Objective: Algorithmic problem solving with a modern programming language. Language syntax; basic design methods; algorithms; abstraction.

Prerequisite: CS150 - Introduction to Computing II

zyBook: Subscribe at learn.zybooks.com, code: SIUECS240TornaritisSummer2018, section 001

Course website: The instructor’s web site at www.cs.siue.edu/~stornar. The site lists instructor schedule and assigned course TAs.

Moodle: The course management site, used for this course, accessed at classes.cs.siue.edu. Get access to all course material, e.g. syllabus, code examples, assessment etc.

IDE: Visual Studio Code is our choice of development environment, and a free copy of the IDE can be downloaded from code.visualstudio.com.

Assessment: The following assessment measures will be used.

- h: Homework. Completed within our zyBook. A 90% completion on each will earn you full marks (10).
- p: Program. Uploaded to our zyBook (3).
- w: Worksheet. Based on material covered the previous week. Completed in class (9 drop lowest 1-8).
- a: Attendance. (Each absence results in a 1 pt deduction).

Out of class: [175]  h: [100] - 10 x 10  p: [75] - 3 x 25
In class: [825]  w: [800] - 8 x 100  a: [25]

A straight scale will be used for the course grade: A [>= 900], B [>= 800], C [>= 700], D [>=600], F [< 600].

A failing (< 70%) score for the in-class portion, will result in a failing grade for the course.

Submission policy: No late submissions will be accepted for any reason. It is the student’s responsibility to submit all work on time and by any means, so please have a backup to prevent any failure to submit. Always double check your submission.

Make-up policy: In order to be considered for a make-up, a student must be proactive and not reactive. Students should inform the instructor of any scheduled absence or difficulty in meeting a deadline, in advance (proactive) not after the fact (reactive). On special unforeseen occasions such as a medical emergency, family hardship, natural disaster or anything that is out of a student’s control, the instructor should be notified as soon as possible and proper documentation should substantiate the absence. The instructor will have the final say in all such decisions regarding make-ups and assessed penalties if applicable.

Support services: If you have a documented disability that requires academic accommodations, please go to Disability Support Services (DSS) for coordination of your academic accommodations. DSS is located in the Student Success Center, Room 1270; you may contact them to make an appointment by calling (618) 650-3726 or sending an email to disabilitysupport@siue.edu. Please visit the DSS website located online at www.siue.edu/dss for more information.

Student attendance: Student attendance is required and students should come to class prepared by reading all assigned chapters/notes. In case of an absence, students are responsible for all material covered and/or all announcements made during their absence. An attendance sheet will be passed around each time, to be used by the instructor for administrative purposes.

Class decorum: Class time is valuable and as such each student must behave appropriately with out causing a distraction to their peers or the instructor. Students should honor this rule, else they may be asked to leave and waive all rights to any assessment make-ups.

Academic misconduct: Academic honesty is a serious issue at SIUE, in the School of Engineering, in the Department of Computer Science, and with this instructor. Penalties for dishonest behavior will be severe. Even a single occurrence of plagiarism of English text, or program code, within a graded activity (e.g., homework, project, or exam) is grounds for academic discipline and a letter grade of ‘F’ in the course.

Expectations: Learning is an active process not a passive one, so as an Instructor I expect students to come to class prepared, having read all relevant material (book, notes, code) before as well as after class meetings. Don’t be afraid to ask
questions or seek answers. Have an open mind and a willingness to learn and adopt alternative methodologies and practices. It takes two parties to transfer knowledge, the instructor and the learner. If one is absent the other suffers.

<table>
<thead>
<tr>
<th>wk</th>
<th>Concept (z: zyBook)</th>
<th>M</th>
<th>W</th>
<th>F</th>
</tr>
</thead>
</table>
| 1  | z1. User-Defined Functions (1-9)  
z2. Streams (1-7) | 05/28 | MDH | 05/30 | 06/01 | h1 |
| 2  | z3. Objects and Classes (1-15)    | 06/04 | h2  | 06/06 | 06/08 | w1 |
| 3  | z4. Inheritance (1-5)  
z5. Templates (1-2)    | 06/11 | h3  | 06/13 | p1   | 06/15 | w2 |
| 4  | z6. Exceptions (1-3)  
z7. Pointers (1-12)    | 06/18 | h4  | 06/20 | 06/22 | w3 |
| 5  | z8. Lists, Stacks, and Queues (1-10) | 06/25 | h5  | 06/27 | 06/29 | w4 |
| 6  | z9. Searching and Sorting (1-11)  | 07/02 | h6  | 07/04 | p2, IDH | 07/06 | w5 |
| 7  | z10. Recursion (1-8)  
z11. Trees (1-7)    | 07/09 | h7  | 07/11 | 07/13 | w6 |
| 8  | z11. Trees (8-11)    | 07/16 | h8  | 07/18 | 07/20 | w7 |
| 9  | z12. Graphs (1-7)    | 07/23 | h9  | 07/25 | p3   | 07/27 | w8 |
| 10 | z12. Graphs (8-10)   | 07/30 | h10 | 08/01 | 08/03 | w9 |