

Training program of Space Science and Satellite Technology

No.	Module code	Module title in English	ECTS
I	Core modules		
1.1	Core general training modules		
1	ICT1.001	Introduction to informatics	3
2	MAT1.001	Calculus 1	4
3	MAT1.002	Linear algebra	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	MAT1.003	Calculus 2	3
9	PHY1.003	Electromagnetism	4
10	PHY1.004	Practical physics	2
1.2	Core specialized modules		
11	SA2.016	Probability and Statistics	3
12	SA2.002	Introduction to Astronomy	3
13	AMS2.201	Electromagnetism 2	3
14	SA2.003	Classical Mechanics	3
15	MAT2.001	Numerical Methods	3
16	SA2.005	Thermodynamics	3
17	SA2.007	Introduction to Geographic Information System	2
18	SA2.015	Artificial Intelligence in Earth Sciences	2
19	SA2.010	Electronics	4
20	SA2.011	Data analysis and visualization	2
21	SA2.012	Fundamental of Remote Sensing	3
22	SA2.013	Introduction to Earth System	3
23	AMS2.202	Quantum Mechanics	3
24	SIC2.301	Mathematics for Physics	3
25	SA3.011	Climate Modelling	3
26	SA3.021	Signal and Image processing in space applications	3
27	SA3.022	Data acquisition & Satellite sensors	2
28	SA3.003	Space System Design I (satellite)	3
29	SA3.019	Modern Astrophysics	4
30	SA3.007	Introduction to Relativity	2

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31	SA3.005	Particle physics	3
32	SA3.012	Photonics and optics	3
33	SA3.008	Radar remote sensing of Earth's surface	3
34	SA3.020	Communication, Antenna and Microwaves	3
35	SA3.018	Radio Astronomy	2
36	SA3.015	Group Project	3
1.3	Graduation internship		
37	SA3.016	Internship	9
1.4	Core supplementary modules		
38	FR2.001	French 2.1	4
39	FR2.002	French 2.2	4
II	Optional module group 1		
41	MAT1.006	Discrete mathematics	4
42	ENG1.012	Academic Writing	3
43	ENG1.013	Presentation Skills	3
44	ENG1.014	Listening and Note taking Skills	2
45	ATE2.007	Mechanics of Materials	3
46	MET3.023	Autonomous Robot	3
47	EER2.003	Fluid Mechanics	3
48	EER2.013	Product Design 1	3
49	EER3.006	Product Design 2	3
50	AMS3.007	LASERS	3
51	SA3.010	Space System Design II (satellite)	3
52	SA3.013	Monitoring natural disasters by using satellite data	2
53	AMS2.210	Statistical mechanics	4
54	DS3.012	Artificial Intelligence	4
55	DS2.002	Fundamentals of optimization	4
56	ICT2.003	Object-Oriented Programming	4
57	ICT1.006	Fundamentals of databases	4
58	ICT3.021	Deep Learning	4
59	ICT2.013	Advanced programming with Python	4
60	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