



Information Technology and Management

Information technology has become a common and indispensable tool for modern businesses. But to what extent do businesses take real advantage of the possibilities? In order to answer this question you need a thorough understanding of the possible role of information technology in organizations and the technological possibilities that IT offers, and you need to know how management can bring the organizational changes required to make IT investments a success. The 'Information Technology and Management' track (ITM) prepares you to guide the redesign of business processes to make optimal use of the possibilities information technology offers, both within organizations and in dealing with external parties.

Objectives

The ITM track aims to provide you with:

- a good grasp of the methodological tools for business process analysis
- a firm understanding of the characteristics of information technology and their impact (in terms of possibilities and limitations) on business information systems
- a working knowledge of the principles of organizational change in the context of business process/business information system implementation, and the ability to incorporate these principles into a coherent design and implementation approach
- the ability to augment the above knowledge on the basis of a critical review of relevant scientific literature and related research methodologies
- the opportunity to develop yourself as a boundary spanner between business needs and IT opportunities, and to become an integrator of business and IT.

Programme structure

Information Technology and Management is one of the tracks within the Industrial Engineering and Management Master's degree programme. The programme consists of 120 European Credits (EC). You may have a number of six joint courses (30 EC) with students from the other tracks: *Simulation*,

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THE MASTER DEGREES
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Empirical Research and Data Analysis, Management and Organization of Technological Innovation, Management of Technology, Organization and Strategy.

In addition to these joint courses you may follow 12 track-specific courses (60 EC) like: *Foundations of IT Applications and Infrastructure, E-strategizing, Implementation of Information Technologies in Organizations, Information Systems Design Methodologies, Business Case Development for IT Projects, Information & Knowledge Management, Production & Logistic Information Systems, Business Process Integration Lab, ICT Management, Information Systems Research Methodologies, Management of Technology in IT* and the master's thesis.

You also have opportunities to select elective courses from the Computer Science and Business fields.

Master's thesis

The master's thesis (30 EC) is the final part of the master's degree programme. In this part you are invited to participate in research projects, most likely by developing empirical insights or solving larger complex problems in a company. The Information Systems & Change Management (IS&CM) department is leading in this track. Students can participate in the department's IS4NOW research programme with projects in the field of IT-enabled business services, methodologies for information systems development, management of change and IT implementation, governance of e-business and knowledge and information services. Projects may consist of for example:

- The development of commercial websites and the assessment of their success.
- The development of websites for professionals' knowledge sharing.
- Proper incorporation agent technologies in new business processes
- Participation in an Enterprise Resource Planning (ERP)

implementation project to improve the fit between ERP software and organizational characteristics.

Labour market

IT&M track graduates are well-equipped for a career in process management, information analysis and management related positions in any organization. Many graduates will participate in projects concerning the re-engineering of complex administration, communication and business processes. Their work may result in the determination of IT needs, assessment of IT investments and management of organizational changes that are needed for the full realisation of newly enabled business processes. In time, graduates may attain positions such as chief information officer or principal consultant.

Additional information

The IE&M Master's degree programme is a dynamic programme. Regularly consult our website www.graduate.utwente.nl for the latest developments. The website also presents information on such aspects as: tracks, courses, admission requirements and registration. Also check our website www.bbt.utwente.nl/iscm for news regarding the IT&M track and related research.

If you have further questions regarding this track or the IE&M Master's degree programme, please contact the IE&M programme information desk by e-mail at master@utwente.nl or by phone on +31 (0)53 489 5489.

