

MINISTRY OF EDUCATION AND TRAINING
QUY NHON UNIVERSITY

UNDERGRADUATE PROGRAM

Level of Education : **Undergraduate**
Major : **Biology Teacher Education**
Major Code : **7140213**
Mode of Education : **Full-time**

UNDERGRADUATE PROGRAM

*(Issued together with Decision No. 2094/QĐ-ĐHQN dated July 22, 2025
of the Rector of Quy Nhon University)*

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Speciality (if any):
Major Code: : **7140213**
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1. PROGRAM OBJECTIVES (POs)**1.1. General objectives**

The Bachelor's program in Biology Teacher Education aims to train graduates who possess sound political and ethical qualities, as well as good health; have a solid foundation in basic sciences and educational sciences. Graduates are expected to have the ability to apply professional knowledge to solve problems in education, biology teaching, and scientific research. Furthermore, they will develop digital competencies, lifelong learning capabilities, and adaptability to evolving educational environments. Ultimately, graduates exhibit professional responsibility and a strong commitment to community service, meeting the professional standards for teachers and contributing to socio-economic development, national defense and security, and international integration.

1.2. Specific objectives

Graduates of the Bachelor's program in Biology Teacher Education are expected to:

+ **PO1:** Demonstrate professional knowledge and practical competencies required for Biology teachers.

+ **PO2:** Exhibit professional competencies in education, biology teaching, and scientific research, meeting the requirements of national general education reform and international integration.

+ **PO3:** Develop self-directed learning, digital, communication and collaboration competencies to adapt to the evolving educational environment.

+ **PO4:** Display pedagogical ethics, professional responsibility, a positive attitude, and a commitment to community service.

2. EMPLOYMENT OPPORTUNITIES AND FURTHER STUDY PROSPECTS

Graduates of the Bachelor's program in Biology Teacher Education are qualified to assume the following professional positions:

+ Biology teachers at upper secondary schools; teaching assistants or lecturers at universities, colleges, professional secondary schools, and other vocational education institutions.

+ Researchers at institutes and research centers focusing on Biological Sciences and Educational Sciences; educational specialists at Departments of Education and Training, as well as other educational organizations.

+ Pursue postgraduate studies in specialized fields within Life Sciences and Educational Sciences.

3. LEARNING OUTCOMES

The Bachelor's program in Biology Teacher Education is designed to ensure that upon graduation, students attain the following learning outcomes:

PLO1: Apply general education knowledge, field knowledge and foundational disciplinary knowledge to perform professional tasks	PI 1.1: Identify general education knowledge, field knowledge and foundational disciplinary knowledge required to perform professional tasks
	PI 1.2: Apply general education knowledge, field knowledge and foundational disciplinary knowledge to perform professional tasks
PLO2: Apply core biological knowledge to solve professional problems	PI 2.1: Apply core biological knowledge to solve discipline-specific scientific problems
	PI 2.2: Apply core biological knowledge to connect and analyze the subject matter of Upper-Secondary Biology Curriculum
PLO3: Analyze advanced biological knowledge to acquire new knowledge and solve practical problems	PI 3.1: Analyze advanced biological knowledge to acquire new knowledge
	PI 3.2: Analyze advanced biological knowledge to solve practical problems
PLO4: Demonstrate biological experimental procedures and interpret their results	PI 4.1: Demonstrate biological experimental procedures
	PI 4.2: Interpret the results of biological experiments
PLO5: Organize teaching and educational activities and apply pedagogical communication skills in these activities oriented toward the development of students' qualities and competencies	PI 5.1: Organize teaching and educational activities oriented toward the development of students' qualities and competencies
	PI 5.2: Apply pedagogical communication skills in teaching and educational activities oriented toward the development of students' qualities and competencies
	PI 5.3: Assess effectiveness of teaching and educational activities oriented toward the

	development of students' qualities and competencies
PLO6: Conduct scientific research in professional practice	PI 6.1: Plan scientific research in professional practice
	PI 6.2: Implement scientific research in professional practice
PLO7: Use specialized English, digital tools and technologies in professional practice	PI 7.1 Use specialized English in professional practice
	PI 7.2 Use digital tools and technologies in professional practice
PLO8: Demonstrate autonomy in learning and research, personal responsibility, and effective collaboration in academic and professional environments	PI 8.1: Demonstrate autonomy in learning and research, along with personal responsibility, to proactively acquire knowledge, develop independent thinking, and construct effective learning strategies
	PI 8.2: Demonstrate effective collaboration to enhance learning quality, support learners' holistic development, and contribute to the development of an educational environment that reflects the institution's distinctive culture
PLO9: Demonstrate professional ethics, teacher responsibility, and community engagement in contributing to holistic human development	PI 9.1: Identify key issues related to teachers' professional ethics, professional responsibility, and community engagement
	PI 9.2: Demonstrate professional ethics, professional responsibility, and active community engagement in order to guide learners' character formation, cultivate a positive learning environment, and contribute to holistic human development

4. PROGRAM DURATION AND TOTAL CREDITS

4.1. Program Duration: 04 years

4.2. Total credits: 138 credits (excluding 03 credits of Physical Education and 09 credits of National Defense and Security Education)

Program structure	Số tín chỉ
General Knowledge	24
Professional Knowledge	114
- Fundamental and Disciplinary Knowledge	28
- Major and Specialization Knowledge (if any)	45
- Supplementary Knowledge	35
- Graduation thesis, Alternative courses	6
Total	138

5. ADMISSION REQUIREMENTS

Applicants who wish to apply for admission to the Bachelor's program in Biology Teacher Education must meet the following requirements:

a. Hold a Vietnamese upper secondary school diploma or a recognized equivalent foreign diploma.

b. Hold a professional secondary diploma in a related field and have completed the required general education subjects at the upper secondary level, as prescribed by law.

c. Meet the health requirements for study in accordance with current regulations.

d. Meet the minimum admission threshold and other requirements for teacher education programs, as stipulated in the University and College Admission Regulations of the Ministry of Education and Training (MOET) and the Undergraduate Admission Regulations of Quy Nhon University.

6. MODE OF STUDY AND GRADUATION REQUIREMENTS

6.1. Mode of study: Credit-based system

6.2. Graduation Requirements:

- *Academic Requirements:* Students must complete all required courses and accumulate the total number of credits prescribed in the curriculum. In addition, they must obtain a minimum cumulative grade point average (CGPA) of 2.00 on a 4.0 scale; and achieve all program learning outcomes (PLOs) in the assessment courses prescribed in the curriculum.

- *Physical Education and National Defense and Security Education:* Students must complete all required Physical Education courses and obtain the National Defense and Security Education Certificate in accordance with current regulations.

- *Foreign Language Requirement:* Meet the foreign language proficiency standard in accordance with the current regulations of Quy Nhon University.

- *Information Technology Requirement:* Meet the basic information technology skills standard in accordance with the current regulations of Quy Nhon University.

- *Conduct and Ethical Requirements:* At the time of graduation consideration, students must not be subject to criminal prosecution and must not be under disciplinary action at the level of suspension from study.

7. TEACHING METHODS AND LEARNING ASSESSMENT

7.1 Teaching Methods

No	Teaching strategies	Teaching methods
1	Direct Instruction: Direct instruction is a teaching process in which the instructor directly delivers information and fundamental knowledge to learners. In this approach, the teacher plays a central role in controlling, guiding, and organizing instructional activities. Through presentation, explanation, and detailed	<ul style="list-style-type: none"> - Lecture/Presentation - Explanation and Illustration - Question-Answer Interaction - Problem-posing - Simulation - Demonstration

No	Teaching strategies	Teaching methods
	<p>guidance, the teacher helps learners access, acquire, and clearly understand the lesson content. This teaching strategy is effective for providing systematic knowledge and introducing new skills, thereby establishing a solid foundation for learners to apply such knowledge to professional practice and develop practical competencies.</p>	
2	<p>Indirect Instruction: Indirect instruction is a teaching strategy in which learners are provided with opportunities to explore and construct knowledge through learning activities without relying entirely on the lecturer's direct transmission of information. In this strategy, the lecturer acts as a facilitator who organizes, guides, and supports the learning process rather than delivering all the instructional content directly. Learners are encouraged to actively engage in the learning process, apply critical thinking skills, and develop their ability to analyze and solve problems. Through various learning activities, this strategy helps learners enhance their capacity for self-directed learning and independent inquiry, while also fostering a stronger sense of responsibility and autonomy in their learning.</p>	<ul style="list-style-type: none"> - Case-based learning - Problem-based learning - Guiding questions - Online teaching - Assignments - Discussion - Debate - Project-based learning
3	<p>Experiential Learning: Experiential learning consists of four stages: concrete experience, in which learners participate in practical activities such as group discussions, experimental practice, or field trips; reflective observation, during which learners reflect on and analyze the results, behaviors, and emotions arising from their experiences; abstract conceptualization, in which learners formulate concepts or theoretical insights based on their</p>	<ul style="list-style-type: none"> - Experiential learning - Internship - Fieldwork - Simulation - Practice - Discussion - Project-based learning

No	Teaching strategies	Teaching methods
	reflections; and active experimentation, where learners apply the acquired knowledge to new situations in order to test and refine their understanding. This approach not only facilitates the development of knowledge and skills but also enhances learners' attitudes and engagement in the learning process.	
4	Interactive Teaching: Interactive teaching is a teaching strategy in which learners not only receive knowledge from the instructor but also interact with their peers, the instructor, and the learning content. In this approach, the instructor organizes and facilitates the learning process, while students actively participate in discussions, dialogue, and collaborative activities to construct knowledge. This process involves two-way interaction, continuous feedback, and adaptation, thereby fostering the development of communication, collaboration, critical thinking, and problem-solving skills, as well as enhancing learners' confidence and active engagement in learning.	<ul style="list-style-type: none"> - Interactive lectures - Group work - Discussions - Debates - Practice - Internships - Fieldwork - Project-based learning
5	Self-directed Learning: Self-directed learning is a learning strategy in which learners guide and regulate their own learning process with little or no direct supervision from the instructor. Learners actively seek knowledge, plan their learning activities, and carry out learning tasks through assignments, projects, or problems suggested by the instructor. This strategy helps develop learners' capacity for independent learning and research, as well as their autonomy and sense of responsibility in the learning process.	<ul style="list-style-type: none"> - Online learning - Homework assignments - Self-directed learning - Practice - Internships - Fieldwork - Project-based learning

7.2 Learning Assessment

7.2.1. Assessment of Program Learning Outcomes: Learning assessment is conducted in accordance with the current Undergraduate Academic Regulations and the Regulations on the Assessment of Undergraduate Program Learning Outcomes of Quy Nhon University.

7.2.2. Course Assessment and Grading

Assessment and Grading of Courses			
1. For theoretical courses or theory-practice integrated courses	The overall course grade (referred to as the course grade) consists of two components: the continuous assessment grade and the final examination grade	Continuous assessment grade: Weighted at 30%, 40%, or 50% of the course grade.	Assessment methods, formats, and the specific weight of each component grade are regulated in the detailed syllabus of each course.
		Final examination grade: Weighted at 70%, 60%, or 50% of the course grade.	
2. Experimental or practical-only courses	The practical course grade is the average score of all practical assignments throughout the semester, rounded to one decimal place.		
3. Specific courses (internships, field trips, course projects, or capstone projects)	The department managing the course shall propose the assessment method, subject to the Rector's approval.		
4. Assessment of capstone projects and graduation theses	<ul style="list-style-type: none"> - The assessment of projects and theses is conducted by a committee established by the Rector's decision.. - The committee consists of 03 members: Chairperson, Reviewer, and Secretary (the supervisor is not a member of the committee). The committee organizes the defense and assessment only when all members are present. 	<ul style="list-style-type: none"> - The final grade is the average of the component grades from the committee members and the supervisor: $([\text{Supervisor grade} + \text{Committee member grades (3 scores)}] / 4)$. - Component grades are marked on a 10-point scale to one decimal place, the final project/thesis grade is calculated on a 10-point scale, rounded to one decimal place, and converted to a letter grade scale. 	

Applicable Grading Scales

Grading scales	10-point scale: Ranging from 0 to 10 (with one decimal place), used to evaluate and record continuous assessment grades, final examination grades, and overall course grades.
	Letter grade scale: Used to classify course performance as an alternative format, corresponding to the course grade on the 10-point scale.
	4-point scale: Used to calculate the semester Grade Point Average (GPA) and Cumulative Grade Point Average (CGPA), to evaluate students' academic performance after each semester and study phase, and to determine graduation classification.

Grading System Table

10-point scale	Letter grade	4-point Scale	Classification
From 9.0 to 10	A+	4.0	Pass
From 8.0 to 8.9	A	3.5	
From 7.0 to 7.9	B+	3.0	
From 6.0 to 6.9	B	2.5	
From 5.0 to 5.9	C	2.0	
From 4.0 to 4.9	D	1.5	
From 0 to 3.9	F	0	Fail

7.2.3. Assessments Methods

Assessments Methods	
Observation Method	This method is used to assess students' attendance and learning attitudes, including their learning awareness, independence, and creativity. It involves monitoring class attendance, preparation for lessons, participation in discussions, and contributions to classroom activities.
Assignment Assessment	This method evaluates the extent to which students complete the assignments given by the instructor related to the lesson during and after class. These assignments may be completed individually or in groups and are graded based on criteria that have been communicated to students in advance.
Presentation Assessment	Students are required to work individually or in groups and present their results to other students. This activity not only assesses the extent to which students achieve the required subject-specific knowledge but also evaluates the development of skills such as communication, negotiation, and teamwork.

9. PROGRAM CONTENT

No	Course Code	Course Name	Semester	Number of credits	In-class hours			Experimental/ Practice	Others	Self-study hours	Prerequisite Course Code	Department in charge of the course	Note
					Theory	Exercise	Discussion						
I. General Knowledge				24									
<i>I.1. Political Science and Law</i>				13									
01	1130299	Marxist–Leninist Philosophy	1	3	40		10			95		Political Theory, Law and Public Administration	
02	1130300	Marxist–Leninist Political Economics	2	2	27		6			62	1130299	Political Theory, Law and Public Administration	
03	1130049	Introduction to Law	1	2	27		6			62		Political Theory, Law and Public Administration	
04	1130301	Science Socialism	3	2	27		6			62	1130300	Political Theory, Law and Public Administration	
05	1130302	History of the Communist Party of Vietnam	4	2	27		6			62	1130301	Political Theory, Law and Public Administration	
06	1130091	Ho Chi Minh Thoughts	5	2	27		6			62	1130302	Political Theory, Law and Public Administration	
<i>I.2. Physical Education and National Defense–Security Education</i>				12									
<i>Physical Education: Choose 1 of the following 8 courses</i>				3									
07	1120172	Physical Education 1 (Football 1)	1	1	4			26		21		Physical Education	
08	1120173	Physical Education 2 (Football 2)	2	1	4			26		21	1120172	Physical Education	
09	1120174	Physical Education 3 (Football 3)	3	1	4			26		21	1120173	Physical Education	
10	1120175	Physical Education 1 (Volleyball 1)	1	1	4			26		21		Physical Education	
11	1120176	Physical Education 2 (Volleyball 2)	2	1	4			26		21	1120175	Physical Education	
12	1120177	Physical Education 3 (Volleyball 3)	3	1	4			26		21	1120176	Physical Education	
13	1120178	Physical Education 1 (Basketball 1)	1	1	4			26		21		Physical Education	
14	1120179	Physical Education 2 (Basketball 2)	2	1	4			26		21	1120178	Physical Education	
15	1120180	Physical Education 3 (Basketball 3)	3	1	4			26		21	1120179	Physical Education	
16	1120181	Physical Education 1 (Badminton 1)	1	1	4			26		21		Physical Education	

No	Course Code	Course Name	Semester	Number of credits	In-class hours			Experimental/ Practice	Others	Self-study hours	Prerequisite Course Code	Department in charge of the course	Note
					Theory	Exercise	Discussion						
17	1120182	Physical Education 2 (Badminton 2)	2	1	4			26		21	1120181	Physical Education	
18	1120183	Physical Education 3 (Badminton 3)	3	1	4			26		21	1120182	Physical Education	
19	1120184	Physical Education 1 (Vietnamese Traditional Martial Arts 1)	1	1	4			26		21		Physical Education	
20	1120185	Physical Education 2 (Vietnamese Traditional Martial Arts 2)	2	1	4			26		21	1120184	Physical Education	
21	1120186	Physical Education 3 (Vietnamese Traditional Martial Arts 3)	3	1	4			26		21	1120185	Physical Education	
22	1120187	Physical Education 1 (Taekwondo 1)	1	1	4			26		21		Physical Education	
23	1120188	Physical Education 2 (Taekwondo 2)	2	1	4			26		21	1120187	Physical Education	
24	1120189	Physical Education 3 (Taekwondo 3)	3	1	4			26		21	1120188	Physical Education	
25	1120190	Physical Education 1 (Karate-do 1)	1	1	4			26		21		Physical Education	
26	1120191	Physical Education 2 (Karate-do 2)	2	1	4			26		21	1120190	Physical Education	
27	1120192	Physical Education 3 (Karate-do 3)	3	1	4			26		21	1120191	Physical Education	
28	1120239	Physical Education 1 (Pickleball 1)	1	1	4			26		21		Physical Education	
29	1120240	Physical Education 2 (Pickleball 2)	2	1	4			26		21	1120239	Physical Education	
30	1120241	Physical Education 3 (Pickleball 3)	3	1	4			26		21	1120240	Physical Education	
National Defense and Security Education				9									
31	1120168	National Defense and Security Education 1	5	3	37		8			82		National Defense-Security Education	
32	1120169	National Defense and Security Education 2	5	2	22		8			52		National Defense-Security Education	
33	1120170	National Defense and Security Education 3	5	2	14			16		44		National Defense-Security Education	
34	1120171	National Defense and Security Education 4	5	2	4			56		36		National Defense-Security Education	
1.3. Foreign Language				7									
35	1090061	English 1	1	3	30	15				100		Foreign Languages	
36	1090166	English 2	2	4	40	20				135	1090061	Foreign Languages	

No	Course Code	Course Name	Semester	Number of credits	In-class hours			Experimental/ Practice	Others	Self-study hours	Prerequisite Course Code	Department in charge of the course	Note
					Theory	Exercise	Discussion						
I.4. Social Sci./Mathematics; Natural Sci.– Environment; Management Sci.				4									
37	2010156	Pedagogical Communication	4	2	20			20		55	2030410	Education	
38	2010171	Experiential and Career-Oriented Activities in Schools	5	2	20			20		55	2030410	Education	
II. Professional Knowledge				114									
II.1. Fundamental and Disciplinary Knowledge				28									
39	1050242	ICT Fundamentals for Education	1	3	30			30		85		Information Technology	
40	1100086	Psychology	2	3	30	10	10			95	1130299	Social Sciences and Humanities	
41	2030410	Pedagogics	3	4	36	20		8		131	1100086	Social Sciences and Humanities	
42	1010478	Probability and Statistics	2	2	20	10				65		Mathematics and Statistics	
43	2020613	Fundamental Physics in Life Sciences	1	2	22	8				65		Natural Sciences	
44	2020614	Fundamental Chemistry in Life Sciences	1	2	22	8				65		Natural Sciences	
45	2020616	Fundamental Chemistry Practice in Life Sciences	2	1				30		15	2020614	Natural Sciences	
46	2020615	Cell Biology	1	3	37		4	12		92		Natural Sciences	
47	2020381	Biophysics	3	2	25			10		60	2020615 2020613	Natural Sciences	
48	2020380	Biochemistry	3	3	37		4	12		92	2020614	Natural Sciences	
49	1040221	Basic Microbiology	3	3	34		6	16		89	2020615	Natural Sciences	
II.2. Major and Specialization Knowledge				45									
II.2.1. Major Knowledge				45									
II.2.1a. Compulsory Courses				39									
50	2020617	Botany 1	2	3	34		6	16		89	2020615	Natural Sciences	
51	2020688	Botany 2	3	3	34		6	16		89	2020617	Natural Sciences	
52	2020618	Zoology 1	2	3	35		4	16		90	2020615	Natural Sciences	
53	2020689	Zoology 2	3	3	35		4	16		90	2020618	Natural Sciences	
54	1040222	Human Anatomy	4	2	23		4	10		58	2020689	Natural Sciences	

No	Course Code	Course Name	Semester	Number of credits	In-class hours			Experimental/ Practice	Others	Self-study hours	Prerequisite Course Code	Department in charge of the course	Note
					Theory	Exercise	Discussion						
55	2020690	Plant Physiology	4	4	48		6	18		123	2020615 2020380	Natural Sciences	
56	2020691	Human and Animal Physiology	5	4	48		6	18		123	1040222	Natural Sciences	
57	2020692	Ecology, Environment and Biodiversity	4	3	34		6	16		89	2020688 2020689	Natural Sciences	
58	2020693	Genetics 1	4	3	36	4		10		95	2020688 2020689	Natural Sciences	
59	2020694	Genetics 2	5	3	34	3		16		92	2020693	Natural Sciences	
60	2020695	Evolution	5	2	25		4	6		60	2020688 2020689	Natural Sciences	
61	2020696	Biotechnology	6	4	48		6	18		123	2020694	Natural Sciences	
62	2020697	Applications of Biological Advances in Daily Life	6	2	25		10			60	2020690 2020691 2020694	Natural Sciences	
<i>II.2.1a. Elective Courses</i>				6									
<i>Choose 1 of the following 3 courses</i>				2									
63	1040242	Microbiology Application	7	2	25			10		60	1040221	Natural Sciences	
64	2020698	Medical Genetics	7	2	25		10			60	2020694	Natural Sciences	
65	2020699	Basic Techniques in Molecular Biology	7	2	25			10		60	2020694	Natural Sciences	
<i>Choose 1 of the following 3 courses</i>				2									
66	2020700	Plant Nutrition and Clean Agriculture	7	2	28		4			63	2020690	Natural Sciences	
67	2020701	Biological Control	7	2	28		4			63	2020692	Natural Sciences	
68	2020702	Human Ecology and Sustainable Development	7	2	28		4			63	2020692	Natural Sciences	
<i>Choose 1 of the following 3 courses</i>				2									
69	2020387	Animal nutrition	7	2	28		4			63	2020380 2020691	Natural Sciences	
70	2020703	Infectious Diseases and Immunity	7	2	28		4			63	1040221 2020691	Natural Sciences	
71	2020704	Animal Behavior	7	2	28		4			63	2020691	Natural Sciences	
II.3. Supplementary Knowledge				35									
II.3.1. Professional training and Skill Development				28									
<i>III.3.1a. Compulsory Courses</i>				<i>26</i>									
72	2010187	Theoretical Foundations of Biology Teaching	5	3	32		8	18		87	2030410	Education	

No	Course Code	Course Name	Semester	Number of credits	In-class hours			Experimental/ Practice	Others	Self-study hours	Prerequisite Course Code	Department in charge of the course	Note
					Theory	Exercise	Discussion						
73	2010188	Methods of Teaching Biology 1	6	4	40	5		30		120	2010187	Education	
74	2010189	Methods of Teaching Biology 2	6	3	32	4		18		91	2010187	Education	
75	2010190	Active Teaching Methods and Techniques in Biology	6	2	25		10			60	2010187	Education	
76	2020705	English for Biology	4	2	24	4	4			63	1090166	Natural Sciences	
77	2010191	Applying Information Technology in Biology Teaching	7	2				60		35	1050242 2010187	Education	
78	2010192	Biology Exercises in Secondary Education	6	2	15	10	10			60	2010187	Education	
79	2010057	Testing and Assessment in Biology Teaching	7	2	25			10		60	2010188 2010189	Education	
80	2010193	Applied Pedagogical Research in Biology Teaching	7	2	20			20		55	1010478 2010187	Education	
81	2010055	Pedagogical Competency Development 1	6	2				60		35	2010187	Education	
82	2010056	Pedagogical Competency Development 2	7	2				60		35	2010055	Education	
<i>III.3.1b. Elective Courses</i>				2									
<i>Choose 1 of the following 3 courses</i>				2									
83	2010194	Experiential Learning in Biology Teaching	7	2	25		10			60	2010188 2010189	Education	
84	2010195	STEM and STEAM Education in Biology	7	2	25		10			60	2010188 2010189	Education	
85	1150422	Start-up	7	2	20	5	10			60	1130049	Finance-Banking and Bussiness Administration	
II.3.2. Professional Internship (PI)				7									
86	2010196	Field Studies in Biology	4	1					PI		2020688 2020689	Education	
87	1040128	Teaching Practicum 1	7	1					PI		2010188 2010189	Education	
88	1040115	Teaching Practicum 2	8	5					PI		1040128	Education	
II.4. Graduation Thesis (GT), Alternative Courses				6									
89	2010060	Undergraduate Thesis	8	6					GT			Education	

No	Course Code	Course Name	Semester	Number of credits	In-class hours			Experimental/ Practice	Others	Self-study hours	Prerequisite Course Code	Department in charge of the course	Note
					Theory	Exercise	Discussion						
Alternative Courses				6									
90	2020706	Selected Topics in Modern Biology	8	2	20	5	10			60	2020694	Natural Sciences	
91	2020707	Research Methodology in Biological Science	8	2	15			30		50	1010478 2020688 2020689	Natural Sciences	
92	2010197	Integrated & Differentiated Approaches to Biology Teaching	8	2	25		10			60	2010188 2010189	Education	
Total				138									

10. TENTATIVE TEACHING PLAN

Semester 1:

No	Course Code	Course Name	Number of credits	In-class hours			Experimental/ Practice	Others	Self-study hours	Prerequisite Course Code	Department in charge of the course	Note
				Theory	Exercise	Discussion						
01	1130299	Marxist–Leninist Philosophy	3	40		10			95		Political Theory, Law and Public Administration	
02	1130049	Introduction to Law	2	27		6			62		Political Theory, Law and Public Administration	
03	1090061	English 1	3	30	15				100		Foreign Languages	
04	1050242	ICT Fundamentals for Education	3	30			30		85		Information Technology	
05	2020613	Fundamental Physics in Life Sciences	2	22	8				65		Natural Sciences	
06	2020614	Fundamental Chemistry in Life Sciences	2	22	8				65		Natural Sciences	
07	2020615	Cell Biology	3	37		4	12		92		Natural Sciences	
Choose 1 of the following 8 courses												
08	1120172	Physical Education 1 (Football 1)	1	4			26		21		Physical Education	
09	1120175	Physical Education 1 (Volleyball 1)	1	4			26		21		Physical Education	
10	1120178	Physical Education 1 (Basketball 1)	1	4			26		21		Physical Education	

11	1120181	Physical Education 1 (Badminton 1)	1	4			26		21		Physical Education
12	1120184	Physical Education 1 (Vietnamese Traditional Martial Arts 1)	1	4			26		21		Physical Education
13	1120187	Physical Education 1 (Taekwondo 1)	1	4			26		21		Physical Education
14	1120190	Physical Education 1 (Karate-do 1)	1	4			26		21		Physical Education
15	1120239	Physical Education 1 (Pickleball 1)	1	4			26		21		Physical Education
Total (excluding Physical Education courses)			18								

Semester 2:

No	Course Code	Course Name	Number of credits	In-class hours			Experimental/ Practice	Others	Self-study hours	Prerequisite Course Code	Department in charge of the course	Note
				Theory	Exercise	Discussion						
01	1130300	Marxist–Leninist Political Economy	2	27		6		62	1130299	Political Theory, Law and Public Administration		
02	1090166	English 2	4	40	20			135	1090061	Foreign Languages		
03	1100086	Psychology	3	30	10	10		95	1130299	Social Sciences and Humanities		
04	1010478	Probability and Statistics	2	20	10			65		Mathematics and Statistics		
05	2020616	Fundamental Chemistry Practice in Life Sciences	1				30	15	2020614	Natural Sciences		
06	2020617	Botany 1	3	34		6	16	89	2020615	Natural Sciences		
07	2020618	Zoology 1	3	35		4	16	90	2020615	Natural Sciences		
Choose 1 of the following 8 courses												
08	1120173	Physical Education 2 (Football 2)	1	4			26	21		Physical Education		
09	1120176	Physical Education 2 (Volleyball 2)	1	4			26	21		Physical Education		
10	1120179	Physical Education 2 (Basketball 2)	1	4			26	21		Physical Education		
11	1120182	Physical Education 2 (Badminton 2)	1	4			26	21		Physical Education		
12	1120185	Physical Education 2 (Vietnamese Traditional Martial Arts 2)	1	4			26	21		Physical Education		
13	1120188	Physical Education 2 (Taekwondo 2)	1	4			26	21		Physical Education		
14	1120191	Physical Education 2 (Karate-do 2)	1	4			26	21		Physical Education		

Semester 4:

No	Course Code	Course Name	Number of credits	In-class hours			Experimental/ Practice	Others	Self-study hours	Prerequisite Course Code	Department in charge of the course	Note
				Theory	Exercise	Discussion						
01	1130302	History of the Communist Party of Vietnam	2	27		6		62	1130301	Political Theory, Law and Public Administration		
02	2010156	Pedagogical Communication	2	20			20	55	2030410	Education		
03	1040222	Human Anatomy	2	23		4	10	58	2020689	Natural Sciences		
04	2020690	Plant Physiology	4	48		6	18	123	2020615 2020380	Natural Sciences		
05	2020693	Genetics 1	3	36	4		10	95	2020688 2020689	Natural Sciences		
06	2020692	Ecology, Environment and Biodiversity	3	34		6	16	89	2020688 2020689	Natural Sciences		
07	2020705	English for Biology	2	24	4	4		63	1090166	Natural Sciences		
08	2010196	Field Studies in Biology	1						2020688 2020689	PI Education		
Total			19									

Semester 5:

No	Course Code	Course Name	Number of credits	In-class hours			Experimental/ Practice	Others	Self-study hours	Prerequisite Course Code	Department in charge of the course	Note
				Theory	Exercise	Discussion						
01	1130091	Ho Chi Minh Thoughts	2	27		6		62	1130302	Political Theory, Law and Public Administration		
02	2010171	Experiential and Career-Oriented Activities in Schools	2	20			20	55	2030410	Education		
03	2020691	Human and Animal Physiology	4	48		6	18	123	1040222	Natural Sciences		
04	2020694	Genetics 2	3	34	3		16	92	2020693	Natural Sciences		
05	2020695	Evolution	2	25		4	6	60	2020688 2020689	Natural Sciences		
06	2010187	Theoretical Foundations of Biology Teaching	3	32		8	18	87	2030410	Education		
National Defense–Security Education												
07	1120168	National Defense-Security Education 1	3	37		8		82		National Defense-Security Education		

08	1120169	National Defense-Security Education 2	2	22		8			52		National Defense-Security Education
09	1120170	National Defense-Security Education 3	2	14			16		44		National Defense-Security Education
10	1120171	National Defense-Security Education 4	2	4			56		36		National Defense-Security Education
Total (excluding National Defense-Security Education courses):			16								

Semester 6:

No	Course Code	Course Name	Number of credits	In-class hours			Experimental/ Practice	Others	Self-study hours	Prerequisite Course Code	Department in charge of the course	Note
				Theory	Exercise	Discussion						
01	2020696	Biotechnology	4	48		6	18		123	2020694	Natural Sciences	
02	2020697	Applications of Biological Advances in Daily Life	2	25		10			60	2020690 2020691 2020694	Natural Sciences	
03	2010188	Methods of Teaching Biology 1	4	40	5		30		120	2010187	Education	
04	2010189	Methods of Teaching Biology 2	3	32	4		18		91	2010187	Education	
05	2010190	Active Teaching Methods & Techniques in Biology	2	25		10			60	2010187	Education	
06	2010192	Biology Exercises in Secondary Education	2	15	10	10			60	2010187	Education	
07	2010055	Pedagogical Competency Development 1	2				60		35	2010187	Education	
Total			19									

Semester 7:

No	Course Code	Course Name	Number of credits	In-class hours			Experimental/ Practice	Others	Self-study hours	Prerequisite Course Code	Department in charge of the course	Note
				Theory	Exercise	Discussion						
01	2010191	Applying IT in Biology Teaching	2				60		35	1050242 2010187	Education	
02	2010057	Testing and Assessment in Biology Teaching	2	25			10		60	2010188 2010189	Education	
03	2010193	Applied Pedagogical Research in Biology Teaching	2	20			20		55	1010478 2010187	Education	
04	2010056	Pedagogical Competency Development 2	2				60		35	2010055	Education	
05	1040128	Teaching Practicum 1	1					PI		2010188 2010189	Education	

11. GUIDELINES FOR PROGRAM IMPLEMENTATION

This training program is applied from the 2025 admission cohort for students majoring in Biology Teacher Education.

The training process is based on the designed curriculum, training objectives, target learners, workforce requirements, and specific requirements for the program. For elective courses, depending on practical conditions, development trends, and social needs, the Faculty will advise students to select appropriate courses.

The Dean of the Faculty is responsible for organizing and providing guidance on the principles for developing detailed course syllabi to ensure that the objectives, contents, and requirements of the program are met, while also satisfying the needs of learners and society.

The program is regularly reviewed, evaluated, and updated. The results of the review and evaluation are used to improve and enhance the quality of the program. The cycle for comprehensive program evaluation is no more than five years.

Gia Lai, July 22, 2025

RECTOR

Assoc. Prof. Dr. Doan Duc Tung