Introduction to projects

July 5-23, 2021

Project Structure

The definitive guide to project schedule and structure is in the <u>Daily Guide to Projects</u>, but we include some overview information here.

The NMA projects are conducted over 14 days, beginning on the first project timeslot after the school opening on July 5. The projects are a core part of the summer school, and will teach different skills from those you learn during the course work.

Your pod will split into two groups at the end of the first day, based on common research interests. Day 2 is a full project day to kickstart your projects: you begin with structured material during normal tutorial time (2-3h), and continue with structured project time to try to formulate a project proposal by the end of the day (submit here). You will be matched to external mentors based on this proposal, so please include as many relevant keywords as possible.

During the second week, you will continue through the process of refining your question and finding the right data analyses to test your hypotheses, culminating in an "abstract" that you write on day 10, which is again a full projects day with some structured guidance to the process of writing abstracts.

Finally, week 3 is all about implementing your project and trying to get an answer to your question, culminating in a short presentation to your pod on the final day 15 (5 minutes, 3-5 slides, informal, take turns to present).

Daily Schedule

Daily project time is either:

- Early 3h before content (time slots 2,4)
- Late 3h after content (time slots 1,3,5)

For those of you whose project slot is before tutorials (slots 2,4), there is no project time on the first day of the course - you simply show up to tutorials that day. For those of you whose project slot is after tutorials (slots 1,3,5), there is no project time on the last day of the course - there is a wrap up project presentation session during the tutorial block that day and then the course ends. Your project proposals (used for mentor matching) are due at the end of the project block 2 - this is either:

- July 6, any time for Slots 1,3,5
- July 7, right after the projects time for Slots 2,4 (but before you start coursework on this day)

Here is a table summary of the schedule:

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Project Structure Daily Schedule Project Materials

Important deadlines

date	Slot 1	Slot 2	Slot 3	Slot 4	Slot 5
July 5	project b l ock 1	empty	project block 1	empty	project block 1
July 6	project block 2	project block 1	project block 2	project block 1	project block 2
July 7		project block 2		project block 2	
July 16	abstract day	abstract day	abstract day	abstract day	abstract day
July 22	project b l ock 14		project block 14		project block 14
July 23	empty	project block 14	empty	project block 14	empty

On July 23, everyone has project presentations during the second half of their tutorial block!

Project Materials

Below we link all the relevant project materials. These are available either on github or in the jupyterbook.

- 1. Daily student guide for projects
- 2. Ten steps how-to-model –<u>steps1-4</u>, <u>steps5-10</u>, <u>modelling example</u> <u>data analysis example</u>
- 3. Datasets + videos: neurons / fMRI / ECoG / behavior / theory
- 4. Project templates: slides
- 5. Project examples 2020:
 - Neurons: steinmetz1, steinmetz2, <a href="ma
 - FMRI: <u>kay</u>, <u>hcp1</u>, <u>hcp2</u>
 - o Other: theory, behavior, eeg
- 6. How to write an abstract (in construction):

Important deadlines

- project block 2: by end of block, please submit a project proposal via this <u>Airtable link</u>. We will use this immediately to match your group with a mentor and a project TA.
- course day 10: by end of day, please submit your abstract via this Airtable link (not yet available).
- project block 14: by end of block, please submit your slides via this Airtable link (not yet available).

Project block 14 — Prepare project presentation

- Groups make a five minute project presentation
- RESULTS ARE OPTIONAL! We would like you to present your experience, and results if you happen to have them
- All group members should contribute to the presentation!
- Example project video one (notice how quickly our mascot black cat jumps continents!)
- Example project video two
- PROJECTS ARE DUE PRIOR TO THE INTRO FOR W3D5!!

NMA final day — Presentation of projects

• The second half of W3D5 tutorial time is dedicated to project presentations!