

Course Title
Ph.D. in Functional Food and Nutrition (International Program)

Academic Institution: Faculty of Agro-Industry, Prince of Songkla University

Program Title: Doctor of Philosophy (Functional Food and Nutrition) or Ph.D. (Functional Food and Nutrition) (International Program)

Program learning outcome (PLO)

PLO1 Explain the impact of functional food on people, patients, or pets.

PLO2 Select the appropriate tool for testing and evaluating the impact of functional foods in vitro studies.

PLO3 Generate novel knowledge or innovative functional food and nutrition for people, patients, or pets.

PLO4 Utilize information technologies to expand the knowledge of functional foods and nutrition.

PLO5 Prepare efficiently for present-day and academic English communication.

PLO6 Demonstrate the goodness of behaviors including morality, ethics, and responsibility.

PLO7 Demonstrate academic leadership in functional food.

Philosophy of the Program

This program focuses on producing students who can generate new knowledge and innovation in functional food and nutrition by searching, analyzing, and discussing information using diverse knowledge. The study style is according to progressivism. The program also employs progressive learning, namely active learning with ethics, morals, and public responsibility.

PSU's educational philosophy (<http://webagro.psu.ac.th>)

PSU's educational philosophy is managed by

- Progressivism, using learning process with the students as the “center of attention” and the basis of “Outcome-based Education” such as active learning, problem-based learning, project-based learning, and service learning
- PSU aims to provide students with a lifelong learning approach
- PSU believes that these principles can be met and aided by Prince of Songkla Mahidon Adulyadej's motto, “Our soul is for the benefit of mankind”

Program structure:

| Courses | Plan 1 (Research only) | | Plan 2 (Research with course works) | |
|--------------|---------------------------|-----------|--|-----------|
| | Plan 1.1 | Plan 1.2 | Plan 2.1 | Plan 2.2 |
| Compulsory | - | - | 9 | 17 |
| Elective | - | - | 3 | 7 |
| Thesis | 48 | 72 | 36 | 48 |
| Total | 48 | 72 | 48 | 72 |

Note: Plan 1.1 and 2.1 for students who graduated in Master program
 Plan 1.2 and 2.2 for students who graduated in Bachelor program

Study plan for Plan 1 (Research only)

| Academic year | Semester | Plan 1.1 | | Plan 1.2 | |
|---------------|----------|--------------------|-------------------|--------------------|-------------------|
| 1 | 1 | 859-948 Thesis | 8 credits | 859-972 Thesis | 7 credits |
| | 2 | 859-948 Thesis | 8 credits | 859-972 Thesis | 9 credits |
| | | *859-696 Seminar 1 | 1 credits | *859-696 Seminar 1 | 1 credits |
| | | Total | 16 credits | Total | 16 credits |
| 2 | 1 | 859-948 Thesis | 8 credits | 859-972 Thesis | 10 credits |
| | 2 | 859-948 Thesis | 8 credits | 859-972 Thesis | 12 credits |
| | | *859-697 Seminar 2 | 1 credits | | |
| | | Total | 16 credits | Total | 22 credits |
| 3 | 1 | 859-948 Thesis | 8 credits | 859-972 Thesis | 12 credits |
| | 2 | 859-948 Thesis | 8 credits | 859-972 Thesis | 12 credits |
| | | *859-698 Seminar 3 | 1 credits | *859-697 Seminar 2 | 1 credits |
| | | Total | 16 credits | Total | 24 credits |
| 4 | 1 | - | | 859-972 Thesis | 5 credits |
| | 2 | - | | 859-972 Thesis | 5 credits |
| | | | | *859-698 Seminar 3 | 1 credits |
| | | | | Total | 10 credits |
| Total | | | 48 credits | Total | 72 credits |

Study plan for Plan 2 (Research with course works)

| Academic year | Semester | Plan 2.1 | | Plan 2.2 | |
|---------------|----------|--|-------------------|--|-------------------|
| 1 | 1 | 859-599 Research | 3 credits | 859-511 Food, Nutrition and Health | 3 credits |
| | | Methodology- Experimental Design | | 859-512 Functional Food and Nutraceutical in Metabolic Pathway | 2 credits |
| | | 859-xxx Elective course | 3 credits | 859-513 Technology and Commercialization of Functional Food and Nutraceutical | 3 credits |
| | | 859-696 Seminar 1 | 1 credit | 859-599 Research Methodology- Experimental Design | 3 credits |
| | | | | 859-xxx Elective course | 2 credits |
| | | Total | 7 credits | Total | 13 credits |
| 1 | 2 | 859-692 Research and Development Concept in Functional Food and Nutrition | 3 credits | 859-692 Research and Development Concept in Functional Food and Nutrition | 3 credits |
| | | 859-936 Thesis | 8 credits | 859-696 Seminar 1 | 1 credit |
| | | | | 859-xxx Elective course | 3 credits |
| | | | | 859-xxx Elective course | 2 credits |
| | | Total | 11 credits | Total | 9 credits |
| 2 | 1 | 859-936 Thesis | 9 credits | 859-948 Thesis | 6 credits |
| | | | | | |
| | | Total | 9 credits | Total | 6 credits |
| 2 | 2 | 859-697 Seminar 2 | 1 credit | 859-948 Thesis | 9 credits |
| | | 859-936 Thesis | 9 credits | | |
| | | Total | 10 credits | Total | 9 credits |
| 3 | 1 | 859-936 Thesis | 6 credits | 859-948 Thesis | 10 credits |
| | | | | | |
| | | Total | 6 credits | Total | 10 credits |
| 3 | 2 | 859-698 Seminar 3 | 1 credit | 859-697 Seminar 2 | 1 credits |
| | | 859-936 Thesis | 4 credits | 859-948 Thesis | 10 credits |

| Academic year | Semester | Plan 2.1 | Plan 2.2 |
|---------------|----------|--------------------------------|--------------------------------|
| | | Total 5 credits | Total 11 credits |
| 4 | 1 | - | 859-948 Thesis 8 credits |
| | | - | Total 8 credits |
| | 2 | - | 859-698 Seminar 3 1 credits |
| | | - | 859-948 Thesis 5 credits |
| | | Total 6 credits | Total 72 credits |
| | | Total 48 credits | Total 72 credits |

Elective courses 3-7 credits

859-521 Module: Innovation of Functional Food and Nutraceutical 7 (3-12-6) credits
859-642 Frontier Research in Functional Food and Nutrition 3 (2-3-4) credits

Duration: 3-4 years

Graduation Requirements

1. Pass the qualifying exam.
2. Meet the English performance requirements established by the Graduate School.
3. Fulfill the program requirements with a GPA of at least 3.00 (except Plan A1)
4. Satisfy the proposal examination and thesis with a grade of S or X
5. Plan 1: publish an academic article from your thesis or a portion of your thesis in a peer-reviewed journal (ISI, Scopus).
6. Plan 2: publish an academic article based on the thesis or a portion of the thesis in a journal or proceeding that has undergone at least one peer review (ISI, Scopus).