

Engineering Information Technology 2009

To train IT professionals who, possessing the solid theoretical grounding necessary to further develop their skills over the long term, are capable of performing, at an advanced level, the typically software-oriented development, implementation and servicing tasks related to IT equipment and systems, working either independently or as part of a team. Participants in this course will also learn the interaction and modeling skills required to solve IT tasks in all the main areas of application.

Length of course

Number of semesters: 7.

Total hours (total student study time): min. 6,300 hours, of which the number of teaching (contact) hours: min. 2,100.

Number of credits required to obtain degree: 210.

	Credits
Natural Science and basic vocational training	111
Economical and human knowledges	20
Specialization	40
Optional subjects in profession	14
Other optional subjects	10
Thesis	15
Total	210

Natural Science and basic vocational training

Code	Subject	Credit	Hrs per week			Exam	Prere- quisites	Period	Semester
			Th.	Practice					
				CR	CL				
INHK103E INHK103G	Discrete Mathematics 1	5	2	2		K	INHK103G*	1	1
INHK111E INHK111G	Calculus 1	5	2	2		K	INHK111G*	1	1
INHK201E INHK201L	Introduction to Informatics	5	2		2	K	INHK201L*	1	1
INHK401E INHK401G	Logic in Computer Science	5	2	2		K	INHK401G	1	1
INHK801E INHK801G	Physics 1	4	2	1		K	INHK801G*	1	1
INHK811E	Electronics 1	3	2			K		1	1
INHK112E INHK112G	Calculus 2	5	2	2		K	INHK111E INHK112G*	2	2
INHK421E INHK421G	Data Structures and Algorhythms	5	2	2		K	INHK201E INHK421G*	2	2
INHK301E INHK301L	Programing Languages 1	5	2		2	K	INHK201E INHK301G*	2	2
INHK211E INHK211L	Operating Systems	5	2		2	K	INHK201E INHK211L*	2	2

Code	Subject	Credit	Hrs per week			Exam	Prere- quisites	Period	Semester
			Th.	Practice					
				CR	CL				
INHK803E	Physics 2	3	2			K	INHK801E	2	2
INHK812E	Electronics 2	3	2			K	INHK811E	2	2
INHK831E	Digital Technologies	3	2			K	INHK811E	2	2
INHK302E INHK302L	Programming Languages 2	5	2		2	K	INHK301E INHK302L*	1	3
INHK501E INHK501L	Database Systems	5	2		2	K	INHK301E INHK501L*	1	3
INHK121E INHK121G	Probability Theory and Mathematical Statistics	5	2	2		K	INHK112E INHK121G*	1	3
INHK821E	Signals and Systems	3	2			K	INHK111E	1	3
INHK721E INHK721L	Computer Network Architectures and Protocols	5	2		2	K	INHK301E INHK211E INHK721L*	1	3
INHK813L	Practice in Electronics	1			1	P	INHK812E INHK831E	2	4
INHK321L	Introduction to LabView Programming	3	0		2	P	INHK302E	2	4
INHK311E INHK311L	Hardware Programming 1	5	2		2	K	INHK302E INHK311L*	2	4
INHK441E INHK441G	Introduction to Artificial Intelligence	5	2	2		K	INHK302E or (INHK301E INHK401E) INHK441G*	2	4
INHK511E	Enterprise Information Systems	3	2			K	INHK201E	2	4
INHK521E	Modelling and Analysis of Information Technology Systems	3	2			K	INHK121E	2	4
INHK451E	Foundation of Computer Security	2	2			K	INHK103	2	4
INHK841E INHK841L	Technology of Control	5	2		2	K	INHK821E INHK841L*	2	4
INHK312L	Hardware Programming 2	3			2	P	INHK311E	1	5
INHK531E	Decision Support Systems	2	2			K	INHK501E	2	6
INHS001X	Theses 1	5				P	INHK302E	F	6
INHS002X	Theses 2	10				P	INHK302E	F	7

Specialization - Infocommunication Networks

Code	Subject	Credit	Hrs per week			Exam	Prere- quisites	Period	Semester
			Th.	Practice					
				CR	CL				
INHC701E INHC701L	Telecommunication Systems	5	2		2	K	INHK841E INHC701L*	1	5
INHC711E	Performance Analysis of Infocommunication Networks	4	4			K	INHK521E	1	5
INHC301X	Practice 1	2				P	INHK301E	1	5

Code	Subject	Credit	Hrs per week			Exam	Prere- quisites	Period	Semester
			Th.	Practice					
				CR	CL				
INHC721E INHC721L	Introduction to Programming of CISCO Equipements 1	5	2		2	K	INHK721E INHC721L*	1	5
INHC402E INHC402G	Information and Coding Theory	4	2	2		K	INHK121E INHC402G*	2	6
INHC411E INHC411L	Data Security	6	4		2	K	INHK451E INHC411L*	2	6
INHC302X	Practice 2	4				P	INHC301X	2	6
INHC722E INHC722L	Introduction to Programming of CISCO Equipements 2	4	2		2	K	INHK721E INHC722L*	2	6
INHC731E	High-Speed Networks	4	4			K	INHK721E	1	7
INHC601E INHC601L	Multimedia	6	4		2	K	INHK501E INHC601L*	1	7
INHC741E INHC741L	Specialization Oriented Applications	4	2		2	K	INHK721E INHC741L*	1	7
	Free choice 1	4							
	Free choice 2	2							

Specialization - Measurement and Process Management

Code	Subject	Credit	Hrs per week			Exam	Prere- quisites	Period	Semester
			Th.	Practice					
				CR	CL				
INHM101E INHM101L	Simulation methods in computer systems	5	1		4	P	INHK201E	1	5
INHM801X	Practice 1	2				P	INHK811E	1	5
INHM811E INHM811L	Computer aided measurement and process control	4	2		2	K	INHK841E INHM811L*	1	5
INHM841E INHM841L	Technologies of measurements	5	2		3	K	INHK821E INHM841L*	2	6
INHM821E INHM821L	Microcontroller Systems	3	1		2	P	INHK831E	2	6
INHM831E INHM831L	DSP, Digital Signal Processing and Signal Processors	5	1		4	P	INHM811E	2	6
INHM802X	Practice 2	4				P	INHM801X	2	6
INHM601E INHM601L	Technological Image Processing	5	2		3	K	INHK831E INHM601L*	1	7
INHM851E	Sensors and Controllers	3	2		1	K	INHK801E	1	7
INHM861E INHM861L	Specialization Oriented Applications	4	2		2	K	INHK841E INHM861L*	1	7
	Free choice 1	6							
	Free choice 2	4							
	Free choice 3	4							

Specialization - Corporate IT Systems

Code	Subject	Credit	Hrs per week			Exam	Prere- quisites	Period	Semester
			Th.	Practice					
				CR	CL				

Code	Subject	Credit	Hrs per week			Exam	Prere- quisites	Period	Semester
			Th.	Practice					
				CR	CL				
INHE502E INHE502G	System Theory	3	2	2		K	INHE502G*	1	5
INHE531X	Practice 1	6				P	INHK301E	1	5
INHE902E INHE902G	Production Management	5	1		4	K	INHE502E INHE902G*	2	6
INHE522E INHE522G	Quality Management	5	1	4		K	INHE502E INHE522G*	2	6
INHE541E INHE541G	Management Information Systems 1	4	2	4		K	INHK511E INHE541G*	2	6
INHE551E INHE551G	Production Informatics 1	4	2	1		K	INHK912E INHE551G*	2	6
INHE532X	Practice 2	6				P	INHE531X	2	6
INHE542E INHE542G	Management Information Systems 2	3	2	2		P	INHE541E	1	7
INHE552E INHE552G	Production Informatics 2.	3	1	2		P	INHE551E	1	7
INHE561E INHE561G	Office Work Automation	4	2	4		P	INHE541E	1	7
INHE571G	Project Management	4	0	6		P	INHE502E	1	7
	Free choice 1	4							
	Free choice 2	3							

Economical and human knowledges

Code	Subject	Credit	Hrs per week			Exam	Prere- quisites	Period	Semester
			Th.	Practice					
				CR	CL				
INHK902E	Sociology	2	2			K		2	2
INHK912E	Economy for Engineers	4	3			K		1	3
INHK922E INHK922G	Economical Processes of Enterprises	4	1	2		K	INHK912E INHK922G*	2	4
INHK932E INHK932G	Basics of Management for Engineers	4	1	3		K	INHK932G*	2	6
INHK942E INHK942G	The Bases of Quality Management	4	1	1		K	INHK932E INHK942G*	1	7
INHK952G	Law and State Administration	2	0	1		P		1	7

Exam: K – kollokvium
P – practical sign

Prerequisites denoted with a star (*) have to be fulfilled in paralell with the course.