

Course title	Introduction to NeuroImaging Data Science (NIDS)
Organizer(s)	Michael Dayan, PhD, Campus Biotech
ECTS	Module 1: 2 ECTS incl. preparation and exam Module 2: 1 ECTS incl. preparation and exam
Summary	<p>This course aims at teaching the basics of neuroimaging data science and requires NO prerequisites aside owning (and bringing) a laptop, i.e. everyone is welcome no matter the background.</p> <p>The course is highly interactive, therefore physical presence is encouraged if no medical condition suggests avoiding it. We will try to provide remote content, however resources dedicated to remote access may be limited. We will do our best to host as many participants as possible within an environment following all existing guidelines to limit COVID19 spread. As a result there may be space limitations and it is highly recommended to register as soon as possible.</p>
Pre-requirements	None for the first module; the second module requires knowledge of the first data science module content
Program in 2020/21	<ul style="list-style-type: none">• General course introduction: WED 16 SEPT 11AM-12PM• Module 1: Introduction to Data Science<ul style="list-style-type: none">○ Linux<ul style="list-style-type: none">▪ Part 1/3: FRI 25 SEPT 10AM-12PM▪ Part 2/3: THU 01 OCT 10AM-12PM▪ Part 3/3: TUE 06 OCT 10AM-12PM○ Git<ul style="list-style-type: none">▪ Part 1/2: WED 14 OCT 10AM-12PM▪ Part 2/2: MON 19 OCT 10AM-12PM○ Python<ul style="list-style-type: none">▪ Part 1/4: WED 28 OCT 10AM-12PM▪ Part 2/4: TUE 03 NOV 10AM-12PM▪ Part 3/4: WED 11 NOV 10AM-12PM▪ Part 4/4: WED 18 NOV 10AM-12PM○ Intro to Machine Learning (with Python)<ul style="list-style-type: none">▪ Part 1/2: MON 23 NOV 10AM-12PM▪ Part 2/2: WED 02 DEC 10AM-12PM○ Full project example (including everything seen so far)<ul style="list-style-type: none">▪ FRI 11 DEC 10AM-12PM• Module 2: Introduction to Data Science applied to NeuroImaging<ul style="list-style-type: none">○ FAIR data<ul style="list-style-type: none">▪ WED 24 FEB 10AM-12PM○ Preprocessing pipelines [MRI / EEG]<ul style="list-style-type: none">▪ WED 03 MAR 10AM-12PM○ GLM analysis [MRI]

- WED 10 MAR 10AM-12PM
- Machine Learning applied to fMRI task [MRI]
 - WED 17 MAR 10AM-12PM
- Machine learning applied to functional connectivity [MRI]
 - WED 24 MAR 10AM-12PM
- EEG-MRI project example AND/OR Course QCM
 - WED 31 MAR 10AM-12PM

Course materials	TBA
Location	Campus Biotech Geneva
Evaluation	<p>LNDS participants must be present in at least 80% of the course sessions to validate the ECTS. If you only attend individual lectures, please mark them on your LNDS seminar sheet.</p> <p>Module 1 (Data Science): December 16th 2020, 10AM (To be confirmed) Module 2 (NeuroImaging): April 14th 2021, 10AM (To be confirmed) - likely Multiple Choice exam for both -</p>
Registration	Please register until September 13 th by filling the following form ”