R is the gold standard programming language today for data scientist. R provides a wealth of libraries for data manipulation, visualization, and data modeling. R packages allows a beginner data scientist to build simple to sophisticated models quickly and easily in a few lines of code.

The programme aims to quickly bring up to speed a programmer or business analyst who already know how to program in other language or have done advanced Excel MACROS to begin using R as a data science tool.

In the programme, we will define data science and explore the first two things a data scientist must do – cleaning and visualizing data. We will learn and use R's dplyr, ggplot and ggvis packages for these tasks. We will move on to further steps in the Data Science Workflow - training models and testing them. We will do this by applying machine learning models to various industry-relevant data science problems. Our tool of choice will be the caret package.

At the end, you should have a working knowledge of how to solve data science problems with R.

**DATE**
12 - 13 April 2018

**DURATION**
2 Days; 9.00am to 5.30pm daily

**VENUE**
National University of Singapore

**PROGRAMME OUTLINE**

**Day 1**
- Data Cleaning and Transformation: Getting Data into Shape
- Data Visualization: Mining for Insights and Telling a Story
- R as a Programming Language

**Day 2**
- Introduction to Predictive Modelling with R
- Communication and App Development with Shiny Apps.

**PRE-REQUISITES**
Familiarity with a programming language such as Java, C/ C++ or Python but NOT essential, and statistics 101 at a pre-university level.

**WHO SHOULD ATTEND**
Software Engineers, Programmers or Data Analysts

**CONTACT**
+65 6601 8888  
scale.execed@nus.edu.sg  
scale.nus.edu.sg
# R For Data Science

## FEES & FUNDING

<table>
<thead>
<tr>
<th></th>
<th>International Participants</th>
<th>Singapore Citizens&lt;sup&gt;1&lt;/sup&gt;</th>
<th>Singapore PRs</th>
<th>Enhanced Training Support for SMEs&lt;sup&gt;4&lt;/sup&gt;</th>
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<tr>
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<td>21 to 39 years old</td>
<td>40 years or older&lt;sup&gt;2&lt;/sup&gt;</td>
<td>Eligible for WTS&lt;sup&gt;3&lt;/sup&gt;</td>
<td>≥ 21 years old</td>
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<td>Full Programme Fee</td>
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<td>(S$300.00)</td>
<td>(S$375.00)</td>
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1. All self-sponsored Singaporeans aged 25 and above can use their $500 SkillsFuture Credit to pay for the programme. Visit the SkillsFuture Credit website (www.skillsfuture.sg/credit) to select the programme.

2. Mid-Career Enhanced Subsidy - Singaporeans aged 40 and above may enjoy subsidies up to 90% of the programme fee.

3. Workfare Training Support (WTS) - Singaporeans aged 35 and above (13 years and above for persons With disabilities) and earn not more than $2,000 per month, may enjoy subsidies up to 95% of the programme fee.

4. Enhanced Training Support for SMEs (ETSS) - SME-sponsored employees (Singaporean Citizens and PRs) may enjoy subsidies up to 90% of the programme fee. For more information, visit www.ssg.gov.sg/programmes-and-initiatives/training/enhanced-training-support-for-smes.html.

5. Eligible organisations (excluding government entities) may apply for the absentee payroll funding via SkillsConnect at www.skillsconnect.gov.sg for Singaporean/permanent resident participants attending the programme during working hours. The absentee payroll funding is computed at 80% of hourly basic salary capped at $4.50 per hour or $7.50 per hour for SME or 95% of hourly basic salary for WTS. For more information, visit https://www.skillsconnect.gov.sg/sop/portal/e-Services/For%20Employers/AbsenteePayroll.jsp.