# COMPUTER SCIENCE 902
## INTRODUCTION TO COMPUTER SCIENCE
## COURSE OUTLINE

<u>Instructor:</u>          Parvaneh Ghaforyfard, BS- Computer Science MS- Electrical Engineer

<u>Class Section:</u>        7601

<u>Class Schedule:</u>      TuTh  3:30 am - 4:55 pm
                  Course syllabus can be accessed via ETUDES www.myetudes.org.
<u>Office/Phone:</u>        CE 231

<u>E-Mail</u>              ghaforp@wlac.edu

<u>Office Hours:</u>         Mon, Wed 3:00 to 6:00 pm
                  Tue,Thu 12:30 to 2:30 pm

# Course objectives

- Learn how to install Python IDE/Compiler, type a simple program, compile and run it. Learn how to debug a program.
- Learn about different types of input and output instructions. Demonstrate the programs which use input/output instructions.
- Learn the use of Variables, constants and comments in program. Explain different types of variables, constants with programs to demonstrate the concepts. Explain the common syntax errors when data types of variables are mixed. Explain syntax rules for each data type of variable.
- Learn the use of IF / IF…ELSE conditions in programming. Demonstrate with some examples. Give exercises for students to write programs which use IF conditions.
- Learn the use of SELECT…CASE statement.
- Learn the looping instructions in programming.  Demonstrate the use of While loop. Give exercises to students to write programs using While loop. Explain the use of boolean expressions in the loops.
- Learn the use of sub programs, and functions. Explain the need to break big programs into smaller sub programs or functions. Demonstrate with examples.
- Learn to pass data to the functions. Demonstrate with programs which pass data back and forth. Explain about local variables.
- Learn to pass data by reference and by value. Demonstrate with examples and give exercises to students to solve problems using the concepts.
- Learn to use global variables, functions using global variables. Functions calling functions. Return data type other than numeric.
- Learn to store, search and sort data in Arrays.
- Learn the different types of files, reading files, writing files, random access files.

# Student learning outcome

Upon completion of this course, the student will be able apply technical knowledge and perform specific technical skills, including:

1. Successful students will demonstrate programming skills by developing programs to solve business/scientific problems.
2. Successful students will demonstrate skills in software design by creating requirements documents and designing flow charts that lead to the creation of computer programs.
3. Successful students will demonstrate programming skills to develop test and deploy software applications using the Python programming language.

## Prerequisites

None

## Required course material and equipment

**Required material:**
**Textbooks**: Programming Logic and Design, Comprehensive, 7th Edition
         Joyce Farrell     ISBN-13: 978-1-285-77671-2
**Required Equipment:**
A USB flash drive with at least 4GB free.

## Grading scale

The final grade is based on all work for assignments posted on E-Tudes
Each assignment is worth a set of points. The coursework is assigned points as follows:

20 Computer Projects (25 pts ea)     =   500 points

## Total points possible: 500

The standard grading scale applies:

  A =  90 - 100%          450 - 500 pts
  B =  80 - 89%           400 - 449 pts
  C =  70 - 79%           350 - 399 pts
  D =  60 - 69%           300 - 349 pts
  F =  below 60%          299 and below

## Schedule

Below a preliminary schedule.

Specific topic coverage includes:
• Week 1- An Overview of Computers and Programming
• Week 2 &3- Elements of High-Quality Programs
• Week 4&5-Understanding Structure
• Week 5&6-Making Decisions
• Week 7&8-Looping
• Week 9&10-Arrays
• Week 11&12-File Handling and Applications
•Week 13&14-Advanced Data Handling Concepts
•Week 15     -Final Project

# On-line course shell ETUDES login instruction

**College official on-line course shell ETUDES login instructions:**

To log on to Etudes, **go to http://www.myetudes.org (or www.wlac.edu/online)** where you will find links to on-line tutorial, login instructions and Technical Requirements.  Click on course login.

Example: Juan Straub, Student ID is 88-459-0210 and birthday is July 4.
(Login ID: first 2 letters of first name+ first 2 letters of last name+ last 5 number of student ID, password is 2 digit month and 2 digit day from student's birthday)

- User ID: just90210
- Password:  0704

After logging in, click the course tab you are enrolled.
If you are a first-time on-line student, make sure your Browser settings are as follow:

Tools->Internet Option-general->security setting->add www.myetudes.org or www.wlac.edu/online as trusted site.

If you do not know your Student Identification Number you can look it up using the Student Information System (SIS) at http://www.laccd.edu.

**Email Communication**

If you have a valid email address in the LACCD system, ETUDES' instructor's announcement will be sent to your personal email. Otherwise, you should check the instructor's announcement every time you log on to course shell. You might want to update your email address under

MyWorkspace-> Account-> Modify if you change e-mail address.

**Trouble login to ETUDES**

If you have trouble accessing the course on, or after, the start date visit the Online Student Help Desk at http://www.wlac.edu/online/helpdesk.asp .  Click on Helpdesk Rules where your issue is likely addressed in the Frequently Asked Questions section. If not, post a message explaining the problem or contact the WLAC Distance Learning Program Office at (310)287-4305 or via email: shemwer@wlac.edu.

# Class rules & guidelines for assignments and exams

**By taking this class, you agree to follow Class Rules listed below:**

1) Students who are inactive in the class may result in exclusion, however it is your responsibility to drop the class; failure to drop the class in a timely manner will result in "F" on your record.

> **You must login to the course website at www.myetudes.org by Friday September 11th, or you, the student will be considered inactive and dropped from the course by the instructor.**

**After Friday, November 20th, students still enrolled will appear on the final grade roster and receive a letter grade.**

2) Cheating (or Plagiarism) on assignment/exam will result in "Failure".

3) You have **five days** to purchase the required material after semester starts.

4) You must log on to ETUDES on regular basis to check the following:

**ETUDES - Announcement-** Check announcement every time you login, important announcement will be posted.

**ETUDES - Syllabus-**Course syllabus is attached.

**Do not wait until the last minute** to work on assignment. **Assignment submitted after the due day will receive 10%-50% deductions** (one week late 10%, two weeks late 20%..etc.). Assignment will not be accepted over 2 weeks late.

**Discussion and Private Message-** You can send private messages to the instructor via ETUDES. For urgent issues, please send e-mail to  ghaforp@wlac.edu, the instructor checks this e-mail on regular basis.

No make up exam/test. Once you have viewed or taken the exam, you can't open or retake it. Follow the exams schedule in the Calendar. **Do not wait until the last minute to start the exam**. **THERE IS NO MAKE-UP or RE-TAKE EXAM**. If there is an emergency, e-mail the instructor to schedule an "on-campus" exam within 7 days after exam expires. Each student has only one opportunity to do so for one exam throughout the entire semester.

CE101 computer lab is open to CS students, please check division website www.wlac.edu/csit for lab open hour.

Being a member of Microsoft & VMWare Academic Alliance, the enrolled students can download VMWare, Microsoft operating system (Windows 7 & Server 08) and development tool (Mircosoft application like ACCESS, Visual Studio) for free. You can visit division website www.wlac.edu/csit and click on the left menu to make request or contact IA Laurent Phung via PhungL@wlac.edu.

CS dept. is member of CompTIA education alliance, students can take A+, Network+,Security+ with discount voucher, please contact Laurent Phung via PhungL@wlac.edu or visit division website www.wlac.edu/csit under FAQ.

All other school/class rules will be enforced.

## Important and useful information

**UC/CSU Transfer Honor Credit-http://www.wlac.edu/transfer/index.html#honors**
Contact the instructor for honor credit project

**LACCD Student's e-mail system-**[http://www.wlac.edu](http://www.wlac.edu) **-> for student ->e-mail >click on "instruction" and "video"**

**Disabled Students Service-http://www.wlac.edu/DSPS**

**Job Placement Assistance**    contact instructor for eligibility

**Division Web Site**    http://www.wlac.edu/CSIT :   has the following information:

- Division faculty and computer lab open hour
- Requirement for degree and certificate programs
- Job assistance for long-term unemployed, underemployed and veterens
- Discount voucher for CompTIA A+Network+ Security+ Linux+
- Free software download request (Microsoft OS & development tools and VMWare, Microsoft Access)

Requirement for AA/AS degree and Certificate of Achievement in the following tracks:
   Degree and Certificate in Computer Science (10 major courses)
   Degree and Certificate in Computer Network and Security Management (10 major courses)
   Degree and Certificate in Computer Web Support and Database Adm. (10 major courses)
   Certificate of Achievement in Computer Network Management (6 courses)
   Certificate of Achievement in Information System Security (6 courses)
   Certificate of Achievement in Business Application and Database Management (6 courses)
   Certificate of Achievement in Web Support and Administration (6 courses)

## 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.
   o **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.
**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.

### 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: sign up for tutoring in various college subjects.

### 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.
**for more information refer to attached link:**
**http://www.wlac.edu/academics/pdf/WLAC_10-12Catalog_Services.pdf**