



Division: Computer Science and Information Technology

Course name: INTRODUCTION TO DATA STRUCTURES

Section: 8026(Online) / **Semester** Spring 2014

Instructor Name: Ashok Patil

Class Hours: Online

Telephone: 310 287 4463

School Website: www.wlac.edu

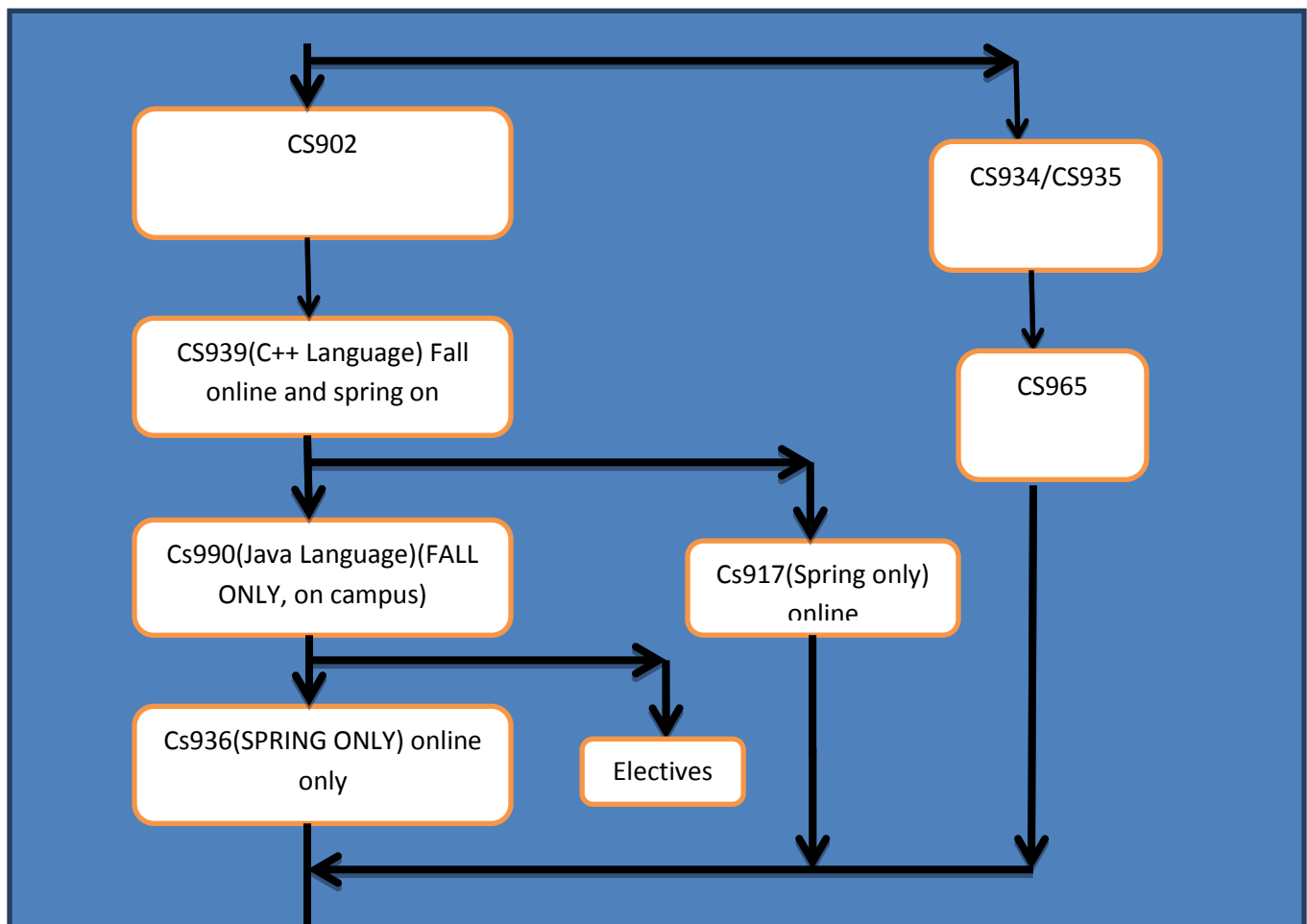
Department WebSite: www.wlac.edu/csit

Office Hours: Tues: 3pm to 5:45. Thurs: 3 to 6:45 pm

Instructor E-mail: patila@wlab.edu

Welcome

This semester, you will be learning data structures and advanced programming techniques utilizing the JAVA programming language. Data structures will include multi-dimensional arrays, stacks, queues, dynamically allocated linked lists and trees. This is the last class you will take in a series of class that will teach you about Computer Programming. If you are planning to major in computer Science, you must take these classes in this order. The pre reqs are strictly enforced.



Course Description: (Use catalog course description or approved COR)

see attached link: http://ecd.laccd.edu/CC_Search_1.aspx

This course covers data structures and advanced programming techniques utilizing the JAVA programming language. Data structures will include multi-dimensional arrays, stacks, queues, dynamically allocated linked lists and trees.

Required Texts:

STARTING OUT W/JAVA: FROM CONTROL STRUCTURES THRU DATA STRUCTURES (W/CD)

GADDIS

ISBN :978-0-321- 54586-2

Recommended Materials:**Student Objectives: (use COR / ECD approved objectives) see attached link**

http://ecd.laccd.edu/CC_Search_1.aspx

- 1) Write computer programs using java language to implement:
 - a. Generic List, Collections.
 - b. Linked Lists.
 - c. Stacks.
 - d. Queues.
 - e. Trees.

Institutional Learning Outcomes (ILOs) & SLO (use COR / ECD for approved SLOs)

See example below: SLOs will vary by course http://ecd.laccd.edu/CC_Search_1.aspx

This course will also facilitate the following Institutional Learning Outcomes:

- A. Critical Thinking: Analyze problems by differentiating fact from opinions, using evidence, and using sound reasoning to specify multiple solutions and their consequences.
- B. Communication: Effectively communicate thought in a clear, well-organized manner to persuade, inform, and convey ideas in academic, work, family and community settings.
- C. Self-awareness/Interpersonal Skills: Apply self-assessment and reflection strategies to interpersonal, work, community, career, and educational pathways.
- D. Technical Competence: Utilize the appropriate technology effectively for informational, academic, personal, and professional needs.
- E. Cultural Diversity: Respectfully engage with other cultures in an effort to understand them.
- F. Ethics: Practice and demonstrate standards of personal and professional integrity, honesty and fairness; apply ethical principles in submission of all college work.

Student Learning Outcome:

Upon Completion of the course, the student will be able to:

- 1) Write programs in Java which use Arrays, Linked lists to store and manage data.
- 2) Compile the programs and test/debug the programs to solve scientific applications.
- 3) Write programs in Java which use data structures such as stacks, queues and linked lists.
- 4) Deploy the computer software solutions to the users computers

Course Requirements and assignment guidelines

Late Assignments

You will get two extra days of grace period to turn assignment. Once those two days pass, the assignment will close. DO NOT e-mail me your programs and other typed assignments. They will not be accepted. Other late assignments will not be accepted.

Grading

Examinations, Assignments, Grading:

There will be many assignments during the course of the Term. Each exam Project carries 25 points. There will be a midterm Project and Final Exam project. The grading scheme is as follows:

Examinations Projects: 50%, Assignments: 50%

GRADING SCALE

90 - 100 A

80 - 89 B

70 -79 C

60 - 69 D

Below 60 is FAIL.

Class Policies.. This does not apply to online class.

Attendance .

Because class discussions and group work are an integral part of this course, attendance is mandatory. Up to 2 absences are allowed. After that, you could be dropped. Students are expected to attend every class meeting, to arrive on time and stay throughout the class period. **Excessive absenteeism will lower your grade, as well as walking in and out of class.** 3 tardies = 1 absence. Students may be dropped from class for excessive tardiness, or for failure to attend class the first day or during the entire first week of the class.

Walking In and Out of Class

When you arrive to class, make sure you have used the restroom, had a chance to eat, check your messages, etc. Walking in and out is rude and disruptive. If you need to leave early, or have some

other problem, you need to notify me in advance. **Any student who makes a habit of walking in and out of class may be asked to leave.**

Preparedness

You are expected to arrive on time. You will come to each class session prepared. You will have your books, binder, pens/pencils, any work that is due, and you will be prepared to discuss all readings/assignments.

Cell Phones, iPods, etc.

Turn them off and put them away when class begins! Although it may not seem possible, you can survive without talking and texting on your cell phone, or listening to your iPod, for a little over an hour. Talking and texting on cell phones not only distract you, but they are a distraction for me and your peers. Distractions interrupt/disrupt the class and I will not tolerate interruptions. **You will be asked to leave if this occurs.**

“Netiquette” and “Civilogue”

This semester, you will post weekly responses to the class blog on various topics related to the class and the world around us. The term “netiquette” is a combination of the words internet and etiquette. The term “civilogue” is a combination of the words civil and dialogue. Both terms, as well as the words used to create them, are essential to the class. You may not agree with the views and opinions expressed by your peers, but you don’t have the right to be disrespectful. Personal attacks, profanity, vulgarity and comments that are not productive additions to the conversation will be deleted and you will not receive credit for the assignment.

Contacting Me

E-mail is the best and quickest way to contact me. **If you have a problem, do not let it snowball. Contact me immediately.** Students are expected to ask questions and obtain help from instructor via email and/or during office hours.

For more information refer to the attached link:

http://www.wlac.edu/academics/pdf/WLAC_10-12Catalog_Policies.pdf

College Policies:

Academic Integrity (Plagiarism)

In accordance with code 9803.28, **academic dishonesty is prohibited and will not be tolerated in this class.** Violations of academic integrity include, but are not limited to, the following actions: cheating on an exam, plagiarism, working together on an assignment, paper or project when the instructor has specifically stated students should not do so, submitting the same term paper to more than one instructor, or allowing another individual to assume one’s identity for the purpose of enhancing one’s grade. Academic dishonesty of any type, such as cheating or knowingly furnishing false information, by a student provides grounds for disciplinary action by the instructor or college. In written work, no

material may be copied from another without proper quotation marks, footnotes, or appropriate documentation.

- **Plagiarism will result in a zero for the assignment, possible dismissal from the class and disciplinary action from the college. You will not receive credit for any essay missing previous drafts, citations and/or a Works Cited page.**

Student Conduct

According to code 9803.15, disruption of classes or college activities is prohibited and will not be tolerated. Refer to the catalog and the Standards of Student Conduct in the Schedule of Classes for more information.

Recording Devices

State law in California prohibits the use of any electronic listening or recording device in a classroom without prior consent of the instructor and college administration. Any student who needs to use electronic aids must secure the consent of the instructor. If the instructor agrees to the request, a notice of consent must be forwarded to the Vice President of Academic Affairs for approval (WLAC College Catalog).

For more information refer to the attached link:

http://www.wlac.edu/academics/pdf/WLAC_10-12Catalog_Policies.pdf

Campus Resources:

As stated earlier in this syllabus, **if you are having problems, don't let them snowball.** Come and talk with me and check out some of the campus resources available to you.

Office of Disabled Student Programs and Services (DSP&S)

Heldman Learning Resources Center (HLRC), Room 119 | (310) 287-4450.

West Los Angeles College recognizes and welcomes its responsibility to provide an equal educational opportunity to all disabled individuals. The Office of Disabled Students Programs and Services (DSP&S) has been established to provide support services for all verified disabled students pursuing a college education. DSP&S students may qualify for: priority registration, registration assistance, special parking permits, sign language interpreters and assistive technology (WLAC College Catalog).

Instructional Support (Tutoring) & Learning Skills Center

Heldman Learning Resources Center (HLRC) | (310) 287-4486

Improve your reading, language, vocabulary, spelling, math fundamentals and chemistry knowledge with convenient, self-paced computer-aided courses in the Learning Skills Center. Increase your knowledge and learning success:

We will be offering tutoring services in computer science classes. I will keep you posted regarding this.

Library Services

Heldman Learning Resources Center (HLRC) | (310) 287-4269 & (310) 287-4486

The WLAC Library provides instruction on how to use the online catalog, periodical and research databases. In addition to a large collection of books, periodicals and videos the WLAC Library has course textbooks which students may use while in the Library. Web access is available in LIRL as well as meeting rooms. The upper floors provide a beautiful view ideal for study (WLAC College Catalog).

for more information refer to attached link:

http://www.wlac.edu/academics/pdf/WLAC_10-12Catalog_Services.pdf

Week Of	SUBJECT	
2/10	Revision of CS990	Chapter 1-13
2/17	Applets	Chapter 14
2/24	Recursion	Chapter 15
3/3	Binary Search	Chapter 16
3/10	Generic Classes	Chapter 17
3/17	Generic Classes	Chapter 17
3/24	HashMap Class, Action and Abstraction	Chapter 18
3/31	HashMap Class, Action and Abstraction	Chapter 18
4/7	SPRING BREAK.	
4/14	Midterm	Chapter 19
4/21	Writing Iterator	Chapter 19
4/28	Linked Lists	Chapter 20
5/5	Linked Lists	Chapter 20
5/12	Queues	Chapter 21
5/19	Binary Trees	Chapter 22
5/26	Binary Trees	Chapter 22
6/2	Final Exam	

Please indicate below, any special needs or circumstances that may have some impact on your work in this class, and for which you may require special accommodations, including but not limited to physical or mental disabilities, inability to arrive in class on time or need to leave class early, observance of religious holidays, ect.

Special needs or circumstances:
