# Draft curriculum of “FAIR for Leaders” course

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Each ‘episode’ is about 45 mins, based on experience with the ‘FAIR in Practice’ course. That course is intended for ‘bench’ or ‘wet+dry’ researchers, so would include some new PI’s who are still active researchers as well as research managers.

This course is intended for group leaders who don’t routinely do most of the practices themselves but manage others. It is not intended for Heads of School, IT leads etc, who manage group leaders and/or are responsible for the systems that support group leaders.

Tomasz has 5-6 episodes here followed by a wrap-up session, so this is a full day’s online course. Each episode has a balance of content delivery and interactive ‘exercises’. The latter take much more prep. Some exercises are shared with ‘FAIR in practice’, especially in Episode 2. We can also use outputs from their exercises, such as Data Management Plans (DMPs) that those students prepared.

## Episode 1 (Ep1) Welcome (Why we are here)

Exercise 1 (Exc 1)

Introduce yourself, find what your group has in common.

Exc 2

Power figures:

Are you member of grant panel?

Are you member of a University committee?

Do you supervise more than 2 postdocs ?

You are all POWER FIGURES, influencing the careers and research of others.

Responsibility to the community and to your minions

Exc 3

My soon-to-be-leaving postdocs / phd students:

* Have public datasets
* Released software
* Participate in outreach activities
* Are active in some informal groups, like journal clubs, code monkeys, carpentries, reproducibilitea, domain specific ie clock club, Edinburgh plants

Your minions need to build their portfolio, e.g. for Narrative CVs

It takes time, the data lifecycle vs effort

Exc 4, Lottery winner or hit by bus

Some questions what would you do if you suddenly lose a postdoc

* All the lab records are online in ELN
* There are his lab notebooks in the office, I have seen them and they look OK
* I hoper there are lab notebooks in the office and that they are legible.
* My lab manager knows all that happens
* …..

Good data management practices help avoid disasters. The tools offer god-like overview of group activities improving supervision and mentoring. Those practices improve productivity.

You can delegate, you don’t need to know the tools yourself, but you need to know what the good practices are, what tools are out there and insist on using them.

THAT is 45 minutes.

## EP2 Being FAIR

Based on FAIR in practice: <https://carpentries-incubator.github.io/fair-bio-practice/03-being-fair/index.html>

But, skipping Exercise 2

Shortening PI DOI

THAT is at least 45 minutes

## EP3 Tools for overlords

Productivity tools are also useful for monitoring / mentoring / helping.

For the sake of time rather than show all, split into groups and work on ELN / Git / Protocols.io? as tools for monitoring and helping.

Or as a fall back just ELN (I need to see how the other 3 work out).

### For ELN:

Show Trevor’s ELN,

Exc, ?what makes Trevor’s entry a good Lab Record?

Show calendar view

Show sequence annotations

Exc

Each groups gets one situation and how ELN would help with it

1. Hit by bus
2. New postdoc to continue a topic
3. New postdoc cannot develop a PCR protocol for X after two months … diagnose
4. You want to motivate your students and that they feel that you are interested in their work
5. Promote mentoring within the group

### For GIT a tool for overlords

Explanation of what the version control is.

Show how easy it is to go back in time and see what was before

Show the work/contribution statistics

Exc Quiz, how useful it is for some scenarios (hit by bus etc)

### Maybe Protocols.io

Show protocols.io, DOI, forking, metrics. Better than word documents in some group PC.

THAT is 45 minutes

## EP4 ?Jupyter Notebooks to speed up work?

(I am still keen on showing it)

Show the ease of plotting

Hands on: Changing colours in the plot

Plotting in R/Python as the way of getting people into programming. Notebooks are reproducible analysis, experience transfer, documentation

THAT should shorter if just a teaser without talking about issues with programming.

30 minutes

## EP5 Public Repositories

Zenodo record and why it is FAIR

Issue with discoverability.

Exercise: domain specific repositories.

To use repositories ASAP or at least to check what kind of metadata they require.

Exercise: How to find repo

Fairsharing as tool for finding also standards.

Deposit to both general and specific, multiple interlinked records in different repos.

Repository records are another scientific outputs!!!

THAT is 45 minutes

## EP6 It is all about planning

What other things people in the group should learn: data in excel, working with files, metadata standards, templates …

The planning for internal …. Enforce consistency …. Files, repos, elns, SOPs, Inventories

Exercise: Judge the DMPs from FAIR in practice workshops.

THAT is 45 minutes

## WRAP UP

Exercise your power in your own institution ….

What your institution should do for you. What should you ask for.

Discussion about FAIR and productivity.