

## BIG DATA: DATA SCIENCE AND BUSINESS ANALYTICS 3a Edição - 2018

| Módulo   | Docente                            | Mês     | Dia | Dia Semana    | Horário              |
|--|------------------------------------|---------|-----|---------------|----------------------|
| Program Opening (1h)   | Miguel Godinho de Matos<br>- Abril |         | 20  | 6ª feira      | 17h00 - 18h00        |
| Big Data, Data Science and Business Analytics (2h)                                 |                                    | A howil |     |               | 18h00 - 20h00        |
| Environment Configuration - Setup (1h)   |                                    |         |     | 20h00 - 21h00 |                      |
| Big Data Tools Ecosystem (3h)  | Rodrigo Belo                       |         | 21  | Sábado        | 09h30 - <b>12h30</b> |
| Basic Concepts - Review of Statistical Analysis (3h)                               | - Miguel Godinho de Matos          | - Maio  | 4   | 6ª feira      | 17h00 - 20h00        |
| Basic Concepts - Descriptive Statistics and Visualization of Large Datasets (1h)   |                                    |         |     |               | 20h00 - 21h00        |
| R For Big Data Analysis - Introduction to R for Business Analytics Part I (4h)     | Rodrigo Belo                       |         | 5   | Sábado        | 09h30 - 13h30        |
| Basic Concepts - Descriptive Statistics and Visualization of Large Datasets (1h)   | · Miguel Godinho de Matos          |         | 11  | 6ª feira      | 17h00 - 18h00        |
| Predictive Analytics - Introduction to Data Mining and Business Analytics (3h)     |                                    |         |     |               | 18h00 - 21h00        |
| R For Big Data Analysis - Introduction to R for Business Analytics Part II (4h)    | Rodrigo Belo                       |         | 17  | 5ª feira      | 17h00 - 21h00        |
| Predictive Analytics - Predictive Modeling (4h)                                    | Miguel Godinho de Matos            |         | 18  | 6ª feira      | 17h00 - 21h00        |
| R For Big Data Analysis - Part III - Introduction to R for Business Analytics (4h) | Rodrigo Belo                       |         | 19  | Sábado        | 09h30 - 13h30        |
| Predictive Analytics - Model Fit, Over Fit and Performance Evaluation (4h)         | Miguel Godinho de Matos            |         | 25  | 6ª feira      | 17h00 - 21h00        |
| Predictive Analytics - Advanced Topics (4h)  |                                    |         | 26  | Sábado        | 09h30 - 13h30        |
| Data Science Team Work (3h)  |                                    | Junho 1 | 7   | 5ª feira      | 17h00 - <b>20h00</b> |
| Causal Inference - Causality, Correlation and Unobserved Effects (4h)              | Pedro A. Ferreira                  |         | 8   | 6ª feira      | 17h00 - 21h00        |
| Causal Inference - Causality in Observational Data Part I (5h)                     |                                    |         | 9   | Sábado        | <b>08h30</b> - 13h30 |
| Causal Inference - Causality in Observational Data Part II (3h)                    |                                    |         | 14  | 5ª feira      | 17h00 - 20h00        |
| Causal Inference - Randomized Experiments (3h)                                     |                                    |         |     |               | 20h00 - 21h00        |
|  |                                    |         |     | 6ª feira      | 17h00 - 19h00        |
| Case Studies (6h)  | Miguel Godinho de Matos            |         | 15  |               | 19h00 - 21h00        |
|  | Pedro A. Ferreira                  |         | 16  | Sábado        | 09h30 - 13h30        |
| Data Science Team Work (3h)  | Miguel Godinho de Matos            |         | 22  | 6ª feira      | 17h00 - <b>20h00</b> |
| Closing Ceremony   |                                    | Julho   | 6   | 6ª feira      | A partir das 18h30   |

Duração Total: 66 horas

## Coordenadores:

Miguel Godinho de Matos - Ph.D. in Telecommunications Policy and Management and a M.Sc. in Engineering and Public Policy from Carnegie Mellon University. Assistant Professor of Information Systems and Management at Católica Lisbon School of Business & Economics. He is also a visiting scholar at the Heinz College from Carnegie Mellon University. Miguel's work has been accepted for publication in top journals such as Management Science and Management Information Systems Quarterly as well as top peer-reviewed research conferences such as the International Conference of Information Systems, the IEEE Conference on Social Computing and the Economics of Digitization Seminar Series of the National Bureau of Economic Research.

Pedro A. Ferreira - PhD in Telecommunications Policy and Management from Carnegie Mellon University and a Master in Electrical Engineering and Computer Science from the Massachusetts Institute of Technology (MIT). Assistant Professor of Economics of IT and Public Policy at the Heinz College and at the Department of Engineering and Public Policy, Carnegie Mellon University (US). Pedro works regularly with major telecommunications firms in Europe, Asia and in the US, in consulting projects focusing on using social media for viral marketing and for active churn management. Prior to joining academia Pedro served as Director of the Portuguese Knowledge Society Agency supervising all public investment in ICTs between 2005-2010. He also worked as a post-doctoral fellow at the School of Information, University of California, Berkeley.