

Training program of Semiconductor and IC Technology

No	Module code	Module title	ECTS
I	Core modules		
1	ICT1.001	Introduction to informatics	3
2	MAT1.002	Linear Algebra	4
3	MAT1.001	Calculus 1	4
4	PHY1.001	Fundamental Physics 1	4
5	ICT1.002	Basic programming	4
6	PHY1.002	Fundamental Physics 2	4
7	ICT1.004	Introduction to Algorithms	3
8	ICT1.003	Computer Architecture	3
9	MAT1.003	Calculus 2	3
10	MAT1.005	Numerical methods	4
11	PHY1.003	Electromagnetism	4
12	PHY1.004	Practical physics	2
13	SIC2.301	Mathematics for Physics	3
14	SIC2.208	Condensed Matter Theory	3
15	ATE2.006	Electrical Engineering	3
16	AMS2.210	Statistical Mechanics	4

No	Module code	Module title	ECTS
17	SIC2.201	Analog Electronics	3
18	SIC2.202	Digital Electronics	3
19	SIC2.205	Electronic Devices	3
20	SIC2.102	Microprocessor and Microcontroller	3
21	AMS2.208	Semiconductor	3
22	SIC2.112	Sensing and measurement technology	3
23	SIC2.302	Embedded system	4
24	SIC2.203	Practical Electronics 1	2
25	SIC2.204	Practical Electronics 2	3
26	SIC2.113	Introduction of Microelectronic Engineering and Nanotechnology	3
27	MST2.011	Signals and Systems	3
28	AMS2.306	Micro and Nanofabrication	3
29	SIC3.506	Practical on microprocessor and microcontroller	3
30	SIC3.114	Digital Signal Processing	3
31	SIC3.508	Semiconductor process (manufacturing) technology	3
32	SIC3.999	Internship	15
33	SIC2.402	Integrated Computing	3
34	FR2.001	French 2.1	4
35	FR2.002	French 2.2	4

No	Module code	Module title	ECTS
II	Optional module group 1		
36	SIC3.104	Analog integrated microsystem design	3
37	SIC3.202	Digital integrated microsystem design	3
38	SIC3.512	Clean Room Training	3
39	SIC3.601	Industrial Communication Network and IoT	3
40	SIC3.510	Advanced Digital Design and FPGA Based Design	3
41	SIC3.511	Thin films Technology	3
42	SIC3.513	Advanced Materials and MEMs devices	3
43	SIC3.514	Vacuum technology	3
44	SIC3.515	Advanced technique for quality Control	3
45	SIC3.507	Practical semiconductor metrology and inspection	3
46	SIC3.516	Fundamental of Microelectronic packaging	3
47	SIC3.517	Design for Test (DFT)	3
48	AMS3.307	Materials Characterization Techniques 1	3
49	AMS3.310	Materials Characterization Techniques 2	3
50	SIC3.990	Group project	6
51	AMS2.205	Solid-state physics	3
52	AMS3.009	Plasma Physics and Applications	3
53	ICT2.003	Object Oriented Programming	3

No	Module code	Module title	ECTS
54	AMS3.006	Materials for energy conversion and storage	3
55	AMS3.209	Optoelectronics and nanophotonics	3
56	SIC3.600	Application Programming	3
57	SIC2.111	Simulations for microelectronic devices	3
58	AMS3.005	Silicon Photonics	3
59	SIC3.509	EM field for microelectronics	3
60	SIC3.610	Fundamental of Non-Volatile Memory	3
61	CHE1.001	General Chemistry 1	4
62	CHE1.002	General Chemistry 2	4
63	PHI1.001	Philosophy	3
III	Optional module group 2		
IV	Conditional modules (for Vietnamese students only)		
1	QP1.001	National defense and security education	0