

Ventura College Fall Semester 2016 CS V19 – Computer Architecture Class Hours: MW 2:00-3:50 pm

Room #: SCI-226 CRN: 30549 Computer Architecture with Raspberry Pi® CS&Math&English Division Instructor: E. Gertner, Ph.D. Office: #SCI-356

Phone #: 805.289.6481 email: egertner@vcccd.edu

CS V19 - Computer Architecture and Organization with Raspberry Pi®

Syllabus, Grading Policies, Rules and Expectations

Dear Student,

I am looking forward to being your instructor, and I want you to know that I care about your success. If there is anything that I can help you succeed in my class, and in our college as a whole, kindly please let me know.

OFFICE HOURS: Mon & Wed 11:30 -11:30 am Tue & Thu 11:30-12:30pm

PREREQUISITES: CS V17 or CS V13 or CS V15 or equivalent or instructor's permission.

COURSE DESCRIPTIONS: This course introduces students to the organization and architecture of computer systems, beginning with the standard von Neumann model and then moving forward to more recent architectural concepts. This course also offers the student an introduction to assembly language or Python for low-level programming of system software and computer organization.

COURSE OBJECTIVES: Analyze the basic organization of the Yon Neumann machine. Create assembly language or Python programs appropriate to a given architecture and organization. Examine operating system structuring methods, abstractions, processes, and resources to select appropriate program interface.

LEARNING OUTCOMES: Upon successful completion of this course, you are able to demonstrate the following measurable skills and abilities:

CSLO-1: Manipulate data at the bit and byte levels problems;

 $\ensuremath{\mathsf{CSLO-2}}\xspace$: Identify the components of a computer and explain the organization;

CSLO-3: Describe disk storage systems and file systems.

CSLO-4: Use assembler language or Python instructions to write short programs.

IMPORTANT DATES

LAST DAY TO DROP WITH FULL REFUND or CREDIT: Friday, January 20
LAST DAY TO DROP WITHOUT "W" or ADD WITH CODE: Friday, January 27
MIDTERM-1 Wednesday, Februar

MIDTERM-1 Wednesday, February 15
MIDTERM-2 Wednesday, April 11

LAST DAY TO DROP WITH "W": Friday, April 21
FINAL EXAM: May 15-19

ATTENDANCE & TARDINESS: To be successful in this course, you are required to <u>attend</u> all class sessions, arrive <u>on time</u>, be seated before the session starts, and stay <u>for the entire session</u>. Roll will be taken at each session. Students can be dropped from the course after 8 hours of absence. Tardy or "leave-early" will be considered an ABSENCE. Please schedule appointments for times other than class time.



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The final grade consists of four components shown below.

HOMEWORK (30%)

- 1. You are expected to dedicate up to 8 working hours (2 hours per semester unit) WEEKLY on your study and homework (especially in the first 8 weeks) in order to succeed in this course. It is recommended to allocate your study time into a minimum of **2-hour** slots in order to focus and absorb the course materials and solve the homework problems effectively.
- 2. Assignments are assigned ONLINE and due on specific date/time. See Timeline and Assignment for details.
- 3. You are encouraged to discuss and work together with your peers in solving homework problems. The final version of your homework has to be completed by you though.
- 4. There are about 10 assignments, each contribute equally to the overall grade.
- 5. About 5 assignments are hands-on experiments with the computer model.

CLASS LAB and Participation in the class (10%):

- 1. Your participation in the class will be rewarded at the end of the semester, there are no bad questions; all questions are good. Ask questions, help others and earn extra credit towards your final grade.
- 2. The LAB is based on experiments with the computer model.

MIDTERM-1, MIDTERM-2 AND FINAL EXAM, ALL GRADED EQUALLY, 20%+20%+20%=60

- 1. All tests are closed book, one-page cheat-sheet is permitted.
- 2. Prior to the midterms we will have a review of the material to be tested.
- 3. Most test questions will be multiple choice and done on the computer

TUTORING: Tutoring is available at the Tutoring Center, located at the first Floor of Library and Learning Resource Building. They can be reached at (805) 648-8926 or VCtutoring@vcccd.net. Study groups are also encouraged in the Center.

Remember: only smart people get tutoring!

GRADING SCALE, IT MAY SLIDE BY 5 POINTS, DEPENDING ON THE OVERALL CLASS RESULTS

Homework	30%	Α	85 -100%
Class Lab	10%	В	75 - 84.99%
Midterm-1	20%	С	60 - 74.99%
Midterm-2	20%	D	50 - 59.99%
Final Exam	20%	F	Below 50%

GRADES: Updated grades will be posted at D2L on the Sundays after the homework/quiz due.



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CHEATING POLICY: Cheating constitutes academic dishonesty and, in general will be handled as part of the course grading process. Any cheating which includes any unauthorized cooperation on any graded assignments will be dealt with as severely as College policy allows. Penalty may range from no credit for the assignment to exclusion and/or an "F" grade for the course.

STUDENT CONDUCT: Students are expected to conduct themselves with the highest standards of ethics and behavior. The instructor expects from all the students a very mature and collegiate attitude.

STUDENTS WITH DISABILITIES: Any student requesting academic accommodations based on a disability is required to register with the Educational Assistance Center (EAC) each semester. A letter of verification for approved accommodations can be obtained from EAC. Please be sure the letter is delivered to the instructor as early in the semester as possible. EAC is open8 am - 5 pm on Monday, Wednesday, and Thursday, 8 am - 7 pm on Tuesday, and 8 am - 3 pm on Friday. You can also reach EAC at 805,289,6300.

CLASS RULES (minimal unless things get out of hand):

- 1. Be polite to your classmates and especially to the instructor.
- 2. Limit your exit and re-entry during the lecture at the minimal.
- 3. MUSTTURN OFF YOUR CELL PHONE, AND NO CALLS NO TEXTING while in class.
- 4. If you see having a cell phone on your desk during Chapter or Final Exam, your paper will be taken away.
- 5. Laptops, tablets, i-whatever, or cellular phones are not allowed during class time.
- 6. The following are also not allowed in the classroom: Internet browsing, email or voicemail checking, any device with headsets or earbuds, whistling, sleeping, and rude yawning, playing with clicking pens or erasers.
- 7. If you need to ask your neighbor about their weekend, please do so before or after class.
- 8. If you make a mess, clean it up. Remove all trash that you have brought.
- 9. Actively participate in class discussions and activities.