

Valencia College Course Syllabus Fall 2016

COP 2342 Linux Shell Scripting

3 Credit Hours

CRN 14426

Instructor: Gerald (Jerry) Reed

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Email: Please e-mail via Tools/Send e-mail in Blackboard, or post in the Questions and Answers Discussion Forum.

For urgent messages, you may directly e-mail: greed9@valenciacollege.edu

This is an on-line course. It is vital that you keep up with your on-line work from week to week and participate in postings and forum topics in order to succeed.

The work you will perform for the class is:

- Project assignments
- Discussion postings and responses
- Midterm Examination
- Final Examination

(All assignments must be turned in via Blackboard (<http://learn.valenciacollege.edu>))

We will cover the same amount of material as if the class met face to face. Please bear this in mind when planning your time and other activities.

Course Description:

From the *Valencia Catalog*:

COP2341C LINUX SHELL SCRIPTING

An introduction to the Linux operating system. Topics include the history and philosophy of the Linux operating system, the file system, commands and files processing, multitasking, editors, shells, shell scripting, window systems and utilities.

Tools:

The good news is that we will be using a Virtual Machine (VM) approach. This will allow you to run Linux and all the required tools as a "guest" operating system under your choice of host operating system. You can host the Data Science Toolkit VM under Windows, Mac OSX, or even Linux. Instructions for installing and configuring the required VM will be provided in our course, are contained in your textbook and are also given here:

<http://datascienceatthecommandline.com/>

Goals and Outcomes:

This course directly addresses several skills from the Valencia Core Competencies, including but not limited to:

“Analyze data, ideas, patterns, principles, perspectives”,
“Employ methods of communication appropriate to your audience and purpose” and
“Implement effective problem-solving, decision-making, and goal-setting strategies”.

Reading skills and logical reasoning skills are also emphasized.

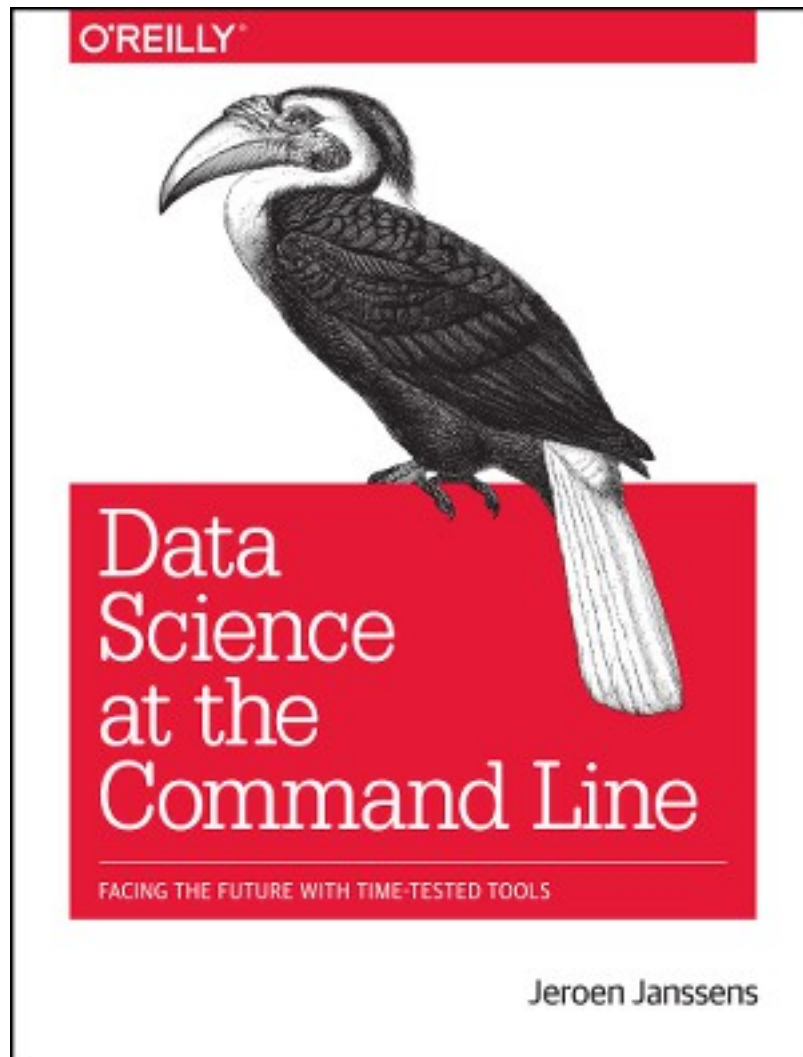
Like human languages, computer languages must be learned in a context to be understood. For shell scripting, the goal is to learn the language of Linux scripting and commands by applying these to realistic problems.

Learning Outcomes

A number of specific learning outcomes, things you should be able to do after completing this class, are linked in our Blackboard section.

I'll refer to these when choosing projects and composing exams.

The textbook is:



“*Data Science at the Command Line* by Jeroen H.M. Janssens (O’Reilly). Copyright 2015 Jeroen H.M. Janssens, 978-1-491-94785-2.”

Grading

Your course grade will be based on a combination of quizzes, examinations, projects, and discussion postings, in the following proportions:

Exams and Quizzes	30%
Projects and related posts/replies	70% points

The grading scale is:

900 to 1000 points	A
800 to 899 points	B
700 to 799 points	C
600 to 699 points	D
Fewer than 600 points	F

General plan of the course

Course activities

Projects

These assignments vary in complexity (and realism), with more complex projects worth more points. The points indicated for each assignment represent what you can get for a complete and accurate solution. Projects that display extra effort, creativity and functionality may be awarded more points. Similarly, projects that fall short of meeting the stated requirements will receive fewer of the possible points.

These are intended as individual projects, but I will entertain suggestions for team projects if you wish. I must approve any team projects in advance. If approved, all members of the team are expected to participate and all will receive the same grade on the team assignment.

Assignments must be submitted via Blackboard and posted in the appropriate Discussion Forum by the specified time in order to receive full credit. (If you have questions about the assignments, then please contact me well before due date, or I may not get your question in time to respond helpfully.)

Although this is an on-line course, and help is available via forum postings and e-mail, ***you are also welcome to come to the West Campus Computer Programming Lab, in Room 7-122.*** Staff are available there who can assist you hands-on with completing assignments with which you are having difficulty. Our lab manager will be sending out an e-mail with lab hours once the term begins.

Class Participation

This includes active participation and appropriate postings and replies in Blackboard.

If you are confused or having difficulty with a project, you are expected to post questions in Blackboard, and/or to get in touch with me. Since the backgrounds and experience levels of students in our programming classes varies widely, you will find that other students are a valuable source of assistance with problems and questions. Questions and answers you post help earn you points for class participation as well.

Quizzes

Quizzes, the midterm and the final exam will be administered on-line via Blackboard.

Hands-On approach.

The best (only?) way to learn and remember Linux commands and the elements of scripting is to apply those commands to meaningful and challenging projects. As the section on Projects above suggests, you will be expected to spend significant time working on applications. In the case of this course, most of our applications will be to the emerging field of Data Science.

Exam

The final exam will be comprehensive and designed to show that you can apply your knowledge of Linux shell commands and scripting..

Surveys

From time to time, your instructor may ask you to complete an on-line survey to provide immediate feedback about the content and level of the course materials and assignments. We will share some of these findings in summary form, and your instructor will make reasonable efforts to incorporate suggestions into the course, subject to his discretion and understanding of discipline requirements and college policies. I will probably offer extra credit for completing any surveys.

Policies:

You are expected to abide by the college rules with respect to the integrity of your own work and with regard to plagiarism or cheating. By way of clarification: working together on a project, or asking other students questions about the assignments or programming in general IS NOT cheating, and is welcome and encouraged. Turning in someone else's work as your own, or providing someone else with your completed work, or providing unauthorized assistance on the quizzes IS cheating. Quizzes are individual assignments and you may not ask anyone else for assistance in answering them.

I reserve the right to ask you to discuss and explain any aspect of a submitted assignment with me by phone or chat. This has the benefit of helping us both understand how you approached the assignment, and of further ensuring that submitted work is original, as defined above.

Makeup exams or alternative testing arrangements must be negotiated with the instructor in advance of the exam dates, except for true emergency situations.

Late assignments may be subject to a reduction in credit, as explained above.

How to succeed in this course

It is critical that you read the assigned materials. It is unlikely that you will succeed in the class if you do not read your assignments in a timely fashion. Assignments and postings presume that you have read the material, and are likely to be markedly less enjoyable and significantly more confusing if you have not read the material in advance.

Quizzes and assignments have deadlines not to penalize students or to complicate what is likely an already busy lifestyle, but to ensure that:

- you receive timely feedback on your progress and performance,
- you are encouraged to keep up and not fall behind, and
- you are motivated to prepare for subsequent assignments by mastering concepts presented in earlier lessons.

It is critical that you complete the projects you choose. The best way to learn shell scripting is by applying it to challenging problems. This is the goal of the project assignments.

Important Dates: <http://valenciacollege.edu/calendar/documents/IDCFall-Spring-Summer2015-16COMBINED7-24-15.pdf>

Withdrawal:

The last date for you to withdraw with a grade of W will be available here:

http://valenciacollege.edu/calendar/importantdates_withdraw.cfm

If you withdraw after that date, you will receive a letter grade from me, based on your performance. See the Valencia catalog Withdrawal Policy for further details. Note that you are responsible for withdrawing if you choose to. Please do not assume that your instructor will automatically withdraw you if you simply stop attending. Also please note that there are financial aid implications to withdrawal, some of which could cause you additional financial liability. Please contact an adviser for further details.

Valencia Core Competencies:

Valencia faculty have defined four interrelated competencies (Value, Think, Communicate, Act) that prepare students to succeed in the world community. These competencies are outlined in the Course Catalog.

<http://valenciacc.edu/competencies/>

In this course, through classroom lecture and discussions, group work, programming projects, and other learning activities, you will further develop mastery of these core competencies.

Expected Student Conduct:

Valencia is dedicated not only to the advancement of knowledge and learning but is concerned with the development of responsible personal and social conduct. By enrolling at Valencia, a student assumes the responsibility for becoming familiar with and abiding by the general rules of conduct. The primary responsibility for managing the classroom environment rests with the faculty. Students who engage in any prohibited or unlawful acts that result in disruption of a class may be directed by the faculty member to leave the class. Violation of any classroom or Valencia's rules may lead to disciplinary action up to and including expulsion from Valencia. Disciplinary action could include being withdrawn from the class, disciplinary warning, probation, suspension, expulsion, or other appropriate and

authorized actions. You will find the Student Code of Conduct in the current Valencia Student Handbook.

Students with disabilities who qualify for academic accommodations must provide a letter from the Office for Students with Disabilities (OSD) and discuss specific needs with the professor, preferably during the first two weeks of class. The Office for Students with Disabilities determines accommodations based on appropriate documentation of disabilities (West Campus SSB 102, ext. 1523).

Disclaimer Statement:

The information presented in this syllabus may be modified as required by the instructor. Students will be notified of any modifications in writing.
