**ECE 368 – Data Structures**
**Spring 2016 – Course Syllabus**

Text Books

1- Algorithms in C, Parts 1-4: Fundamentals, Data Structures, Sorting, Searching (3rd Edition), Robert Sedgewick
2- Algorithms in C, Part 5: Graph Algorithms (3rd Edition), Robert Sedgewick
3- *Data Structures and Algorithms in C++*, 2nd Edition, Goodrich, Tamassia, & Mount, Wiley, 2011 (Optional)
4- Data Structures and Algorithms in Python, 1st Edition, Goodrich, Tamassia, & Goldwasser, Wiley, 2013 (Optional)
5- Data Structures and Algorithms using Python and C++, Reed, & Zelle, Franklin, Beedle & Associates Incorporated, 2009 (Optional)

Covered Material

The course is planned to cover selected topics from Chapters 3-14 in Book 1 and other selected topics form Books 2 & 3. More details to follow during the course.

Grade Assignment

15% Homework Assignments: 5 assignments, each is assigned 3%

15% Class Participation: 8 sessions, each is assigned 2% (1% extra)

Each class participation session will have an administrative team of 3-5 students. This team will be chosen based on answering questions in class. The team will put the problem set of the class participation session with the help of the instructor. During each session, the class will be split into groups of 4-6 students, and a problem will be given in class. Each group will deliver one solution. Discussions with instructor, TAs, and the administrative team are allowed.

15% Project: Programming project will be done in groups; each has 4-6 members. Each group has to first submit a proposal that is approved by the TAs, and then delivery will be in a 30 min. discussion session with a TA.

55% Exams: 3 exams, midterm 1 is assigned 20%, midterm 2 is assigned 10%, final exam is assigned 25%

Homework Assignment Dates

Homework 1: Thursday Jan. 21st – Tuesday Feb. 2nd

Homework 2: Thursday Feb. 4th – Tuesday Feb. 16th

Homework 3: Thursday Feb. 18th – Tuesday Mar. 1st

Homework 4: Thursday Mar. 24th – Tuesday Apr. 5th

Homework 5: Thursday Apr. 7th – Tuesday Apr. 19th

Class Participation Session Dates

Thursdays Jan. 21st , Jan. 28th, Feb. 11th, Feb. 18th, Mar. 24th, Mar. 31st, Apr. 21st, Apr. 28th

Project Deadlines

Proposal Due: Thursday Feb. 18th

Project Due: Depending on Group, From Thursday Apr. 21st to Thursday Apr. 28th

Exam Dates

Midterm 1: Thursday Mar. 10th

Midterm 2: Thursday Apr. 7th

Final Exam: To be announced.

Office Hours

MSEE 350, Tuesday and Thursday 1:30 pm-2:30 pm

TAs office hours: To be announced

References

Douglas Wilhelm Harder Notes: https://ece.uwaterloo.ca/~dwharder/aads/Lecture_materials/#introduction-and-reveiew

Prof. Ghafoor's Notes: https://engineering.purdue.edu/~ee368/

Academic Integrity

Please read carefully the guidelines at: https://www.purdue.edu/odos/osrr/academic-integrity-brochure/

Important Note

In the event of a major campus emergency, course requirements, deadlines and grading percentages are subject to changes that may be necessitated by a revised semester calendar or other circumstances. In such an event, information will be provided through Blackboard Learn.