ISO 9001:2015

TRA VINH UNIVERSITY

Bringing quality learning opportunities to community

SCHOOL OF AGRICULTURE – AQUACULTURE

PROGRAMME SPECIFICATION
ACCORDING TO AUN - QA CRITERIA VERSION 3.0
BACHELOR OF AGRICULTURE

TRA VINH UNIVERSITY
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1. Program information

- Title of programme: Bachelor of Agriculture
- Vietnamese Qualification Framework (VQF) level: Level 6
- Programme code: 7620101
- Management: School of Agriculture – Aquaculture

2. Admission criteria

- Admission criteria:
  + *Method 1:* Considering transcripts which are the average of the subjects in the 12th grade in the admission exam group Minimum score of 6.0 or higher for undergraduate programs.
  + *Method 2:* Considering the results of the National High School Exam, a score of three subjects tested according to a combination of admission subjects that meet the minimum quality guarantee for university entrance under the Ministry of Education and Training's regulations.
  + *Method 3:* Direct enrollment of winners in national and international excellent student contests and pupils from high schools which are under regulations for a direct placement to universities.
- Admissions subject groups:
  + **A02** (Mathematics, Physics, Biology),
  + **B00** (Mathematics, Chemistry, Biology),
  + **D08** (Mathematics, Biology, English),
  + **D90** (Mathematics, Natural Science, English)

3. Length of study

No.	Programme	Length (years)	Mode of study	Start date/ month	Teaching method	Language(s) of study/ assessment
1	Bachelor of Agriculture	4	Full time	September	Campus-based and at enterprises	Vietnamese
2	Programme accreditation by Professional, Statutory or Regulatory Bodies: Law of Tertiary Education					
3	Programme management: Lecturer team of Department of Cultivation and Rural Development					

4. Job fields

After the graduation from Bachelor of Agriculture, graduates can undertake the following positions:

- Managers, technicians in fields of crop science at enterprises, farms, Agricultural Extension center, laboratories;
- Consultancy officers in trading products of fertilizers, seeds and plant protection medicines;
- Self-employment in seed production farms and self-businesses in safely agricultural products.

5. Objectives and expected learning outcomes of the programme

5.1. Educational philosophy

- Tra Vinh University's educational philosophy

"Based on the capacity of training in accordance with reality, ethics, responsibility, learners will develop better individually and socially"

- Educational philosophy of the program

The learning acitivities will be through "Learning by Doing", students can approach practical aspects for their learning.

The educational philosophy of the program is "Learning by Doing" which is developed through the Co-op program, which helps students actively experience the working reality at enterprises, businesses in plants, fertilizers, plant protection medicines.

Moreover, students implement their self-management models (which mean students to perform all steps in crop production procedures by themselves such as production planning, implementation and taking crop care up to harvesting); have courses of practical internships in various areas inside and outside the province, and community projects, from which students proactively integrate knowledge, build competency and promote creativity capacity.

5.2. Objectives of the programme

Program Objectives	
PO1:	Develop production management plans, transfer technology, and conduct applied research on plant issues in agriculture sector serving production and the industry development, contributing to the sustainable development of Vietnam's economy and linking Vietnam's agriculture sector with that of the world.
PO2:	Solve the basics of production, business, agricultural product export in a professional, creative and ethical manner.
PO3:	Have a learning motivation to expand knowledge, discover new knowledge and enhance capacity, develop selves and careers.

5.3. Expected Learning Outcomes of the programme

Expected Learning Outcomes (ELOs)	
Upon graduation, students would be able to:	
General knowledge	
ELO 1	**Apply** natural scientific, social, technical and economic knowledge to solve relevant issue solution in the field of agriculture.
Specialised knowledge	
ELO 2	**Develop** plant types with adaptable ability for climate change for the effectiveness enhancement of agricultural production.
ELO 3	**Design** the model of plant cultivation and production along the direction of clean production and ensuring safety food sources
ELO 4	**Assess** the conditions of nature, techniques, economic-society and environment for the appropriateness of plant production.
ELO 5	**Manage** plant diseases and pests, soil, water, nutrition and environment and apply science and technology for more effective management tasks.
Professional skills	
ELO 6	**Consult** techniques, business in crop field for benefits to enterprises and community.
ELO 7	**Apply** analytical thinking, evaluation, criticism, and solving professional issues in a modern society context.
ELO 8	**Work** effectively with independent thinking and lead the team, manage the agricultural project toward its goals.
Soft-skills	
ELO 9	**Communicate** effectively in multimedia and multicultural situations, read English documents in the field of agriculture.
Attitude	
ELO 10	**Comply** with laws, develop professional work attitude, uphold professional ethics, demonstrate awareness of environmental and hum protection.
ELO 11	**Demonstrate** a professional career passion, a spirit of entrepreneurship and life-long learning.

6. Reference points and programme regulations

- The programme's purpose equips students with competencies in Agriculutre which are able to match to requirements of international and domestic labour markets, adaptable to standards in ASEAN and international regions. Students can take part in not only internship activities in some countries such as Isarel, Japan, Taiwan, and so on but also academic exchanges in some regional nations. Beside that, the university has international exchange activities which promote multicultural communication environment.
- Participants to the programme: The programme will provide opportunities to all students regardless of race, religion, gender or disability.

- University award regulations:
  + Students accumulate 150 credits of the program. In particular, the cumulative GPA during the course is 2.0/4.0 and above, achieving a certificate of national defense education, physical education and 05 soft skills.
  + Consider the type of graduation determined by the cumulative GPA of all courses as follows:
    - Excellent: from 3.60 to 4.0
    - Very Good: from 3.20 to 3.59
    - Good: from 2:50 to 3:19
    - Average: from 2.00 to 2.49

7. Program structure and requirements including levels, courses, credits and etc.

The program will be delivered within the period of 04 academic years and divided in 08 continuous semesters with the total credits of 150 (CR):

+ Theory: 70 CR
+ Practice: 70 CR
+ Graduation: 10 CR

7.1. Study planning:

7.1.1. General knowledge courses (DC)	**23 CR**
- Political theory knowledge (LLCT):	11 CR
- Law courses:	02 CR
- Basic science knowledge:	06 CR
- General knowledge knowledge (DC) - Elective courses:	04 CR
7.1.2. Conditional courses	**16 CR**
- Foregin language knowledge (DK):	13 CR
- Informatics (DK):	03 CR
7.1.3. Professional educational knowledge	**111 CR**
- Fundamental sector knowledge (CS) – Core courses:	24 CR
- Fundamental sector knowledge (CS) – Elective courses:	04 CR
- Specialised knowledge (CN) – Core courses:	43 CR
- Internship (coop 1, 2, 3, and Orientation internship):	26 CR
- Specialised knowledge (CN) – Elective courses:	04 CR
- Graduation thesis	10 CR

** Exclusive to knowledge blocks of Security – National defense education (165 periods) & Physical education (03 CR)*

No	Code	Course name	Number of credits				Know-ledge block	Ghi chú
			Total	Theo-ry	Practice /Lab.	Self study		
Semester I								
1	190018	*Security – National defense education*	*165 periods*				DC	
2	190000	*Physical education 1*	*1*	*0*	*1*		DC	
3	410291	English 1 (Beginner)	3	2	1		DK	
4	180050	Basic principles of Marxism-Leninsm	3	3	0		LLCT	
5	450015	General law	2	1	1		DC	
6	330159	General biology	2	1	1		DC	
7	220220	Basic informatics	3	1	2		DC	
8	340110	General microbiology	2	1	1		DC	
9	340072	General cultivation	2	1	1		DC	
10	340159	Soil science	2	1	1		CS	
Total			***19***	***11***	***8***			
Semester II								
**** Core courses***			***15***	***10***	***5***			
1	190001	*Physical education 2*	1	0	1		DC	
2	410292	English 2 (Elementary)	4	2	2		DK	
3	180051	Marxism-Leninsm political economics	2	2	0		LLCT	
4	450016	Special law	2	2	0		CN	
5	340087	Climate change and adaptive capacity	2	1	1		CS	
6	340046	Plant physiology	3	2	1		CS	
7	340068	Agricultural system	2	1	1		CS	
**** Elective courses***			***4***	***2***	***2***			
1	340184	General agricultural irrigation	2	1	1		DC	
2	110006	Statistics probability	2	1	1		DC	
3	450191	Agricultural economics	2	1	1		CS	
4	340165	Agricultural mechanics	2	1	1		DC	
Total:			***21***	***13***	***8***			
Semester III								
**** Core courses***			***18***	***10***	***8***			
1	190002	*Physical education 3*	*1*	*0*	*1*		DC	
2	410293	English 3 (Pre-intermediate)	3	2	1		DK	
3	180052	Science socialism	2	2	0		LLTT	
4	290000	Scientific research methodology	2	1	1		DC	
5	350190	Start-up	2	1	1		DC	

No	Code	Course name	Number of credits				Know-ledge block	Ghi chú
			Total	Theo-ry	Practice /Lab.	Self study		
6	340085	Soil fertility and fertilizers	2	1	1		CS	
7	340057	Pesticides	2	1	1		CN	
8	340093	Crop seedling selection	3	2	1		CN	
9	340218	Orientation internship	2	0	2		CS	
II. Elective courses			***4***	***2***	***2***			
1	340047	Biochemistry	2	1	1		CS	
2	340180	Agricultural Microbiology	2	1	1		CS	
3	340075	Participatory rural appraisal	2	1	1		CS	
4	420057	Marketing in agriculture	2	1	1		CS	
Total:			***22***	***12***	***10***			
Semester IV								
**** Core courses***			***23***	***10***	***13***			
1	410294	English 4 (Intermediate)	3	2	1		DK	
2	180053	History of Vietnamese communist party	2	2	0		LLCT	
3	340174	Agriculture business administration	2	1	1		CS	
4	340208	Sensors and application controls in agriculture	2	1	1		CS	
5	340129	Agricultural entomology	3	2	1		CN	
6	340183	Plant pathology	3	2	1		CN	
7	340221	Co-op 1 (Internship 1)	8	0	8		CS	*May-Sep.*
Total			***23***	***10***	***13***			
Semester V								
**** Core courses***			***17***	***11***	***6***			
1	340163	English for Agriculutre	2	1	1		CN	
2	180001	Ho Chi Minh uncle's Ideas	2	2	0		LLCT	
3	330089	Agricultural extension	2	1	1		CS	
4	340202	Project building and management	3	2	1		CN	
5	340104	Food crops	3	2	1		CN	
6	340088	Vegetables	3	2	1		CN	
7	340121	Short-term industrial crops	2	1	1		CN	
**** Elective courses***			***4***	***2***	***2***			
1	340173	Managing issues in the soil	2	1	1		CN	
2	340172	Clean and sustainable agriculture	2	1	1		CN	
3	340052	Weeds	2	1	1		CS	

No	Code	Course name	Number of credits				Know-ledge block	Ghi chú
			Total	Theo-ry	Practice /Lab.	Self study		
4	340137	Floral induction in fruit trees	2	1	1		CN	
Total			***21***	***13***	***8***			
Semester VI								
**** Core courses***			***17***	***5***	***12***			
1	340194	Fruit trees	3	2	1		CN	
2	340134	Edible mushroom	2	1	1		CN	
3	340122	Long-term industrial crops	2	1	1		CN	
4	340077	Value chain analysis	2	1	1		CN	
5	340222	Co-op 2 (Internship 2)	8	0	8			*May-Sep.*
6	340197	Plant tissue culture	2	1	1		CN	
Total:			***17***	***5***	***12***			
Semester VII								
**** Core courses***			***17***	***5***	***12***			
1	340171	Medicinal plants	2	1	1		CN	
2	340170	Flowers and ornamental plants	2	1	1		CN	
3	340188	Post harvest preservation	2	1	1		CN	
4	330179	Statistics and Experimental design	3	2	1		CN	
5	340223	Co-op 3 (Internship 3)	8	0	8			*Jan.-Apr.*
Total			***17***	***5***	***12***			
Semester VIII								
1	000004	Graduation thesis	10	0	10		KL	*15 weeks*
Total			**10**		**10**			

7.2. Teaching, learning and student assessments

+ *Contact with lecturers/ staff:* For theoretical courses, besides in-class time, students are proactive in self-study, do research by themselves through methods such as: E-learning, individual assginments and group assignments, report writing and topic presentations and so on. For practical ones at laboratory and farms, students implement planting/ cultivation through models under students' self management with lecturers' instructions. Moreover, the programme designs some courses in connection with enterprises, businesses, seed centers, institutes to assist students with more opportunities on career experience.

+ *Students' independent study and research*: Regarding E-learning resources, students can manage their time on self-study and do research by themselves anywhere and anytime while this is online interactive exchange environment with direct supervision and fast feedback from the instructors. Particularly, Co–op courses at enterprises, businesses provide students with the opprotunities to usefully practical experience and are a platform helping students accumulate professional experience when they are still in university – a crucial factor under businesses' real expectation.
+ *Summative assessments:* There are many evaluation forms: Rubric, projects, short questions, reports, multiple choice tests, oral test, practice, group writing… for mid-semester evaluation (or in-process assessment accounting for 50% of total scores). Students pass an end-semester assessment (or end-of-course assessment accounting for 50% of total scores), by diversified exam formats: writing exam, multiple choice exam, practice exam, and subject essay reports).

Teaching activities and lecturers' implementation		Students' Learning activities
Direct teaching	- Directly deliver theoretical content combined with group discussions. Interaction about course content through e-learning system. - Deliver practical part with demonstration of real samples.	- Teamwork - Direct communication with lecturers - Debate and idea acceptance - Acceptance, action, questions, report writing
Indirect teaching	- Lecturers instruct students to implement projects in agriculture (models, self-managed projects). - Lecturers guide students to implement activities in Agriculture projects.	- Student groups independently work, design their own schedules, and reporting results. - Students perform various fields including sampling investigation, information collection, and data treatment. - They can involve in agriculture extension sessions.
Internship at enterprises	- Contact to enterprises - Introduce students - Deliver co-op program outline - Keep touch, assist students if any inquiry	- Implement production plans as the enterprises' needs - Allocate experiment activities - Manage cases and write reports
Scientific research	Guide students to prepare their topic outline, arrange experiment activities, perform the experiments, data and information collection, and write reports	- Students write and perform scientific research topics - Arrange experiment activities - Collect information and data - Write and present reports
Entrepreneurship	- Assist to seek funding sources - Inform supporting policies for entrepreneuship	- Students survey market demands. - Propose entrepreneurship ideas to instructors and enterprises. - Implement entrepreneurship ideas
Learning pathways that help students achieve the ELOs	- Theoretical knowledge is taught through lectures. The lectures accompanied with reading materials are assigned by lecturers in class so that students can absorb a certain volume of knowledge. - Teaching and learning activities are reviewed regularly and periodically for improvement. - The observation activities are held during the semester for lecturers to comment on each other's teaching one.	- Students can self-study and do research more materials on their own. - Students apply and transform knowledge through interaction with lecturers and peers in lectures, in-class topic presentation, field trips, internship at enterprises and scientific research in specialization that they choose.

8. Learning by doing

8.1. The program and methods of assistancy to students' learning by doing

- The programme requires students who must go through their internship time at enterprise, businesses. There are 3 courses (Co-op 1, 2, 3) withi the curriculum depending on current situations such as: basic internship contents, professional internship and intership specially serving graduation which should focus on research topics or application models to practical career.
- Learning methods and assistancy to students' learning by doing:

Learning assistancy activities to students	Activity description
Consultancy for career and occupation	Some enterprises and corporations have close relationships with the School in order to provide job opportunities (to students): Loc Troi Group, Southern Seed Corporation, Golden Rice Chemical Agricultural Company, Nong Huu Seed Company,… These enterprises participate in the School's workshop on careers, job and soft skill requirement sharing.
Academic consultancy	- Organise Scientific research Clubs, for students' sharing their experience in scientifice research. - One-health Club (USAID) helps students involve in activities of preventing diseases transmitted between humans and animals.
Other learning-relevant consultancy	- Organise periodically consulting sessions through acadmic advisors' meetings, orientation weeks. - Provide prompt consultancy at the School's Office and other relevant units.
Entrepreurship consultancy	- The entrepreneurship club periodically organize sessions for entrepreneurship ideas, idea sharing competitions from alumni and enterprise owners.
Recruitment fair	- Arrange trips for students' visits at recruitment fairs organized by enterprises. - Cooperate with the enterprises to organize recruitment fairs at the University in order to create more convenience for students' participation.

8.2. Who will be responsible for sourcing and arranging the placement?

School of Agriculture – Aquaculture is in charge of business relation of enterprises, businesses, farms and so on to establish and cooperate with the organisations during the training process. The School normally has study plans for sending studnets before entering specific semesters. Based on the relationship network and a team of 25 techincian lecturers, students have more choices of businesses, intership places and instructors which match to the students' demand.

Periodically students must report their progress and activities at the business to the School. At the end of the practical courses, students submit their full reports and present the results to an assessment council.

8.3. Duration of the learning by doing

Practical learning through working at the enterprises will last four months and is allocated in an appropriate seasonal time and under suitable situations of the enterprises.

8.4. Assessments of learning by doing

Students' benefits from their internship at entities, enterprises are not only learning practical experience from the organisations' staff, but also performing actual topics given by experts or skillful people at the enterprises.

The assessment results are average of grade points marked by relevant stakeholders such as: (i) instructors at the enterprises; (ii) instructors at the School; (iii) an assessment council on product output (if any) and topic report presentation, total score should be over 5.0 points.

9. How do students involve in programme improvement and development?

Students/ alumni are encouraged to contribute their ideas to improve and develop the programme through surveys and meetings. Students' feedback on lecturers' teaching quality in each course is collected through the course evaluation forms taken at the end of each course. Feedback on the former's teaching methods is done through annual surveys.

10. Quality and standards

The University has its own platform for the assurance of programme standards which will be maintained and encourage the quality improvement of the learning by doing.

The procedures of quality assurance and improvement include:

- Learning supervisions by various units, comprising of students' representatives.
- The programme supervisions by outside judges, who ensure standards employed by Tra Vinh University under the benchmark with others in the same sector and the agricultural fields.
- Annual supervisions and periodical assessments of the programme and feedback collection from students are in place.

11. Date for updating

June 15, 2020 (normally every 2 years for once programme update)

12. Matrix showing how the programme's cource contributions to the expected learning outcomes

Semester	Course name	Expected Learning Outcomes										
		Knowledge					Skills				Attitudes	
		ELO01	ELO02	ELO03	ELO04	ELO05	ELO06	ELO07	ELO08	ELO09	ELO10	ELO11
I	*Security – national defense education*	L									H	M
I	*Physical education 1*	L									H	M
I	Basic principles of Marxism – Leninsm	L								M	H	M
I	General law	L								M	H	M
I	English 1 (Beginner)	L	L	L	L	M	M	M	L	L	H	M
I	General biology	L	M		M	L		L	L		H	M
I	General microbiology	L			M	M	M	M	M	L	H	M
I	Basic informatics	L	L	L	L	L	L	L	L	M	H	L
I	General cultivation	M	L		H	M	M	L	M	M	H	M
I	Soil science	M	M	L	L	L	H	H	L	L	H	M
II	*Physical education 2*	M									H	L
II	Marxism-Leninsm polictical economics	M								M	H	M
II	Special law	M			H	M	M	M	H	L	M	M
II	English 2 (Elementary)	M	L	L	L	M	M	M	L	L	H	M
II	Plant physiology	H	L		L	M	M		M	L	H	M
II	Agricultural system	M			H	M	L	M	M	L	H	M
II	Climate change and Adaptive capacity	M	L	M	L	M	L	H	M	L	H	M
II	*Statistics probability* (*)	M	L	L	L	L	L	L	L	L	H	M
II	*Agricultural economics* (*)	M			M		H	H	M	M	M	H
II	*General agricultural irrigation*(*)	L	L	L	L	M	L	L	L	L	H	M
II	*Agricultural mechanics*(*)	L	L	L	L	M	L	L	L	L	H	M
III	*Physical education 3*	M									H	M

Semester	Course name	Expected Learning Outcomes										
		Knowledge					Skills				Attitudes	
		ELO01	ELO02	ELO03	ELO04	ELO05	ELO06	ELO07	ELO08	ELO09	ELO10	ELO11
III	English 3 (Pre-intermediate)	M	L	L	L	M	M	M	L	L	H	M
III	Science socialism	M								M	H	M
III	Scientific research methodology	M		L	L	M	M	H	M	L	H	M
III	Start-up	M	M	M	M	H	H	H	M	L	M	H
III	Soil fertility and fertilizers	M	L	M	L	L	H	H	M	L	H	M
III	Pesticides	L	L	L	H	L	L	L	L	L	H	M
III	Crop seedling selection	M	M	L	L	M	H	M	M	L	H	M
III	*Agricultural microbiology* (*)	M	M	L	L	M	L	L	L	L	H	M
III	*Biochemistry* (*)	L	M		M	L		L	L		H	M
III	*Markerting for agriculture*(*)	H	L	L	L	L	M	H	L	L	M	M
III	*Participatory rural appraisal* (*)	L	L	L	L	L	L	M	L	L	H	M
III	Orientation internship	L	L	L	H	H	L	L	L	M	H	M
IV	History of Vietnamese communist party	M								M	H	M
IV	English 4 (Intermediate)	M	L	L	L	M	M	M	L	L	H	M
IV	Sensors and application controls in agriculture	M		L	H	M	L		L	H	H	M
IV	Agriculture business administration	M		L	L	L	H	M	H	M	H	M
IV	Agricultural entomology	L	L	L	M	H	H	H	H	L	H	M
IV	Plant pathology	M	M	H	M	H	H	H	H	L	H	M
IV	Co-op 1 (Internship 1)	M	L	L	M	L	H	H	H	M	H	M
V	Ho Chi Minh uncle ideas	M								M	H	M
V	Agriculture extension	L	L	L	L	L	H	H	L	M	H	M
V	Project development and management	M		L	L	H	H		M	M	H	M
V	Food crops	M	L	L	H	H	H	L	M	L	H	M
V	Vegetables	L	M	M	M	M	H	H	H	M	H	M
V	Short-term industrial crops	M	L	L	H	H	H	L	L	L	H	M

Semester	Course name	Expected Learning Outcomes										
		Knowledge					Skills				Attitudes	
		ELO01	ELO02	ELO03	ELO04	ELO05	ELO06	ELO07	ELO08	ELO09	ELO10	ELO11
V	English for Agriculture	M				M		H	M	H	H	M
V	*Management of soil problems* (*)	M		H		H			H	M	H	M
V	*Clean and sustaible agriculture* (*)	M			H	M	M	M		L	H	M
V	*Weeds* (*)	L	M	L	L	M	M	H	L	M	H	M
V	*Floral induction in fruit trees* (*)	L	L	L	M	L	L	L	L	L	H	M
VI	Edible mushroom	L	M	M	M	M	H	L	L	L	H	M
VI	Plant tissue culture	L	M	M	M	M	H	L	M	L	H	M
VI	Fruit trees	M	L	L	H	H	H	L	L	L	H	M
VI	Long-term industrial crops	L	L	L	H	H	H	L	L	L	H	M
VI	Co-op 2 (Internship 2)	M	M	H	H	H	M	M	M	M	H	H
VII	Statistics and Experimental design	M	L			M	H	H		L	H	M
VII	Value chain analysis	M		L	L	M	H	H		L	H	M
VII	Flowers and ornamental plants	M	M		H	H			M	H	H	H
VII	Medicinal plants	L	M	M	H	H	H		M	H	H	M
VII	Post harvest preservation	M	L	L	L	H	H		H	H	H	M
VII	Co-op 3 (Internship 3)	M	M	M	H	H	H	H	H	H	H	H
VIII	Graduation thesis	M	H	H	H	H	M	H	H	H	H	H

Note: Course contributions to ELOs of the study program.
(*) Elective courses; H: high; M: medium; L: low; Blank:

***Ghi chú:**:*
***(*)** **:** *Môn học điều kiên và Elective co*
H : *High*
M : *Medium*
L : *Low*
: *no contribution*

13. Diagram of relationship between courses: The program is coherent and logical, with the sequence of the courses to link closely with other courses to contribute ELOs (see Figure 3.5 Diagram of relationship between courses).

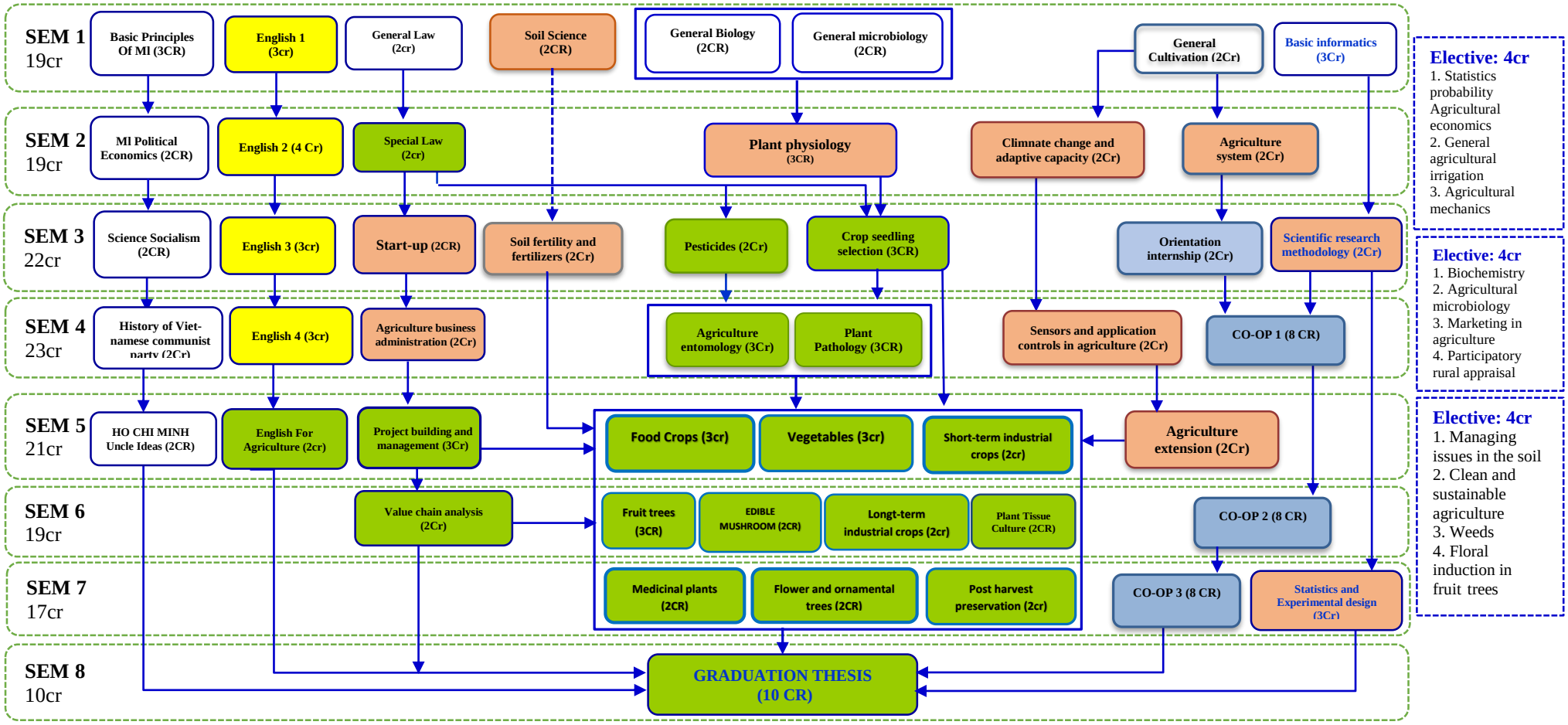

Figure 3.4: Diagram of relationship between courses

14. Course description

Table: A brief outline of all courses' content in the program

No.	Course Name	Description
Semester I		
1.	English 1 (Beginner)	This course helps students begin to familiarize themselves with samples of daily social converstaions, messages and emails. Students have the opportunity to be acquainted with all language skills such as listening, speaking, reading and writing. These skills are developed through some topics such as family members, mood, time, changes in life, hobbies, jobs and social communication, personality.
2.	Basic principles of Marxism-Leninsm	In this course, students begin to be familiar with basic knowledge such as: Marxism-Leninsm philosophy and their roles in social life; Dialectical materialsm: materials and perception, materialist dialectic and cognitive theory; Historical materialism: The theory of socio-economic morphology, working class and nations, State and socialist revolution, social perception, philosophy of human.
3.	General law	This course equips students to gain basic arguments on the state such as the nature of state; models and types of state; the law in general, souce and nature of law; lawful infringements; lawful relationships; legal behaviours; violations of laws and legal responsibilities; concepts and characteristics of legal regulation documents; administrative law, civil law, constitutional law, economic law, labour law and some basic regimes.
4.	General biology	After the course completion, students will gain general knowledge of life; characteristics, basic features of life, cell structure, genetic materials, process of material - energy transformation at the cellular level.
5.	Basic informatics	This course provides students basic knowledge in informatics. The content includes basic issues of information technology and communication, computer usages and file management with Windows operation system, document composition and Internet, report presentation, computer usages for statistics, using and exploiting basic services in Internet, additionally, training in thinking styles and appropriate working methods with the era of computerisation, likelihood

No.	Course Name	Description
		of understanding, searching, creativity, being active in thinking and actions.
6.	General microorganism	Principles of microorganism provides learners basic knowledge of research items of microorganism, characteristics of models and structure of Fungi, Bacteria, and Virus. In addition, learners comprehend growth process of microorganism, methods of microbiological culture.
7.	General cultivation	This cours introduces basic issues of crop production fields such as climate and hydrological conditions of plants; basic terminology of seeds; cultivation methods, care, harvest, and protection; soil and nutrition management. There is also an introduction about general knowledge of crops and plant pathology.
8.	Soil science	The course helps students to achieve soil establishment sources, soil ingredients, understanding establishment process and characteristics of key soil areas in Mekong Delta. From that, knowledge application is to management tasks and sustainable soil usage.
Semester II		
**** Core courses***		
9.	English 2 (Elementary)	In this couse, students continue to develop their own language competency and vocabulary. Students further improve skills of listening, speaking, reading and writing through topics about transportation means, meetings, travelling trips or going on business, health, experience and choices.
10.	Marxism-Leninsm political economics	In this course, students will be provided with knowledge of Marxism-Leninism political economics such as: Targets, reaserch methods and functions of Marxism-Leninism political economics; Commodities, markets and key players involve in markets; Surplus values in market-driven economy; Competitions and monopoly in market-driven economy; Market-driven economy with socialism orientation and economic-benefit relationships in Vietnam.
11.	Special law	This course helps students capture legal documents in plant seed management, business management in fertilizers, crop protection medicine. Moreover, students will be equipped with more lawful knowledge about safe production regulations.

No.	Course Name	Description
12.	Climate change and adaptive capacity	This course aims to equip students with knowledge on climate change, sea level rising in connection with sea level rising connected with some elevation models which serve planning tasks of social economic development under circumstance of climate change, sea level rising in Vietnam. From that, this helps to increase their awareness of climate change and reducing greenhouse gas emissions.
13.	Plant physiology	The course assists students to achieve knowledge of structural characteristics, functions and regime of plant development and growth process; physiological features, basic biochemistry occuring in plants.
14.	Agricultural system	The course equips students with systemetical point of views on agricultural research and development, helps them approach reseach methodology of agricultural system, and captures general principles of agricultural system.
**** Elective courses***		
15.	General agricultural irrigation	This course provides basic knowledge of water exchange in soil, water demand for plants, from which defines water supply requirements. It also introduces irrigation methods and techniques to improve favourable environment for plant growth, improvement increase in water usage, solutions on soil erosion prevetion, and soil quality improvement.
16.	Statistics probability	The course equips students with foundation knowledge of probability theory and math statistics. For probability section, there is a concept introduction of random events, probability definition, calculation formula, popular probability distribution. In the statistics, students gain concepts of samples, population, parameter estimation methods, statistical hypothesis testing, regression correlation analysis, and will apply this course for their further study in Applied statistics.
17.	Agricultural economics	The course applies some economic theories to the agricultural field, especially the theories of microeconomics used to analyze agricultural product prices and pricing movements over time. The relationship between products and input factors is also introduced based on the principles of production economics. Moreover, the course provides an analysis of affection on some agricultural policies.

No.	Course Name	Description
18.	Agricultural mechanics	This course aims to help learners understand the mechanization processes of field crops from tillage to post-harvest, post-harvest activities for preliminary handling of agricultural products on farms.
Semester III		
**** Core courses***		
19.	English 3 (Pre-intermediate)	This final course will help students develop their language knowledge and language use experience at level B1 according to the European Framework of Reference (CEFR). Students demonstrate their language competency through topics such as hobbies and musical instruments, jobs and study, favourable food, daily social situation, currencies, weather, and energy.
20.	Science socialism	In the couse, students will research general argumental issues and current practice in the construction of socialism in Vietnam. The content focuses on some issues: appearance and development of scientific socialism; historical mission of labour class, socialism and transition to socialism; socialist democracy and socialist state; class alliances, classes; ethnic and religious issues; family problems during the transition to socialism.
21.	Scientific research methodology	The couse aims to supply students with knowledge and techniques on scientific research such as concept overview, topic selections, outline composition, data processing and research result reporting. Moreover, this guides to apply these skills for researching topics on agricultural fields.
22.	Start-up	The course provides knowledge of how preparing enough and essential conditions to establish and operate a new firm. This also equips learners with skills of developing action plans about business ideas, plan implementation and adjustment for more appropriateness with the changes in business environement. This is a course which can use general integrated knowledge from various courses such as Operation management, Financial management, Marketing management and so on. Therefore the course can be easier for learners with background in management.
23.	Soil fertility and fertilizers	The first part of this couse provides students with knowledge of the origin of soil formation; physical, chemical and biological

No.	Course Name	Description
		characteristics of the soil; factors that increase or decrease soil fertility; measures to protect and improve the land. The second of the couse regconises properties and characteristics of fertilizers for plants; efficient use in production. Determining the fertilizer needs of crops in order to increase productivity and limit the loss of soil fertility.
24.	Pesticides	The course provides students with basic knowledge about crop protection medicine such as: Concepts, drug bases and effects of drugs, roles and applications of pesticides in agriculture and human life. On the basic, students practice skills of using crop protection medicine in a proper, safe and efficient way for their direct application in pest control in plants.
25.	Crop seeding selection	This couse brings to students knowledge on heritability, variation and traits of multicellular plants and fungi; structure of genetic material; regulation of gene expression for plant growth and development; heredity at the molecular, cellular, and population levels; quantitative trait inheritance in plant breeding. Students can apply methods and improved techniques (molecular biology in plant seed production) for efficiency improvement; principles of selection, maintenance, multiplication and quality control of plant varieties.
26.	Orientation internship	The course helps students undertake excursion trips for study observation and experience learning, orientation in career opportunities from discovering practical situations of plants. From these, there is a comparison of crop models in regions with different farming conditions, identifying their passions to strive for study, research and self-study so that after graduation, they can easily enter the labor market.
**** Elective courses***		
27.	Biochemistry	This course provides students with knowledge about the chemical composition of living organisms: proteins, nucleic acids, carbohydrates, lipids, vitamins, enzymes, plant hormones; metabolism and bioenergy.
28.	Agricultural microbiology	This course equips students with some knowledge about microorganisms harmful to plants, skills to identify and determine the relationship and life cycle of microorganisms harmful to plants and propose prevention measures.

No.	Course Name	Description
29.	Participatory rural appraisal	The couse provides studetns with key tools in rural area assessment for generally understanding local areas, recognizing past events which will be able to propose future solutions with more appropriateness to local conditions and people's desire.
30.	Marketing in agriculture	The course provides general knowledge of marketing, marketing roles in practice and theory, supply and demand relationship and market research, and an introduction of basic elements in marketing mix such as products, pricing, placing and promotion strategy as well. In addition, this assists students to apply marketing strategies for fields of production and businesses in agriculture.
Semester IV		
**** Core courses***		
31.	English 4 (Intermediate)	This final course will help students develop more their language knowledge and language use experience at level B2 according to the European Framework of Reference (CEFR). Students demonstrate their language competency through key topics such as agricultural science, climate change, and rural area development.
32.	History of Vietnamese communist party	The course equips students with basic knowledge, core, system about the origin of Party (1920-1930), the process of the Party leading the struggle for power (1930-1945), leading two resistance wars against the French colonialists and the American imperialists, completing the national liberation and reunification of the country (1945 - 1975), leading the nation through transition to socialism and renovation implementation (1975-2018). From success confirmation, the course highlights limitations, conclusion on experiences in the Party's revolutionary leadership to help learnes improve their perception and beliefs in the Party and apply learned knowledge for practical tasks, contributions on building and protecting the Socialist Vietnam.
33.	Agriculture business administration	This course provides students with basic concepts of enterprises and agricultural business administration, organization of the corporate governance apparatus, human resource management tasks (human, machinery, raw materials, and capital), inspection tasks of assessing effectiveness of enterprises' business production activities and plan development for business production in rural area and agricultural fields.

No.	Course Name	Description
34.	Sensors and application controls in agriculture	This course equips learners with some knowledge and skills to use sensor devices in agriculture. The learners can determine the uses, technical parameters, schematic diagrams of the equipment and wiring to operate some types of sensors: Temperature, humidity and so on.
35.	Agricultural entomology	The first part of this couse equips students with general knowledge on morphological, biological and ecological characteristics of insects to identify agents, conditions for arising, development and harm of pests. The second part equips specialized knowledge on methods of identifying and distinguishing harmful insects on key crops such as rice, corn, citrus, cucurbits, industrial plants, etc., thereby taking safe and reasonable control measures. The course also provides skills in developing, implementing and implementing and managing the implementation of pest control programs on a number of key crop varieties in Mekong Delta.
36.	Plant pathology	This course provides students with knowledge about common plant disease symptoms, pathogens and preventive measures for some common diseases on some crops, principles of plant diseases, methods of diagnosis and research on plant diseases.
37.	Co-op 1 (Internship 1)	The course helps students: (1) Develop an internship plan, specific job performance skills; (2) Perform basic techniques, approach production practices and experiment in the field; (3) Collect and process data, synthesizing, writing and presenting results reports. From all these, students will gain a right orientation for their career which serves their proactiveness in study, research in the following semesters.
Semester V		
**** Core courses***		
38.	English for Agriculutre	This course helps students accumulate specialized vocabulary for agriculture, understand and capture the content of written essays in agriculture and be able to answer questions related to the essays. Students can write summaries or short reports on their own research topics, and listening to specialized topics relevant to agriculture in English.
39.	Ho Chi Minh uncle's Ideas	The course shows the content issued from Decision No. 52/2008/QD-BGD&DT dated September 18, 2008 by Minister of Education and

No.	Course Name	Description
		Training regarding the issuance on programs of political theories for students from non Marxism-Leninsm, Ho Chi Minh uncle's idea majors at college, university levels.
40.	Agricultural extension	The course is designed to equip students with analysis, functional identification, duties and working conditions of an officer in agriculture extension; to comprehend and apply regulation articles. Moreover, there is also providing students with agriculture extension skills, code of conduct, consultant competency, and training farmers with issues on agriculture and rural areas.
41.	Project building and management	The course provides knowledge of contents and procedures for preparing and managing an investment project in agriculture. Particularly, this helps students capture methods of feasibility approval for an investment project with aspects of finance, market, techniques, management and human resource.
42.	Food crops	This course provides students with knowledge about physiological and nutritional characteristics of rice and maize and cultivation techniques of rice and maize. The course also aims to identify some measures to select varieties, restore varieties and health of seeds so that they can be applied in actual production.
43.	Vegetables	The course is for an introduction to the standards of safe vegetables, clean vegetables, organic vegetables, classification of biological characteristics, and external conditions of currently popular vegetables. It is also about the effective vegetable farming techniques, identifying factors affecting the growth of vegetables crops and applying common pest management methods on vegetable crops.
44.	Short-term industrial crops	This course provides students with professional knowledge about cultivation techniques, pest prevention measures on some key short-term industrial plants such as peanut, sugar cane and so on.
**** Elective courses***		
45.	Managing issues in the soil	This course equips students with knowledge of soil relevant problems, reasons leading to plant growth and development. It is about chemical reactions in saline, alkaline soil, degraded soil, alluvial soil... and the evolution of physical processes in soil. From these, students can apply

No.	Course Name	Description
		solutions for managing, limiting and overcoming toxic substances in the soil to limit the influence of adverse factors in the soil on crop yield.
46.	Clean and sustainable agriculture	The course equips students with basic knowledge about the necessity of clean agricultural production, cultivation techniques and clean agricultural system management; solutions on clean product cultivation; defining demands, standards of clean, organic products.
47.	Weeds	This course helps students understand and identify currently common weed species in the field, biological and ecological characteristics of each grass group, methods used to manage weeds, weed appearance prevention control.
48.	Floral induction in fruit trees	The course equips students with knowledge of biochemical, physiological and morphological changes during reproduction. In addition, there is an explanation of the endogenous and exogenous factors affecting reproduction and the interrelationship between the two factors. It shows to identify essential conditions for reproduction of various crops, appropriate techniques influencing the flowering of some high economic value perennials.
Semester VI		
**** Core courses***		
49.	Fruit trees	The course helps students master the techniques of designing orchards; methods of propagation of fruit trees; origin, classification of botanical and biological characteristics; external requirements; farming techniques; pest control measures on fruit trees.
50.	Edible mushroom	The cource is about an introduction of fungi, taxonomy and biology of Dandelion and cysts, metabolism and vegetative needs of cultivated mushrooms, factors affecting the development of mycelium, the development stages of fungi, and cultivation techniques of some edible and medicinal mushrooms.
51.	Long-term industrial crops	This course provides students with professional knowledge about cultivation techniques, pest prevention measures on some key long-term industrial crops such as coconut trees, cacao trees, cashew trees, rubber trees,...
52.	Value chain analysis	Value chain in agriculture is an important issue in agricultural businesses. Therefore the content of this course aims to help students

No.	Course Name	Description
		comprehend concepts, applications of tools and methods on qualitative and quantitative analysis of the value chain in order to propose solutions and build plans to upgrade the agricultural value chain towards sustainable development in accordance with the conditions of Vietnam.
53.	Co-op 2 (Internship 2)	The course equips students will skills of developing working plans, practical job performance skills and performing simple research activities; collecting and processing data, synthesizing, writing and presenting result reports. Through these activities, students will gain a training of professional skills and an accumulation of practical working experience.
54.	Plant tissue culture	The course gives an overview and history of subject – plant tissue culture. There is an assistance to students for strongly capturing techniques of tissue culture methods and application of tissue culture into crop production. Applying methods, techniques of tissue culture for selections, hybridization of plant varieties.
Semester VII		
**** Core courses***		
55.	Medicinal plants	The course provides knowledge about the origin, distribution and characteristics of common medicinal plants, understanding the composition and effects of medicinal herbs, techniques for harvesting, growing, and preparing common medicinal plants.
56.	Flowers and ornamental plants	This course focuses on ecological requirements of flowers and ornamental plants; methods of propagation of flowers and ornamental plants; principles and techniques of building nurseries; methods of preserving cut flowers; botanical characteristics, environmental requirements (temperature, light, humidity, and soil) and technical processes for the production of some main flowers and ornamental plants; landscape design for practical application.
57.	Post harvest preservation	The course aims to equip students with knowledge of agricultural product preservation and its specific applications. This also includes a description of direct and indirect spoilage agents in agricultural product preservation and remedial measures.

No.	Course Name	Description
58.	Statistics and Experimental design	The course helps students absorb theoretical knowledge of statistics and experiment preparation methods. From this, students will achieve problem solving skills and their application of some concepts and descriptive statistics of the sample and the population, analytical tests, statistical comparison, regression correlation, experimental sampling method in agriculture.
59.	Co-op 3 (Internship 3)	The course helps students implement a procedure of short-term crop productions specifically from planting, tending to harvesting; (1) Setting up a single factor experiment, monitor, measure and collecting data on some growth, development and yield indicators of a crop in the experiment. (2) Comparison, result assessments from the experiment.
Semester VIII		
60.	Graduation thesis	Graduation thesis is a student project applying scientific research knowledge and methods, professional skills in the field of crops. Students perform the thesis with various models (experiment performance; requirement solutions of theoretical application into practical production activities through collecting data from Co-op programs and using these for their graduation thesis - a form of scientific research in students to have data to complete the thesis; or assessment research on current situation of local agriculture). The time for thesis performance is within graduation internship about 15 – 20 weeks. The content is in the structure of 04 key parts with the length of at least 40 pages excluding tables, figures and appendix: (1) Introduction (Introducing theoretical foundation, references) in 10–15 pages, (2) Research methodology in 2-3 pages, (3) Results and discussions in 15-20 pages; (4) Conclusion and proposal in 2-3 pages.