FOAR705 Digital Methods
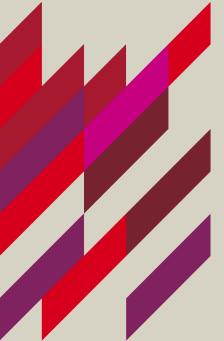
Shawn A Ross | Brian Ballsun-Stanton | Kathryn Elliot
Faculty of Arts
Friday 02 August 2019

Code of Conduct

Expectations

Don't panic!

What, and why?

Tools and Communication

Moving on to Data Carpentry

Minute cards!

References

Code of Conduct

This class is using a great deal of material from The Carpentries. All interactions related to this class, inside and outside, abide by The Carpentries Code of Conduct.

Report code of conduct violations to Shawn, Brian, or eresearch@mq.edu.au.

```
https://docs.carpentries.org/topic_folders/policies/code-of-
conduct.html
```

In summary, we want to emphasise:

- Use welcoming and inclusive language
- Be respectful of different viewpoints and experiences
- Gracefully accept constructive criticism
- Focus on what is best for the community
- Show courtesy and respect towards other community members

Expectations

'I still have my concerns about how over-technical this course is given it is now meant to be taken by students from across the entire Faculty from diverse backgrounds and with diverse interests...I suspect will cause students anxiety and maybe lead to drop out.'

- Before we start, what was your reaction to reading the Unit description?
- Do you agree with the quote above?

You are undertaking an Masters of Research at a top one-percent university (QS ranking 125 in Arts and Humanities, 202 in Social Sciences). Expectations and workload higher than what you are accustomed to.

- Expect a workload of six hours per week outside of class to earn a DN or HD.
- Avoid missing classes. If you do, expect to spend four hours to catch up.
- If you want to continue to a PhD you need to maintain a DN or HD average.
- Both of us have taught overseas and are engaged with international trends in research technology. This unit has been calibrated to the international environment.
- Considering the academic job market, competition is fierce.
- Most of you will not get academic jobs, so transferable skills are crucial.
- It is our job to prepare you for this environment, and yours to make yourself competitive.

- Proof of Concept
- Original Software Publication
- Lightning talk
- Learning journal

Don't panic!

MACQUARIE University

'Building communities teaching universal data literacy'

'Data Carpentry trains researchers in the core data skills for efficient, shareable, and reproducible research practices. We run accessible, inclusive training workshops; teach openly available, high-quality, domain-tailored lessons; and foster an active, inclusive, diverse instructor community that promotes and models reproducible research as a community norm.' [Teal, 2016]

'Since 1998, Software Carpentry has been teaching researchers the computing skills they need to get more done in less time and with less pain. Our volunteer instructors have run hundreds of events for more than 34,000 researchers since 2012.' [Duckles et al., 2018]

Carpentries training is used all over the world to teach digital literacy and computational thinking to Humanities and Social Sciences students and researchers.

- Digital Humanities at Oxford Summer School
- CODATA-RDA School of Research Data Science
- Australian Research Data Cloud training
- THATCamps (e.g., at Sydney ResBaz 2019)

Other MRes students at this university have successfully undergone DC training:

- BIOL703 Research Skills for Biology
- No excess attrition, high student satisfaction, good feedback
- Nominated for a Vice-Chancellor's Learning and Teaching award
- Is the background or needs of Arts students that different from ecology, biology, environmental sciences, and related fields?

MACQUARIE
University

https://www.youtube.com/watch?v=r9jpe9_2z3c

What, and why?

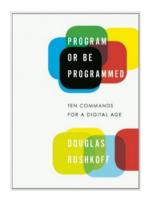**Figure 1:** Program or be Programmed, Douglas Rushkoff

See also: `https://impossiblehq.com/an-unexpected-ass-kicking/`

Figure 2: 'To flourish in today's world, computational thinking has to be a fundamental part of the way people think and understand the world.'
[Center for Computational Thinking, 2012]

Only within these frameworks can you use available tools and approaches - but we will introduce you to a range of them, customised to the disciplinary mix in the class.

- Research design and project management
- Data management planning
- Data capture
- Data analysis and collaboration
- Data archiving and dissemination

Tools and Communication

- Chat/coordination/project management software
- Typesetting software
- Version control online repository
- File sharing mechanisms
- Backup mechanisms

- Hacky-hour/study groups:
  `https://science.mozilla.org/programs/studygroups`
- Consultation Hours: Friday 12:45-1:45pm (AHH Level 2 lobby) and 4:15-5:15pm, campus hub (before and after seminar)
- `https://twitter.com/Rusers_MQ`

At the start and end of every carpentries workshop, we poll participants.

```
https://bit.ly/FOAR705-pre
```


Figure 3: `https://mqedu.qualtrics.com/jfe/form/SV_5v6iQJSBZDNhq4d?workshop=FOAR705-2019`

We use sticky notes during our workshops (and thus during our classes) to indicate progress or needs for assistance.

We also use them as minute cards for feedback and the end of each session.

```
https://datacarpentry.org/socialsci-workshop/
https:
//datacarpentry.org/spreadsheets-socialsci/setup.html
https://datacarpentry.org/openrefine-socialsci/setup.html
https://datacarpentry.org/r-socialsci/setup.html
```

Minute cards!

MACQUARIE
University

On your green sticky, write one thing we did well today.

On your red sticky, write one thing we could improve upon for next time. Be specific.

References

Center for Computational Thinking (2012).
What is computational thinking?
`https://www.cs.cmu.edu/~CompThink/`.
Accessed: 2019-8-2.

Duckles, J., Wilson, G., Weaver, B., Savov, I., and Jacquel, D. (2018).
About us.
`https://software-carpentry.org/about/`.
Accessed: 2019-8-2.

Teal, T. (2016).
Data carpentry vision and mission.
`https://datacarpentry.org/mission/`.
Accessed: 2019-8-2.

Source code for this presentation is available at:
`https://github.com/MQ-FOAR705/MQ-FOAR705-Week1`