

1 Business domain knowledge and skills
1.1 Understands theories of the process behind the production of goods and services and can apply this in designing solutions.
1.2 Understands models of costing and budgeting and their significance for the ability to manage business processes and can apply this in designing solutions.
1.3 Can analyse, design and/or redesign business processes that support business operations, making use of theories and models of business processes and methods for analysis and design.
2 Information Technology domain knowledge and skills
2.1 Understands the methods, techniques and tools for the development of software systems, and can apply them.
2.2 Understands theories, methods and techniques for the design of databases, as well as of relevant implementation and maintenance aspects.
2.3 Knows and understands how to design user interfaces, focusing on the interactions between the end-users and the system.
3. Business-IT alignment knowledge and skills
3.1 Can systematically integrate requirements and practices from business and IT in specified application areas using theories and models of organization and IT.
3.2 Understands theories of the role of information technology in business operations and innovation.
3.3 Can analyse, design and/or redesign the information systems that support business operations using the design cycle (see 4.1).
3.4 Understands the management aspects, quality and risk management of the software development process and software products.
4 Scientific approach
4.1 Can under supervision systematically apply the design cycle (analysis, design, implementation, evaluation and reflection) to IT and business problems, applying theories from different disciplines if necessary.
4.2 Can under supervision systematically design and execute a research plan (literature research, problem analysis, formulating hypothesis, design and execution research plan, data analysis, report, conclude) crossing different disciplines or fields if necessary
4.3 Can apply research methodology and research ethics, both in the area of social science research as in design research.
4.4 Can apply creative and critical thinking, reflection and argumentation.
4.5 Is capable of independently acquiring new knowledge and skills from different disciplines.
4.6 Can apply specific mathematical theories and analyse problems and solutions conceptually.
5 Professional skills
5.1 Can cooperate, discuss and report in written and verbal ways, in English, in both a professional and a research setting, and is aware of the differences between these settings.
5.2 Is capable of working as part of a (multi-disciplinary) team in different roles, as member or leader, in terms of sharing responsibilities, applying time management, and planning resources and reporting, and is aware of group dynamics in development projects.
5.3 Is capable of functioning as a professional in and between different disciplines/fields.
5.4 Is capable of setting up and leading a (simple) enterprise.
5.5 Has an entrepreneurial attitude.
6. Taking account of Social and Temporal context
6.1 Is capable of analysing and discussing ethical, social, cultural and societal aspects of problems, solutions and developments and their consequences in the field.
6.2 Can value differences between cultures and can learn from these.