

Training program of Advanced Materials Science and Nanotechnology

No.	Module code	Module title	ECTS
I	Core modules		
1	CHE1.001	General Chemistry 1	4
2	CHE1.002	General Chemistry 2	4
3	CHE1.003	Organic Chemistry	4
4	MAT1.001	Calculus 1	4
5	MAT1.002	Linear Algebra	4
6	PHY1.001	Fundamental Physics 1	4
7	PHY1.002	Fundamental Physics 2	4
8	PHY1.003	Electromagnetism	4
9	PHY1.004	Practical physics	2
10	SIC2.301	Mathematics for Physics	3
11	AMS2.201	Electromagnetism 2	3
12	AMS2.205	Solid-state physics	3
13	AMS3.105	Electrochemistry	3
14	AMS2.210	Statistical Mechanics	4

No.	Module code	Module title	ECTS
15	AMS2.214	Optics	3
16	AMS2.208	Semiconductor	3
17	AMS2.103	Analytical Chemistry	3
18	AMS2.301	Fundamentals of Materials Science	3
19	AMS2.303	Introduction of micro-nano technology	2
20	AMS2.306	Micro and Nanofabrication	3
21	AMS2.304	Magnetism & Magnetic materials	3
22	AMS2.207	Colloid Chemistry and Soft Matter	3
23	AMS2.202	Quantum Mechanics	3
24	AMS3.307	Materials Characterization Techniques 1	3
25	AMS3.310	Materials Characterization Techniques 2	3
26	AMS3.308	Smart Hybrid Materials	3
27	AMS2.101	Inorganic Chemistry	3
28	AMS2.102	Organic Chemistry 2	3
29	AMS2.206	Physical Chemistry	3
30	AMS3.107	Nanochemistry	3
31	AMS3.106	Inorganic Materials	3

No.	Module code	Module title	ECTS
32	AMS3.999	Internship (3-6 months)	15
33	ICT1.001	Introduction to informatics	3
34	FR2.001	French 2.1	4
35	FR2.002	French 2.2	4
II	Optional module group 1		
36	ICT1.002	Basic programming	4
37	BIO1.001	Cellular Biology	4
38	BIO1.002	Genetics	3
39	CHE1.004	Practical Chemistry	2
40	AMS2.305	Materials Design and Simulation	3
41	CH2.016	Chemistry of Polymer	3
42	AMS3.311	Engineering Practice	3
43	AMS3.990	Group Project	6
44	AMS3.209	Optoelectronics and Nanophotonics	3
45	AMS3.009	Plasma Physics and Applications	3
46	AMS3.309	Materials for Environmental Applications	3
47	AMS3.001	Nanobiotechnology and BioMEMS	3

No.	Module code	Module title	ECTS
48	AMS3.002	Biosensors	3
49	AMS3.009	Plasmonic and Application	3
50	AMS3.004	Nanoelectronics	3
51	AMS3.005	Silicon Photonics	3
52	AMS3.006	Materials for Energy Conversion and Storage	3
53	AMS3.007	Lasers	3
54	AMS3.010	Industrial Process In Electronic Device Manufacturing	3
55	ENG1.012	English Academic Writing	3
56	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