

# Valencia College Course Syllabus Fall 2017

COP 2830 Scripting Languages CRN 14464 3 Credit Hours

**Instructor:** Gerald (Jerry) Reed

**Phone:** 407-582-5583

**Email:** Please post in the Questions and Answers forum within Blackboard  
For private messages, you may use: [greed9@valenciacollege.edu](mailto:greed9@valenciacollege.edu) Please DO NOT use the Blackboard Messages feature – I am unlikely to get your message that way.

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**This is an on-line only course. You will have to keep up with the assignments from week to week in order to succeed.**

The work you will perform for the class is:

- Project assignments
- Blackboard postings and responses
- Quizzes

(All assignments must be turned in via Blackboard submission)

We will cover the same amount of material as if the class met twice a week for 15 weeks. Please bear this in mind when planning your time and other activities. While students enjoy the flexibility of on-line courses, many report that they find success in on-line courses are more challenging to achieve than in face-to-face courses.

## **Course Description:**

From the *Valencia Catalog*:

COP 2830C. SCRIPTING LANGUAGES.

Prerequisite: Minimum grade of C in COP 1000C and COP 2822C or departmental approval. The syntax and semantics of scripting programming language will be covered. Covers major scripting languages in current use. Students will learn to write scripting- language code, integrate the scripts into Web pages, and identify different uses and applications of scripts in Web sites and/or other multimedia projects. (Special Fee: \$34.00)

## **Tools:**

We will install and use a number of free, open-source programming environments. These include:

- Python
- PHP
- MondoDB
- JavaScript/node.js

## **Goals and Outcomes:**

This course directly addresses several skills and competencies from the CLAST and Valencia outcomes, 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. There are many scripting languages and we will sample several in an attempt to grasp the similarities and the differences, as well as to determine which might be most appropriate for a particular problem.

### **Learning Outcomes**

A number of specific learning outcomes, things you should be able to do after completing this class, are included in a separate posting withing Blackboard. Please see the Learning Outcomes in the Week 1 folder of our section.

### **Textbook**

There is no required textbook for this class. We will use a wide variety of materials from the web.

### **Grading**

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

Projects:	70%
Quizzes and examinations	30%

Postings, replies are counted as required parts of projects, above.

### **The grading scale is:**

90% to 100%	A
80% to 89%	B
70% to 79%	C
60% to 69%	D
Less than 60%	F

### **General plan of the course**

#### **Course activities**

##### *Projects*

These assignments will increase in complexity (and realism) as the course progresses. Many will be

individual projects for which you alone are responsible, but some may require team work. The instructor will compose teams as necessary. All members of the team are expected to participate and all will receive the same grade on the team assignment.

Project assignments due dates will be specified when the assignment is released in Blackboard. Assignments are due before 11:59pm on the specified date. There is a 20% penalty for late assignments. (This deadline is to ensure that I have time to grade your work and provide feedback in a timely manner) Assignments must be submitted via Blackboard by the specified time in order to receive full credit. (If you have questions about the assignments, then please contact me well before the due date, or I may not get your question in time to respond helpfully.)

You may also post questions about the assignments on threads in the Questions and Answers Forum in Blackboard. Since there is always a wide variety of experience levels in these classes, it is quite likely that other students may be able to assist you in addition to the help that I will supply. If you see a question in the forum that you can answer or about which you can supply insight or support, please respond. I do ask that you not post complete solutions to projects or answers to quiz questions, however.

Projects will usually consist of program designs, descriptions, program code, output or other deliverables representing the solution to a programming problem. Some later homework assignments may take the form of participation in a team project.

A rubric will be posted for grading your projects.

### *Postings*

There is a wealth of information about program design and development on the Internet. To be prepared as a programmer today, it is critical that you appreciate the resources available via search engines and the web. Periodically, and as a part of project work, I will require that you provide material for selected discussion topics and that you respond to what other students post.

### *Quizzes*

My goal is to have a number of very short (5 to 10 item) quizzes, each focused on a specific aspect of script programming. Quizzes will be administered on-line via Blackboard.

### *Hands-On approach.*

Program design, and programmatic thinking, as taught in this class are critical to success in a programming career. But programming must be experienced to be fully appreciated. You will be expected to spend significant time outside of class on programming problems as well.

### *Exam*

You must take the final in order to pass the class -- this is my policy. The final exam will be comprehensive and designed to show that you can apply your knowledge of scripting languages to a practical problem.

### *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.

## Class Plan



### **Module 1 - Introduction to scripting with Python**

In this module we begin a gentle introduction to scripting by implementing simple, plain-language decision scenarios in Python.



### **Module 2 - Introduction to web-cgi scripting**

In this module we begin learning to create simple web-based applications using Python and the CGI (Common Gateway Interface).



### **Module 3 - NoSQL database technology**

Here you'll learn about a new database technology, the non-relational database, that is increasingly popular on the web, and in the context of "Big Data". We'll learn to install, load and query the Mongo database.



### **Module 4 - Introduction to Server-side scripting with PHP**

Here you'll learn about one of the most popular server-side scripting languages -- PHP.



### **Module 5 - Building a web application using PHP and Mongo**

Here we use PHP to query a Mongo database and serve query web pages.



### **Module 6 - Introduction to client-side scripting with JavaScript**

Start to learn about JavaScript, an exciting and versatile scripting language that can be used for browser-based scripting and many other tasks.



### **Module 7 - Applications and more scripting languages**

Apply what you've learned so far about scripting and web technologies, by completing an individual project. Then take an introductory look at one of the many other scripting languages.

## 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, IS cheating.

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.

Students with continued, and unexplained absences are subject to withdrawal according to college policies.

### **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 done read the material in advance.

Quizzes and assignments have deadlines not in order 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.

### **Course Policies and College Policies.**

Withdrawal: Participation will be monitored, and this information is used in part to determine whether or not you must repay some financial aid and whether or not you will pay the full cost of tuition if you withdraw from the course more than once. It is your responsibility to fill out the necessary withdrawal forms to receive a grade of W. A student is not permitted to withdraw after the withdrawal deadline (contained in this document: <http://valenciacollege.edu/calendar/documents/2014-15ImportantDatesCalendar.pdf>).

Please do not assume that I will automatically withdraw you if you simply stop attending class. However, I am required to withdraw any student who has not attended class or made contact with me to makeup class activities prior to the “no show” period. Student must withdraw/drop the class during Add/Drop in order to receive a refund.

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. If a student engages in any prohibited or unlawful acts that result in disruption of a class, I may withdraw you from the class, and follow up with disciplinary action as appropriate. You will find the Student Code of Conduct in the Current Valencia Student Handbook and the in the Valencia Policy Manual ([valenciacollege.edu/generalcounsel/policy](http://valenciacollege.edu/generalcounsel/policy)).

Make-up exams. Most quizzes will be open for at least a week in Blackboard. If you cannot complete a quiz before it closes, you must get in touch with me. Make-up exams may well contain more essay/short response questions than the on-line exam. Make-ups for postings and discussions may be different from the activity for those who participated during the time that the topic was open.

Cheating and other academic policies: For some activities, you are allowed, even encouraged, to gather information and discuss an assignment with others. You are responsible for giving credit to your sources; otherwise, you are plagiarizing the work of others. Some assignments such as tests, will be

designated to be your work only, and you may not seek assistance from nor supply assistance to, others – that will be regarded as cheating. If you are not sure about the circumstances, please ask me to clarify the situation. Evidence of cheating will result in a F grade. Academic policies are addressed in the catalog and Valencia Policy Manual.

Special Needs: Per college policy “Students with disabilities who qualify for academic accommodations must provide a notification from the Office for Students with Disabilities (OSD) and discuss specific needs with their instructor, preferably during the first two weeks of class. The OSD determines accommodations based on appropriate documentation of disabilities.”

### **Support for Student Learning:**

Valencia College provides considerable services to support your college experience, including tutoring, financial aid, writing centers and many others. If you are having problems dealing with the stress of classes, work and/or family life, feeling depressed, for example, Valencia has contracted with a private and confidential counseling service to assist you. BayCare Behavioral Health Student Assistance program (SAP) services are free to all Valencia students and available 24 hours a day by calling (800) 878-5470. Free face-to-face counseling is also available (as described in the online college catalog).

### **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.

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