

Course Title
M.Sc. in Food Packaging Technology

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

Program Title: Master of Science (Food Packaging Technology) or M.Sc. (Food Packaging Technology)

Program learning outcome (PLO)

PLO1 Demonstrate academic ethics, responsibility and morality.

PLO2 Integrate knowledge of environmentally friendly packaging materials and food packaging system for maintaining quality, extending shelf life and strengthening unique functions

PLO3 Indicate analytical instruments and techniques for properties tests and processing of food packaging correctly.

PLO 4 Design rationally research process for problem solving and development in food packaging technology.

PLO 5 Apply information technology for exploring and learning continuously.

PLO 6 Demonstrate effective English communication skills applicable to academic context

Philosophy of the Program

This program is an advanced interdisciplinary program that focuses on strengthening student's scientific background in process of development, improvement and problem solving by applying food packaging technology through research processes. The unique courses are designed in collaboration with the food and packaging technology to fill needs of food packaging product in improving and developing the properties of food packaging materials, filling process and packaging design by considering the benefits, shelf life, safety, environment and sustainability. This program would provide students with the knowledge and skills in research to apply the new knowledge in food biotechnology, bioenergy, and environmental biotechnology for the sustainable development of agro-industry in the south of Thailand. This program also employs the progressivism learning with ethics and morality.

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, 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:

Course	Plan A1* (Research only)	Plan A2* (Research with course works)	Plan B
Compulsory	-	12	12
Elective	-	6	14
Thesis	36	18	Seminar 4, Minor thesis 6
Total	36	36	36

***Recommended for international students**

Study plan

Academic year	Semester	Plan A1	Plan A2	Plan B
1	1	855-836 Thesis 9 credits	859-599 Module 3: Research Methodology- Experimental Design 2 credits 855-511 Advanced Food Packaging Material Analysis 4 credits 855-521 Advanced Food Packaging Materials and System 6 credits	859-599 Module 3: Research Methodology- Experimental Design 2 credits 855-511 Advanced Food Packaging Material Analysis 4 credits 855-521 Advanced Food Packaging Materials and System 6 credits
		Total 9 credits	Total 12 credits	Total 12 credits
	2	855-836 Thesis 9 credits *855-591 Seminar1 1 credit	855-xxx Elective courses 6 credits 855-818 Thesis 3 credits *855-591 Seminar 1 1 credit	855-xxx Elective courses 9 credits 855-806 Minor Thesis 2 credits 855-593 Emerging Innovations and Trends in Food Packaging I 2 credits
		Total 9 credits	Total 9 credits	Total 13 credits
2	1	855-836 Thesis 9 credits	855-818 Thesis 6 credits	855-xxx Elective courses 5 credits 855-806 Minor Thesis 2 credits
		Total 9 credits	Total 6 credits	Total 7 credits
	2	855-836 Thesis 9 credits *855-592 Seminar2 1 credit	855-818 Thesis 9 credits *855-592 Seminar 2 1 credit	855-806 Minor Thesis 2 credits 855-593 Emerging Innovations and Trends in Food Packaging II 2 credits
		Total 9 credits	Total 9 credits	Total 4 credits
		Total 36 credits * not counting credit	36 credits	36 credits

Elective courses 6 -14 credits

850-532 Physical and Engineering Properties of Food and Biomaterial	3 ((3)-0-6) credits
850-534 Starch Technology	3((2)-3-4) credits
855-514 Polymeric Multicomponent Materials for Food Packaging	3 ((3)-0-6) credits
855-522 Chemical Migration and Regulations	3 ((3)-0-6) credits
855-523 Active and Intelligent Packaging Technology	3 ((3)-0-6) credits
855-524 Adhesive Technology for Food Packaging	3 ((3)-0-6) credits
855-531 Advanced Packaging Design	3 ((2)-3-4) credits
855-596 Food Biotechnology	3 ((3)-0-6) credits
853-562 Selected Topic in Food Packaging Technology	3 ((3)-0-6) credits

Modules for current students, non-degree student (for upskill-reskill and academic credit bank)

855-512 Module: Cellulosic Materials for Food Packaging	6((4)-6-8) credits
855-513 Module: Bio-based Polymeric Materials for Food Packaging	6((4)-6-8) credits
855-532 Module: Design and Analysis of Distribution Packaging	6((4)-6-8) credits
859-599 Research Methodology	1-3((x)-x-x) credits
Module 1: Research Methodology- Research as Scientific Approach	1((1)-0-2)
Module 2: Research Methodology-Statistics for Research	1((0)-2-1)
Module 3: Research Methodology-Experimental Design	2((1)-2-3)

Duration: 2 years**Graduation Requirements**

1. Meet the English performance following the regulation issued by Graduate School
2. Fulfill the program requirements with a GPA of at least 3.00 (except Plan A1)
3. Satisfy the proposal examination and thesis with Grade S or X
4. Plan A1 publish the academic article from thesis or a part of thesis in a journal which has a peer review at least 1 articles
5. Plan A2, B publish the academic article from thesis or a part of thesis in a journal or proceeding which has a peer review at least 1 articles