

## NUS College: Foundation Modules Offered for AY2022-23 Sem1

| <b>GEA1000N Quantitative Reasoning Data</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
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| <p><b>Module Description:</b></p> <p>This module aims to equip undergraduate students with essential data literacy skills to analyse data and make decisions under uncertainty. It covers the basic principles and practice for collecting data and extracting useful insights, illustrated in a variety of application domains. For example, when two issues are correlated (e.g., smoking and cancer), how can we tell whether the relationship is causal (e.g., smoking causes cancer)? How can we deal with categorical data? Numerical data? What about uncertainty and complex relationships? These and many other questions will be addressed using data software and computational tools, with real-world data sets.</p> |
| <p><b>Learning Outcomes:</b></p> <p>Students will learn and gain competency in:</p> <ol style="list-style-type: none"> <li>1. evaluating/critiquing claims of a quantitative nature;</li> <li>2. practical data handling skills through the use of software;</li> <li>3. interpreting and sense-making of data sets, both small and large, through exploratory data analysis;</li> <li>4. formulating meaningful questions, and employing simple statistical tests and models to find insightful answers.</li> </ol> <p>The approach will emphasize heuristics rather than technicality, so that it will be generally useful to non-specialists across a variety of applications domains.</p>                                    |
| <p><b>Timetable Schedule for AY2022-23 Sem1</b></p> <p><i>Lecture (L1) will be online, tutorial will be 3-hourly weekly.</i></p> <p><b>Mid-term Test:</b> 1 October 2022, 2pm</p> <p><b>Final Exam:</b> 19 Nov 2022, 1pm</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <p><b>Dr Chan Chi-wang</b></p> <p>Tutorial 1: Wednesday, 9.00am-12.00pm (LL-TR1)</p> <p>Tutorial 2: Friday, 2.00pm-5.00pm (LL-TR1)</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <p><b>Dr Loo Yoke Leng</b></p> <p>Tutorial 3: Monday, 12.00pm-3.00pm (LL-TR1)</p> <p>Tutorial 4: Wednesday, 3.00pm-6.00pm (LL-TR1)</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <p><b>Dr Chan Kiat Hwa</b></p> <p>Tutorial 5: Tuesday, 12.00pm-3.00pm (LL-TR2)</p> <p>Tutorial 6: Thursday, 12.00pm-3.00pm (LL-TR1)</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <p><b>Dr Francesca Spagnuolo</b></p> <p>Tutorial 7: Thursday, 9.00am – 12.00pm (LL-TR1)</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <p><b>Dr Mikhail Filippov</b></p> <p>Tutorial 8: Tuesday, 2.00pm-5.00pm (LL-TR1)</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <p><b>Dr Sebastian Pohl</b></p> <p>Tutorial 9: Tuesday, 1.00pm – 4.00pm (LL-SR3)</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

### Venue Legend:

LL-SR and LL-TR are located at Cinnamon Learn Lobe