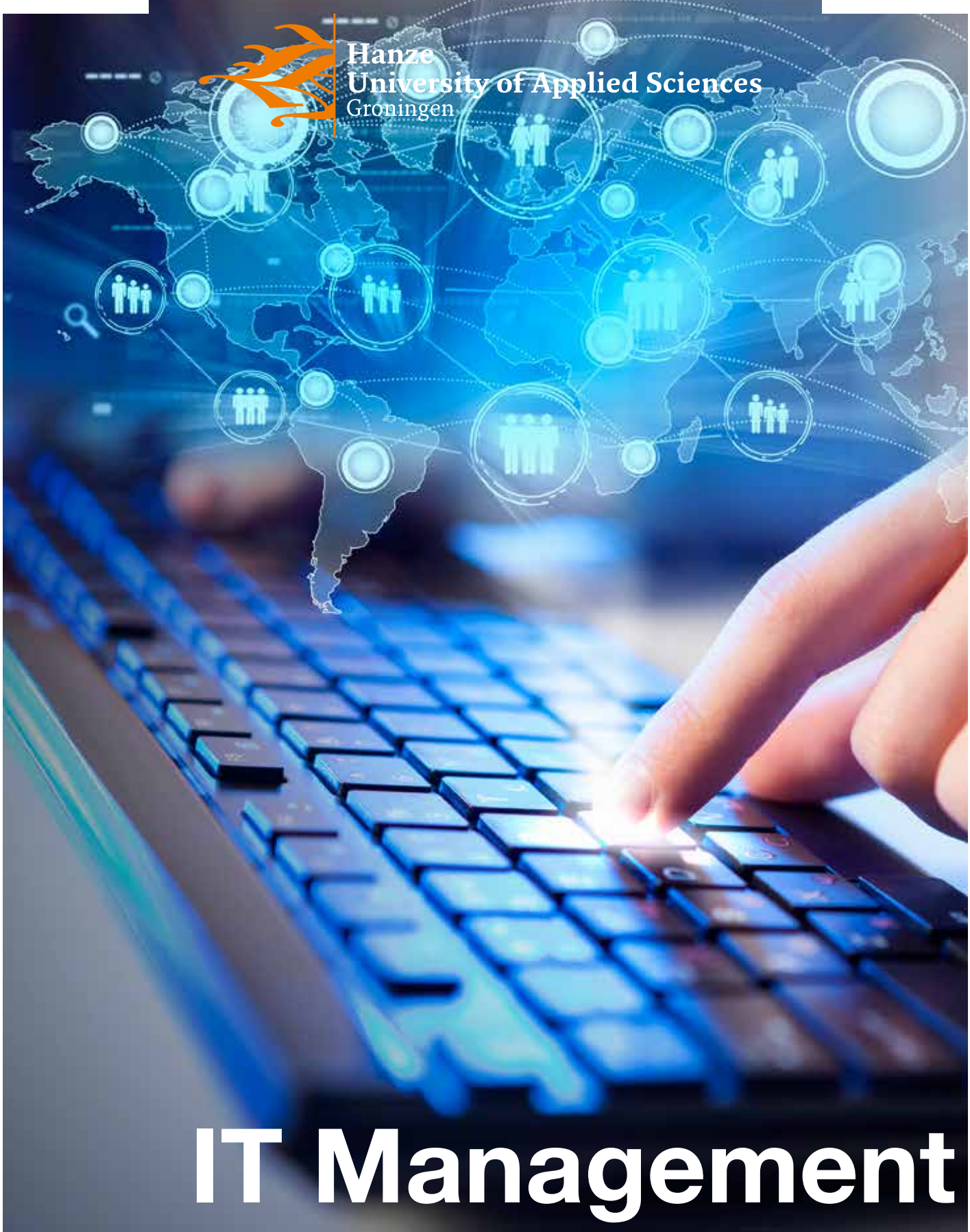




Hanze
University of Applied Sciences
Groningen



IT Management

Exchange semester

share your talent. **move** the world.

“Intelligence is the ability to adapt to change.”

Stephen Hawking

If you search the internet for “customer satisfaction with ICT” you will find an endless list of articles about unhappy customers, failed projects, too expensive ICT, etc.

The market shows that managing ICT is a great challenge. Many companies have a love-hate relationship with their internal ICT departments and external ICT suppliers. All ICT providers have the best intentions and focus to deliver quality products and add value for their customers. But the intentions appear hard to realize. Users and ICT-people seem to live in different worlds. They do not speak the same language. Users complain about ICT and ICT-people keep telling that users are not willing to understand ICT.

In this challenging, still developing field, IT Service Management operates. Main subjects are: how to deliver the right services, for the right price, at the right quality, in an ever changing customer world. Here is where technology and organisation meet.

The Content

The main question in IT organisations is how to get things done in a dynamic playing field containing a wide variety of stakeholders of a typical IT environment. How do we connect different interests, different cultures and different methods accordingly? This semester will provide the principles behind these methods. You will learn about:

- Major market standards: ITIL4 for organizing IT service management and Agile SCRUM for managing IT projects
- Improving process performance with LEAN
- Managing IT organisations
- (Cloud) sourcing and IT Governance
- Agile Governance frameworks like SaFe
- Management and consultancy skills

Professional roles associated to this program are:

- IT Business Consultant
- IT Project Manager
- Process Manager
- IT Service Manager
- Team Manager
- Product Owner

Essential frame of reference

Agile Management

Agile management is driven by a number of idealistic principles on how to achieve goals with Information Technology. This is called the agile manifesto.

Individuals and interactions over processes and tools.
Working software over comprehensive documentation.
Customer collaboration over contract negotiation.
Responding to change over following a plan.

Competencies

Operational Management Skills

- The ability to know when and how to apply Agile principles and techniques.
- The ability to improve IT processes.

Business-IT alignment

The ability to professionally advise a customers business officer on the best course of action to take when contemplating:

- Improving IT process performance;
- Transforming IT operations towards Agile principles;
- Improving decision making structures.

International/intercultural cooperation skills

- The ability to work effectively in an international/intercultural team.

Project Management Skills

- The ability to deliver a business case with a unified and unambiguous goal.

Consulting skills

- The ability to give a concise and convincing written and oral presentation to a customers business officer.

The theory

"I came to see, in my time at IBM, that culture isn't just one aspect of the game. It is the game. In the end, an organization is nothing more than the collective capacity of its people to create value."

Louis V. Gerstner, JR.,
Former CEO of IBM

To provide you with a theoretical and methodological frame of reference, the following theoretical subjects will be covered in this programme:

Culture models

Because this programme is international, you will have to deal with people from other countries and cultures. You need to have insight in these cultures to form a common reference and to be effective in cooperative projects. This also counts for cultural differences between companies and differences between company-departments. In order to identify essential aspects of culture, we will introduce you to the Schein model and the Hofstede model.

Scrum

Scrum is a very strong method to develop software incrementally in a number of time boxed 'sprints'. Except from providing great results, working according to the scrum principles also evokes energy and fun! Once you have worked with scrum you do not want to work in another way.

ITIL4

ITIL has been the world standard in IT Service Management for years. ITIL4 is the most recent update of this framework. ITIL describes the processes that should be in place to make sure hard- and software are delivered to the Business with the right availability and performance.

Lean

Lean consists of a bundle of very strong methods to create efficiency. Most of these methods were developed by the Toyota factories in the 1950s. Lean focusses on minimizing waste and provides a number of smart logistic solutions. These methods have proven to be timeless and applicable for new technologies and are still very popular.

Scaling Agile models

Agile methods like scrum have proven to be stable and effective methods to develop new products. Agility means that products evolve during their creation-process, but that also means that the final product design may differ from the initial idea.

So if all these agile projects have the freedom to evolve in their own direction to a certain extent, how do you manage the big picture? How do you ensure that agile projects together contribute to a coherent and efficient supported business? A lot of consultants have tried to answer this question and came up with frameworks and methods to deal with this situation. We will introduce you to a few of these frameworks and provide a more comprehensive insight into the most popular method: the SaFe framework.

Weill & Ross model

Managing is about making choices. IT alignment is achieved if both IT and the Business are fully involved in the decision making process. This requires the right way of designing decision making structures in an IT organisation. Jeanne Ross and Peter Weill developed a framework that helps to analyse and design the decision making in organizations. This model forms the case in the IT Governance lectures. You will also be introduced to relevant Governance frameworks like COBIT, CMMI and ISO.

Management of Change

If you want to improve, you have to change things. In general people do not like to change, but they do like to have their problems solved. How to get improvements? How can make sure that people cooperate in change initiatives? Numerous books have been written about this, but it all comes down to a few principles that you have to apply in a creative way.

The Learning Tasks

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| Learning task 1 | IT & Culture |
| Content | In this learning task, the first thing you will learn is the impact of cultural differences within your own group of international students. In order to work together as a team, everyone has to be aware of each other's different culturally determined expectations. Also, expectations towards the educational system are discussed. After this you will attend three company presentations and you will interview the company representatives on cultural aspects. Based on the acquired information you will make a comparison report. Based on your conclusions you will advise the companies on improvement opportunities on how to deal with cultural differences and how to turn these to their advantage. |
| Learning task 2 | Advising IT & Operations |
| Content | In this learning task we will go outside and visit IT-companies. The goal is to explore how these organisations manage their daily IT operations. We focus on organisations that try to work Agile or are in a transition towards agile working. The role of the Scrum Master, the role that supports agile working, is central. With your team, you are going to conduct interviews with scrum masters. Based on theory and your results, your team will present the conclusions and advice onsite to the representatives of the guest company. |
| Learning task 3 | Business Case Management |
| Content | In Learning Task 3 you will make a Business Case on a tactical strategic level for a company. From the theory you will learn that making a good Business Case is not just about the money. Nor is it important that you just try to satisfy as many stakeholders as possible. Instead, you can better focus on a clear and unambiguous unified goal. You are provided with tactical and strategic documentation of a real company. Based on these documents you will be facilitated to make a strong and convincing Business Case. |
| Learning task 4 | Advising IT Innovation |
| Content | You will visit a company and you and your team will investigate how the customer role in innovation projects is positioned. You will conduct interviews with the people who determine which results are delivered in the projects: the Product Owners. You will present your conclusions and advice to the company representatives on location. |

Programme structure

IT Management consists of 30 European Credits. These are divided among the following components:

| Courses | Sub Unit | ECs | Assessment method |
|---------------------------------------|--|----------|---------------------|
| Complexity of organisations | | 3 | Digital exam |
| IT & Culture | Project Assignment Dutch Culture & Language | 3 | Assignment |
| Agile Management | ITIL Framework Agile Project Management | 3 | Digital exam |
| Consultancy IT Operations | | 3 | Assignment |
| Lean Management | | 3 | Digital exam |
| IT Management & Governance | | 3 | Digital exam |
| Management of Change | | 3 | Assignment |
| Business Case Management | Consultancy Business Case Consultancy Skills | 3 | Assignment |
| Agile Governance | | 3 | Assignment |
| IT Innovation Consultancy | Project Assignment Teambuidling & Coaching | 3 | Assignment |



Course outlines

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| Course | Complexity of Organizations |
| Credits | 3 |
| Content | IT can only exist if it provides added value to organisations and their employees: the organizations are the "customers" of IT. Understanding ones customer is a prerequisite for providing optimal services; as IT'ers it is essential that we posses insight into the many facets of organisations. In 6 lessons we will consider many of the intricacies of the many different types of organisation. Subjects we shall discuss include; types of organizations, strategy, processes, structure, people, information. |

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| Course | IT & Culture |
| Credits | 3 |
| Content | In this assignment you will discover cultural differences between your fellow students, cultural differences in education and you will make a comparison of departmental cultural profiles of three different companies based on company presentations and interviews. |

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| Course | Agile Management |
| Credits | 3 |
| Content | <p>This course is divided in two courses:</p> <p>ITIL Frameork</p> <p>Agile working in IT organisations has taken a big flight in recent years, because Agile provides effective results in the development of software. In almost every IT organization, small teams emerge that work closely together with the customer(representative) in a series of short iterations in order to produce successful short-term results: working software that provides real value to the customer.</p> <p>In this course module, you will discover the principles of Agile working in organizations, compare this new way of working with traditional project management methods and discuss other related frameworks, like Lean. Besides that, you will learn how to organize a specific Agile project and discovers what management challenges are related with introducing Agile working in organizations. The student also learns the principles of "Scrum", a way of working based on the Agile principles. This knowledge forms the foundation for playing the Scrum game successfully.</p> <p>This course module covers the operational aspects of Agile working and Scrum and consists of 5 lessons, including 1 guest lecture and 1 Scrum game. A digital test in BlackBoard is part of this course and consists of 5 open questions. (The test will be combined with the test of course module "Management of Change). Finally, all lessons are mandatory.</p> |

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| Course | Lean Management |
| Credits | 3 |
| Content | Lean can be seen as a very set of elementary methods to optimize process performance, originally used in the Toyota factories. In these workshops you will apply Lean principles on relevant ICT cases and in real live situations. |

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| Course | Consultancy IT Operations |
| Credits | 3 |
| Content | Thanks to the cooperation of a number of regional organisations you, in teams, will have the opportunity to apply a variety of the knowledge and skills they have already gained. To do this you will execute a consultancy assignment relating to the manner in which the organisations provide their IT services. You will interview employees in the various organisations and, at a later date, provide the organisation with their findings and proposals for possible improvements. |

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| Course | Management of Change |
| Credits | 3 |
| Content | It is not necessary to change. Survival is not mandatory. -W. Edwards Deming In order to remain effective all organisations have to change. A lack of competence unfortunately leads to many failed change initiatives leading to poor results and a multitude of dissatisfied employees. During the 5 lessons the importance of answering 3 simple questions will provide an introduction tot his vast subject; the questions relate to the "why"; "what" and "how" of every change initiative. |

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| Course | IT Management & Governance |
| Credits | 3 |
| Content | This course will give you an overview of methods and frameworks on how to be in control of IT performance and the principles of good decision making in IT. Topics like SOX legislation, COBIT, TOGAF, ISO and the Weill & Ross framework are covered. Also management decisions concerning Sourcing will be discussed. |

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| Course | Business Case Management |
| Credits | 3 |
| Content | In this assignment you and your team will make and present a Business Case based on comprehensive company documentation. |

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| Course | Agile Governance |
| Credits | 3 |
| Content | Lean can be seen as a very set of elementary methods to optimize process performance, originally used in the Toyota factories. In these workshops you will apply Lean principles on relevant ICT cases and in real live situations. |

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| Course | IT Innovation Consultancy |
| Credits | 3 |
| Content | This is your final consultancy assignment. You will conduct an integrated IT management assessment based on interviews with an IT company in the vicinity of Groningen and present your result on site. |