

COP3931 – Linux Development Tools

Spring 2016 Syllabus

1. Course Prefix, Number and Section:

COP 3931 section 701

2. Course Title:

Linux Development Tools

3. Course Meeting Time(s) and Location:

No mandatory class meeting – This is an Online Asynchronous offering (except for exams, see below). However, you are strongly encouraged to contact your instructor to set up one-on-one or small groups Elluminate or on-campus meetings in order to benefit from more interactive teachings. Other times than the official office hours will be accommodated as much as feasible.

4. Instructor Information

Name	Colin Arnold
Office Location	ENB 344D
Office Hours	(1) Via e-mail at any time (dependent on my activities); I will get back to you as soon as possible. (2) Face-to-Face: By prearranged appointment. Please e-mail to set this up.
Phone Number	813-974-3780
Email	cdarnold@usf.edu
Department	Computer Science & Engineering http://www.cse.usf.edu/
College	College of Engineering http://www2.eng.usf.edu/
Name of Teaching Assistants	TBA
Contact Information	TBA
Office Hours	Online so please email to schedule

5. Course Description

Catalog	A linux course designed to prepare developers who want to be able to
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Description	develop software in a linux environment and how to utilize open source development tools.
Pre-requisites	COP2513: Object-Oriented Programming for IT
Co-requisites	COP3353: User-Level Introduction to Linux
Expanded Description (optional)	n/a
University-wide requirements fulfilled by course	n/a
Role of Teaching Assistant	n/a
Role of Instructional Technologies	Since this offering is online asynchronous, the Canvas site will be our primary mean of working. It is recommended you check it at least daily for new announcements.

6. Course Objectives

On successful completion of this course, students will understand;

- 1) What a revision control system is and when it should be used;
- 2) What open source, programming friendly. text editors exists and how to use them;
- 3) What open source programming environments exists and how to configure and use them;
- 4) How to develop programs in Perl and Python;
- 5) What dynamic testing is, what types of tests exist in the dynamic testing domain, and how to use them to improve our code;
- 6) What static testing is, what types of tests exist in the static testing domain, and how to use them to improve our code;
- 7) How to create scripts that will facilitate compilation and deployment of our projects
- 8) How to package a project for distribution
- 9) What “issues” are and how to handle them

7. Readings

Required Textbooks	Guide to Unix and Linux Harley Hahn, McGraw-Hill Higher Education, 2009 ISBN-10: 0-07-313361-2, ISBN-13: 978-0-07-313361-4
Required access to websites	The instructor will provide links to relevant material
Required software	The instructor will provide detailed instructions during week #1 regarding the required software.
Additional available readings	See material posted on the course’s Canvas site or website

8. Assessment of Student Outcomes

Make sure you use the gradebook to review your grades and feedback on the various items every week so you may monitor your progress.

Grading Scale

Pre-scaling grading is:

- A+: 96% or more
- A : 93% BLT 96%
- A-: 90 BLT 93%
- B+: 87 BLT 90%
- B : 83 BLT 87%
- B-: 80 BLT 83%
- C+: 77 BLT 80%
- C: 73 BLT 77%
- C-: 70 BLT 73
- etc. [The instructor sincerely *hopes* that nobody will have to worry about *this* part of the list – but hopes do tend to get dashed!]

Item Distribution contributing to final grade

1. **Projects** will be required approximately weekly. You must submit all work on time, as the means for submitting it will disappear at the submission deadline. Assignments and quizzes together will be worth a total of **50%** of your grade – this is a large proportion, so don't blow them off. It'll cost! ***Makeup projects will not be given***, unless you can supply a truly valid reason for not having been able to complete the project for the entire week it was available.

2. **Quizzes** will be required at weekly. You must submit all work on time, as the means for submitting it will disappear at the submission deadline. Quizzes will be worth a total of **20%** of your grade

3. **Peer Learning Forums (PLF)** will be used with modules. If you do not post material satisfying the requirements, e.g. number of posts / deadlines, or post material of poor quality, you will not receive credit. The instructor evaluates what is "good enough" for credit in order to avoid having a few students spam forums with last minute, poor quality, posts which will only waste the time of the other students who want to learn.

They involve internet searches or experimentations with your Linux virtual box. Make sure that you provide good references to justify anything you state in your posts in order to receive credit. Someone simply posting their unsubstantiated opinions or referencing bad sources of information, e.g. "Smith-the-internet-guy's IT Blog", will not receive credit.

The instructor evaluates what is "good enough" for credit in order to avoid having a few students spam forums with last minute, poor quality, posts which will only waste the time of the other students who want to learn. The grade for each PLF will be assigned based on the following guidelines;

- 0 – Insufficient / not submitted in time / not using required format.

- 1 – Some effort but would fail if this was an exam. Think “D” or “F”.
- 2 – Satisfactory. Good work, would lead to a passing grade. Think “B” at most.
- 3 – Very good work; goes way beyond minimal requirements. Think “A” grade.

4. **Extra Credit:** Some assignments, exams, discussions and other activities may have an extra credit component associated with them. Points earned in this manner will **not** be included in the individual activity grade nor in the course’s final average, but will be considered after letter grades for the course have been tentatively assigned. Extra credit may result in an increase in your final letter grade, especially in borderline situations, and will never reduce your grade. For this reason, you should take full advantage of these no-lose opportunities. Note: This form of extra credit is the *only* form of extra credit available in this course. Due to the instructor’s strict policy of maintaining a level playing field, special “extra credit” work will **not** be given to individual students to make up for regular work they did not complete or for which they did not fully prepare.

Tracking your grades

Grades will be posted using the Canvas gradebook.

- Students are expected to monitor the gradebook daily.
- Students are expected to read the feedback on every grade as they are released.
- Any question about anything graded must be emailed to your instructor only at the exclusion of anyone else.
- The syllabus provides the designation of the graded assignments and how many points they are worth. This information will allow you to know at any time where you stand in the offering.

S/U options

Circumstances for assigning an ‘I’

Not available

A request from students to be assigned an I grade will be considered only if;

- The student was performing at a passing level so far
- An unforeseen circumstance preventing them from completing the course happened
- The specifics of this circumstance are verifiable by USF personnel and of an emergency nature; e.g. medical, accident, other mental or physical incapacitations...

Late work and make-up policies

- **No late assignments will be accepted.** You are responsible for attempting your submissions ahead of time enough to allow you to seek help should a technical issue occur.
- No credit nor make-up for missed exams, quizzes or assignments
- Serious situations will be considered as exceptions to the above only with justifications (e.g. police, medical reports, etc) which will be investigated.

Extra Credit

May or may not be made available at the discretion of the instructor. Do not expect it, nor rely on it to pass

Plagiarism detection

- The instructor reserves every right to use **any possible mean** to assess the academic honesty of any student's submission at any time without having to provide notice or details regarding the means used to do so.

Others

- This may include, but is not limited to, (automatic) comparisons to other sources, questioning student(s), etc.
- There will be no "pre-grading" nor "proof-reading" of work you are expected to submit later as part of a graded learning activity. You will have opportunities to get feedback on practice assignments.
- If there is a conflict with my final examination and another course exam you have, please let me know as soon as possible so that we can schedule a make-up exam for you.
- Errors in grading are considered errors when the students is able to provide irrefutable evidence that his or her solution is [1] working and [2] in line with the requirements. Subjective considerations will not be taken into consideration nor will errors in interpreting the requirements.
- Errors in grading must be reported in detail to the instructor within 24 hours of the grade being issued, by email. However, the instructor's subsequent decision on the matter will be final. Further communications on that issue will be ignored. Grading is *not* a negotiation, any more than your future boss' judgment of your work's quality is.

9. Evaluation Items

The course will be evaluated through projects (50%), quizzes (20%) and peer learning forums (30%). All activities are done individually by each student.

PROJECTS

Activity	Percentage	Due Date
Git	3.85%	1/25 (7:00 a.m.)
SVN	3.85%	2/1 (7:00 a.m.)
Editors	3.85%	2/8 (7:00 a.m.)
Programming Environment	3.85%	2/15(7:00 a.m.)
Perl 1	3.85%	2/22 (7:00 a.m.)
Perl 2	3.85%	2/29 (7:00 a.m.)
Python 1	3.85%	3/7 (7:00 a.m.)
Python 2	3.85%	3/14 (7:00 a.m.)
Dynamic Testing	3.85%	3/28 (7:00 a.m.)
Static Testing	3.85%	4/4 (7:00 a.m.)
Testing	3.85%	4/11 (7:00 a.m.)
Build Tools	3.85%	4/18 (7:00 a.m.)
Release	3.85%	4/25 (7:00 a.m.)

QUIZZES

Activity	Percentage	Due Date
Git	2%	1/25 (7:00 a.m.)
SVN	2%	2/1 (7:00 a.m.)
Editors	2%	2/8 (7:00 a.m.)
Programming Environment	2%	2/15 (7:00 a.m.)
Perl	2%	2/22 (7:00 a.m.)
Python	2%	3/7 (7:00 a.m.)
Dynamic Testing	2%	3/28 (7:00 a.m.)
Static Testing	2%	4/4 (7:00 a.m.)
Build Tools	2%	4/18 (7:00 a.m.)
Release	2%	4/25 (7:00 a.m.)

PEER LEARNING FORUMS

Activity	Percentage	Due Date
Git	3%	1/25 (7:00 a.m.)
SVN	3%	2/1 (7:00 a.m.)
Editors	3%	2/8 (7:00 a.m.)
Programming Environment	3%	2/15 (7:00 a.m.)
Perl	3%	2/22 (7:00 a.m.)
Python	3%	3/7 (7:00 a.m.)
Dynamic Testing	3%	3/28 (7:00 a.m.)
Static Testing	3%	4/4 (7:00 a.m.)
Build Tools	3%	4/18 (7:00 a.m.)
Release	3%	4/25 (7:00 a.m.)

10. Attendance Policy

Instructor's attendance policy

The university enforces a “mandatory first day attendance” policy, in which any student who does not attend the first day of class is automatically dropped from the course. Clearly, this rule must be adapted for an asynchronous online course, in which there really *is* no “first day of class.” Therefore, in order to satisfy this policy (and not be dropped from the course), you must log in to the course and complete the work specified in the Welcome announcement.

Frequency of web access & effect on grades Link

Students are expected to access the Canvas site at least once every other day in order to not miss any announcement or update / release of material.

Undergraduate catalog's general attendance policy
http://www.ugs.usf.edu/ugc/standard_policies.htm

11. Tentative Course Outline / Schedule

List of Topics

- Introduction to revision control systems and git
- Subversion revision control system
- Programming friendly editors
- Open source IDE
- Perl
- Python
- Dynamic testing of software
- Static testing of software
- Build tools including make and autotools
- Packaging and deployment of packages

12. University Policies

While advisors, directors, department chairs and campus administration are available to assist students in meeting academic regulations, policies and procedures, it is ultimately the student's responsibility to be acquainted with all academic regulations, policies and procedures, and to meet all requirements.

- University standard policies http://www.ugs.usf.edu/ugc/standard_policies.htm
- Undergraduate Catalog <http://www.ugs.usf.edu/catalogs/catdl.htm>
- Graduate Catalog <http://www.grad.usf.edu/catalog.asp>

13. Additional Policies

Attendance – Course Attendance at First Class Meeting

- Students are required to attend the first class meeting of courses for which they registered prior to the first day of the term. Names of students who register prior to the first day of the term are printed on the first class roll for each course section. The first class roll is used by professors to drop students who do not attend the first day of class.
- Students having extenuating circumstances beyond their control and who are unable to attend the first class meeting must notify the instructor or the department prior to the first class meeting to request waiver of the first class attendance requirement.
- Students who add courses or late-register during the first week of classes will **not** be on the first class roll and, therefore, will not be dropped for non-attendance by the instructor. **Students are responsible for dropping undesired courses in these categories by the 5th day of classes to avoid fee liability and academic penalty.**
- This policy is not applicable to courses in the following categories: Educational Outreach, Open University (TV), FEEDS Program, Community Experiential Learning (CEL), Cooperative Education Training, and courses that do not have regularly scheduled meeting days/times (such as, directed reading, or study, individual research, thesis, dissertation, internship, practica, etc.).
- **This offering being online asynchronous, we will not have a first class meeting per se. Instead, taking the first week's quiz and achieving a score of 100% by the deadline specified by your instructor will allow him to establish the "online first day attendance".**

Online first day attendance Policy

- The instructor will post during the first week instructions regarding what students have to do in order to be considered “present” as per the first day attendance policy.
- Failing to follow these instructions in details and by the deadline will result in the students not being marked as “present” by the instructor in the first day attendance system.
- Students may then be automatically dropped from the course by the administration and denied access to the course’s Canvas site.
- Failing to follow these instructions does not constitute ground to be eligible for a late-add petition. The instructor is not obligated to support such a petition.

Expectations regarding students communications

Emails

- Every enrolled USF student receives an official USF e-mail account that ends with "mail.usf.edu." Every official USF correspondence to students is sent to that account. Students should go to the USF Information Technology website for “New User” information at <http://www.it.usf.edu>
- Use your USF email account to send emails, or the LMS messaging system.
- Every official USF correspondence to students is sent to their USF email address. Students’ emails sent to the instructor from another email address will be ignored

Netiquette

- Make sure your email always references the offering you are enrolled in, along with the context of your question; e.g. “I am taking CGS2935 Intro to DB and I have problems with Module 2 quiz, question #4”
- Be polite and respectful to your interlocutor at all times, regardless of their rank; e.g. student, TA, tutor, instructor...
- Insults, sarcasm, excessive punctuation marks or other violation of netiquette will not be tolerated. Students sending such emails will be added to the instructor’s email spam filter and ignored without warning. The offending email which led to the ban will be forwarded to the department chair and dean for further processing. Depending on the nature of the offence, penalties for academic disruption will also be applied by the instructor.

Due diligence

- As a student, it is your responsibility to work on both graded and non-graded assignments / quizzes / exercises regularly with the intent to develop your understanding of the material being taught.
- In doing so, you are also expected to seek help from your instructor regularly and early on. The more dialog between student & instructor, the better! Never hesitate to ask for help using forums, emails, face-to-face meetings or online meetings.
- Students are expected to check the course’s Canvas site for updates on at least a daily basis.
- Students are expected to check their USF email address account on at least a daily basis.

- When asking for help with respect to a deadline, students are expected to contact their instructor early enough to allow for a response to be provided within 8 to 16 business hours.
- If an email to the instructor does not receive a response, the students are responsible for following-up in order to ensure the email wasn't lost or spam-filtered. E.g. use email first, then follow-up using the Canvas messaging system

Technology-related Policies

Canvas & web access

- Access to the Internet (World Wide Web) is required. Use of a browser compatible with the Learning Management System – LMS – we are using is necessary.
- You must have a USF Student ID in order to sign up for your USF NetID that is required for access to the LMS.
- Students are expected to already know how to use the LMS upon enrolling in this offering. If you are unsure as to what this entails, contact immediately the USF help desk at help@usf.edu to receive training. Last minute technical issues due to a lack of preparedness won't constitute a valid excuse.

Blackboard Collaborate

- Due to the online nature of this course, the Blackboard Collaborate web conferencing software is an essential part of enabling students and instructors to work efficiently online
- Students are expected to be able to use this software or seek help in learning to use it before the start of this course
- Students are expected to have software, hardware and internet connection allowing them to engage in blackboard collaborate web conferences efficiently.

Computer Requirements

- Students are expected to use a PC running Windows 8 and the full Microsoft suite of office software in order to work in this course
- Students are expected to have a fast and reliable access to the internet allowing them to engage successfully in all online learning activities
- Students are expected to use a web browser fully compatible with the various online material and software used in this course; e.g. Blackboard Collaborate, Canvas, websites...

Additional Software Requirements

- This course may use specific additional software which use will be mandatory in both graded and non-graded activities. Using an alternative software is not allowed. Assignments submitted using such alternative software will not be graded and receive a 0.
- Students will be provided with additional information regarding the required software during the first week
- It is the responsibility of the students to ensure that their software is fully operational by the end of the first week
- This include, but is not limited to, seeking technical assistance – e.g. help@usf.edu – early enough to allow for the issues to be processed. Sending an email to the instructor during the

weekend will not constitute an excuse for not having diligently worked during the week on meeting the course's technology requirements.

Technology issues

- The instructor is *not* responsible for adapting the software to the specifics of your personal computer. Requests to do so will be ignored and won't constitute an exception to the above policies.
- This is an online offering, we are using technology. Technology is not 100% reliable. Do not wait the last minute to submit an assignment. Make sure you schedule your work to be able to recover from last minute technical difficulties. Failing to do so puts the responsibility in your camp, not the instructor's, not the LMS team's, not the "internet".
- Make sure you verify the contents of the files you're about to upload for an assignment BEFORE to upload them.
- Make sure that you know how to submit an assignment via the LMS before to take this offering.
- You will not be granted extra delays to resubmit if you encounter a technical problem which cannot be documented, e.g.
 - o ISP "phantom" outage / Mysterious PC failure / Lost emails
 - o "I submitted it in blackboard but you didn't get it"
 - o ...
- It is therefore recommended that you submit early and carefully. Emails should be used only for personal inquiries and you should follow up if you do not get a response within 24-48 hours. Backup your files at home and do not wait to take an online exam during a big storm.

Academic Dishonesty

- The University of South Florida values a community based on the principles of integrity, civility, and respect. As such, the USFP community expects students to behave in a manner that supports these principles. The Student Code of Conduct is a document which describes behavior that is counteractive to these principles and how the university will hold students accountable to those inappropriate behaviors. Students are responsible for familiarizing themselves with this document.
- Plagiarism is defined as "literary theft" and consists of the unattributed quotation of the exact words of a published text, or the unattributed borrowing of original ideas by paraphrase from a published text. On written papers for which the student employs information gathered from books, articles or oral sources, each direct quotation, as well as ideas and facts that are not generally known to the public at large, must be attributed to its author by means of the appropriate citation procedure. Citations may be made in footnotes or within the body of the text. Plagiarism also consists of passing off as one's own, segments or the total of another person's work.
- Punishment for academic dishonesty will depend on the seriousness of the offense and may include receipt of an "F" with a numerical value of zero on the item submitted, and the "F" shall be used to determine the final course grade. It is the option of the instructor to assign the

- student a grade of F or FF (the latter indicating academic dishonesty) in the course.
- You are expected to work independently on all graded activities. Every graded work is required to be personal work only. Using material authored by others (e.g. found on the web, previous students, knowledgeable friends...) or seeking other peoples' advices besides the instructor is considered cheating.
- Any question about graded assignments can be only asked to your instructor.
- Any form of cheating, plagiarism or complicity will be sanctioned by a 'FF' grade for all party involved.
- Being unable to explain any aspect of the material you submitted to be graded as your own work will be considered the result of cheating and will be sanctioned the same way.

Grade Dispute/Grievance

- The student must first make a reasonable effort to resolve his or her grade dispute or grievance with the instructor concerned, with the date of the incident triggering the dispute/grievance clearly identified (i.e., the issuance of a grade; the receipt of an assignment). The instructor will accommodate a reasonable request to discuss the grade or incident in question and will attempt to resolve the issue.
- If the situation cannot be resolved or the instructor does not respond to the student's attempts to contact the instructor, the student will file a notification letter **within three weeks of the triggering incident** to the USF Information Technology Division Director. This should be a concise written statement of particulars and must include information pertaining to how, in the student's opinion, University policies or procedures were violated. The USF Information Technology Division Director will provide a copy of this statement to the instructor and to the USF Assistant Vice President for Academic Affairs. **Grade disputes or issues that have not been identified by the student within 21 days of the triggering incident will not be considered.**
- If the situation cannot be resolved at the Division level, the USF Assistant Vice President for Academic Affairs will guide the student through the campus-level process. Additional information on the academic grievance process can be found in the Undergraduate and Graduate Catalogs.

Other Useful Items

Intellectual Property

- Taping lectures or classroom discussions is **not** permitted **without instructor's authorization.**
- Reproduction of any of the material provided by the instructor is **not** permitted **without instructor's authorization.**
- Any such material may not be sold under any circumstance.

Right to modify the syllabus

As the instructor of record of this course, I reserve the right to modify the course syllabus at any time during the course to address changes needed in content, course resources, assignments, due dates, etc.

Other

- Staying registered beyond the first week implies acceptance of this syllabus' terms.
- Please make sure that you turn off your cellular phone during scheduled class meetings (online or face-to-face) and do not use your computer for non-course related purposes when engaged in web conferencing with your instructor, the TA, or other students.

Illness

- Out of concern for your health and the health of those with whom you contact and work with in class, please do not travel

to class if you are ill, especially if you have a fever and know that your illness is contagious. Notify the instructor either by phone or e-mail that you will not be attending class. If you should make the attempt to attend class, thinking that you are feeling better, and are visibly ill, the instructor reserves the right to send you home out of concern for you and others.

- For extended illness (e.g., missing three or more consecutive class sessions), the instructor reserves the right to require medical documentation for the necessity of the absences and clearance from a doctor that it is safe for you and others for you to return to class.

**Medical or Family
Emergencies**

If a medical or family emergency should occur and at the time you are not able to contact the instructor prior to class to indicate that you will be absent, take care of the emergency and notify the instructor of the absence and circumstances as soon as reasonable.

Religious Observances

Students who anticipate the necessity of being absent from class due to the observation of a major religious observance must provide notice of the date(s) to the instructor, in writing, by the second class meeting