Algorithms and Data Structures, CSE 2010, Sections 1-4
Fall 2021
MW 5-6:15pm (labs: TR 9:30-10:45pm; TR 3:30-4:45pm)
OLS 130 (labs: OEC 228) / Canvas

Instructor Name: Philip Chan                      Phone: 321-674-7280
Office Location: 214 Harris Center               Email: pkc@cs.fit.edu
Office Hours: MW 11am-1pm

Teaching Assistant: Haroan Chang, 211 Harris Center, hchang2014@my.fit.edu, office hours:
Tue 12-2pm

Course website: https://cs.fit.edu/~pkc/classes/ds/

Course Objectives
1. understand basic data structures
2. understand basic algorithms
3. understand basic analysis of algorithms

Required Texts / Materials:
• (For C, I recommend: Thomas A. Standish, Data Structures, Algorithms & Software Principles in C, Addison Wesley, 1994.)

Required Training (if applicable): Pre-requisites
• CSE 1001 and 1002: Familiar with a high-level programming language.
• CSE 1400 / MTH 2051: Discrete Math.

Grading Policy (including late work policy):
• 6 homework assignments (50%)
• Test 1 (15%), Test 2 (15%) & Final Exam (20%)
• A: 90%, B: 80%, C: 70%, D: 60%
• Late assignments are accepted, but 20% is deducted for each day.

Course Attendance Policy:
• students are expected to attend lectures and labs

Where to Find Extra Help:
• CS Help Desk: https://cs.fit.edu/~pkc/dept/csHelpDesk.html
• Academic Support Center: https://www.fit.edu/academic-support-center/

- Students are encouraged to help each other on assignments, but plagiarism (copying) is prohibited.
  - first violation: zero on assignment/test
  - second violation: 'F' for the course

Title IX Statement: The university’s Title IX policy is available at https://www.fit.edu/policies/title-ix/

Title IX of the Education Amendments of 1972 is a federal civil rights law that prohibits discrimination on the basis of sex in federally funded education programs and activities. Florida Institute of Technology policy also prohibits discrimination on the basis of sex.

Florida Tech faculty are committed to helping create a safe learning environment for all students that is free from all forms of discrimination and sexual harassment, including sexual assault, domestic violence, dating violence, and stalking. If you, or someone you know, have experienced or is experiencing any of these behaviors, know that help and support are available.

Florida Tech strongly encourages all members of the community to take action, seek support, and report any incident of sexual harassment or gender discrimination to Fanak Baarmand, Title IX Coordinator at 321-674-8885 or fbaarman@fit.edu.

Please note that as your professor, I am required to report any incidents to the Title IX Coordinator.

If you wish to speak to an employee who does not have this reporting responsibility, please contact the Student Counseling Center at 321-674-8050.

Academic Accommodations: Florida Tech is committed to equal opportunity for persons w/disabilities in the participation of activities operated/sponsored by the university. Therefore, students w/documentied disabilities are entitled to reasonable educational accommodations. The Office of Accessibility Resources (OAR) supports students by assisting w/accommodations, providing recommended interventions, and engaging in case management services. It is the student’s responsibility to make a request to OAR before any accommodations can be approved/implemented. Also, students w/approved accommodations are encouraged to speak w/the course instructor to discuss any arrangements and/or concerns relating to their accommodations for the class.

Office of Accessibility Resources (OAR):

- Phone: 321-674-8285
- Email: accessibilityresources@fit.edu
- Website: https://www.fit.edu/accessibility-resources

Recording Disclosure (Privacy Waiver): This course may be recorded for use by students and/or faculty. Enrolled students are subject to having their images and voices recorded during the classroom presentations, remote access learning, online course discussions, and remote office hours/meetings. Course participants should have no expectation of privacy regarding their participation in this class.
Recordings may not be reproduced, shared with those not registered in the courses, or uploaded to other online environments. All recordings will be deleted at the conclusion of the academic term.

**Covid-19 University Policy:** Students are required to abide by the policies and guidelines set by Florida Tech Safe: Return to Learn Plan available online at [https://www.fit.edu/coronavirus](https://www.fit.edu/coronavirus). Instructors will enforce Florida Tech COVID-19 policies in all classrooms and labs.

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**Anticipated Weekly Subject Matter and Assignment Schedule:**

<table>
<thead>
<tr>
<th>Week</th>
<th>Weekly Topic</th>
<th>Assignment</th>
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</thead>
<tbody>
<tr>
<td>Week 1</td>
<td>Arrays and linked lists (Ch3)</td>
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<tr>
<td>Week 2</td>
<td>Analysis of Algorithms (Ch4)</td>
<td></td>
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<tr>
<td>Week 3</td>
<td>Recursion (Ch5)</td>
<td>Sep 9: HW1 due</td>
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<tr>
<td>Week 4</td>
<td>Stacks and Queues (Ch6)</td>
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<tr>
<td>Week 5</td>
<td>Trees (Ch8)</td>
<td>Sep 23: HW2 due</td>
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<tr>
<td>Week 6</td>
<td>Trees (Ch8)</td>
<td>Sep 29: Test 1</td>
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<tr>
<td>Week 7</td>
<td>Trees (Ch8)</td>
<td>Oct 7: HW3 due</td>
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<tr>
<td>Week 8</td>
<td>Priority Queues (Ch 9)</td>
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<tr>
<td>Week 9</td>
<td>Maps and Hashing (Ch 10)</td>
<td>Oct 21: HW4 due</td>
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<tr>
<td>Week 10</td>
<td>Sorted/Ordered Maps (Ch 10)</td>
<td>Oct 27: Test 2</td>
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<tr>
<td>Week 11</td>
<td>Graphs (Ch 14)</td>
<td>Nov 4: HW5 due</td>
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<tr>
<td>Week 12</td>
<td>Graphs (Ch 14)</td>
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<tr>
<td>Week 13</td>
<td>Search Trees (Ch11)</td>
<td>Nov 18: HW6 due</td>
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<tr>
<td>Week 14</td>
<td>Search Trees (Ch11)</td>
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<td>Week 15</td>
<td>Text Processing (Ch 13)</td>
<td>Dec 2: HW6 extra credit due</td>
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<tr>
<td>Week 16</td>
<td>Sorting (Ch12 MergeSort, QuickSort)</td>
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This schedule is subject to change at the instructor's discretion.

**FINAL EXAM Information:** Dec 13 (Mon), 6-8pm