THAI NGUYEN UNIVERSITY OF AGRICULTURE AND FORESTRY
FACULTY OF FORESTRY

SOCIALIST REPUBLIC OF VIETNAM
Independence-Freedom-Happiness

BRIEF OUTLINE OF ALL COURSES IN FOREST RESOURCES MANAGEMENT

(Followed/To be enclosed/ by the Decision No. 984/QĐ-ĐT dated on July 23rd, 2018, issued by Rector of Thai Nguyen University of Agriculture and Forestry)

Brief description of the content and volume of courses

1. Fundamental Principles of Marxism and Leninism - 2 credits

Time of study: 2 credits (30 theoretical hours/0 practice hours/60 self-study hours)
Previous courses: No
Prerequisites: No
Parallel courses: No

Summary of the subject content: Establishing the most basic theoretical basis to approach Basic principles of Marxism-Leninism (II), Ho Chi Minh's Ideology and Revolutionary Way of the Communist Party of Vietnam, understanding the ideological foundation of the Party; Building trust, revolutionary ideals for students; To gradually establish worldview, human outlook and methodology to approach the specialized science trained.

1. *Fundamental Principles of Marxism and Leninism - 3 credits*

Time of study: 3 credits (45 theoretical hours/0 practice hours/90 self-study hours)
Previous courses: No
Prerequisites: No
Parallel courses: No

Summary of subject content: Establishing the most basic theoretical basis to approach Ho Chi Minh's Ideology and Revolutionary Way of the Communist Party of Vietnam, understanding the ideological foundation of the Party; Building trust, revolutionary ideals for students; To gradually establish worldview, human outlook, methodology to approach the specialized science trained.

2. *Ho Chi Minh's Ideology – 2 credits*

Time of study: 2 credits (30 theoretical hours/0 practice hours/60 self-study hours)
Previous courses: No

Prerequisites: No

Parallel courses: No

Summary of course content: This course provides a system of view and thoughts of Ho Chi Minh in the revolutionary career summarized and systemized by the Communist Party of Vietnam. This ideology system includes views on the fundamental issues of the Vietnamese revolution, from the People's Democratic National Revolution to the Socialist Revolution; the application and development of Marxism-Leninism to the specific conditions of Vietnam. After studying this part, students will raise awareness of regularly training, cultivating, studying and following the moral example and Style of Ho Chi Minh to improve themselves and contribute to building the country

3. ***Revolutionary orientation of the Communist Party of Vietnam – 3 credits***

Time of study: 2 credits (45 theoretical hours/0 practice hours/90 self-study hours)

Previous courses: No

Prerequisites: No

Parallel courses: No

Summary of subject content: Students know and understand the views and revolutionary orientation of the Communist Party of Vietnam in a basic and systematic way. Students apply and combine specialized knowledge to actively solve economic, political, cultural and social problems according to the guidelines, policies and laws of the Party and State.

4. ***Chemistry – 4 credits***

Time of study: 4 credits (50 theoretical hours/20 practice hours/120 self-study hours)

Previous courses: No

Prerequisites: No

Parallel courses: No

Summary of course content: Chemistry course consists of 6 chapters including 50 theoretical hours and 10 practice hours. The theory course equips students with basic knowledge of chemical balance, factors affecting chemical balance; application of explanations of the movement of favorable reactions; reaction rate and influential factors. Research on the composition and content of survey samples: dosing analysis, dosing, structural determination, evaluation of product results and quality, separation, division, cleaning, processing of ultra-pure compounds ... etc.

The practice course equips students with some basic laboratory rules; study experiments on the effects of factors on chemical balance, reaction rate, explanation, application to practice; practice of determining the pH value of some common types of solution; study of esthing experiments, determining the content of analytical samples.

6. Biology – 3 credits

Time of study: 3 credits (40 theoretical hours/10 practice hours/90 self-study hours)

Previous courses: No

Prerequisites: No

Parallel courses: No

Summary of course content: Biology course consists of 7 chapters. The theoretical part equips students with basic knowledge about the chemical composition of the living body, the organizational levels of the living body, the main metabolic methods in living cells, the reproduction and development of living bodies, the ability to in touch and adapt to the habitat of the organism, the evolution of organisms, the application of biology in agriculture and forestry ... etc.

The practice course equips students with some basic laboratory rules; research and practice as a plant-living specimen; observe some fixed specimens of animal cells; visual observation of the spawning agency of some flowers; observe and categorize some results to practise theoretical content to help students in carm deeply ingrain knowledge.

7. General sociology – 2 credits

Time of study: 2 credits (30 theoretical hours/0 practice hours/60 self-study hours)

Previous courses: No

Prerequisites: No

Parallel courses: No

Summary of course content: General sociology is a compulsory course to equip students with basic knowledge of sociology, including: Objects, functions and research tasks of sociology; basic sociological concepts. Based on of these basic concepts, students can understand the relationships between individuals, groups and society, position and role of individuals, social groups, institutions, social organizations, social classes and classes in a society. Based on these knowledges, educating students on sociology professional ethics in the present construction of our country.

8. Physics – 2 credits

Time of study: 2 credits (30 theoretical hours/0 practice hours/60 self-study hours)

Previous courses: No

Prerequisites: No

Parallel courses: No

Summary of course content: Physics course consists of 5 chapters with 17 theoretical hours and 13 hours of exercises and discussions. Theoretical part: equip students with general understanding of mechanical, basic forms of movement associated with practice, basic laws of Nitrogen; common concepts and phenomena in fluid mechanical, analysis of important applications of fluid mechanical fluids in agriculture and forestry; equip basic knowledge of electric fields, soy waves and application to the majors of agriculture and forestry; provides some knowledge of photoethtrosy, photofluorescent processes, ; basic knowledge of nuclear physics and the use of certain nuclear techniques in high-tech agriculture. Exercises, discussions: Ask students to apply the knowledge they have learnt in each chapter to solve practical problems: explain the phenomena, apply the knowledge to the main major

9. Mathematics – 2 credits

Time of study: 2 credits (30 theoretical hours/0 practice hours/60 self-study hours)

Previous courses: No

Prerequisites: No

Parallel courses: No

Summary of course content: Mathematics course consists of 3 chapters with 17 theoretical hours and 13 discussion hours. Theoretical course: Equipped with the concepts of matrix, mathematics on the matrix, system of linear equations, how to solve system of linear equations; differental equations, differental forms of equations and some applications of differental equations; some optimal forms of mathematics in agriculture and forestry and optimal methods to solve problems. Discussion: Asking students to apply that knowledge to solve problems, especially using software proficiently (Excel) on the computter to solve problems of matrix, linear equations and optimal problems.

10. English 1 – 3 credits

Time of study: 3 credits (45 theoretical hours/0 practice hours/90 self-study hours)

Previous courses: No

Prerequisites: No

Parallel courses: No

Time of study: 3 credits (45 theoretical hours/0 practical hours/90 self-study hours). Summary of subject content: This module equips students with the basic knowledge of Grammar (sentence structure, verb tenses...), Phonetics (stress & intonation), and Vocabulary (words & intonation); Consolidate the basic phenomena of Grammar, Phonetics and Vocabulary mentioned above as a basis for practice in communication; Initial formation of language communication skills such as Listening, Speaking, Reading and Writing on the basis of mastering theory and proficient practice; Basic concepts of the interdisciplinary relationship between Language, Culture and speech act.

Grammar: present simple tense; past simple tense; present continous tense; would like; modal verbs; comparative adjectives

Vocabulary: daily activities, free time; time expressions in the present and past; words describing feelings, states; means of transport.

Reading: health; sports; transportation; exploration.

Listening: health; sports; transportation; exploration.

Speaking: ambition; stories.

Write: connecting words; write a report; write the story

Pronunciation: / s/, /z/, /iz /, /d/, /t/, /id/, /ŋ/.

After finishing this course, students will be able to: Skim, read some detail information, guess the meaning of words in the context; Listening to the main idea, listening to some detailed information, be able to make simple conversations and simple sentence patterns. Students can write simple topics.

11. English 2 – 3 credits

Time of study: 2 credits (45 theoretical hours/0 practice hours/90 self-study hours)

Previous courses: No

Prerequisites: No

Parallel courses: No

Summary of course content: This module provides students with basic knowledge of Grammar (sentence structures, verb tenses ...), Pronunciation (stress & intonation), and Vocabulary (words & word formation). Consolidating these basic Grammar, Pronunciation and Vocabulary as a basis tool in communication; Initially forming language skills such as Listening, Speaking, Reading, and Writing through firm theory and proficient practice; Helping students understand the basic concepts of interdisciplinary relationships between language, culture and verbal communication.

Grammar: countable nouns and uncountable nouns; quantitive words; "going to, Will"; relative clauses and the first conditional sentence.

Vocabulary: work; career

Reading: environment life; events; workplace; exploration.

Listening: environment; plans and intentions; job interviews; the importance of technology; new inventions.

Speaking: report; Interview.

Write: report; e-mail; description; CV; paragraph;

Pronunciation: / tə /, /ð ə/, /ð i /, /w/,

After finishing this course, students will be able to: Skim the main idea; read some details, guess the meaning of words in the context; Listening to the main idea, listening to some detailed information, be able to make simple conversations and simple sentence patterns to communicate, can write simple topics.

12. English 3 – 3 credits

Time of study: 2 credits (45 theoretical hours/0 practice hours/90 self-study hours)

Previous courses: No

Prerequisites: No

Parallel courses: No

Summary of subject content: This module provides students with basic and core knowledge of Grammar (sentence structures, verb tenses ...), Pronunciation (stress & intonation), and Vocabulary (words & word formation). Consolidating these basic Grammar, Pronunciation and Vocabulary to work as a basis tool in communication; Initially forming language skills such as Listening, Speaking, Reading, and Writing through firm theory and proficient

practice; Helping students understand the basic concepts of interdisciplinary relationships between language, culture, and verbal communication.

Grammar: Passive sentences (present and past); Past Perfect Tense; Used to; reported speech; uncertain pronouns; conditional sentence type 2;

Vocabulary: verb phrases; holiday-related words; independent preposition; classification of animals; weather.

Reading: history; language; travel and vacation; nature.

Listening: learning languages; travel; nature.

Speaking: plan for vacation; predict the future.

Writing: letter; story.

Pronunciation: sound / s /, / z /, / stress.

After completing this module, students will be able to communicate in English and read documents in English at pre-intermediate level.

13. General Informatic – 3 credits

Time of study: 3 credits (15 theoretical hours/60 practice hours/90 self-study hours)

Previous courses: No

Prerequisites: No

Parallel courses: No

Summary of course content: The course equips knowledge about computers and computer networks, basic skills using basic computer applications. After completing this course, students can: Proficiently use computers; works on Windows operating systems and some application programs; know how to manage and exploit information on computers effectively, use computers safely and have knowledge of the law in the use of information technology; Proficiently use Microsoft Word to draft and present a complete text in a template, using some back-up tools to process text faster; Use Microsoft Excel to build a complete database to solve real-world problems; Use calculation functions in Excel from basic to complex to calculate, statistics, extract necessary information; Use Microsoft PowerPoint to create an engaging and effective presentation; Know how to exploit and

connect information available on the Internet for studying and researching; know how to use e-mail to send and receive documents.

14. Probability and Statistics – 3 credits

Time of study: 3 credits (45 theoretical hours/0 practice hours/90 self-study hours)

Previous courses: No

Prerequisites: Advanced Mathematics

Parallel courses: No

Summary of course content: The Probability and Statistics course consists of 2 parts: Probability and statistics with 27 theoretical hours and 18 discussion courses. Theoretical part: Equip knowledge about trials, events, probability of events; random variables (BNN), the law of distribution of probability and characteristic parameters of BNN; overall, samples, characteristic parameters of the sample and calculation; estimating parameters; parameters inspection; correlation and revoicing. Discussion: Ask students to calculate the probability of events through formulas; determine the law of distribution of probability and calculate the characteristic parameters of the BNN; masterfully solve the problems of estimating, checking parameters, finding correlations and writing the rewriting equations of two random variables.

15. Management Science – 2 credits

Time of study: 2 credits (30 theories/0 practice hours/60 self-study hours)

Previous courses: No

Prerequisites: No

Parallel courses: No

Summary of course content: The Management Science course helps students to be equipped with basic knowledge in the field of management science. On that basis, students have the ability to apply reasoning to management practice, creating favorable conditions for them to deeply research and solve reasoning or practical problems in separate or interdisciplinary fields. Students can master scientific management knowledge, science and technology, quickly and effectively solve problems of management practice; have the capacity to create, analyze and evaluate management policies; have the ability to adapt

quickly and appropriately to the changes of the management environment; have the capacity to organize, mobilize and persuade the masses to achieve the objectives of the organization.

Management Science: Management Science is an applied and practical course. The part is designed into 6 chapters, each of which is compiled in an order, presented logically, scientifically, detailing the content of each problem, thereby for researching and studying. The main contents include:

Chapter 1: In-Science Management

Chapter 2: Principles, Functions and Management Methods

Chapter 3: Managers

Chapter 4: Information in Management

16. General Microbiology - 2 credits

Time of study: 3 credits (24 theoretical hours/12 practice hours/60 self-study hours)

Previous courses: Biology

Prerequisites: No

Parallel courses: No

Summary of course content: The study provides and equips students with basic understandings about ererm, structural, biological, bio-biomededizing, genetic characteristics ... of groups of microorganisms common in nature and in the human body, animals such as bacteria, viruses, yeasts, mold ... In addition, the course also studies the impact of extra-wing factors on microorganisms, study the beneficial and harmful aspects of microorganisms in life, especially in the field of agriculture, from understanding and explaining the phenomena and applications of microorganisms in real life and agriculture.

In addition, the study also acts as a premises and basis for students to absorb the knowledge of other specialized courses such as veterinary microbiology, infectious diseases ... at the same time, it can be used as a reference for microbiology, scientists….

17. Environmental Ecology– 2 credits

Time of study: 2 credits (30 theoretical hours/0 practice hours/60 self-study hours)

Previous courses: Biology

Prerequisites: No

Parallel course: No

Summary of course content: The course is divided into 5 main parts: General concept in biology; Individual eco-biology; Populations and bio biomedes; Ecosystems; Eco-biology with environmental resource. Provide students with the basics of biology; the relationship between organisms and the environment. On that basis, it is applied to build a balanced agricultural ecosystem and towards sustainable agricultural development while managing, protecting the habitat and exploiting natural resources in a reasonable and effective way.

18. Vietnam Economic Geography – 2 credits

Time of study: 2 credits (30 theoretical hours/0 practice hours/60 self-study hours)

Previous course: Biology

Prerequisites: No

Parallel courses: No

Summary of course content: The Economic Geography Module is a socio-economic science, studying the current situation and orientation of the development of Vietnam's natural resources. Vietnam's ability is to integrate in the region and in the world; World economic associations affecting Vietnam's socio-economic development; Territorial organizations of sectors and economic regions of Vietnam.

19. State and Law – 2 credits

Time of study: 2 credits (30 theoretical hours/0 practice hours/60 self-study hours)

Previous course: Marxist-Leninist philosophy

Prerequisites: No

Parallel courses: No

Summary of course contents: State and Law courses provide students with basic knowledge about the state and law such as: origin, historical nature, form, types of state and law; basic legal concepts such as: legal regulations, legal relations, law implementation, law violations, legal liability, socialist legislation, legal system; basic

contents of some important legal branches in the Vietnamese legal system and the law on anti-corruption.

20. Environmental Pollution – 2 credits

Time of study: 2 credits (30 theoretical hours/0 practice hours/60 self-study hours)

Previous course: No

Prerequisites: Chemistry, general microorganisms

Parallel course: No

Summary of course contents: Environmental Pollution course is to meet the requirements of improving quality for students at schools in the management and technical sectors, as well as those working in factories, companies, enterprises, research institutes, schools and State agencies. The environmental pollution component provides students with an overview of environmental knowledge, environmental composition, environmental games, the relationship between development and sustainable development. The course introduces the basic concepts of the main types of environmental pollution, causes of pollution, causes and harms of environmental pollution as well as measures to prevent and minimize environmental pollution. The course includes 5 main contents as follows: Basis for reasoning of environmental pollution, air pollution, water pollution, soil environmental pollution and other forms of environmental pollution.

21. Molecular Biology – 2 credits

Time of study: 2 credits (30 theoretical hours/0 practice hours/60 self-study hours)

Previous courses: No

Prerequisites: Biology

Parallel courses: No

Summary of subject content: Molecular biology is a subject on the organization of life at the molecular level, provide basic knowledge about biological macromolecules (DNA, RNA, proteins) and how to organize and operate their life at the molecular level. As a foundation for students to understand the methods of testing and evaluating food using Molecular Biology tools.

22. Scientific Approach Methodology – 2 credits

Time of study: 2 credits (30 theoretical hours/0 practice hours/60 self-study hours)

Previous courses: No

Prerequisites: No

Parallel courses: No

Summary of course content: The Scientific Approach Methodology course aims to help students know how to approach science, some methods of scientific research, how to identify and select research issues, how to write researchoutlines, organize research, how to write reports and publish the results of scientific topics. When finishing this course, students have the most basic knowledge to participate in scientific research

23. Labor Safety – 2 credits

Time of study: 2 credits (30 theoretical hours/0 practice hours/60 self-study hours)

Previous courses: No

Prerequisites: Chemistry, Physics, Biology, General Microorganisms

Parallel courses: No

Summary of course contents: Labor Safety courses aims to meet the requirements of improving the quality for students at schools in the management and technical sectors such as Veterinary Medicine, Food Technology, Environmental Science, High-tech Agriculture, ... etc., and for those who are working in factories, companies, enterprises, research institutes, schools and State agencies. The Course of Occupational Safety introduces students to the basic concepts of occupational safety and hygiene such as: labor; dangerous and harmful factors at the workplace; occupational accidents and causes of occupational accidents; the concept of labor protection, the nature of labor protection; a culture of occupational safety and digitalization and occupational safety. The course introduces the system of legal policies on occupational safety and hygiene of Viet Nam such as: Law on Occupational Safety and Sanitation; Protection policies for special and dangerous employees; Decrees and decisions of the Gove Professional practice; Circulars of ministries and inter-ministries and System of technical standards and regulations on occupational safety and sanitation.

Occupational safety courses provide students with basic and necessary knowledge about safety, occupational hygiene such as: working conditions, personal protective means at work; how to avoid harmfulfactors, measures to improve working conditions, prevent occupational accidents, occupational diseases for employees; handle incidents in

production and first aid of occupational accidents (theory and practice); develop plans and organize the implementation of the occupational safety and hygiene management system; to build a culture of safety in production; to know the rights and obligations of employers and employees in occupational safety and hygiene.

Moreover, the course also equips students with knowledge about occupational safety techniques such as: Electrical safety techniques; chemical safety techniques; safety when using pressure equipment; safe to work with lifting equipment; fire safety, explosion and laboratory-safe micro-engineering.

24. Athletics – 1 credit

Time of study: 1 credit (0 theoretical hours/30 practice hours/30 self-study hours)

Previous courses: No

Prerequisites: No

Parallel courses: No

Summary of course content: The course equips students with knowledge, skills in practicing bare-handed exercises and performing athletics content such as running ... After finishing this lesson, students will raise awareness of regular health training to have a better studying and working spirit.

25. Volleyball – 1 credit

Time of study: 1 credit (0 theoretical hours/30 practice hours/30 self-study hours)

Previous courses: No

Prerequisites: No

Parallel courses: No

Summary of course content: The course equips students with knowledge and skills in volleyball. After finishing this lesson, students will raise awareness of regular health training to have a better studying and working spirit.

26. Badminton – 1 credit

Time of study: 1 credit (0 theoretical hours/30 practice hours/30 self-study hours)

Previous courses: No

Prerequisites: No

Parallel courses: No

Summary of course content: The course equips students with badminton knowledge and skills. After finishing this lesson, students will raise awareness of regular health training to have a better studying and working spirit.

27. Shuttlecock Kicking – 1 credit

Time of study: 1 credit (0 theoretical hours/30 practice hours/30 self-study hours)

Previous courses: No

Prerequisites: No

Parallel courses: No

Summary of course content: The course equips students with knowledge and skills in football. After finishing this lesson, students will raise awareness of regular health training to have a better studying and working spirit.

28. Martial Art – 1 credit

Time of study: 1 credit (0 theoretical hours/30 practice hours/30 self-study hours)

Previous courses: No

Prerequisites: No

Parallel courses: No

Summary of course content: The course equips students with knowledge and skills in martial arts. After finishing this lesson, students will raise awareness of regular health training to have a better studying and working spirit.

29. ***Basketball - 1 credits***

Time of study: 1 credit (0 theoretical hours/30 practice hours/30 self-study hours)

Previous courses: No

Prerequisites: No

Parallel courses: No

Summary of course content: The course equips students with basketball knowledge and skills. After finishing this lesson, students will raise awareness of regular health training to have a better studying and working spirit.

30. ***Soccer - 1 credits***

Time of study: 1 credit (0 theoretical hours/30 practice hours/30 self-study hours)

Previous courses: No

Prerequisites: No

Parallel courses: No

Summary of course content: The course equips students with knowledge and skills in football. After finishing this lesson, students will raise awareness of regular health training to have a better studying and working spirit**.**

31. Forest plants - 3 credits

Time of study: 3 credits (35 theoretical hours/20 practice hours/90 self-study hours)

Previous courses: Forest Measurement, Biodiversity, Forest Ecology

Prerequisites: Biology

Parallel courses: No

Summary of the subject content: Forest plants is a basic subject, with a duration of 3 credits for the majors of Forest Resource Management, Forestry, and Agroforestry. This subject includes 6 chapters:

Chapter 1: The basis of forest plant, chapter 1 provides learners with general knowledge about forest plants, plant morphology and taxonomy, phenology, plant distribution, and ecology of plant distribution, plant classification methods, and some software to support plant identification;

Chapter 2. Plant morphology, Chapter 2 provides learners with knowledge about the morphology of vegetative and reproductive organs of plants, initially forming skills to distinguish between plant morphological forms;

Chapter 3. Taxonomy principles and taxonomic systems, chapter 3 provides knowledge on plant taxonomy principles, botanical nomenclature, plant species taxonomy systems;

Chapter 4. Plants of the Conifer branch, chapter 4 provides knowledge about the identification, biological characteristics, ecology, geographical distribution, value, trading, and conservation of forest plant species of the branch. This chapter strengthens the skill of classifying plants based on morphological characteristics;

Chapter 5. Plants of the Magnolia alba branch, chapter 5 provides knowledge about the identification characteristics, biological characteristics, ecology, geographical

distribution, value, trading, and conservation of forest plant species belonging to the Magnolia alba species

32. Forest Measurement - 3 credits

Time of study: 3 credits (30 theoretical hours/15 practice hours/90 self-study hours)

Previous courses: Mathematic

Prerequisites: No

Parallel courses: No

Summary of the subject content: The Forestry Measurement is a compulsory subject in the specialized training which provides students with knowledge about measurement, cartography in general and forestry cartography in particular; methods of mapping, determining the location and area of forest plots, etc.; Building forest maps with GIS technologies and smart mobile devices, etc. according to current regulations. Students learn how to use and update map data from various sources.

33. Biodiversity - 3 credits

Time of study: 3 credits (39 theoretical hours/12 practice hours/78 self-study hours)

Previous courses: Forest plants

Prerequisites: No

Parallel courses: No

Summary of the subject content: The Biodiversity subject provides learners with knowledge related to biodiversity, the values of biodiversity for human life, the status and causes of biodiversity degradation, conservation problems and principles related to biodiversity conservation in the world and Vietnam, challenges and solutions in conservation in the context of climate change. Learners are given a precious opportunity to practice and analyze the relationship between biodiversity, climate change and sustainable development, specifically the role of biodiversity with sustainable development, climate change mitigation as well as the link between deforestation and biodiversity and climate change. Based on these activities, skills of analysis and planning for biodiversity conservation will be formed. Besides, students also develop other skills such as presenting in front of groups/classes, finding and analyzing information through

writing exercises on topic overviews. The method of teaching and learning through group discussions, presentations will contribute to developing creative thinking, teamwork ability which is very important for a future career.

34. Forest Ecology - 3 credits

Time of study: 3 credits (45 theoretical hours/0 practice hours/90 self-study hours)

Previous courses: Forest measurement, Biodiversity

Prerequisites: No

Parallel courses: No

Summary of the subject content: The Forest Ecology subject provides the background knowledge for students in FRM training program. Basic definitions of forest, forest ecology, forest structure, basic meteorological factors, weather and climate will be introduced throughout the subject. In addition to, the subject also provides learners with an overview of the relationship between forests and ecological factors; overview of forest vegetation classification according to Thai Van Trung.

35. Wood Science - 3 credits

Time of study: 3 credits (39 theoretical hours/12 practice hours/90 self-study hours)

Previous courses: No

Prerequisites: No

Parallel courses: No

Summary of the subject content: The subject provides the basic knowledge about the structure of wood with the target that learners can identify some common types of wood in Vietnam. Professional knowledge on properties of wood such as: physics, mechanics, wood chemistry and defects of wood. The subject content includes: i) Wood structure; ii) Chemical composition of wood; iii) Physical properties of wood; iv) Mechanical properties of wood; v) Wood defects.

36. Scientific Research Methodology - 3 credits

Time of study: 3 credits (35 theoretical hours/20 practice hours/90 self-study hours)

Previous courses: Probability and Statistics, Scientific Approach Methodology

Prerequisites: No

Parallel courses: No

Summary of the subject content: Experimental Methods subject provides learners with basic knowledge of the steps involved in conducting a scientific research, data collection methods, and analysis of investigational and experimental research data, and draw conclusions for the study.

37. Principle of Conservation - 3 credits

Time of study: 3 credits (45 theoretical hours/0 practice hours/90 self-study hours)

Previous courses: Forest plants, Forest zoology, Forest Ecology

Prerequisites: Biodiversity

Parallel courses: No

Summary of the subject content: The subject provides learners with basic knowledge about the basis of biodiversity conservation; approaches to conservation of species, populations and ecosystems; principles of restoring degraded ecosystems and threatened populations; principles of conservation and sustainable development.

38. Micro-economics - 3 credits

Time of study: 3 credits (35 theoretical hours/10 practice hours/90 self-study hours)

Previous courses: No

Prerequisites: No

Parallel courses: No

Summary of the subject content: The content of micro-economics subject focuses on analyzing the behavior of individuals in the economy, including households and businesses operating through the laws of supply and demand, consumers and providers' choice. The subject studies the operating environment of individuals in the economy, which is a monopoly market, a perfectly competitive market, etc., and related policy institutions. In addition, the subject also deals with government intervention in ensuring the legitimate rights of stakeholders involved.

39. Laws and policies in forest resource management - 3 credits

Time of study: 3 credits (45 theoretical hours/0 practice hours/90 self-study hours)

Previous courses: Laws and regulations

Prerequisites: Forest plants, Forest Ecology

Parallel courses: No

Summary of the subject content: The subject provides learners with knowledge of the current Forestry Law and the content of state management of forestry and forestland management. Based on detailed instructions on the implementation of the law, learners are able to explain the need to promulgate the Forestry Law, distinguish new points in the 2017 Forestry Law, the content and methods of state management of forestry, the relationship between the Forestry Law and Land Law... In addition, learners can apply current policies in forestry into practice such as: policies on forest protection and development, policies on strengthening forest protection, policies on forest protection and development and investigation in supporting infrastructure, assigning public utility tasks to agricultural and forestry companies, etc.

40. Applied GIS in Forestry - 3 credits

Time of study: 3 credits (15 theoretical hours/60 practice hours/90 self-study hours)

Previous courses: Forest Measurement, Forest Inventory and yield modelling

Prerequisites: No

Parallel courses: No

Summary of the subject content: The subject provides learners with the basic principles of GIS and Remote Sensing, and the content focuses on GIS and remote sensing applications in FRM such as biodiversity conservation, land adaptive assessment for forestry crops, forest quality assessment.

41. Forest Entomology and pathology - 3 credits

Time of study: 3 credits (37 theoretical hours/16 practice hours/90 self-study hours)

Previous courses: Forest Ecology, Forest plants

Prerequisites: No

Parallel courses: No

Summary of the subject content: Forest pathology aims to provide learners basic knowledge about insects and plant diseases, morphological characteristics, anatomical characteristics, biological characteristics, etc. The growth and development of insects, the

causes of forest plant diseases. The specialized content provides the core knowledge and technical measures applied to prevent pests and diseases in general, and forest pests in particular. Characteristics of arising, development and harmful effects of some major pests and diseases that often cause severe damage to seedlings and plantations along with measures to control. In the nursery: Gray caterpillars, crickets, acacia powdery mildew, root rot of seedlings; Plantation: pine worms, green worms, wood termites, pine straw diseases, ….

42. Forest Range Administration - 3 credits

Time of study: 3 credits (45 theoretical hours/0 practice hours/90 self-study hours)

Previous courses: Laws and policies in forest resource management

Prerequisites: Forest fire ecology

Parallel courses: No

Summary of the subject content: The subject provides learners with knowledge related to forest ranger organizational structure, functions and duties of rangers; activities of inspecting, controlling, certifying the origin and making records of forest products, handling administrative violations in the forestry sector, investigating cases under the authority of forest protection agencies, protecting forest rangers, manage the use supporting tools while on duty.

43. Forest Inventory and yield modelling - 3 credits

Time of study: 3 credits (35 theoretical hours/20 practice hours/90 self-study hours)

Previous courses: Probability and Statistics, Scientific Research Methodology

Prerequisites: Forest plants, Forest Measurement

Parallel courses: No

Summary of the subject content: The subject provides learners with basic knowledge about tree measurement science, forest inventory methods, forest resource investigation, land allocation, and project planning. Report the production of natural forests as well as planted forests. Application of some new technologies in survey and monitoring of forest resource changes. Learners are practiced on modern machines and equipment such as tree height gauges, forest canopy meters, etc. They can experience and practice directly in the

forest. Learners are also able to develop a forest inventory plan and method for a forest resource inventory, and apply specialized software to process forest inventory data.

44. Silviculture - 3 credits

Time of study: 3 credits (35 theoretical hours/20 practice hours/90 self-study hours)

Previous courses: Forest Ecology, Environmental Ecology

Prerequisites: Forest Ecology

Parallel courses: No

Summary of the subject content: The silvicultural technique subject provides learners with knowledge about the laws of generation, growth and development of forests, basic techniques in forest care and nurturing, forest exploitation and natural forest restoration. course; forest survey and analysis methods. After completing the silvicultural technique subject, learners are able to assess the current status of the forest structure and predict the succession trend of the forest, analyze the necessary input data and build a optimal silviculture impacts on each specific forest to meet specific forest management goals. In addition, after completing the subject, learners are expected to develop basic general skills including: time management skills, teamwork skills, and communication and critical thinking skills

45. Forest fire management - 3 credits

Time of study: 3 credits (37 theoretical hours/16 practice hours/90 self-study hours)

Previous courses: Silviculture, Forest Ecology, Forest Ecology

Prerequisites: Silviculture, Sustainable forest management

Parallel courses: No

Summary of the subject content: This Forest fire management subject helps learners understand the concept of forest fires, the basic causes and types of forest fires, the ecological role of forest fires in FRM, and the basic principles of forest fire management, factors affecting the likelihood of forest fires, some methods of forest fire forecasting, measures to prevent and fight forest fires by applying science and technology.

46. Forest zoology – 3 credits

Time of study: 3 credits (45 theoretical hours/0 practice hours/90 self-study hours)

Previous courses: Forest Measurement, Biodiversity, Forest Ecology

Prerequisites: No

Parallel courses: No

Summary of course content: The course provides learners the knowledge about the general structural features of terrestrial vertebrate classes, ecological characteristics, animal species composition, animal classification, biology, ecology, value, status, and distribution characteristics of some rare animals representing orders and families of that class. Providing students methods to survey and monitor forest zoology, the situation of forest zoology in Vietnam. Helping students have distinguish ability, classify popular forest zoologies in Vietnam for conservation.

47. Land and Forest land use - 3 credits

Time of study: 3 credits (37 theoretical hours/16 practice hours/90 self-study hours)

Previous courses: Forest Ecology, Forest Measurement, Forest plants

Prerequisites: Forest Ecology, Forest Measurement

Parallel courses: No

Summary of the subject content: Land and forest land use management subject provides learners with silviculture, basic knowledge of soil science and land use, knowledge of land use through land assessment for planting, survey of site allocation for forestry production and technical measures for sustainable land use, application of a number of technologies in surveying and building a database on and/or in soil assessment, skilled in using modern equipment in soil investigation and soil assessment. The subject is a basic subject that brings academic knowledge on soil science and land use, knowledge about land use through land assessment for crops, crop regulation, and land use management, survey site allocation for forestry production and technical measures for sustainable land use. Land and forest land use management is also a scientific basis to serve other related forestry studies.

The subject also trains learners in forest skills, data processing skills after investigation, synthesis and report writing skills. This subject also trains students'

awareness of hard work and hardship when going to the field, thereby determining their job position after graduation. The subject helps students access modern methods to serve forestry projects and programs, especially on forest land use.

48. Afforestation - 3 credits

Time of study: 3 credits (37 theoretical hours/16 practice hours/90 self-study hours)

Previous courses: Forest Ecology, Forest Measurement

Prerequisites: Forest breeding

Parallel courses: No

Summary of the subject content: Afforestation is a scientific and technical subject associated with production practice. It is based on synthesizing knowledge from many other scientific subjects and on the basis of summarizing extensive experience from practice. It is necessary to have knowledge of other subjects such as: Plants, Climate, Soil, Physiology, Biochemistry, Genetics, Breeding, Forest Ecology... The process of teaching and learning afforestation needs to combine teaching, scientific research and practical application that follow the approach of learning combined with practice, theory associated with practice.

49. Forest economics - 3 credits

Time of study: 3 credits (37 theoretical hours/16 practice hours/90 self-study hours)

Previous courses: Forest soil science , Silviculture, Afforestation, Forest breedings, Forest Inventory and yield modelling, Afforestation

Prerequisites: Forest breedings, Forest Measurement, Forest Inventory and yield modelling,

Parallel courses: No

Summary of the subject content: The subject provides learners with knowledge about: The economic development status of the forestry sector; historical development of the forestry sector, current status and changes in the system and economic restructuring and development of the forestry sector; knowledge in production and trading of forest products; methods and methods of accounting for the value of forests. After completing the module, learners are able to apply their knowledge to make projects on forestry

transformation and restructuring. There is a method to calculate the growth indicators of the industry in terms of: GDP, GNP, GNI (Gross national income), GRDP (local GDP) ...; Identify the importance and analyze the use of resources in the forest industrial economic development; Determining the value of products and goods and product consumption channels; Applying to determine the value of 03 types of forests to propose a reasonable forest business cycle

50. Non-timber forest products - 3 credits

Time of study: 3 credits (37 theoretical hours/16 practice hours/72 self-study hours)

Previous courses: Forest zoology, Forest plants, Biodiversity,

Prerequisites: No

Parallel courses: No

Summary of the subject content: The Non-timber Forest Products subject equips learners with an overview of NTFPs such as: Concepts of NTFPs, the role of NTFPs in human life, methods of classifying NTFPs, and potential of non-timber products. Status of NTFP conservation and development in Vietnam, status of NTFP trading and processing. Cultivation techniques for some valuable NTFP species, organization, management and policies to encourage the development of NTFPs. Methods of investigation, monitoring, planning for conservation and development of NTFPs. In addition to theoretical knowledge, learners will be equipped with practical knowledge through practice: collecting samples of non-timber forest products, making specimens, observing cultivated non-timber forest products processing in the field, being capable of developing a plan to conserve and develop NTFPs in a specific locality.

51. Watershed management - 3 credits

Time of study: 3 credits (37 theoretical hours/16 practice hours/60 self-study hours)

Summary of the subject content: This subject equips learners with knowledge about the characteristics of watershed management, hydrological properties, water quality, principles in basin management from which learners have a basis to make appropriate watershed management in the sustainable natural resources management. Learners acquire problem identification, planning and technology application skills in

watershed assessment and develop a sustainable watershed management solution. In addition, learners will gain exchange and debating skills, ability to work independently, cooperate and manage in teamwork.

52. Analysis and Assessment Policy in Natural Resourse Managenment – 3 credits

Time of study: 3 credits (45 theoretical hours/0 practice hours/90 self-study hours)
Previous courses: Laws and policies in forest resource management
Prerequisites: No
Parallel courses: No

Summary of the subject content: This is an elective subject and it provides students with basic knowledge of policy analysis; the steps of making a policy as well as the process and method of evaluating a policy. Students also study some basic state policies in the field of natural resource management, especially in the field of forest resource management.

53. Conservation Conflict Management - 3 credits

Time of study: 3 credits (45 theoretical hours/0 practice hours/90 self-study hours)
Previous courses: Biodiversity, Analysis and Assessment Policy in Natural Resourse Managenment
Prerequisites: No
Parallel courses: No

This is elective subject and it provides students with basic knowledge of policy analysis; the steps of making a policy as well as the process and method of evaluating a policy. Students also study some basic state policies in the field of natural resource management, especially in the field of forest resource management. It includes analysis and policy – making activities for sustainable management of natural resources, including functions of implementing, promoting and controlling decisions, plans and policies make in the process administration program. Stakeholders can provide specific strategic directions, measures to exploit, use and regenerate natural resources in a reasonable way, minimizing pollution to environment.

54. Assessment and monitoring of biodiversity - 3 credits

Time of study: 3 credits (45 theoretical hours/0 practice hours/90 self-study hours)
Previous courses: Forest plants, Biodiversity, Forest zoology, Forest Measurement

Prerequisites: No

Parallel courses: No

Summary of the subject content: The subject consists of 3 chapters, which is an elective module in the specialized training section that provides students with knowledge and skills in monitoring activities to track changes over time, and space of biodiversity components under the influence of humans and nature; collect more information on the distribution and population status of important species that have not been studied; identify threats to biodiversity conservation, the intensity of the threat and the change in scope and intensity of threats to biodiversity conservation over time and space. The results of biodiversity monitoring demonstrate the appropriateness and effectiveness of the management activities carried out.

55. Sustainable forest management - 3 credits

Time of study: 3 credits (45 theoretical hours/0 practice hours/90 self-study hours)

Previous courses: Forest Ecology, Silviculture, Forest Inventory and yield modelling

Prerequisites: Forest Ecology, Forest Inventory and yield modelling

Parallel courses: No

Summary of the subject content: The Sustainable Forest Management is a subject for learners of FRM and Forestry majors. This subject introduces the theoretical and practical basis of forest resource management according to the goal of sustainable development. The main content of the course introduces the specific content in sustainable forest management in terms of socio-economic, ecological environment and sustainability within the development of science and technology. Since then, timber products are granted with a certificate of sustainable forest management in order to improve the value and position of forest resources in the process of integration and development of the country.

56. Community Forest management - 3 credits

Time of study: 3 credits (45 theoretical hours/0 practice hours/90 self-study hours)

Previous courses: No

Prerequisites: No

Parallel courses: No

Summary of the subject content: This subject aims to provides learners with basic knowledge about community forests; development status, management forms, legal framework, conditions and influencing factors, humanistic ecological environment in which community forestry is formed and developed such as human ecology, indigenous knowledge, gender, sustainable development; community participation and influencing factors, participatory approach models and implementation tools.

57. Agroforestry system - 3 credits

Time of study: 3 credits (37 theoretical hours/16 practice hours/90 self-study hours)

Previous courses: Community Forest management

Prerequisites: Communication in natural resources management

Parallel courses: No

Summary of the subject content: The subject equips students with the role of agroforestry in sustainable development, natural resource management and land use management. Learners also know the situation of agroforestry development in Vietnam and in the world, and present the basic principles of agroforestry, the factors affecting the development of agroforestry production.

58. Communication in Resource Management – 3 credits

Time of study: 3 credits (37 theoretical hours/16 practice hours/72 self-study hours)

Previous courses: Land and forest land use, Forest economics, Forestry Community, Conflict management, sustainable forest management

Prerequisites: Forestry Law, Silvicultural Technique, Profession of Rangers, Forest Fire Management

Parallel courses: No

Summary of the subject content: The subject aims to equip students and forest resource managers with an overview of communication in general and communication in forest resource management in particular. Understanding the meaning and principles of communication, barriers affecting communication. Understanding the role of communication staff.

Strengthening capacity, basic skills in communication work, applying different methods to increase the effectiveness of communication in forest resource management, proficiently using communication media, knowing production and developing basic documents in communication work. This module will serve the teaching of students majoring in forest resource management and other training programs of the faculty such as silviculture, agroforestry as well as Faculty of Economics and Rural Development, Faculty of Environment.

59. Environmental Impacts Assessment- 3 credits

Time of study: 3 credits (37 theoretical hours/16 practice hours/72 self-study hours)

Previous courses: Forest plants, Biodiversity

Prerequisites: No

Parallel courses: No

Summary of the subject content: The subject equips learners with basic knowledge about EIA and Environmental protection plan (EPP), the role of EIA in environmental management; Structure of content of EIA and EPP reports; Legal provisions on EIA and EPP and methods used to prepare EIA and EPP

60. Environmental management and sustainable development- 3 credits

Time of study: 3 credits (45 theoretical hours/0 practice hours/90 self-study hours)

Previous courses: Forest plants, Environmental Ecology,

Prerequisites: No

Parallel courses: No

Summary of the subject content: this course provides basic concepts and definitions of environment, environmental pollution, biodiversity, resources, development; General situation of land, water and air resources in the world as well as in Vietnam; The causes and consequences of the degradation of natural resources, and the role of humans in the protection of natural resources; The relationship between environment and development.

61. Forest governance- 3 credits

Time of study: 3 credits (45 theoretical hours/0 practice hours/90 self-study hours)

Previous courses: Forest plants, Sustainable forest management

Prerequisites: No

Parallel courses: No

Summary of the subject content: The subject addresses why forest managers must know about forest governance and provides guidance on what they can do to enable good forest governance. Furthermore, the forest management subject addresses the organizations, human, rules, policies, tools and processes of forest governance, the forest governance framework, and making decisions related to the sustainable forest resource management

62. Ecotourism - 3 credits

Time of study: 3 credits (45 theoretical hours/0 practice hours/90 self-study hours)

Previous courses: No

Prerequisites: No

Parallel courses: No

Summary of course content: This course is equipped with basic knowledge about ecotourism and project management in tourist areas, conservation areas, and national parks.

- Skills: Equips students with methods, skills to be able to participate in management plan, ecotourism development, working in tourist areas, conservation areas, national parks.

63. Climate Change - 3 credits

Time of study: 3 credits (45 theoretical hours/0 practice hours/90 self-study hours)

Previous courses: No

Prerequisites: No

Parallel courses: No

Summary of course contents: The climate change course provides students with knowledge related to climate change, causes and impacts of climate change, and solutions to climate change. Students will have hands-on opportunities to analyze the link between climate change and sustainable development, specifically the role that development plays in greenhouse gas emissions and climate change drivers as well as the need to respond to climate change through climate change mitigation and adaptation solutions. On that basis,

skills of analysis and planning to respond to climate change will be formed. Besides, students also develop other skills such as presenting in public (groups, classes) through group presentation exercises, skills in finding and analyzing information through writing exercises on topic overviews. group topic. The method of teaching and learning through groups, discussions, presentations, etc. will contribute to the development of creative thinking, teamwork which is very important for future career of students.

64. Forest environmental service- 3 credits

Time of study: 3 credits (45 theoretical hours/0 practice hours/60 self-study hours)

Previous courses: Scientific Research Methodology , Forest Measurement , Forest plants, Forest Inventory and yield modelling, Forest Ecology

Prerequisites: No

Parallel courses: No

Summary of the subject content: The subject provides students basic knowledge about managing the forestry information-based system, focuses on building forestry digital map, and update information on forest resources according to current regulations of the forestry sector.

65. Management of Ecosystem- 3 credits

Time of study: 3 credits (45 theoretical hours/0 practice hours/90 self-study hours)

Previous courses: Biodiversity, Forest Ecology, Principle of Conservation

Prerequisites: Laws and policies in forest resource management, Forest Inventory and yield modelling, Silviculture

Parallel courses: No

Summary of the subject content: The subject provides learners with knowledge about the Earth's Ecosystems, including the structural features of its components, the relationships between the components in the ecosystem, the values landscape - environment and distribution characteristics of ecosystems, methods of investigation and assessment of the current status of ecosystem resources in Vietnam, solutions to conserve and develop ecosystems in Vietnam. After completing the module, learners will be able to describe, identify, and classify the common forest ecosystems in Vietnam, and

distinguish the main habitats of the organisms for conservation work. Carrying out surveys and investigations on ecological zones and determining the current distribution status of ecosystems, thereby proposing solutions to conserve, exploit and reasonable development of ecosystems

66. Startup and Entrepreneurship - 3 credits

Time of study: 3 credits (45 theoretical hours/0 practice hours/90 self-study hours)

Previous courses: No

Prerequisites: Microeconomics

Parallel courses: Marketing

Summary of the subject content: The subject equips learners with basic theories on starting a business: Business environment, qualities and skills required of business owners; methods of choosing business ideas, basic content of a startup business plan; Development of business practice, common responsibilities and risks of startups; analyzing and selecting business ideas, turning those business ideas into real business opportunities, thereby planning to start up and start a business; Presenting and convincing a business project; Practicing research skills and evaluating business projects, the feasibility of a business project

67. Project Management- 3 credits

Time of study: 3 credits (45 theoretical hours/0 practice hours/90 self-study hours)

Previous courses: Forest soil science, Silviculture, Afforestation, Forest breedings, Forest Inventory and yield modelling, Scientific Research Methodology

Prerequisites: Mathematic, Afforestation, Forest Measurement, Forest Inventory and yield modelling, Forest economics.

Parallel courses: No

Summary of the subject content: Project Management subject provides learners with general project knowledge including project concepts, characteristics of agroforestry projects, project classification, project cycle; The knowledge related to project management such as project construction, project analysis and appraisal, project organization, project monitoring and evaluation. After completing the project

management module, students will be able to develop a proposal based on a project, prepare documents for project appraisal, plan and organize project implementation, set targets and carry out project monitoring and evaluation activities.

68. Marketing – 3 credits

Time of study: 3 credits (45 theoretical hours/0 practice hours/90 self-study hours)
Previous courses: No
Prerequisites: No
Parallel courses: No

Summary of the course content: The Marketing module equips learners with basic knowledge of marketing in the context of commodity economic development in Vietnam and integration with the world economy. The module helps learners understand the market, market approaches, and know how to find, create and develop products that meet market needs. In addition, the module also equips learners with the most basic knowledge and skills in selecting new products, optimizing resources in production, flexible pricing strategies, building sales networks and advertising. Promoting effective and sustainable product branding. Understanding market needs and finding ways to satisfy market demands are the core content of the Marketing module that helps production and business activities succeed.

65. Building and development Products Branding - 3 credits

Time of study: 3 credits (45 theoretical hours/0 practice hours/90 self-study hours)

Previous courses: No

Prerequisites: No

Parallel courses: No

Summary of course content: Building and development Products Branding subject equips learners with basic knowledge of business administration, which focuses on building products branding, designing and identifying brand models, brand positioning strategies, evaluate and select brand communication strategies and trademark protection issues.

66. Tour Guiding - 3 credits

Time of study: 3 credits (45 theoretical hours/0 practice hours/90 self-study hours)

Previous courses: No

Prerequisites: No

Parallel courses: No

Summary of course content: Provide students with basic knowledge about guide activities, guide profession and tour guides. Tour guides must have knowledge: Basic knowledge about Geography, landscape, culture of the country, knowledge about professional skills.

67. Enterprise administration- 3 credits

Time of study: 3 credits (45 theoretical hours/0 practice hours/90 self-study hours)

Previous courses: Forest soil science, Silviculture, Afforestation, Forest breedings, Forest Inventory and yield modelling, Scientific Research Methodology

Prerequisites: Mathematic, Afforestation, Forest Measurement, Forest Inventory and yield modelling, Forest economics.

Parallel courses: No

Summary of the course content: The business administration subject provides learners with the knowledge of: Knowledge of business types and procedures and order of business establishment; skills in business management; organization and management of production factors in an enterprise; methods of planning and financial management, human resource management in enterprises. After completing the subject, learners are able to apply their knowledge to create their own businesses if they are eligible and know how to organize and manage their business and develop sustainably.

68. Value chain analysis- 3 credits

Time of study: 3 credits (45 theoretical hours/0 practice hours/90 self-study hours)

Previous courses: No

Prerequisites: No

Parallel courses: No

Summary of the subject content: The subject focuses on introducing the main contents of value chains, industries and methods for modeling and evaluating value chains or industries. The subject is mainly focused on the application content for agricultural products and methods of application in commodity production/agricultural policy

analysis at the sectoral, regional and international levels. The course also introduces the applicable tools to build value chains or industries and applies qualitative analysis techniques, quantitative analysis to specific industries, and policy analysis. The course includes both theoretical content and applied exercises, analyzing empirical studies to illustrate policy analysis.

69. Internship 1: Study conservation activities in the NP/protected area – 1 credit

Time of study: 1 credits (0 theoretical hours/15 practice hours/30 self-study hours)

Previous subject: Finished the first semester of the first year (Mathematics, Biology, Chemistry, English....)

Prerequisites subject: Completing the first semester of the first year (Biology, chemistry, etc.)

Parallel subject: No

Summary of the subject content: The subject provides learners with an overview of the forestry industry, the functional role of the forest ecosystem in environmental protection. Furthermore, this module helps learners to gain knowledge on forest protection management and development in combination with livelihood development for people living on forests and from forests.

70. Internship 2: Construction of plan for sustainable forestry management - 2 credits

Time of study: 2 credits (0 theoretical hours/30 practice hours/60 self-study hours)

- Previous subject: No
- Prerequisites subject: No
- Parallel subject: No

Summary of the subject content: Help learners apply the knowledge they have learned in planning sustainable forest management for a specific audience.

71. Internship 3. Administrative service of forest rangers - 2 credits

Time of study: 2 credits (0 theoretical hours/30 practice hours/60 self-study hours)

- Previous subject: Applied GIS in Forestry, Forest plants, Biodiversity, Forest fire management, Forest zoology

Prerequisites subject: Forest Range Administration, Laws and policies in forest resource management

Parallel subject: No

Summary of course content: Profession of rangers helps learners major in Forest Resources management enhance the knowledge and synthesis skills in professional activities of forest rangers such as Analysis of organizational structure, functions, and missions of forest rangers, Analysis of current legal documents in the field of State management of forest rangers, implementation duties of local rangers, application of technology in performing forest rangers' duties. through internship 4, learners are acquainted with practical activities in forestry production as well as forest resource management of the locality and of social organizations related to forest management and protection, and forest development.

72. Specialization skills practice 1: Measurement and construction of digital map - 3 credits

Time of study: 3 credits (0 theoretical hours/45 practice hours/90 self-study hours)

Previous subject:Forest Inventory and yield modelling, Forest plants, Forest Entomology and pathology

Prerequisites subject: Afforestation

Parallel subject: No

Summary of the subject content: Measurement and construction of digital map subject is a compulsory subject in the specialized training which provides students with knowledge about measurement, cartography in general and forestry cartography in particular; methods of mapping, determining the location and area of forest plots, etc.; Building forest maps with GIS technologies and smart mobile devices, etc. according to current regulations. Students learn how to use and update map data from various sources.

73. Specialization skills practice 1: Applied QGIS in monitoring forest resource changes – 3 credits

Time of study: 3 credits (0 theoretical hours/45 practice hours/90 self-study hours)

Previous subject: Forest Measurement, Forest Inventory and yield modelling

Prerequisites subject: No

Parallel subject: No

Summary of the subject content: This subject provides students of with basic skills in managing forestry information systems, focusing on building a forestry digital map, updating information on the change in forest resources according to current regulations of the forestry sector

74. Specialization skills practice 2: Construction of plan for sustainable forestry management and fire protection – 2 credits

Time of study: 2 credits (0 theoretical hours/30 practice hours/60 self-study hours)

Previous subject: Sustainable forest management, Forest fire management

Prerequisites subject: Forest Ecology, Silviculture, Sustainable forest management, Forest fire management, Laws and policies in forest resource management

Parallel subject: No

Summary of the subject content: This subject helps students know well about common tools in protection and fire prevention management. Learners are able to use these tools properly. In addition, the course also provides learners with skills to develop plans for forest protection and fire prevention management for a specific unit.

75. Specialization skills practice 2: Afforestation design - 2 credits

Time of study: 2 credits (0 theoretical hours/30 practice hours/60 self-study hours)

Previous subject: Forest Measurement, Forest Inventory and yield modelling

Prerequisites subject: Afforestation, Forest Ecology

Parallel subject: No

Summary of course content: Afforestation design subject equips students with knowledge, skills in using supporting tools in afforestation design. On that basis, students have the ability to develop plans and steps to design afforestation in the areas according to current regulations.

76. Specialization skills practice 3: Applied biotechnology in forest breedings - 2 credits

Time of study: 2 credits (0 theoretical hours/30 practice hours/60 self-study hours)

Previous subject: No

Prerequisites subject: Afforestation

Parallel subject: No

Summary of course content: Applied biotechnology in forest breedings is an elective subject in forest resouse management program. The course consists of 3 parts: Part 1: Preparation of culture media; Part 2: Sample transfer in the laboratory ;Part 3: Growing seedlings at the nursery.

77. Graduate internship - 10 credits

Time of study: 10 credits (0 theoretical hours/150 practice hours/300 self-study hours)

Previous *subject*: Subjects in the general education program, basic knowledge and professional knowledge

Prerequisites *subject*: Subjects in the general education program, basic knowledge and professional knowledge

Parallel *subject*: No

Summary of the subject content: Graduation internship is the final module of the training program, playing an indispensable role in today's education. The graduate internship module helps students approach and grasp the reality of production, consolidate their acquired knowledge, and theory into practice, thereby improving their professional knowledge and career skills. In addition, the graduation internship period is a valuable opportunity for students to practice and learn from experts and employers in order to equip themselves with professional knowledge after graduation. Graduates can become a staff with professional qualifications, good skills, improve soft skills and effective communication ability. In this period, students are allowed to choose one of 4 following projects: Project 1. Forestry production and business; Project 2. Construction of plan for sustainable forestry management; Project 3: Technology application in forestry; and Project 4: Establishment and management of forestry projects.

Dean

Tran Quoc Hung