# Workshops

<table>
<thead>
<tr>
<th>Introduction to R</th>
<th>An accessible introduction to the statistical programming language R, intended for complete beginners. R makes it easier and faster to play with larger data sets than Excel can handle.</th>
</tr>
</thead>
</table>
| **Friday, 8:30 - 9:15 PM** | Grace Yoo, Galen Long  
Prerequisites: none |
| Thinking fast with dplyr | In this workshop, we'll practice creating and answering questions about data quickly with dplyr. Dplyr is an R package that provides easy-to-use functions for playing with large tables. |
| **Friday, 9:20 - 10:00 PM** | Freddie Sanchez, Galen Long  
Prerequisites: basic R |
| Visualizing data with ggplot2 | This introduction will focus on using the R package ggplot2 to create neat visualizations. Near the end, we'll work with spatial data and make some cool maps. |
| **Saturday, 11:00 - 11:45 AM** | Deirdre Fitzpatrick  
Prerequisites: basic R, dplyr |
| Handling dates with lubridate | In this session, we’ll learn how to reshape and summarize data with dates and times, using packages like dplyr and lubridate. We’ll also touch on creating timeseries. |
| **Saturday, 1:30 - 2:15 PM** | John Karlen  
Prerequisites: basic R, dplyr |

## Instructors

All five workshop instructors are members of the MassMutual Data Science Development Program, a three-year program that combines graduate coursework with hands-on company projects. Visit the DSDP website to learn more: [http://datascience.massmutual.com](http://datascience.massmutual.com).

Grace Yoo graduated from Mount Holyoke College with a special major in Computational Neuroscience. Programming didn’t come naturally to Grace; she understands the struggle.

Galen Long worked as a TA for six out of the eight semesters they spent at Smith College. They were also a member of the Five College DataFest’s 2015 winning team, $2\beta||2\beta$.

Freddie Sanchez studied at UCLA, using his background in Statistics and Anthropology to research cultural beliefs with statistical methods. He also competed in the 2014 and 2015 UCLA DataFests.

Deirdre Fitzpatrick graduated from Smith College in 2014 — the same year her team, the *P-valuables*, won the first Five College DataFest. She loves to play with her two dogs and cat, who are a handful.

After graduating from UMass-Amherst, John Karlen worked as a lab instructor for Mount Holyoke, where he taught students how to program Tetris games. On the weekends, he hangs out with his fluffy dog, Bay.