Study and Examination Plan

	Program-Specific Modules	Type	Assessment	Period	Status ¹	Sem.	CP
Year 1		Jr					6
Take all the mandate	ory YEAR 1 modules listed below, as this is a requirement for the Computer Science and	Software Engineering program.					
CH-232	Module: Introduction to Computer Science ⁵				m	1	7.5
CH-232-A	Introduction to Computer Science	Lecture	Written examination	Examination period			7.5
CH-230	Module: Programming in C and C++	·	<u>'</u>		m	1	7.5
CH-230-A	Programming in C and C++	Lecture	Written examination	Examination period			2.5
CH-230-B	Programming in C and C++ Tutorial	Tutorial	Practical assessment	During the semester			5
CH-700	Module: Introduction to Data Science			<u> </u>	m	1	7.5
CH-700-A	Introduction to Data Science	Lecture	Written examination	Examination period			7.5
JTMS-MAT-09	Module: Calculus and Elements of Linear Algebra I				m	1	5
JTMS-09	Calculus and Elements of Linear Algebra I	Lecture	Written examination	Examination period			5
CH-231	Module: Algorithms and Data Structures				m	2	7.5
CH-231-A	Algorithms and Data Structures	Lecture	Written examination	Examination period			7.5
BCSSE-Y1-02	Module: Introduction to Cyber Physical Systems				m	2	7.5
BCSSE-Y1-CPS-A	Introduction to Cyber Physical Systems (CPS) Lecture	Lecture	Written examination	Examination period			5
BCSSE-Y1-CPS-B	Introduction to Cyber Physical Systems (CPS) Tutorial	Tutorial	Assignments	During the semester			2.5
BCSSE-Y1-03	Module: Software Design and Prototyping			-	m	2	7.5
BCSSE-Y1-SDP-A	Software Design and Prototyping Lecture	Lecture	Written examination	Examination period			5
BCSSE-Y1-SDP-B	Software Design and Prototyping Tutorial	Tutorial	Project	During the semester			2.5
JTMS-MAT-10	Module: Calculus and Elements of Linear Algebra II				m	2	5
JTMS-10	Calculus and Elements of Linear Algebra II	Lecture	Written examination	Examination period			5
BCSSE-Y1-01	Module: Distributed Development						_
DOUGLE II-UI	Module: Distributed Development				m	1/2	5
BCSSE-Y1-DD-A	Distributed Development I	Lecture & Lab	Practical assessment	During the semester	m	1/2	2.5
	*		Practical assessment Practical assessment	During the semester During the semester	m		
BCSSE-Y1-DD-A	Distributed Development I				m	1	2.5
BCSSE-Y1-DD-A	Distributed Development I				m	1	2.5 2.5
BCSSE-Y1-DD-A BCSSE-Y1-DD-B Year 2	Distributed Development I	Lecture & Lab	Practical assessment	During the semester	m	1	2.5 2.5
BCSSE-Y1-DD-A BCSSE-Y1-DD-B Year 2	Distributed Development I Distributed Development II	Lecture & Lab	Practical assessment	During the semester	m	1	2.5 2.5
BCSSE-Y1-DD-A BCSSE-Y1-DD-B Year 2 Take all the mandate	Distributed Development I Distributed Development II Distributed Development II Distributed Development II Distributed Development II	Lecture & Lab	Practical assessment	During the semester		1 2	2.5
BCSSE-Y1-DD-A BCSSE-Y1-DD-B Year 2 Take all the mandate CO-560	Distributed Development I Distributed Development II pry YEAR 2 modules listed below (50 CP), as this is a requirement for the Computer Sci Module: Databases and Web Services	Lecture & Lab ence and Software Engineering program.Further, p	Practical assessment Practical assessment Practical assessment	During the semester		1 2	2.5 2.5 60
BCSSE-Y1-DD-A BCSSE-Y1-DD-B Year 2 Take all the mandate CO-560 CO-560-A CO-560-B	Distributed Development I Distributed Development II Dist	Lecture & Lab ence and Software Engineering program.Further, p Lecture	Practical assessment lease choose 10 CP of E Written examination	During the semester lectives. Examination period		1 2	2.5 2.5 60 7.5
BCSSE-Y1-DD-A BCSSE-Y1-DD-B Year 2 Take all the mandate CO-560 CO-560-A	Distributed Development I Distributed Development II Dist	Lecture & Lab ence and Software Engineering program.Further, p Lecture	Practical assessment lease choose 10 CP of E Written examination	During the semester lectives. Examination period	m	3	2.5 2.5 60 7.:
BCSSE-Y1-DD-A BCSSE-Y1-DD-B Year 2 Take all the mandate CO-560 CO-560-A CO-560-B CO-562	Distributed Development I Distributed Development II Distributed Development II Pry YEAR 2 modules listed below (50 CP), as this is a requirement for the Computer Sci Module: Databases and Web Services Databases and Web Services - Lecture Databases and Web Services - Project Module: Operating Systems	Lecture & Lab ence and Software Engineering program.Further, p Lecture Project	Practical assessment lease choose 10 CP of E Written examination Project	During the semester lectives. Examination period During the semester	m	3	2.5 2.5 60 7.: 2.: 7.:
BCSSE-Y1-DD-A BCSSE-Y1-DD-B Year 2 Take all the mandate CO-560 CO-560-A CO-560-B CO-562 CO-562-A	Distributed Development I Distributed Development II Distributed Development II Distributed Development II Dry YEAR 2 modules listed below (50 CP), as this is a requirement for the Computer Sci Module: Databases and Web Services Databases and Web Services - Lecture Databases and Web Services - Project Module: Operating Systems Operating Systems	Lecture & Lab ence and Software Engineering program.Further, p Lecture Project	Practical assessment lease choose 10 CP of E Written examination Project	During the semester lectives. Examination period During the semester	m m	3	2.5 2.5 60 7.: 2.: 7.: 7.:
BCSSE-Y1-DD-A BCSSE-Y1-DD-B Year 2 Take all the mandate CO-560 CO-560-A CO-560-B CO-562-A CO-710	Distributed Development I Distributed Development II Distributed Development II Distributed Development II Distributed Development II Distributed Development II Distributed Development II Distributed Development II Distributed Development II Module: Databases and Web Services Databases and Web Services - Lecture Databases and Web Services - Project Module: Operating Systems Derating Systems Data Analytics and Modeling	Lecture & Lab ence and Software Engineering program.Further, p Lecture Project Lecture	Practical assessment lease choose 10 CP of E Written examination Project Written examination	During the semester lectives. Examination period During the semester Examination period	m m	3	2.5 2.5 60 7.: 2.: 7.: 7.:
BCSSE-Y1-DD-A BCSSE-Y1-DD-B Year 2 Take all the mandate CO-560 CO-560-A CO-560-B CO-562-A CO-710 CO-710-A	Distributed Development I Distributed Development II Distributed Development II Distributed Development II Distributed Development II Distributed Development II Distributed Development II Distributed Development II Module: Databases and Web Services Databases and Web Services - Lecture Databases and Web Services - Project Module: Operating Systems Operating Systems Operating Systems Data Analytics and Modeling Data Analytics and Modeling	Lecture & Lab ence and Software Engineering program.Further, p Lecture Project Lecture	Practical assessment lease choose 10 CP of E Written examination Project Written examination	During the semester Lectives. Examination period During the semester Examination period	m m	3 3	2.5 2.5 60 7.: 2.: 7.: 7.:
BCSSE-Y1-DD-A BCSSE-Y1-DD-B Year 2 Take all the mandate CO-560 CO-560-A CO-560-B CO-562-A CO-710 CO-710-A JTMS-MAT-12 JTMS-12	Distributed Development I Distributed Development II Module: Databases and Web Services Databases and Web Services - Lecture Databases and Web Services - Project Module: Operating Systems Operating Systems Data Analytics and Modeling Data Analytics and Modeling Module: Probability and Random Processes	Lecture & Lab ence and Software Engineering program.Further, p Lecture Project Lecture Lecture	Practical assessment lease choose 10 CP of E Written examination Project Written examination Written examination	During the semester lectives. Examination period During the semester Examination period Examination period	m m	3 3	2.5 2.5 60 7.: 2.: 7.: 7.: 7.:
BCSSE-Y1-DD-A BCSSE-Y1-DD-B Year 2 Take all the mandate CO-560 CO-560-A CO-560-B CO-562 CO-562-A CO-710 CO-710-A JTMS-MAT-12	Distributed Development I Distributed Development II Distributed Developmen	Lecture & Lab ence and Software Engineering program.Further, p Lecture Project Lecture Lecture	Practical assessment lease choose 10 CP of E Written examination Project Written examination Written examination	During the semester Examination period Examination period Examination period Examination period Examination period	m m m	3 3 3 3 3	2.5 2.5 60 7.: 2.: 7.: 7.: 7.:
BCSSE-Y1-DD-A BCSSE-Y1-DD-B Year 2 Take all the mandate CO-560 CO-560-A CO-560-B CO-562 CO-562-A CO-710 CO-710-A JTMS-MAT-12 JTMS-MAT-12 CO-561 CO-561 CO-561-A	Distributed Development I Distributed Development II Databases and Web Services Databases and Web Services - Lecture Databases and Web Services - Project Module: Operating Systems Operating Systems Data Analytics and Modeling Data Analytics and Modeling Module: Probability and Random Processes Probability and Random Processes Module: Software Engineering	Lecture & Lab ence and Software Engineering program.Further, p Lecture Project Lecture Lecture Lecture Lecture	Practical assessment lease choose 10 CP of E Written examination Project Written examination Written examination Written examination	During the semester Examination period During the semester Examination period Examination period Examination period Examination period Examination period	m m m	3 3 3 3 3	2.5 2.5 60 7.: 2.: 7.: 7.: 7.:
BCSSE-Y1-DD-A BCSSE-Y1-DD-B Year 2 Take all the mandate CO-560 CO-560-A CO-560-B CO-562-A CO-710 CO-710-A JTMS-MAT-12 JTMS-12 CO-561	Distributed Development I Distributed Development II Distributed Developmen	Lecture & Lab ence and Software Engineering program.Further, p Lecture Project Lecture Lecture Lecture	Practical assessment Nease choose 10 CP of E Written examination Project Written examination Written examination Written examination Written examination	During the semester Examination period Examination period Examination period Examination period Examination period	m m m	3 3 3 3 3	2.5 2.5
BCSSE-Y1-DD-A BCSSE-Y1-DD-B Year 2 Take all the mandate CO-560 CO-560-A CO-560-B CO-562 CO-710 CO-710-A JTMS-MAT-12 JTMS-12 CO-561 CO-561-A CO-561-B	Distributed Development I Distributed Development II Module: Databases and Web Services Databases and Web Services - Lecture Databases and Web Services - Project Module: Operating Systems Operating Systems Data Analytics and Modeling Data Analytics and Modeling Data Analytics and Modeling Module: Probability and Random Processes Probability and Random Processes Module: Software Engineering Software Engineering Software Engineering Project	Lecture & Lab ence and Software Engineering program.Further, p Lecture Project Lecture Lecture Lecture Lecture	Practical assessment Nease choose 10 CP of E Written examination Project Written examination Written examination Written examination Written examination	During the semester Examination period During the semester Examination period Examination period Examination period Examination period Examination period	m m m	3 3 3 4	2.5 2.5 60 7.4 2 7 7 7 7 2
BCSSE-Y1-DD-A BCSSE-Y1-DD-B Year 2 Take all the mandate CO-560 CO-560-A CO-562-A CO-710 CO-710-A JTMS-MAT-12 JTMS-12 CO-561 CO-561-A CO-561-B CO-561-B CO-561-B	Distributed Development I Distributed Development II Distributed Developmen	Lecture & Lab ence and Software Engineering program.Further, p Lecture Project Lecture Lecture Lecture Lecture	Practical assessment Ilease choose 10 CP of E Written examination Written examination Written examination Written examination Written examination Project	During the semester Lectives. Examination period During the semester Examination period Examination period Examination period Examination period During the semester	m m m	3 3 3 4	2.5 2.5 60 7.4 2 7 7 7 7 2
BCSSE-Y1-DD-A BCSSE-Y1-DD-B Year 2 Take all the mandate CO-560 CO-560-A CO-560-B CO-562-A CO-710 CO-710-A JTMS-MAT-12 JTMS-12 CO-561 CO-561-A CO-561-B CO-561-B CO-561-B CO-547 CO-547-A	Distributed Development I Distributed Development II Databases and Web Services Databases and Web Services - Lecture Databases and Web Services - Project Module: Operating Systems Operating Systems Data Analytics and Modeling Data Analytics and Modeling Data Analytics and Modeling Data Development II Databases	Lecture & Lab ence and Software Engineering program.Further, p Lecture Project Lecture Lecture Lecture Lecture Lecture Lecture Lecture	Practical assessment Blease choose 10 CP of E Written examination Project Written examination Written examination Written examination Written examination Project Written examination	During the semester Examination period During the semester Examination period Examination period Examination period Examination period During the semester Examination period Examination period Examination period Examination period	m m m	3 3 3 4	2.5 2.5 60 7.5 2.5 7.5 7.5 7.5 7.5 7.5 7.5 7.5
BCSSE-Y1-DD-A BCSSE-Y1-DD-B Year 2 Take all the mandate CO-560 CO-560-A CO-560-B CO-562-A CO-710 CO-710-A JTMS-MAT-12 JTMS-MAT-12 JTMS-12 CO-561 CO-561-A CO-561-B CO-561-B CO-547 CO-547-A XXX	Distributed Development I Distributed Development II Distributed Developmen	Lecture & Lab ence and Software Engineering program.Further, p Lecture Project Lecture Lecture Lecture Lecture Lecture Lecture Lecture	Practical assessment Blease choose 10 CP of E Written examination Project Written examination Written examination Written examination Written examination Project Written examination	During the semester Examination period During the semester Examination period Examination period Examination period Examination period During the semester Examination period Examination period Examination period Examination period	m m m m	3 3 3 4 4	2.5 2.5 60 7.: 2.: 7.: 7.: 7.: 2.: 7.: 2.: 2.: 2.:
BCSSE-Y1-DD-A BCSSE-Y1-DD-B Year 2 Take all the mandate CO-560 CO-560-A CO-560-B CO-562-A CO-710 CO-710-A JTMS-MAT-12 JTMS-12 CO-561 CO-561-A CO-561-B CO-547-A XXXX XXX CO-541-A	Distributed Development I Distributed Development II Module: Databases and Web Services Databases and Web Services - Lecture Databases and Web Services - Project Module: Operating Systems Development Development II Data Analytics and Modeling Data Analytics and Modeling Data Analytics and Modeling Module: Probability and Random Processes Probability and Random Processes Module: Software Engineering Software Engineering Software Engineering Project Module: Artificial Intelligence Artificial Intelligence Artificial Intelligence Tutorial (CSSE) Module: Machine Learning + Machine Learning Tools	Lecture & Lab ence and Software Engineering program.Further, p Lecture Project Lecture Lecture Lecture Lecture Lecture Lecture Tutorial	Practical assessment Ilease choose 10 CP of E Written examination Project Written examination Written examination Written examination Written examination Project Written examination Assignments	During the semester Examination period During the semester Examination period Examination period Examination period Examination period During the semester Examination period During the semester Examination period Examination period During the semester	m m m m	3 3 3 4 4	2.5 2.5 2.5 60 7.5 2.5 7.5 7.5 7.5 2.5 7.5 2.5 7.5 2.5 7.5 2.5 7.5 7.5 7.5 7.5 7.5 7.5 7.5 7.5 7.5 7
BCSSE-Y1-DD-A BCSSE-Y1-DD-B Year 2 Take all the mandate CO-560 CO-560-A CO-560-B CO-562 CO-710 CO-710-A JTMS-MAT-12 JTMS-12 CO-561 CO-561-A CO-561-B CO-547 CO-547-A XXX XXX	Distributed Development I Distributed Development II Distributed Developmen	Lecture & Lab ence and Software Engineering program.Further, p Lecture Project Lecture Lecture	Practical assessment lease choose 10 CP of E Written examination Project Written examination Written examination Written examination Written examination Project Written examination Assignments Written examination	During the semester Examination period During the semester Examination period Examination period Examination period Examination period During the semester Examination period During the semester	m m m m	3 3 3 4 4	6(C) 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5

Year 3							60
Take all mandatory	Year 3 modules listed below (30 CP). Further, select 15 CP of CSSE Specialization Modules, 10 CP of Management Module.	s and 5 CP of E	Elective Modules.				
CA-INT-900	Module: Summer Internship				m	4/5	15
CA-INT-900-0	Summer Internship		Report	During the 5 th semester			15
xxx	Module: Thesis / Seminar CSSE						10
xxx	Thesis CSSE	Thesis	Thesis	15th of May			10
xxx	Module: Collaborative Software Project						5
XXX	Collaborative Software Project	Project	Project report	During the semester			5
	CSSE Specialization Modules ³				m	5/6	15
	Take a total of 15 CP CSSE Specialization Modules						
	Management Modules ⁴				m	5/6	10
	Take a total of 10 CP Management Modules.						
	Electives ²				m	6	5
	Take a total of 5 CP Electives						
Total CP							180
Status (m = mandatory, me = mandatory elective)							
² For a full listing of all Elective modules please consult the current online course catalogue and /or the study program handbooks.							
For a full listing of all CSSE Specialization modules please consult the current online course catalogue and /or the study program handbooks.							
⁴ For a full listing	of all Management modules please consult the current online course catalogue and /or the study program hand	lbooks.					