

PHARMACEUTICAL SCIENCE COURSE MODULES (YEAR 3)

Discover what it is like to work at the forefront of drug therapy and improve human health when you take on the Diploma in Pharmaceutical Science [PHARM]. This course will equip you with a foundation in biological, chemical and pharmaceutical sciences in your first year, before proceeding onto more advanced topics such as clinical trials, drug manufacturing, pharmaceuticals and pharmacology.

In your final year, you will have the opportunity to go for a six-month internship in clinical pharmacy or the industry-designed to engage you in learning directly from working professionals. You will apply the skills and experience gained from the course to solve real-life problems as part of a project during your internship.

In addition, practicing pharmacists from the Pharmacy Department of NUH will teach you clinical knowledge and pharmacy skills as part of the unique Pharmacy Training Programme. You can also choose one of these electives in your final year:

The Complementary Medicine & Traditional Chinese Medicine elective enables you to evaluate the evidence behind alternative therapies and traditional Chinese medicines.

The Nutrition & Dietetic Science elective provides you with a basic understanding of nutritional and dietetic concepts, including the study of nutrients in the diet and their effects on health.

LEVEL 3.1

Internship Programme

The six-month internship provides students with exposure to the real work environment, providing opportunities to relate and apply the knowledge acquired during the course to work situations and enable the transition into the workplace. Clear learning outcomes, close mentorship, meaningful and real work activities allow for structured learning throughout the duration of the internship. Students will be attached to companies in various healthcare and pharmaceutical industries. Students will also have the opportunity to go for overseas internships.

LEVEL 3.2

Clinical & Pharmacy Practice

In this module, students will study foundational concepts in patient care, pharmacy law and professional ethics. They will develop effective communication skills for interacting with patients, caregivers and other healthcare professionals. The application of clinical data in interpreting results and the optimization of drug therapy in a clinical setting will be the focus of the clinical component. The module will also review medication safety and error prevention.

Pharmacotherapeutics & Good Dispensing Skills

In this module, students will study the therapeutic effects of drugs, their mechanisms of action, common doses for disease states, and the concept of rational drug selection. This will be simultaneously integrated with the fundamentals of good dispensing practice. Students will learn how to dispense medications in a safe, timely and effective manner and further develop their competencies in counselling through role play.

Pharmacy Management & Logistics

This module focuses on business aspects relating to the operation of hospital and retail pharmacies. Topics include procurement, logistics and inventory management, business automation, marketing and principles of finance pertaining to the operations of a pharmacy.

ELECTIVES

Choose any 1

Complementary Medicine & Traditional Chinese Medicine (TCM)

This module describes how philosophies of alternative medicines and therapies are used to complement those of conventional medicine. The mechanism of action, dosage forms and pharmacological aspects of selected complementary medicines and traditional Chinese medicines will be covered, including the responsibilities associated with the sale and marketing of complementary medicines.

Nutrition & Dietetic Science

This module provides students with a basic understanding of nutritional and dietetic concepts, including the role of micro and macronutrients in the diet and their effects on health. Principles of clinical nutrition and dietary requirements for special medical conditions and at different life stages will also be covered. Students will also learn to evaluate the evidence behind the use of common nutraceuticals and functional foods for health benefits as well as the regulations associated with the sales and marketing of such therapies.

Project ID: Connecting the Dots[^]

This module aims to prepare students for an increasingly globalized and interconnected world where problems are multi-faceted and require interdisciplinary research and collaboration to solve. Using a project-based learning approach, students will have the opportunity to work in a multi-disciplinary team to investigate and propose comprehensive recommendations for a pressing real-world problem affecting Singapore. They will be guided to step out of their disciplinary silos and effectively communicate and collaborate with peers from different backgrounds. Ultimately, the module seeks to develop independent learning skills and the ability to synthesize diverse strands of knowledge to solve a complex problem, while impressing on students the importance of being a responsible global citizen.

COURSE CURRICULUM (YEAR 3)

Module Name	Credit Units
YEAR 3	
Level 3.1 (20 hours per week)	
Internship Programme	20
Level 3.2 (18 hours per week)	
Clinical & Pharmacy Practice	4
Pharmacotherapeutics & Good Dispensing Skills	6
Pharmacy Management & Logistics	2
Electives (Choose 1):	2
• Complementary Medicine & Traditional Chinese Medicine (TCM)	
• Nutrition & Dietetic Science	
Project ID: Connecting the Dots [^]	4

Notes:

[^] For more details on Interdisciplinary Studies (IS) electives, please log on to www.np.edu.sg/is/

IS Modules

The School of Interdisciplinary Studies (IS) delivers a broad-based curriculum, which nurtures a new generation of professionals with multidisciplinary skills and an innovative and entrepreneurial spirit to meet the challenges of a knowledge economy. IS offers both prescribed modules and electives to challenge boundaries. Prescribed modules develop students' competencies in core areas such as Communication, Innovation and Enterprise, Culture and Communication, and Personal Mastery and Development, while elective modules provide insights into Arts and Humanities, Business, Design, and Science and Technology.