Research Boot-Camp

COURSE PLAN — QUANTITATIVE RESEARCH

DATE	ACTIVITIES	RECOMMENDED ALLOCATION
1st Oct	**Lesson-1:** Orientation session + Introduction to quantitative and qualitative research	**80 mins**
2nd Oct	**Quiz-1:** Fundamentals of research and applications **Lesson-2:** Three broad approaches in qualitative research + Sources of quantitative research	**15mins** **80 mins**
3rd Oct	**Quiz-2:** Extensive assessment on designing a sample research **Lesson-3:** Using available statistics + Quantitative data analysis, data collection and sampling methods	**30 mins** **90 mins**
4th Oct	**Quiz-3:** Data analysis skills + Sample dissertation **Lesson-4:** Research ethics, objectivity and bias	**25 mins** **80 mins**
5th Oct	**ASSIGNMENT:** Curating a sample plan for research **Lesson-5:** Data Visualization in Excel: Spreadsheets	**60 mins** *varies*
6th Oct	**Lesson-6:** Uni-variate data visualization	**100 mins**
7th Oct	*BREAK*	
8th Oct	**ASSIGNMENT:** Format a huge data set in conventional style **Lesson-7:** Bi-variate data and data analyzing tips	**60 mins** **30 mins**
9th Oct	**Lesson-8:** Learning strategies and exploratory data analysis	**60 mins**
10th Oct	**Quiz-4:** Fundamentals of Data analysis **Lesson-9:** Producing Data + Probability + Inference	**20 mins** **100 mins**

11th Oct	**Quiz-5:** Data curation and formatting: Distribution, Variables, Hypothesis	**30 mins**
	Lesson-10: Visualization of data + The power of info-graphics	**80 mins**
12th Oct	**ASSIGNMENT:** Conducting proper sampling for datasets	**60 mins**
	Lesson-11: Evaluating info-graphics + Learning *Open Refine*	**60 mins**
13th Oct	**Quiz-6:** Assessment on basics of *Open Refine*	**20 mins**
	Lesson-12: Data Organization in Spreadsheets	**80 mins**
14th Oct	**ASSIGNMENT:** Visualizing sampled datasets and curating a final research paper with citation and description	**120 mins**
15th Oct	*DISCUSSION: REMARKS THROUGHOUT THE COURSE*	

Notes:

1. You will have to takes notes based on the course materials you are assigned each day. You will be required to submit your notes in a specific drive folder.
2. You will be required to sign-in with an ***openLearn account*** to collect your certification. You may receive a maximum of 3 certificates upon completing the course properly.
3. Quizzes will be held via **Google Form**. Submission will close on 11:59 PM of the day it was assigned. Remarks for writing-based questions will be provided via email.
4. You are advised to search through the internet to look for relatable video content which might help you understand the course materials better.

Resources:

1. **OpenLearn -** Quantitative and qualitative research in finance - (1st Oct to 4th Oct) - ⊕ Quantitative and qualitative research in finance
2. **OpenLearn -** Data analysis: visualizations in Excel - (5th Oct to 8th Oct) - ⊕ Data analysis: visualisations in Excel
3. **OLI -** Probability & Statistics - (9th Oct to 11th Oct) - ⊕ Probability & Statistics — Open & Free - OLI
4. **OpenLearn -** The power of info-graphics in research dissemination - (11th Oct to 12th Oct) - ⊕ The power of infographics in research dissemination
5. **DataCarpentry** - OpenRefine for Social Science Data - (12th Oct) - ⊕ OpenRefine for Social Science Data: Summary and Setup

6. **DataCarpentry -** Data Organization in Spreadsheets for Social Scientists - (13th Oct) - ⊕ Data Organization in Spreadsheets for Social Scientists: Summary and Setup