# Introduction to Applied Data Science (I2ADS) course

## Course description

**The course I2ADS, "Introduction to Applied Data Science" (2 ECTS for PhD students)**, is aimed at students of all levels with a strong focus on computer science to train them in integrating the techniques that form the pillars of open & reproducible science. This module does not replace any computational course on any of the topic it features, and is meant instead as an overview of how the different computing pieces introduced fit together. As such, lectures on a given topic addressed during the course can be studied more in depth after the course to strive for mastery of that topic. **This course is independent of the course EDSAN (Example of Data Science Applications to Neuroimaging), and can be attended by students from any background.** The details of the course content are indicated in the "Detailed Curriculum" section below.

**Registration to this course has to be carried out at this link: https://tinyurl.com/i2ads2022.** An official university email is required to attend the course. **After you register, all further communications will be done on Slack** (a Slack invitation will be sent to you after you register).

## Detailed Curriculum

Schedule (all lectures are 2 hour-long on Monday morning, except the first lecture which is on Tuesday afternoon because of "Jeune federal")

| Lecture | Date & Time |
| --- | --- |
| Linux Part 1 | TUE SEP 20, 2PM-4PM <br> **Note: the first course is on a Tuesday afternoon instead of Monday morning due to the "Jeune federal"** |
| Linux Part 2 | MON SEP 26, 09AM-11PM |
| Linux Part 3 | MON OCT 03 , 09AM-11PM |
| GIT Part 1 | MON OCT 10 , 09AM-11PM |
| GIT Part 2 | MON OCT 17, 09AM-11PM |
| GIT Part 3 | MON OCT 24 , 09AM-11PM |
| GIT Part 4 | MON OCT 31 , 09AM-11PM <br> **Note: this lecture will be recorded if I cannot find a replacement instructor as I will not be on site** |
| Python Part 1 | MON NOV 07 , 09AM-11PM |
| Python Part 2 | MON NOV 14 , 09AM-11PM |
| Python Part 3 | MON NOV 21 , 09AM-11PM |
| Python Part 4 | MON NOV 28 , 09AM-11PM |
| Intro to Machine Learning Part 1 | MON DEC 05 , 09AM-11PM |
| Intro to Machine Learning Part 2 | MON DEC 12 , 09AM-11PM |
| Intro to Machine Learning Part 3 | MON DEC 19 , 09AM-11PM |

## Teaching location, language and additional information

The course is taught in English at Campus Biotech (Geneva). To get the 2 ECTS credits the course requires completion of a step-by-step project at the end of the course, and obtaining at least 4/6 at the multiple-choice-question quiz exam.

**Even if the lectures are recorded, live attendance is required as virtual machines will be used during the course and only available during lecture hours. Credits will only be provided for those attending live at least 80% of the lectures.**