



Draft Program Schedule Mar 16 - Apr 13, 2021

This Program Will Be Held on Consecutive Tuesdays



First Day (General Introduction to All of fMRI; Virtual Tour and Sample Data)

8:00 - 9:45	- A, B -	Overview of the Program and fMRI-Based Experiments	Robert Savoy
10:00 - 11:15	- C1 -	Basics of NMR and MRI: Sources of Signal and Contrast	Robert Savoy
11:30 - 12:30	- C2 -	Image Contrast and Tradeoffs in fMRI; Safety, HRC/IRB Considerations	Robert Savoy
12:30 - 1:30		<i>Lunch</i>	
1:30 - 2:00		Participant Introductions; Begin Design Workshop and Selection of Groups	<i>Participants</i>
2:00 - 3:15	- D -	Data Analysis Part 1: Block Design; t-Tests; Ideas for Data Reduction and the GLM	Robert Savoy
3:30 - 4:00	-E-	Data Analysis Part 1 (continued): Systematic Overview	Robert Savoy
4:00 - 4:30		Discuss Video Tour; Informal Discussion of the Day's lectures	Robert Savoy & <i>Participants</i>

Second Day

8:00 - 10:00	- H -	Experimental Task Design in Functional Neuroimaging (<i>with a short break</i>)	Robert Savoy
10:30 - 11:15	- I -	Data Analysis Part 2: Preprocessing	Robert Savoy
11:30 - 12:30	- N -	Data Analysis Part 3: First Level Estimation	Robert Savoy
12:30 - 1:30		<i>Lunch</i>	
1:30 - 2:30	- O -	Data Analysis Part 4: Second Level Estimation	Doug Greve
2:45 - 3:15		Experimental Design Workshop start	Robert Savoy
3:30 - 4:30	- J -	fMRIPrep: A Robust Preprocessing Pipeline for fMRI Data	Christopher Markiewicz

Times to be determined: Small Group Zoom Meetings to design experiments *Staff**; Robert Savoy

Third Day

8:00 - 10:00	- M -	Resting State fMRI Connectivity and Multivariate Analysis (<i>with a short break</i>)	Robert Savoy
10:15 - 10:45	- P -	Computational Neuroanatomy	Robert Savoy
10:45 - 11:15	- Q -	Overview and Combining Software Packages	Robert Savoy
11:30 - 12:30		<i>Lunch</i>	
12:30 - 1:45	- R -	DSI / DTI / Tractography: Getting at White Matter Tracts with MRI	Anastasia Yendiki
1:45 - 1:50		Reminder of the rest of the day / Design Workshop discussions	Robert Savoy
1:50 - 2:15		Databases & Reproducibility Resources	Robert Savoy
2:15 - 3:15	- K, L -	Advances in Single Trial Design; Visualizing the FIR Model of Analysis	Robert Savoy
3:30 - 4:30	- G -	Optimizing Data Acquisition; Advanced Techniques in Data Acquisition	Blaise Frederick
4:45 -		Informal Discussion of the Day's lectures	Robert Savoy & <i>Participants</i>

Times to be determined: Small Group Zoom Meetings to design experiments *Staff**; Robert Savoy

Fourth Day

8:00 - 8:45	- C -	Review of Basic MRI (Optional, for those interested)	Savoy (basics review)
9:00 - 10:45	- C' -	Topics in Advanced MRI (e.g., Phase Encoding; Arterial Spin Labeling; other by request)	Larry Wald
11:00 - 11:45	- X -	Scanning Children and Adolescents (<i>Informal Discussion</i>)	Constanza M. Vidal Bustamante
12:00 - 1:00		<i>Lunch</i>	
1:00 - 2:00	- T -	Data Analysis Part 5: Inference & Critical Thresholds; Review; Q&A	Doug Greve
2:00 - 4:00	- V -	Seed-Based fMRI Functional Connectivity	Susan Whitfield-Gabrieli
4:30 - 5:30		Extra Time for Discussion if needed	Robert Savoy

Times to be determined: Preparing Presentations; Discussions with experts *Participants and Staff**

Fifth Day

8:00 - 8:45	- W -	Selected Topics in fMRI: Experimental Task Design in the Age of Connectivity; Clinical Considerations; Using Large N examples; Grant Writing; etc	Robert Savoy
9:00 - 10:00	- U -	BIDS: Brain Imaging Data Structure; Quality Assurance Issues	Christopher Markiewicz
10:00 - 10:30	- Y -	Command Line Analysis of an Experiment and Visualization Demo of Freesurfer	Andrew Hoopes
10:30 - 11:00	- X -	Spinal Cord Imaging	Robert Barry
11:15 - 12:00		<i>Class Presentations: Future Experiments</i>	<i>The Program Participants!</i>
12:00 - 2:00		Class discussion/ Feedback	Robert Savoy & Faculty

*Staff: Experimental Design Experts (Tentative List): Robert Barry; Julia Felicione; Kayle Sawyer; Blaise Frederick; Robert Savoy