Welcome to USQ Software Carpentry with Python and R 2018 Workshop Etherpad!

INTRODUCE YOURSELF AND INTERACT HERE:
Welcome, my name is *Francis Gacenga* my day *job is getting technologies and the people behind them to work together for research*. Follow me on twitter @fgacenga and @USQ_eResearch for all things eResearch. **Your participation and active interaction will greatly improve everyones workshop outcomes**. At this workshop facilitating the **Unix, *Python*** and ***R*** is *a host of awesome intsructors and helpers* including *Elizabeth McCarthy, Richard Young,* Adam Sparks, Mathieu Clerte, Dag Evensberget, Christopher Tylor, Anita Frederiks, and Alisa Howlett.

Hi all, I'm Adam Sparks, one of your instructors for the course. I'm an associate professor in the Centre for Crop Health studying plant disease epidemiology. I've been using R for 11 or 12 years now. I Tweet, a lot, about #rstats and other data vis stuff and the like (@adamhsparks). I maintain three packages on CRAN with a fourth waiting in the queue right now for acceptance. They all deal with getting weather or climate data from various sources and into R. If you do crop or pest and disease modelling my packages nasapower and GSODR are useful tools, which is why I wrote them. I also wrote a package, theme.usq, that you can install from GitHub that will apply official USQ colours, typography and themes to graphs in R. Francis already listed it down the page here.

Hi Team. I am -`ღ´-_ Elizabeth McCarthy ( social media @ElzbthMcCrthy ), -`ღ´-_ although I have a few alter-egos that may spill out from time to time. I am one of your instructors for this course, as well as an ever so enthusiastic helper! I have many hats to wear (many jobs to do) - part-time maths learning advisor, part-time engineering/maths lecturer, and also currently a part-time PhD student (in machine learning). I first learned about Python to perform webscraping of our USQ website two years ago - just for fun - and it kinda grew on me. I have been a mad Matlab coder for over fifteen years, which started with me writing a graphical user interface from scratch to perform image processing on medical images. -`ღ´-_

Hi everyone, I'm Aaron Timoshanko. I'm a law lecturer with the School of Law and Justice at Springfield. I occasionally tweet at @aarontimo. I have very coding knowledge but I'm keen to learn!

Hi everyone, I am Fitria Dwi Andriyani. I am a new PhD student at Springfield campus. I am belong to Physically Active Lifestyles Research Group. The topic on this workshop is totally new for me and I am keen to learn this new knowledge.

Hi everyone, I'm Casey Huang, a PhD student from the University of Queensland. I am based at the Advanced Water Management Centre (AWMC), and my research is on environmental microbiology. I am new to using R and coding in general, but I'm keen to learn. I've only started using Twitter recently, and you can find me @caseykhuang. Looking forward to meeting you all for the workshop next week!

HI everyone, i am Kuldeep Singh Jadon, an endeavour post-doc fellow here at USQ, working with Prof. Gavin Ash. I am a Scientist in Plant Pathology working with the Indian Counsil Agricultural Research, India currently based at Central Arid Zone Research Institute, Jodhpur, India. I am new in R and for coding i may start it after the workshop, a learner of the technology intervaention in Agricultutral research. My Twitter handle is @kpsj1981. Looking forward to learn some more things and meeting you all. See you at The Workshop. Cheers!

Hi everyone, I am Harshna Gounder and I am a current USQ Masters student doing research in Machine Learning. I am working as a Data Analyst and want to improve my skills in Python and R, languages I

have previously just touched on. Sorry, I'm not on twitter

Hi all, I am Oliver John, I'm a final year PhD student in the Functional foods research group, USQ Toowoomba. I'm new to R and Python.

Hello everyone, my name is Ben and I work for the Open Access College @ USQ and am a PhD student at UQ. I am hoping to learn some strategies which will both help my team in process efficiency at work and provide useful data for my research.

hi im aastha. I am a Masters student at USQ.

Hi all, I'm Venkata Chevali, VC's Research Fellow based in USQ Springfield. My twitter is @anandactually. My objective with this workshop is to be able to run scripts to run simulations on the HPC/NCI, and run subroutines on a commercial simulation software, specifically, ABAQUS. I am a beginner to R and Python, but I have used other programming langauges including C/C++ and Fortran.

Hello everyone, I am Bhuwan Chand and ,a Post grad student, pursuing research project using machine learning on heat wave prediction in Australia. Hope this workshope will add up some major information in my BOK.

Hi my name is Doug and I am a PhD student at USQ. I am familiar with Python and shell scripting, and I am hoping to learn a bit of R.

Hi! I am Mahla Babagolzadeh. I am a PhD student based in Toowoomba campus. I am working on cold supply chain and logistics. i am hoping to gain useful information abot python in this workshop.

This pad is synchronized as you type, so that everyone viewing this page sees the same text. This allows you to collaborate seamlessly on documents.

Use of this service is restricted to members of the Software Carpentry and Data Carpentry community; this is not for general purpose use (for that, try etherpad.wikimedia.org).

Users are expected to follow our code of conduct: http://software-carpentry.org/conduct.html

Please complete the pre-workshop survey: https://www.surveymonkey.com/r/swc_pre_workshop_v1?workshop_id=2018-10-02-usq

Software Carpentry USQ workshop
https://fgacenga.github.io/2018-10-02-usq/index.html
https://nextcloud.qriscloud.org.au/index.php/s/7oaI5pvXUSzgNJB

Interaction - Please interact throughout the workshop
Hashtag for the workshop:
#usq_swc

 # Pre-Course Section
Please ensure you have done the following prior to the course

Eduroam Wi-Fi
Connecting a Windows 7 laptop: https://usq.saasitau.com/Default.aspx?ProviderName=UAUTH_USQ_SSO&Scope=SelfService&CommandId=Open&Tab=Knowledge&ItemId=74E6531D1343485985C88695CB85EC6C

Changing a password on Windows 10 devices - https://usq.saasitau.com/Default.aspx?ProviderName=UAUTH_USQ_SSO&Scope=SelfService&CommandId=Open&Tab=Knowledge&ItemId=2D81C3823D2F4B9FB79F507EEE52FCAB

Linux - Connecting to USQ Wi-fi (Eduroam) - https://usq.saasitau.com/Default.aspx?ProviderName=UAUTH_USQ_SSO&Scope=SelfService&CommandId=Open&Tab=Knowledge&ItemId=93E2EF996AA54D52A16D1E1151D8FD2C

Editors:
Atom is cross-platform, works on all three major OS and is easy to use.
https://atom.io/

Lessons Data
Unix - (for those using Mac or Linux)

1. Download data-shell.zip
2. http://swcarpentry.github.io/shell-novice/data/data-shell.zip and move the file to your Desktop.
3. Unzip/extract the file (ask your instructor if you need help with this step). You should end up with a new folder called **data-shell** on your Desktop.
4. Open a terminal and type cd, then press the Enter key. That last step will make sure you start with your home folder as your working directory.

Python

1. Download python-novice-inflammation-data http://swcarpentry.github.io/python-novice-inflammation/data/python-novice-inflammation-data.zip and python-novice-inflammation-code http://swcarpentry.github.io/python-novice-inflammation/code/python-novice-inflammation-code.zip
2. Create a folder called swc-python on your Desktop.
3. Move downloaded files into this newly created folder.
4. Unzip the files. You should now see two new folders called data and code in your swc-python directory on your Desktop.

R
1. Make a new folder in your Desktop called r-novice-inflammation.
2. Download r-novice-inflammation-data http://swcarpentry.github.io/r-novice-inflammation/files/r-novice-inflammation-data.zip and move the file to this folder.
3. If it's not unzipped yet, double-click on it to unzip it. You should end up with a new folder called data.
4. You can access this folder from the Unix shell with:

- $ cd
- $ cd Desktop/r-novice-inflammation/data

Unix
Accessing the Workshop Virtual Machine (VM): ssh then use the username and password provided to

you.
Lesson:
http://swcarpentry.github.io/shell-novice/

Super cool online resource! http://explainshell.com/ will dissect any shell command you type in and display help text for each piece.

Another super cool online resource is http://www.shellcheck.net, which will check shell scripts (both uploaded and typed in) I

Python (all-in-one installaton) Download - note: install Python 3
https://www.anaconda.com/

 # Python
Lesson:
http://swcarpentry.github.io/python-novice-gapminder/

Other:
Python 3 Standard Library : https://docs.python.org/3/library/
Python Community and Activities: https://www.reddit.com/r/python

RStudio Download
https://www.rstudio.com/products/rstudio/download2/

 # R
Lesson:
https://swcarpentry.github.io/r-novice-inflammation/

Other
rOpenSci - http://ropensci.org, access to databases and repositories of open data through R
rOpenSci Discuss -https://discuss.ropensci.org/, a place for asking questions, reporting bugs, connecting with others in the community, discussing use cases, and more.
RStudio Community - https://community.rstudio.com/, a friendly and inclusive community for R support
What They Forgot to Teach You About R - https://whattheyforgot.org/index.html

 # Resources for R

Finding Help
http://www.rseek.org/
http://stackoverflow.com/questions/tagged/r -you can search for R specific answers using the "[r]" tag, e.g., "ggplot2 [r]"

Google works surprsingly well now, e.g., "ggplot2 cheat sheet" or "r sort dataframe by column"

News, ideas, tutorials and inspiration
http://www.r-bloggers.com/ - R news and tutorials contributed by (580) R bloggers

GooglePlus
R Programming for Data Analysis - https://plus.google.com/communities/115516770321395255377
Statistics and R - https://plus.google.com/communities/117681470673972651781

Twitter
Hashtags #rstats #rlang

R graphics themes for USQ students and staff
Assoc Prof Adam Sparks - USQ graphics themes for R using base graphics and ggplot2:
https://adamhsparks.github.io/theme.usq/index.html

RStudio Cheatsheets
Learn about and use new (or familiar) packages in an easy to use format -
https://www.rstudio.com/resources/cheatsheets/
Base R - https://www.rstudio.com/wp-content/uploads/2016/09/r-cheat-sheet-1.pdf

RStudio Colour Chart
http://www.stat.columbia.edu/~tzheng/files/Rcolor.pdf

Use of this service is restricted to members of the Software Carpentry and Data Carpentry community; this is not for general purpose use (for that, try etherpad.wikimedia.org).

Users are expected to follow our code of conduct: http://software-carpentry.org/conduct.html