

## Course Descriptions NonDegree 2017-2018

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| Course Title                                                    | Interaction Design                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |          |          |     |     |     |                                       |     |
| Course Code                                                     | EBC4226                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |          |          |     |     |     |                                       |     |
| ECTS Credits                                                    | 5,0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |          |          |     |     |     |                                       |     |
| Assessment                                                      | Whole/Half Grades                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |          |          |     |     |     |                                       |     |
| Period                                                          | Period                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Start    | End      | Mon | Tue | Wed | Thu                                   | Fri |
|                                                                 | 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 5-2-2018 | 6-4-2018 |     | X   |     |                                       | X   |
| Level                                                           | Advanced                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |          |          |     |     |     |                                       |     |
| Coordinator                                                     | Dominik Mahr For more information:d.mahr@maastrichtuniversity.nl                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |          |          |     |     |     |                                       |     |
| Language of instruction                                         | English                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |          |          |     |     |     |                                       |     |
| Goals                                                           | <p>When you have successfully finished this course, you will:</p> <ol style="list-style-type: none"> <li>1) Be able to apply multi-disciplinary reasoning in approaching smart service design including human-computer interaction perspectives.</li> <li>2) Be able to discuss the diverse spectrum of software and hardware platforms available for smart service development.</li> <li>3) Gain a better understanding of the broad range of legal and ethical issues surrounding smart services.</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |          |          |     |     |     |                                       |     |
| Description                                                     | <p>Broadly speaking, the study of service interaction involves unique challenges, such as:</p> <ol style="list-style-type: none"> <li>1) An increasingly multi-disciplinary design environment spanning domains such as interaction design, UEX, human-computer interaction, affective computing, behavioral science and psychology, services, and computer science and engineering domains including data mining, machine learning, sensor fusion and robotics.</li> <li>2) New and rapidly evolving software and hardware landscapes, giving rise to constantly evolving platforms upon which to develop smarter services, as well as parallel rapid evolution in new analytical techniques, ranging from sophisticated multivariate A/B testing to social media analytics, to sensor fusion in wearable computing and smart cities. This requires a reimagining of the many ways in which customers can interact with services.</li> <li>3) A rapidly developing ethical and legal landscape with unique considerations around privacy trade-offs, data collection and keeping customers informed.</li> </ol> <p>This course will introduce students to the primary theoretical aspects of each of these challenges and equip them with the tools to begin to create and manage smarter services. Students will learn about scientific developments at the intersection of different disciplines giving rise to the services of the future, and will experience a wide-ranging introduction to multiple options to develop such services.</p> <p>Divided into nine distinct topics, this course begins with a multi-disciplinary introduction to the creation of smarter services, guiding students through a variety of relevant domains where smarter services are currently evolving, before finally concluding with critical ethical considerations, shaping the way smart services are created and ensuring customer uptake and continued usage.</p> |          |          |     |     |     |                                       |     |
| Literature                                                      | <p>Battistella, C., Battistella, C., De Toni, A. F., De Toni, A. F., Pessot, E., &amp; Pessot, E. (2017). Open accelerators for start-ups success: a case study. <i>European Journal of Innovation Management</i>, 20(1), 80-111.</p> <p>Dale, R. (2016). The return of the chatbots. <i>Natural Language Engineering</i>, 22(5), 811-817.</p> <p>Dennis, L., Fisher, M., Slavkovik, M., &amp; Webster, M. (2016). Formal verification of ethical choices in autonomous systems. <i>Robotics and Autonomous Systems</i>, 77, 1-14.</p> <p>Eyssel, F. (2017). An experimental psychological perspective on social robotics. <i>Robotics and Autonomous Systems</i>, 87, 363-371.</p> <p>Gravina, R., Alinia, P., Ghasemzadeh, H., &amp; Fortino, G. (2017). Multi-sensor fusion in body sensor networks: State-of-the-art and research challenges. <i>Information Fusion</i>, 35, 68-80.</p> <p>Rafaeli, A., Altman, D., Gremler, D. D., Huang, M. H., Grewal, D., Iyer, B., ... &amp; de Ruyter, K. (2016). The Future of Frontline Research: Invited Commentaries. <i>Journal of Service Research</i>, 1094670516679275.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |          |          |     |     |     |                                       |     |
| Prerequisites                                                   | A rudimentary understanding of service design and smart services.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |          |          |     |     |     |                                       |     |
| Keywords                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |          |          |     |     |     |                                       |     |
| Teaching methods                                                | PBL / Presentation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |          |          |     |     |     |                                       |     |
| Assessment methods                                              | Participation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |          |          |     |     |     |                                       |     |
| Evaluation in previous academic year                            | For the complete evaluation of this course please click <a href="http://iwio-sbe.maastrichtuniversity.nl/rapporten.asp?referrer=codeUM">http://iwio-sbe.maastrichtuniversity.nl/rapporten.asp?referrer=codeUM</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |          |          |     |     |     |                                       |     |
| This course belongs to the following programme / specialisation | MSc Business Intelligence and Smart Services                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |          |          |     |     |     | No specialisation                     |     |
|                                                                 | MSc Business Intelligence and Smart Services                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |          |          |     |     |     | Specialisation courses Service Design |     |
|                                                                 | SBE Non Degree Courses                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |          |          |     |     |     | No specialisation                     |     |