Doctor of Philosophy Program in Horticulture

An International Program

1. Degree Program

Doctor of Philosophy Program in Horticulture

2. Degree Offered

Doctor of Philosophy (Horticulture)

Ph.D. (Horticulture)

3. Objectives

The objectives of the program include the implementations of the curriculum to achieve a number of Ph.D. graduates in Horticulture with outstanding academic performance. The graduates must be able to perform the following features:

1) Be ready to develop novel knowledge and innovations in horticulture discipline with high skills.

2) Be able to analyze and diagnose problems systematically and research creativity for horticultural technology development with environmental conservation minds.

3) Be able to utilize and transfer their research findings.

4. Curriculum

The Doctor of Philosophy Program in Horticulture has four types of study plan: Type 1(1), Type 1(2), Type 2(1) and Type 2(2).

Type 1 emphasizes the research, which due to the novel knowledge and high academic competency. This type includes with 2 subtypes.

Type 1(1) is the subtype for students who have a bachelor's degree or equivalent.

Type 1(2) is the subtype for students who have a master's degree or equivalent. They must take the dissertation course in a minimum of 49 credits and study on 123 991 Seminar in Horticulture III, 123 992 Seminar in Horticulture IV, and 123 993 Seminar in Horticulture V or other as recommended by the dissertation advisory committee for non-credit.

Type 2 is the curriculum emphasizing the high academic competency and complementary with the research for discovering the novel knowledge in horticulture. This type comprehends with 2 subtype.

Type 2(1) is the subtype for students who have a bachelor's degree or equivalent. They must perform the dissertation in a minimum of 48 credits and take the courses with a minimum of 24 credits.

Type 2(2) is the subtype for students who have a master's degree or equivalent. They must perform the dissertation in a minimum of 36 credits and take the courses with a minimum of 12 credits.

5. Courses

5.1 Required course

5.1.1 Type 1(1): Take the following courses or other as recommended by the dissertation advisory committee for non-credit.

123 891	Seminar in Horticulture I	1(1-0-3)
123 892	Seminar in Horticulture II	1(1-0-3)
123 991	Seminar in Horticulture III	1(1-0-3)
123 992	Seminar in Horticulture IV	1(1-0-3)
123 993	Seminar in Horticulture V	1(1-0-3)

5.1.2 Type 1(2): Take the following courses or other as recommended by the dissertation advisory committee for non-credit.

123 991	Seminar in Horticulture III	1(1-0-3)
123 992	Seminar in Horticulture IV	1(1-0-3)
123 993	Seminar in Horticulture V	1(1-0-3)

5.1.3 Type 2(1): Containing 8 courses, 15 credits.

114 701	Research Method in Agriculture	3(3-0-0)
123 701	Management System of Horticultural Crop Production	3(2-3-2)
123 751	Horticultural Crop Breeding	3(3-0-3)
123 891	Seminar in Horticulture I	1(1-0-3)
123 892	Seminar in Horticulture II	1(1-0-3)
123 991	Seminar in Horticulture III	1(1-0-3)
123 992	Seminar in Horticulture IV	1(1-0-3)
123 993	Seminar in Horticulture V	1(1-0-3)

5.1.4 Type 2(2): Containing 3 courses, 3 credits

123 991	Seminar in Horticulture III	1(1-0-3)
123 992	Seminar in Horticulture IV	1(1-0-3)
123 993	Seminar in Horticulture V	1(1-0-3)

5.2 Elective Courses for Type 2(1) and Type 2(2)

5.2.1 Type 2(1): Select a minimum of 9 credits from the following course or additional elective courses as later designated by the Program Management Committee:

123 741	Applied Environmental Physiology of Horticultural Crop Production	3(2-3-2)
123 742	Postharvest Physiology of Horticultural Crops	3(3-0-3)

123 743	Physiology of Reproductive System in Horticultural Crops	3(3-0-3)
123 752	Horticultural Crop Breeding for Pest Resistance and Environmental Tolerance	3(2-3-2)
123 753	Advanced Horticultural Crops Breeding	3(3-0-3)
123 761	Biotechnology and Molecular Biology in Horticulture	3(2-3-2)
123 771	Seed Physiology and Quality Control	3(2-3-2)
123 772	Current Topics in Seed Science	3(3-0-3)
123 781	Selected Topics in Horticulture	3(3-0-3)
123 994	Special Problems in Horticulture	3(0-9-3)

5.2.2 Type 2(2): Select a minimum of 9 credits from the following course or additional elective courses as later designated by the Program Management Committee:

123 701	Management System of Horticultural Crop Production	3(2-3-2)
123 741	Apply Environmental Physiology of Horticultural Crop Production	3(2-3-2)
123 742	Postharvest Physiology of Horticultural Crops	3(3-0-3)
123 743	Physiology of Reproductive System in Horticultural Crop	3(3-0-3)
123 751	Horticultural Crop Breeding	3(3-0-3)
123 752	Horticultural Crop Breeding for Pest Resistance and Environmental Tolerance	3(2-3-2)
123 753	Advanced Horticultural Crop Breeding	3(3-0-3)
123 761	Biotechnology and Molecular Biology in Horticulture	3(2-3-2)
123 771	Seed Physiology and Quality Control	3(2-3-2)
123 772	Current Topics in Seed Science	3(3-0-3)
123 781	Selected Topics in Horticulture	3(3-0-3)
123 994	Special Problems in Horticulture	3(0-9-3)

6. Class Schedules

First Year 1st Semester

		Type 1(1)	Type 1(2)	Type 2(1)	Type 2(2)
123 701	Management System of Horticultural Crop Production	-	-	3	-
Xxx xxx	Elective	-	-	4	3
123 997	Dissertation	9	-	-	-
123 997	Dissertation	-	9	-	-
123 998	Dissertation	-	-	2	-
123 999	Dissertation	-	-	-	5
	Total	9	9	9	9

First Year 2nd Semester

		Type 1(1)	Type 1(2)	Type 2(1)	Type 2(2)
123 751	Horticultural Crop Breeding	-	-	3	-
114 701	Research Methods in Agriculture	-	-	3	-
Xxx xxx	Elective	-	-	3	3
123 991	Seminar in Horticulture III	-	Non-credit	-	1
123 996	Dissertation	9	-	-	-
123 997	Dissertation	-	9	-	-
123 999	Dissertation	-	-	-	5
	Total	9	9	9	9

Second Year 1st Semester

		Type 1(1)	Type 1(2)	Type 2(1)	Type 2(2)
Xxx xxx	Elective	-	-	3	3
123 891	Seminar in Horticulture I	Non-credit	-	1	-
123 992	Seminar in Horticulture IV	-	Non-credit	-	1
123 996	Dissertation	9	-	-	-
123 997	Dissertation	-	9	-	-
123 998	Dissertation	-	-	5	-
123 999	Dissertation	-	-	-	5
	Total	9	9	9	9

Second Year 2nd Semester

		Type 1(1)	Type 1(2)	Type 2(1)	Type 2(2)
123 892	Seminar in Horticulture II	Non-credit	-	1	-
123 993	Seminar in Horticulture V	-	Non-credit	-	1
123 996	Dissertation	9	-	-	-
123 997	Dissertation	-	9	-	-
123 998	Dissertation	-	-	8	-
123 999	Dissertation	-	-	-	8
	Total	9	9	9	9

Third Year 1st Semester

		Type 1(1)	Type 1(2)	Type 2(1)	Type 2(2)
123 991	Seminar in Horticulture III	Non-credit	-	1	-
123 996	Dissertation	9	-	-	-
123 997	Dissertation	-	9	-	-
123 998	Dissertation	-	-	8	-
123 999	Dissertation	-	-	-	9
	Total	9	9	9	9

Third Year 2nd Semester

		Type 1(1)	Type 1(2)	Type 2(1)	Type 2(2)
123 992	Seminar in Horticulture IV	Non-credit	-	1	-
123 996	Dissertation	9	-	-	-
123 997	Dissertation	-	3	-	-
123 998	Dissertation	-	-	8	-
123 999	Dissertation	-	-	-	3
	Total	9	3	9	3

Four Year 1st Semester

		Type 1(1)	Type 1(2)	Type 2(1)	Type 2(2)
123 993	Seminar in Horticulture V	Non-credit	-	1	-
123 996	Dissertation	9	-	-	-
123 998	Dissertation	-	-	8	-
	Total	9	-	9	-

Four Year 2nd Semester

		Type 1(1)	Type 1(2)	Type 2(1)	Type 2(2)
123 996	Dissertation	9	-	-	-
123 998	Dissertation	-	-	9	-
	Total	9	-	9	-