

**Bachelor Training Program**  
**Faculty of Food Science and Technology - VNUA**

No	Code	Subject	Credits
1	CD03906	Modelling and Control	2
2	CD03909	Automation Softwares	2
3	GT01014	Dance Sport	1
4	GT01015	Swimming	1
5	GT01016	General physical education	1
6	GT01017	Athletics	1
7	GT01018	Aerobic Gymnastics	1
8	GT01019	Football	1
9	GT01020	Volley ball	1
10	GT01021	Basketball	1
11	GT01022	Badminton	1
12	GT01023	Chess	1
13	KN01001	Communication Skills	2
14	KN01002	Leadership Skills	2
15	KN01003	Self Management Skills	2
16	KN01004	Job Search Skills	2
17	KN01005	Teamwork Skills	2
18	KN01006	Intergrated Skills	2
19	KQ01211	Principles of Management	2
20	KQ02014	Principles of Accouting	3
21	KT03024	Economics of trade and services	2
22	ML01001	Principle of Marxism and Leninism 1	2
23	ML01002	Principle of Marxism and Leninism 2	3
24	ML01004	Revolutionary guideline of Vietnamese Communist Party	3
25	ML01005	Ho Chi Minh Ideology	2
26	ML01009	Introduction to Laws	2
27	MT02011	Environmental Management	2
28	PSN01020	Teamwork	2
29	PSN01023	Scientific Approach Methodologies	2
30	PSN02008	Soft Skills	2
31	PTH01001	Probability and Statistics	3
32	PTH02001	Advanced programming	3
33	PTH02002	Principles of programming languages	2
34	PTH02003	Data structures and Algorithms	3
35	PTH02004	Data structures and Algorithms 2	3
36	PTH02005	Databases	3
37	PTH02006	Databases 2	3
38	PTH02007	System Analysis and Design	3
39	PTH02008	System Analysis and Design 2	2
40	PTH02009	Computer architectures and Micro-processing	3
41	PTH02010	Principles of operating systems	3
42	PTH02011	Advanced operating systems	2
43	PTH02012	Computer networks	3
44	PTH02013	Information Security	2
45	PTH02014	Discrete mathematics	3
46	PTH02015	Automata and Formal languages	3
47	PTH02016	Data analysis	2
48	PTH02017	Numerical method	3
49	PTH03101	Database management systems	3
50	PTH03102	Database management systems 2	3
51	PTH03103	Object-oriented programming	3
52	PTH03104	Java programming	3
53	PTH03105	Java programming 2	3
54	PTH03106	Developing applications on Windows platform	3
55	PTH03107	Developing applications for mobile devices	3

56	PTH03108	Web application development	3
57	PTH03109	Web application development 2	3
58	PTH03110	E-commerce	3
59	PTH03111	Software engineering	3
60	PTH03112	Software testing	3
61	PTH03113	Software project management	3
62	PTH03114	Open-source software	3
63	PTH03115	Project 1	3
64	PTH03116	Project 2	3
65	PTH03117	Human-Computer interaction and Graphical user interface	3
66	PTH03118	Bioinformatics	3
67	PTH03119	Data processing in agriculture	2
68	PTH03199	Internship	6
69	PTH03201	Compilers	3
70	PTH03202	Computer graphics	3
71	PTH03203	Artificial intelligence	3
72	PTH03204	Digital image processing	3
73	PTH03205	Software version control	2
74	PTH03206	Designing web interface	3
75	PTH03207	Front-end web development	3
76	PTH03208	Front-end web development 2	3
77	PTH03209	Back-end web development	3
78	PTH03210	Back-end web development 2	3
79	PTH03211	WebGL	3
80	PTH03212	Network administration	3
81	PTH03213	Network administration 2	3
82	PTH03214	Computer and Network Security	3
83	PTH03216	Network Programming	3
84	PTH03220	Games and design techniques	3
85	PTH03221	XML foundations	2
86	PTH03299	Internship	6
87	PTH03301	Optimization	3
88	PTH03302	Coding theory and applications	3
89	PTH03303	Machine learning	3
90	PTH03304	Applied statistics and prediction	3
91	PTH03305	Data mining	3
92	PTH03306	Stochastic simulation and applications	3
93	PTH03307	Management information systems	3
94	PTH03308	Decision support systems	3
95	PTH03309	Partial differential equations and applications	3
96	PTH03310	Partial differential equations and applications 2	3
97	PTH03311	Mathematical models in finance	3
98	PTH03312	Mathematical foundation of fuzzy systems	3
99	PTH03313	Soft computing and applications	3
100	PTH03314	Convex optimization and applications	3
101	PTH03315	IT project design and management	3
102	PTH03316	Distributed systems	3
103	PTH03399	Internship	6
104	PTH04199	Graduation thesis	10
105	PTH04299	Graduation thesis	10
106	PTH04399	Graduation thesis	10
107	SN00010	An Introduction to CEFR-based Tests	1
108	SN00011	English 0	2
109	SN01032	English 1	3
110	SN01033	English 2	3
111	SN01027	Communication skills	2
112	SN03039	English for ICT studies	2
113	TH01001	Basics of Informatics	3
114	TH01002	General physics A	3

115	TH01006	Linear algebra	3
116	TH01007	Probability and Statistics	3
117	TH01012	Analysis	3
118	TH01020	Electronics applied in informatics	2
119	TH01022	Computer architectures and Micro-processing	3
120	TH01023	Discrete mathematics	3
121	TH01024	Calculus	3
122	TH01025	Numerical methods	2
123	TH01029	Physics for informatics	3
124	TH01030	Enhanced practice for Basics of informatics	1
125	TH02001	Database	3
126	TH02015	Principles of operating systems	3
127	TH02016	Data Structures and Algorithms	3
128	TH02033	Algorithm Complexity	2
129	TH02034	Programming techniques	3
130	TH02035	Practice for Data Structures and Algorithms	1
131	TH02036	Introduction to Software Engineering	3
132	TH02037	System analysis and design	3
133	TH02038	Computer networks	3
134	TH02039	Information security	2
135	TH02040	Enhanced practice for Programming techniques	1
136	TH02041	Algorithm Complexity	2
137	TH03101	Software Project Management	2
138	TH03102	Software Requirements Engineering	2
139	TH03103	Software Architecture and Design	3
140	TH03104	Software Construction and Evolution	2
141	TH03105	Software Testing and Quality Assurance	2
142	TH03106	Object-Oriented Programming	3
143	TH03107	Database management systems	2
144	TH03108	NET Programming	3
145	TH03109	Web application development	3
146	TH03110	Web Application Development 2	3
147	TH03111	Java programming	3
148	TH03112	Mobile Application Development	3
149	TH03113	Linux and Open Software	3
150	TH03114	Web application security and testing	3
151	TH03115	GIS Application Development	3
152	TH03116	E-commerce	3
153	TH03117	Enterprise Resource Planning Systems	3
154	TH03119	Java programming 2	3
155	TH03120	Enhanced Practice for Object-Oriented Programming	1
156	TH03121	Enhancing Practice of Web Application Development 2	1
157	TH03122	Enhanced Practice for NET Programming	1
158	TH03123	Enhanced practicing for Java programming	1
159	TH03124	Database security	2
160	TH03125	Vulnerability detection	2
161	TH03126	Malware Analysis	2
162	TH03199	Internship	12
163	TH03201	Object-oriented analysis and design	2
164	TH03202	Software version control	2
165	TH03203	Compilers	3
166	TH03204	Digital image processing	2
167	TH03205	Computer graphics	3
168	TH03206	Artificial intelligence	3
169	TH03207	Machine Learning	3
170	TH03208	Special subject: data analysis	2
171	TH03209	Designing web interface	2
172	TH03210	Front-end web development	3
173	TH03211	Front-end web development 2	3

174	TH03212	Back-end web development	3
175	TH03213	Back-end web development 2	3
176	TH03214	Data communication technique	2
177	TH03215	Computer network design	3
178	TH03216	Network administration	3
179	TH03217	Network programming	3
180	TH03218	Multimedia communication	3
181	TH03219	Principles of wireless communication	2
182	TH03220	Open source operating systems	2
183	TH03221	Games and design techniques	3
184	TH03223	Enhanced practice for Network administration	1
185	TH03224	Network security and operating systems	3
186	TH03225	Computer network monitoring	3
187	TH03226	Strategic security management	2
188	TH03298	Internship 1	6
189	TH03299	Internship 2	6
190	TH03301	Management Informaiton Systems	3
191	TH03302	Decision support systems	3
192	TH03303	IT project design and management	3
193	TH03304	Mathematical models in finance	3
194	TH03305	Database 2	3
195	TH03306	Fundamentals of Coding	2
196	TH03307	Python Programming	3
197	TH03308	Fuzzy logic and applications	2
198	TH03309	Knowledge systems	3
199	TH03310	Big Data analysis	3
200	TH03311	Optimization	3
201	TH03312	Data mining	3
202	TH03313	Cryptology and Applications	3
203	TH03314	Information system security testing and assessment	2
204	TH03399	Internship	12
205	TH04199	Graduation Thesis	10
206	TH04299	Graduation thesis	10
207	TH04399	Graduation thesis	10