

**MS IN BUSINESS ANALYTICS COURSE LIST 2019-20**

| <b>1. PRE-SESSION</b>  |                                    | <b>Mandatory credits</b> | <b>Elective credits</b> | <b>Home program</b> |
|--|------------------------------------|--------------------------|-------------------------|---------------------|
| Mathematics and Informatics Pre-session for Business Analytics   | Kiss, Oliver                       | 0                        |                         | BA                  |
| Maximizing Your Future*  | Kaposvari, Anna                    |                          | 0                       | F                   |
| <b>1. FALL 2019-20</b>   |                                    |                          |                         |                     |
| Coding 1: Data Management and Analysis with R  | Kaufmann, Marc                     | 2                        |                         | BA                  |
| Data Analysis 1: Exploration - Business Analytics track  | Bekes, Gabor                       | 1                        |                         | BA                  |
| Data Analysis 2: Finding Patterns with Regressions - Business Analytics track  | Bekes, Gabor                       | 2                        |                         | BA                  |
| Data Engineering 1: Different Shapes of Data   | Sallo, Laszlo                      | 2                        |                         | BA                  |
| Data Engineering 2: Big Data and Cloud Computing   | Toth, Zoltan                       | 2                        |                         | BA                  |
| Data Visualization 1: Introduction to Data Visualization with Tableau  | Arato, Bence                       | 2                        |                         | BA                  |
| Data Science 1: Data Architecture (D)  | Koren, Miklos                      |                          | 2                       | BA                  |
| Coding 2: Web scraping with R  | Orsos, Mihaly                      |                          | 1                       | BA                  |
| Coding Practice with R   | Orsos, Mihaly                      |                          | 0                       | BA                  |
| Digital Marketing*   | Farkas, Tibor                      |                          | 2                       | TM                  |
| Digital Strategy*  | Akbar, Yusaf                       |                          | 2                       | TM                  |
| Programming Foundations with Python* (D)   | Muco, Arieda                       |                          | 2                       | F                   |
| Fundamental Ideas in Network Science* (D)  | Kertesz, Janos                     |                          | 4                       | DNDS                |
| Introduction to Geospatial Data Visualization* (D)   | Lagutov, Viktor                    |                          | 2                       | UWC                 |
| Social Networks 1.* (D)  | Vedres, Balazs                     |                          | 2                       | DNDS                |
| <b>2. WINTER 2019-20</b>   |                                    |                          |                         |                     |
| Data Analysis 3: Prediction and Introduction to Machine Learning   | Bekes, Gabor / Pal, Jeno           | 2                        |                         | BA                  |
| Data Science 2: Machine Learning Concepts  | Papp, Zoltan                       | 1                        |                         | BA                  |
| Data Security and GDPR   | Papp, Peter                        | 1                        |                         | BA                  |
| Data Visualization 2: Practical dataviz with R   | Daroczi, Gergely                   | 1                        |                         | BA                  |
| Introduction to Agile Project Management   | Sallo, Laszlo                      | 1                        |                         | BA                  |
| Use Case Seminars 1.   | Daroczi, Gergely                   | 1                        |                         | BA                  |
| Coding 3: Data Management and Analysis with Python   | Somos, Eszter                      |                          | 2                       | BA                  |
| Data Engineering 3: Real-Time Data Processing  | Toth, Zoltan                       |                          | 1                       | BA                  |
| Data Engineering 4: Using R in Production  | Daroczi, Gergely                   |                          | 1                       | BA                  |
| Data Science 3: Machine Learning Tools   | Papp, Zoltan / Pal, Jeno           |                          | 2                       | BA                  |
| Scrum in Agile Project Management*   | Sallo, Laszlo                      |                          | 1                       | TM                  |
| Banking IT and Fintech: Bank to the Future*  | Szalay, Szabolcs                   |                          | 2                       | TM                  |
| Data-driven Decision-making and Analytics Leadership*  | Bakonyi, Zoltan                    |                          | 2                       | TM                  |
| Digital Transformation*  | Szertics, Gergely                  |                          | 2                       | TM                  |
| Fintech in Depth*  | Lee, Tomy                          |                          | 2                       | F                   |
| SQL Intermediate*  | Micsko, Krisztian                  |                          | 0                       | F                   |
| Bayesian Data Analysis*  | Fiser, Jozsef                      |                          | 2                       | CogSci              |
| <b>3. SPRING 2019-20</b>   |                                    |                          |                         |                     |
| Data Science 4: Unstructured Text Analysis   | de la Rubia, Eduardo               | 1                        |                         | BA                  |
| Designing Analytics Projects (Capstone Project Development Seminar)  | de la Rubia, Eduardo               | 1                        |                         | BA                  |
| Mastering Social Data Science (Vienna)   | Garcia, David                      |                          | 1                       | BA                  |
| Use Case Seminars 2. (Vienna)  | Toth, Zoltan                       |                          | 1                       | BA                  |
| Data Visualization 3: Data Visualization in Production with Shiny  | Daroczi, Gergely/<br>Orsos, Mihaly |                          | 1                       | BA                  |
| Data Visualization 4: Dataviz Communication  | Cairo, Alberto                     |                          | 1                       | BA                  |
| Mastering Data Science Projects  | Lorand, Balazs                     |                          | 1                       | BA                  |
| Mastering Deep Learning in R   | de la Rubia, Eduardo               |                          | 1                       | BA                  |
| Mastering Product Analytics  | Prekopcsak, Zoltan                 |                          | 1                       | BA                  |
| Mastering R Skills   | Daroczi, Gergely                   |                          | 1                       | BA                  |
| Mastering the Process of Data Science  | Windhager-Pokol, Eszter            |                          | 1                       | BA                  |
| Ethics of Big Data*  | Margaritidis, Chrys                |                          | 2                       | TM                  |
| Financial Trading Design and Technology*   | Meszaros, Ferenc                   |                          | 2                       | F                   |
| Internet of Things - Industry 4.0 - Challenges and Opportunities of Connected Business Models*   | Boday, Tamas                       |                          | 2                       | TM                  |
| Technology Innovation (Cognitive and Smart Systems)*   | Sepp, Norbert                      |                          | 2                       | TM                  |
| Capstone Project Writing   | Bogel, Gyorgy                      | 4                        |                         | BA                  |
| Capstone Project   | Bogel, Gyorgy                      | 4                        |                         | BA                  |
| Home program: BA: Business Analytics; TM: Technology Management and Innovation; F: Finance; DNDS: Department of Network and Data Science; CogSci: Department of Cognitive Science; UWC: University Wide Course |                                    |                          |                         |                     |
| All mandatory courses with BA as home program are scheduled on Mondays and Wednesdays; * - Limited availability (Vienna) - Course to take place in Vienna  |                                    |                          |                         |                     |
| <b>Course list remains subject to change</b>   |                                    |                          |                         |                     |