# R buddy – Homework assigment Regulations

KSL (477757), GitHub, Ilias

You have two options :

- **oral presentation** in the last session, using Rmarkdown (e.g. ioslides) or Quarto slides
  - ~ 10 min, 5 slides
- **written assignment** using Rmarkdown
  - around 100 lines in Rmarkdown (including text, code and header)

A small summary about a selected topic from the course.

**Example topics** (Please feel very free to chose a topic yourself!):

- Explore and explain the use of a certain package discussed during the course
  - a package you considered for your analysis
  - tidyverse
- A small tutorial/ cheatsheet about a coding practice
  - data wrangling
  - data exploration
- A summary about a current topic in programming for ecology
  - reproducible coding
  - code style
  - version control with git
- Improve a script that is important for you (e.g one that you will use possibly again)
  - Comment it
  - Give it a nice structure
  - Provide data, make it reproducible
- A summary about a method of data analysis used ecology, e.g
  - Linear modelling
  - Mixed modelling
  - PCA
- A small tutorial of a plotting practice
  - How to change colours
  - How to combine multiple plots
  - How to plot interactions

**Aim**

Deepen your understanding about a given topic, and practice clean coding in Rmarkdown.

**Procedure**

Propose a topic, fix it together with course organisators.

Latest date for hand-in : 28.06.23

Correction and decision within 2 weeks

Questions to the course organisators are possible and welcome in all stages.

**Examination scheme**
**Participant Name :**
**Hand-in date :**
**Main Corrector Name :**

| **Topic** | **Requirement** | **Achieved** (1 Point each) |
|---|---|---|
| Course participation | Participated all 3 sessions of the course.* | |
| Report content | The topic is explained in a consistent and understandable way.<br>(2 Points) (oral : as good as you can in English) | |
| | The language is accessible and concise. (oral : focus on simple explanation) | |
| Hand in script requirements | hand-in the data the script relies on | |
| Rmarkdown | minimum 1 text field | |
| | minimum 1 code chunk | |
| | minimum 1 plot | |
| | use sections and subsections | |
| Document structure | References at the end of the script/ presentation | |
| clean coding<br>**only for written assigment** | use indenting meaningfully (no long lines) | |
| | Apply tidyverse style guide (or show intention to do so) | |
| | comment code meaningfully | |
| | write a header containing of : Author, date, aim of the script and requirements/ dependencies<br>load all required R packages at the beginning of the script<br>read all required datasets at the beginning of the script | |
| Additional<br>**only for written assignment** | use relative file paths | |
| | apply minimum 1 test | |
| | use meaningful variable names | |
| Additional<br>**only for presentation** | Add an external image<br>Add a footer<br>Add an image to the footer | |
| Total points | 16 (written) and 10 (oral) maximum, Pass with 60% (10 (written) and 6 (oral) points, incl. Participation) | |

**A participation is necessary to pass the course, it's possible to miss one of the 3 sessions if excused (via email to one of the organisators). Please discuss with us if you need a special agreement.*

Course evaluation : pass fail