

Hello!, you can find here all the homework with the solutions that were requested from Master 2 students in the scientific methodology course.

Homeworks Week 1

Tasks

- ✓ Read Popper's text
- ✓ Indicate your name on the Pad. You will use to collaborate and fill in all the information you can.
- ✓ Register on the Mattermost through this invitation link. This is the preferred communication mode.
- ✓ Set up a *public* **GitHub** or **GitLab** project for this lecture. You will take notes on this lecture and turn your homework and computational documents in this project.
- ✓ Register to the MOOC on Reproducible Research
- ✓ Follow modules 1 + 2 of the MOOC with as much exercises as possible (except the last one of module2, on /Challenger/; watching interviews is optional)
- ✓ Set up a computational document system (e.g., **Rstudio** or **Jupyter**) on your laptop or through the **UGA JupyterHub**.
- ✓ Report the URL of your git project, your Mattermost ID on the Pad.

Homeworks Week 2

Tasks

- ✓ Start learning R by reading this R crash course for computer scientists and Rmd sources:
- ✓ Criticize every figure of Jean-Marc's slides by: Applying the checklist for good graphics; Proposing a better representation (hand-drawing is fine) that passes the checklist.
- ✓ Report this work for at least 3 figures on your github/gitlab project.
- ✓ MOOC: Complete exercise 5 of module 2 (Challenger). Write a short text explaining what is good and wrong about this document (you may want to provide an updated version of the notebook) and upload on your github/gitlab space.

Homeworks Week 3

Tasks

- ✓ Use good naming and organization conventions in your repos.
- ✓ Complete the Challenger exercise if you haven't done so.
- ✓ Engage in module 3 of the MOOC and choose a topic for the peer evaluation (final task of module 3).
- ✓ Here is an opportunity to practice your data curation/analysis skills by producing the First name/last name analysis in a computational document. I encourage you to use dplyr and ggplot for this analysis.

Homeworks for all other weeks

- ✓ Presentation Robots
- ✓ Reading about open Data .
- ✓ Empirical evaluation of Fitts' law.
- ✓ QuickSort Analyze.
- ✓ Doe Shiny App.