U.P. as the National University

*Philippine Republic Act 9500*

“If UP is to fulfill its noble purpose as the national university then it must be the preeminent **graduate and research university** of the country as well as its leading **public service university** all at the same time.”

Saloma (2010)
**Challenges and Opportunities**

Occurrences of foodborne illness outbreaks are mostly from micro, small, and medium scale food manufacturers/food service establishments that have limited access to Food Safety Education.

**Exploring the Interfaces**

Undergraduate/Graduate Works aligned with LFMH’s Research Thrusts

Student-Led Community Extension Activities as Part of Regular Course Works, Collaboration with Different Sectors

Knowledge and Technology Transfers

**Community needs-based research**

**Principle 4**

Food business operators, at every stage of the food chain, have the primary role and responsibility for ensuring the safety of their food products.

Special consideration should be given to small and medium-size enterprises (SMEs) by the regulatory authorities to enable them to upgrade their food safety assurance systems...
Community needs-based research

Exploring the Interfaces

Student-Led Community Extension

Undergraduate/Graduate Works aligned with LFMH's Research Thrusts

Student-Led Community Extension Activities as Part of Regular Course Works, Collaboration with Different Sectors

Knowledge and Technology Transfers

Food Safety Course for Mothers
(Community Center near University Campus)

* Partnering with Mothers for Safe Food Handling
Student-Led Community Extension

Food Safety Course for Grade School Pupils
(Pubic Elementary School near University Campus)

Food Safety Course for Pre-School Children Caretakers
(Pre-school within the University Campus)

Food Safety Course for Ambulant and Stationary Food Vendors
(Food Vendors inside University Campus)

Food Safety Course for Aetas
(An indigenous ethnic group, North of Manila)
Student-Led Community Extension

Sector-specific Learning Materials

Collaboration with a Private Company

The private company invites its clients regularly for updates on Food Safety and Food Safety Systems

Collaboration with an NGO

The NGO invites participants from local SMEs and schools offering Food Technology and Food Service programs

Collaboration with Professional Organizations

1. Nutritionist-Dietician Association of the Philippines
2. Philippine Association of Food Technologists, Inc.
3. Philippine Society for Microbiology, Inc.
4. Philippine Nurse’s Association
Collaboration with Government

Department of Agriculture

Junior High School Internship Program

Philippine Science High School Junior Students (80 h Food Microbiology and Hygiene Exercises)

What We Teach Them

Our Concerns

Food Security & Protection

Food Adequacy
Food Safety
Food Defense

Why process food?

Physical Spoilage
(Bio)Chemical Spoilage
Biological Spoilage

Impact of Foodborne Illnesses

Foodborne illnesses and child growth

Dates to remember
What We Teach Them

Food Adulteration

Milk quality and protein content

Amino Acid

\[
\text{Amino Group Nitrogen} \quad \text{N} \quad \text{C} \quad \text{O} \quad \text{H}
\]

\[ \text{N} - \text{H} \]

\[ \text{N} - \text{H} \]

\[ \text{N} - \text{H} \]

FALSE Quality Indicator!!

Intentional Contamination

Methionine:

Non-Amino Group Nitrogen

\[ \text{N} - \text{H} \]

\[ \text{N} - \text{H} \]

\[ \text{N} - \text{H} \]

What We Teach Them

Food Fraud: Fake Meat

Food Fraud: Fake Beef

Food Fraud: Fake Eggs

Food Fraud: Fake Rice

Production → Processing → Distribution → Consumption

Stewed omelette with vegetables and peanut sauce

Fried jerked beef

Pork and vegetable sour stew

Grilled pork slices

Chopped grilled spicy pork jok/fried rice

Fried sweet nitrite-cured pork slices

Grilled pork kebabs

Fried Chinese meat roll

Grilled chicken intestine kebabs

Fried fish balls

Fried milkfish
What We Teach Them

Many food manufacturing and food service stakeholders do not have access to formal training and education.

The internet is the most convenient source of knowledge.
'Confession' from a follower:

‘Pricking’ of pillow packs to maximize the number of snack bags displayed on shelves!

Correcting False Information

Why can’t sanitizers kill the remaining 0.1%?

The remaining 0.1% are ‘good germs.’
Correcting False Information

Viral:
Corn Rice is ‘Fake Rice,’ and should NOT be consumed!

Correcting False Information

Food Safety (in Pop)Culture?

Involvement in Policy Making

*Through the initiative of the Philippine Association of Food Technologists, Inc.*
**Challenges Encountered**

Unwillingness of some local government units to endorse LFMH-initiated projects, *e.g.* food safety assessment of street-vended meals (night markets).

**Current and Future Works**

Technical references in *Lingua Franca*

---

**Challenges Encountered**

Inability to conduct impact-assessment of student-designed Food Safety Programs to selected populations.

**Current and Future Works**

**Harmonization** of Food Safety Training Materials of the Department of Science and Technology Regional Offices.
1. The **interfaces of the tripartite roles** of academics in teaching, research and public service are possible ways of helping MSMEs address their needs for food safety knowledge and training.

2. Collaboration with key sectors shall help academics in helping MSMEs address their needs.

3. Educational materials should be well-designed to **be appreciated at the educational level** of concerned stakeholders.

4. Social media can be used to **educate** consumers and MSME stakeholders, and to **address misinformation** in the world wide web.