COMP232: Programming Language Structures Syllabus: Fall 2019

Instructor: Michael Skalak

Course Website: via Moodle

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Office Location: Tome 246

Class Meeting Times and Location: MWF (10:30-11:20) – Tome 231

Office Hours: TBD

Course Textbook:

Data Structures and Algorithm Analysis, Shaffer

<http://people.cs.vt.edu/~shaffer/Book/JAVA3elatest.pdf>

Prerequisites:

COMP 132

Course Objectives:

The main learning outcomes of this course are as follows:

Students will:

* recognize and understand the implementations and use of common data structures.
* deepen their understanding of and facility with asymptotic analysis.
* improve their ability to solve problems via programming.

Tentative Topics List:

Recursion & Backtracking, Asymptotic Analysis (Best/Worst/Average cases, Upper/Lower/Tight bounds), Writing Generic Java Classes, Review of Linear Structures (List/Stack/Queue), Doubly Linked Lists, Binary Trees & Traversals (pre/post/in order), Binary Search Trees, Heaps & Priority Queues, Non-Binary Trees, Sorting, Hashing, Graphs & Traversals (DFS / BFS)

Evaluation:

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| Homework: | 5% |
| Labs: | 25% |
| Midterm Exams (2): | 20% each |
| Cumulative Final Exam: | 30% |

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Important Dates:

First Mid-term exam: 10/10

Second Mid-term exam: 11/19

Final Exam: 12/16, 2 pm

Grading Scale: This course follows the grading scale of 93-100 A, 90-92 A-, etc.

Late Work:

Assignments should be turned in on the specified due date. To cover for certain unavoidable situations, each student will be allowed to use three late days throughout the term. You may use these separately or combined (a late day cannot be split- which means that if your assignment is delayed even by 30 minutes, it will be counted as a full late day). After you have used up these three late days, further late work will not be given any credit (except in cases of severe illness or emergency – via documented proof).

Academic Integrity:

Please take the time to read the Academic Misconduct section of Dickinson's Community Standards. Violations of this policy are considered serious transgressions, so you should be especially certain that you understand your rights and responsibilities under it. Students suspected of academic dishonesty will be subject to the process outlined in the Student Conduct pages. The specific collaboration policies for this course are outlined in detail below. If you are unsure about whether certain kinds of collaboration are permissible in this course, ask your instructor.

Accommodating Students with Disabilities

Dickinson values diverse types of learners and is committed to ensuring that each student is afforded an equal opportunity to participate in all learning experiences. If you have (or think you may have) a learning difference or a disability – including a mental health, medical, or physical impairment– that would impact your educational experience in this class, please contact the Office of Disability Services (ODS) to schedule a meeting with Director Marni Jones. She will confidentially discuss your needs, review your documentation, and determine your eligibility for reasonable accommodations. To learn more about available supports, go to www.dickinson.edu/ODS, email DisabilityServices@dickinson.edu, call (717) 245-1734, or go to ODS in 106 Dana Hall.