be given for the 2nd, 4th and 6th experiments by each group. The oral reports will be given on the weeks indicated in the schedule below.

***TA assignments:***

Heat Exchange – Adriaan Riet, aar93,

Batch Distillation – Eric Lindberg, egl17

Fuel Cell – Hongyu Shen, hxs356

Methanol Reformer – Xiaozhou Shen, xxs85

Gas Membrane – Xiaozhou for labs 1 and 2, Adriaan for labs 3 and 4

PFR/CSTR – Eric for labs 2 and 3, Hongyu for labs 4 and 5

**Schedule:**

Constraints:

1st day of classes: Aug 24th, Labor Day is Sept 7th

DOE ESS review: Sept 22-25 (JSW out of town for some or all)

ECS Fall meeting, Oct 12-16 (JSW out of town for some or all)

Fall Break: Oct 19-20

Thanksgiving: Nov 26-27

Last day of classes: Dec 4th

F = foreman’s report first draft due, L = perform laboratory, R = written report due

Aug 25/27 Introduction to the course, lecture, start first foreman’s report - F1\*

Sept 1/3 perform first lab, L1

Sept. 8/10 lecture and F2

Sept 15/17 R1 and L2

Sept. 22/24 F3 and lecture

Sept 29 /Oct 1 R2 (memo) and L3

Oct 6/8 R2 orals and F4

Oct 13/15 R3 and L4

Oct 20/22 F5\*\*

Oct 27/29 R4 (memo) and L5

Nov 3/5 R4 orals and F6

Nov 10/12 R5 and L6

Nov 17/19 nothing scheduled

Nov 24/26 R6 (memo)

Dec 1/3 R6 orals

TBD poster presentation in AW Smith Lobby - tentative

(Probably on a reading day)

Due dates shown for the foreman’s reports are for the first draft.

Final foreman’s reports must be approved by the TA 24 hours before your scheduled time in the laboratory.

\* *For the first laboratory, for Tuesday sections, the first draft of your foreman’s report is due on Friday, Aug 28th. For Thursday sections, the first draft is due on Monday, August 31st. Final, approved foreman’s reports must be completed before the lab; the 24 hour rule is waived for the first lab.*

*\*\* F5 first draft due by Friday, Oct 23 for all Tues groups, F5 first draft due by Mon Oct 26th for all Thursday groups due to fall break.*

***For all groups, written lab reports (memo or short form) are due by 5pm on Monday or Wednesday before your next lab.***