



## **2. Specific objectives**

**G1.** Understanding and applying the basic principles of Marxism-Leninism, the revolutionary pathway of the Communist Party of Vietnam, and the ideology of Ho Chi Minh in the endeavor of caring for and protecting the people's health.

**G2.** Understanding and applying basic knowledge of Pharmacy in professional activities (manufacturing, quality control, supply chain management of drugs, and clinical pharmacy work).

**G3.** Possess basic scientific knowledge, foundational medical knowledge, and research methodology in scientific research.

**G4.** Have basic specialized knowledge in drug formulation, production, quality assurance, testing, and supply management, particularly in clinical pharmacy work involving medication counseling and guidance, cosmetics, and functional foods.

### **\* Skills**

**G5.** Master and apply relevant pharmaceutical legal documents related to the field of professional activities.

**G6.** Perform professional activities in the field of pharmacy.

### **\* Attitude**

**G7.** Have the ability for self-learning, self-research, self-experimentation, and soft skills to self-develop in the profession and be creative in solving practical issues in the field of pharmacy.

**G8.** Have professional ethics and responsibility towards the community.

## **II. Learning outcomes:**

### **\* Knowledge**

**LO1.** Have a clear and systematic understanding of fundamental political theory, mathematics, social sciences, and natural sciences to apply in learning, research, and the field of healthcare.

**LO2.** Proficiently use foreign languages and computer software in the field of pharmacy.

**LO3.** Apply basic scientific knowledge of medicine and pharmacy in professional activities.

**LO4.** Understand and apply specialized knowledge in research, production, and quality assurance of medications, as well as the safe and appropriate use of drugs.

**LO5.** Understand and apply relevant pharmaceutical legal documents related to the field of professional activities.

### **\* Skill**

**LO6.** Efficiently utilize soft skills (communication, teamwork, writing, reading, presenting, etc.) in practical work.

**LO7.** Good command of foreign languages level 3/6 of Vietnam's foreign language competency framework (equivalent to TOEIC level  $\geq 450$  points) and information technology equivalent to the standard level of advanced information technology skills.

**LO8.** Collect and process information to solve problems in the specialized field.

**LO9.** Organize and effectively implement good practices in the areas of production, quality assurance, and storage of pharmaceuticals, cosmetics, and functional foods.

**LO10.** Analyze and perform processes such as extraction, testing, design, synthesis, and formulation of pharmaceuticals and medicinal ingredients.

**LO11.** Participate in addressing the community's needs for safe, timely, rational, and effective drug use based on scientific evidence and in accordance with practical conditions.

**\* Autonomy and responsibility**

**LO12.** Respect the law, fulfill obligations, regulations, and professional ethics.

**LO13.** Devote oneself to the mission of caring for, protecting, and improving the health of the people; respect, empathize, share, and wholeheartedly serve patients; respect and sincerely collaborate with colleagues; preserve and promote the good traditions of the profession.

**LO14.** Value the integration of modern medicine with traditional medicine, with a spirit of protecting and developing medicinal resources.

**LO15.** Be modest, honest, objective, and progressive, with a spirit of scientific research and a lifelong learning mindset for professional development.

**III. The content of studying program (name and credit for each subject): 171 credits**

<b>Total credit</b>		<b>171</b>
<b>1</b>	<b>General knowledgeski</b>	<b>43</b>
<b>2</b>	<b>Professional knowledges</b>	
	- General Knowledge	<b>51</b>
	- Compulsory Knowledge	<b>53</b>
	- Optional knowledge	<b>12</b>
<b>3</b>	<b>Graduation</b>	
	- Graduation Internship - Graduation thesis (or do the minor graduated thesis and study 02 alternative subjects)	<b>12</b>

**1. General Knowledge: 43 credits**

Number	Code	Subject	Credits	Note
1	0301001769	Marxist - Leninist philosophy	3	
2	0301001825	Marxist - Leninist political economics	2	
3	0301001826	Scientific Socialism	2	
4	0301001827	History of Vietnamese Communist party	2	
5	0301000665	Ho Chi Minh's Ideology	2	
6	0301000946	Toeic 1	4	
7	0301000947	Toeic 2	4	
8	0301001673	Basic informatics	3	
9	0301001035	Physical Education 1: Volleyball	1	
10	0301001036	Physical Education 1: Football		
11	0301001037	Physical Education 1: Badminton		
12	0301000660	Physical Education 2: Volleyball	1	
13	0301001038	Physical Education 2: Football		
14	0301001039	Physical Education 2: Badminton		
15	0301001030	Physical Education 3: Volleyball	1	
16	0301000661	Physical Education 3: Football		
17	0301000662	Physical Education 3: Badminton		
18	0301000650	National Defense and Security Education	8	
19	0301001674	Probability and Biostatistics in Medicine	2	
20	0301001049	General inorganic chemistry	2	
21	0301001418	Practice General inorganic chemistry	1	
22	0301000419	Biology and Genetics	2	
23	0301001420	Practice Biology and Genetics	1	
24	0301000630	Physics-Biophysics	2	

**2. Professional knowledges: 116 credits**

Number	Code	Subject	Credits	Note
<b>1. General Knowledge</b>				
1	0301001421	Organic chemistry	3	
2	0301001422	Practical organic chemistry	1	
3	0301000182	Analytical Chemistry 1	2	
4	0301001424	Practice Analytical Chemistry 1	1	
5	0301002416	Analytical Chemistry 2	2	

Number	Code	Subject	Credits	Note
6	0301001426	Practice Analytical Chemistry 2	1	
7	0301001221	Biochemistry	3	
8	0301001428	Practice Biochemistry	1	
9	0301001429	Pharmaceutical physiochemistry	2	
10	0301001430	Practice Pharmaceutical physiochemistry	1	
11	0301001518	Anatomy and physiology	2	
12	0301001672	Practice Anatomy and physiology	2	
13	0301000473	Pathophysiology - Immunology	2	
14	0301000014	Basic Pathology	3	
15	0301000137	Epideminology	2	
16	0301001541	Pharmaceutical Botanic	3	
17	0301001433	Practice Pharmaceutical Botanic	1	
18	0301001477	Pharmaceutical practice	1	
19	0301000488	Psychology – Pharmacy ethics	2	
20	0301000372	Medicinal plant Identification	1	
21	0301001434	Medical Parasitology	2	
22	0301001435	Practice Medical Parasitology	1	
23	0301001436	Medical Microbiology	2	
24	0301001437	Practice Medical Microbiology	1	
25	0301000557	Pharmaceutical Informatics	2	
26	0301001584	Specialized English for Pharmacy	2	
27	0301001438	Toxicology	2	
28	0301001439	Practice Toxicology	1	
29	0301001398	Methodology of scientific research - pharmacy	2	
<b>1. Compulsory Knowledge :</b>				
1	0301001440	Pharmacognosy 1	2	
2	0301001441	Practice Pharmacognosy 1	2	
3	0301001442	Pharmacognosy 2	2	
4	0301001443	Practice Pharmacognosy 2	2	
5	0301000138	Traditional Pharmacy	2	
6	0301001444	Pharmaceutical chemistry 1	2	
7	0301001445	Practice Pharmaceutical Chemistry 1	1	
8	0301001446	Pharmaceutical Chemistry 2	3	

Number	Code	Subject	Credits	Note
9	0301001447	Practice Pharmaceutical Chemistry 2	1	
10	0301000229	Pharmaceutical Economics	2	
11	0301000397	Pharmaceutical Law 1	2	
12	0301001448	Pharmacology 1	2	
13	0301001449	Practice Pharmacology 1	1	
14	0301001450	Pharmacology 2	3	
15	0301001451	Pharmacology practice 2	1	
16	0301001452	Pharmaceutical Dosage Forms and Pharmacokinetic Considerations 1	2	
17	0301001453	Practice Pharmaceutical Dosage Forms and Pharmacokinetic Considerations 1	1	
18	0301002401	Pharmaceutical Dosage Forms and Pharmacokinetic Considerations 2	2	
19	0301001455	Practice Pharmaceutical Dosage Forms and Pharmacokinetic Considerations 2	2	
20	0301001456	Pharmaceutical Manufacturing Technology	2	
21	0301001457	Practice Pharmaceutical Manufacturing Technology	1	
22	0301001458	Clinical pharmacy 1	2	
23	0301001459	Practical Clinical Pharmacy 1	1	
24	0301001460	Clinical pharmacy 2	2	
25	0301002059	Practical Clinical Pharmacy 2	2	
26	0301001462	Quality Control of Pharmaceuticals	3	
27	0301001463	Practical Control of Pharmaceuticals	2	
28	0301001271	Pharmaceutical sociology	2	
29	0301000542	Internship 1 (Internship in Hospital and pharmacy)	1	
<b>2. Optional Knowledge</b>				
	<b>Option 1</b>	<b>Management, Supply, and Use of Medications</b>	<b>12</b>	
1	0301000436	Drug inventory management	2	
2	0301000312	Pharmaceutical Marketing	3	
3	0301001522	Clinical pharmacy and therapeutics	2	
4	0301000398	Pharmaceutical Law 2 (GPs and Cosmeceuticals)	2	
5	0301000188	Instruction for use of Drugs	1	

Number	Code	Subject	Credits	Note
6	0301000692	Pharmaceutical Business Administration	2	
	<b>Option 2</b>	<b>Pharmaceutical Manufacturing and Development</b>	<b>12</b>	
1	0301001468	Pharmacognosy 3	2	
2	0301001469	Practice Pharmacognosy 3	1	
3	0301002529	Cosmetics and Additional supplement	2	
4	0301001466	Herbal Medicine Production	2	
6	0301001467	Practical Herbal Medicine Production	1	
6	0301000423	Chemical analysis of Equipment	2	
7	0301000082	Drug quality assurance	2	
	<b>Option 3</b>	<b>Medicinal Plants and Traditional Medicine</b>	<b>12</b>	
1	0301002067	Classification, Ecology - Plant Resources	2	
2	0301002061	Ethnic traditional medicine	2	
3	0301002062	Methods of extraction, isolation of natural compounds.	2	
4	0301002063	Cultivation and development of medicinal plants	2	
5	0301002064	Practice in Cultivating and Developing Medicinal Plants	1	
6	0301002065	Effective Practices in Pharmaceutical Production and Business.	2	
7	0301002066	Practical Application of Good Manufacturing and Business Practices in Pharmaceutical Production.	1	

### 3. Graduation: 12 credits

Number	Code	Subject	Credits	Note
<b>1. Graduation Internship:</b>				
1	0301001256	Graduation Intership - Pharmacy	4	
<b>2. Graduation thesis:</b>				
1	0301000212	Graduation of thesis - Pharmacy	8	
2	0301000550	Graduation of essay - Pharmacy	4	
3	0301002528	Subject replacement 1: Pharmaceutical Care	2	
4	0301001754	Subject replacement 2: Hospital Pharmacy	2	