

Electrical and Computer Engineering (ECE) BSc																	
Matriculation Fall 2020																	
Program-Specific Modules							Jacobs Track Modules (General Education)										
Type	Assessment	Period	Status ¹	Sem.	CP	Type	Assessment	Period	Status ¹	Sem.	CP	Type	Assessment	Period	Status ¹	Sem.	CP
Year 1 - CHOICE							Year 1 - CHOICE										
Take the mandatory CHOICE modules listed below, this is a requirement for the ECE program.							Take the mandatory CHOICE modules listed below, this is a requirement for the ECE program.										
Unit: General Electrical Engineering (Default minor)							Unit: Methods / Skills										
CH-210 Module: General Electrical Engineering I							JTMS-MAT-09 Module: Calculus and Elements of Linear Algebra I										
CH-210-A	General Electrical Engineering I Lecture	Lecture	Written exam	Examination period	m	1	7.5	JTMS-09	Calculus and Elements of Linear Algebra I	Lecture	Written exam	Examination period	m	1	5		
CH-210-B	General Electrical Engineering Lab I	Lab	Lab report	During the semester			2.5										
CH-211 Module: General Electrical Engineering II (pre-requisites GenEEI)							JTMS-MAT-10 Module: Calculus and Elements of Linear Algebra II										
CH-211-A	General Electrical Engineering II Lecture	Lecture	Written exam	Examination period	m	2	7.5	JTMS-10	Calculus and Elements of Linear Algebra II	Lecture	Written exam	Examination period	m	2	5		
CH-211-B	General Electrical Engineering Lab II	Lab	Lab report	During the semester			2.5										
CH-230 Module: Programming in C and C++							Unit: Language										
CH-230-A	Programming in C and C++	Lecture	Written examination	Examination period	m	1	7.5	German is the default language. Native German speakers take modules in another offered language.									
CH-230-A	Programming in C and C++ Tutorial	Tutorial					2.5	JTLA Module: Language 1						m	1	2.5	
Take one of the two listed mandatory elective CHOICE modules:							Take one of the two listed mandatory elective CHOICE modules:										
CH-220 Module: Introduction to Robotics and Intelligent Systems							JTLA-xxx Module: Language 1										
CH-220-A	Introduction to Robotics and Intelligent Systems	Lecture	Written exam	Examination period	me	2	7.5	JTLA-xxx	Language 1	Seminar	Various	Various	me				
CH-220-B	Introduction to Robotics and Intelligent Systems Lab	Lab	Lab report	During the semester			2.5	JTLA Module: Language 2						m	2	2.5	
CH-202 Module: Applied Mathematics							JTLA-xxx Module: Language 2										
CH-202-A	Advanced Calculus	Lecture	Written exam	Examination period	me	2	7.5	JTLA-xxx	Language 2	Seminar	Various	Various	me				
CH-202-B	Numerical Software Lab	Lab	Lab report	During the semester			5										
Unit: CHOICE (own selection)							Unit: CHOICE (own selection)										
Take no further CHOICE modules from those offered for all other study programs. ²							Take no further CHOICE modules from those offered for all other study programs. ²										
Year 2 - CORE							Year 2 - CORE										
Take all CORE modules listed below							Take all CORE modules listed below										
Unit: Signal Processing (Default minor)							Unit: Methods / Skills										
CO-520 Module: Signals and Systems							JTMS-MAT-12 Module: Probability and Random Processes										
CO-520-A	Signals and Systems Lecture	Lecture	Written exam	Examination period	m	3	7.5	JTMS-12	Probability and Random Processes	Lecture	Written exam	Examination period	m	3	5		
CO-520-B	Signals and Systems Lab	Lab	Lab report	During the semester			2.5										
CO-521 Module: Digital Signal Processing							JTMS-MAT-13 Module: Numerical Methods										
CO-521-A	Digital Signal Processing Lecture	Lecture	Written exam	Examination period	m	4	7.5	JTMS-13	Numerical Methods	Lecture	Written exam	Examination period	m	4	5		
CO-521-B	Digital Signal Processing Lab	Lab	Lab report	During the semester			2.5										
Unit: Communications							Unit: Language										
CO-522 Module: Communications Basics							German is the default language. Native German speakers take modules in another offered language.										
CO-522-A	Communications Basics Lecture	Lecture	Written exam	Examination period	m	3	5	JTLA Module: Language 3						m	3	2.5	
CO-522-B	Communications Basics Lab	Lab	Lab report	During the semester			2.5	JTLA-xxx	Language 3	Seminar	Various	Various	me				
CO-523 Module: Wireless Communication							JTLA Module: Language 4										
CO-523-A	Wireless Communication I	Lecture	Written exam	Examination period	m	4	5	JTLA-xxx	Language 4	Seminar	Various	Various	me	4	2.5		
Unit: Electromagnetics and Information Theory							Unit: Hardware										
CO-524 Module: Electromagnetics																	
CO-524-A	Electromagnetics	Lecture	Written exam	Examination period	m	3	5										
CO-525 Module: Information Theory																	
CO-525-A	Information Theory	Lecture	Written exam	Examination period	m	4	5										
CO-526 Module: Electronics																	
CO-526-A	Electronics Lecture	Lecture	Written exam	Examination period	m	3	5										
CO-526-B	Electronics Lab	Lab	Lab report	During the semester			2.5										
CO-527 Module: PCB design and measurement automation																	
CO-527-A	PCB design and measurement automation	Lab	Written exam	Examination period	m	4	5										
Year 3 - CAREER							Year 3 - CAREER										
Take a total of 15 CP of specialization modules							Take a total of 10 CP of Big Questions modules with each 2.5 - 5 CP										
CA-INT-900 Module: Internship / Startup and Career Skills							Unit: Big Questions										
CA-INT-900-0	Internship / Startup and Career Skills	Internship	Report or Businessplan	During the 5 th semester	m	4/5	15	JTBQ Module: Big Questions						m	5/6		
CA-ECE-800 Module: Thesis / Seminar ECE							Take a total of 10 CP of Big Questions modules with each 2.5 - 5 CP										
CA-ECE-800-T	Thesis ECE	Thesis	Thesis	15 th of May	m	6	15	Unit: Community Impact Project									
CA-ECE-800-S	Seminar ECE	Seminar	Presentation	During the semester			12	JTCI-CL-950 Module: Community Impact Project						m	5	5	
Unit: Specialization ECE							JTCI-950 Module: Community Impact Project										
CA-S-ECE-801	Wireless Communication II	Lecture	Written exam	Examination period	me	5	5	JTCI-950	Community Impact Project	Project	Project	Examination period					
CA-S-ECE-802	Coding Theory	Lecture	Written exam	Examination period	me	5	5										
CA-S-ECE-803	Digital Design	Lecture/Lab	Written exam	Examination period	me	5	5										
CA-S-ECE-804	Radio-Frequency (RF) Design	Lecture	Written exam	Examination period	me	6	5										
Total CP							Total CP										

¹ Status (m = mandatory, me = mandatory elective)

² For a full listing of all CHOICE / CORE / CAREER / Jacobs Track modules please consult the CampusNet online catalogue and /or the study program handbooks.