

# PHARMACY TECHNICIAN (PHAR)

## PHAR 45 2.0 UNITS

### Retail Products for Pharmacy Clerks

Class Hours: 2.0 Lecture

Total Contact Hours: 36 Lecture

This course provides basic knowledge about Over-the-Counter (OTC) products in relation to their accepted therapeutic uses. Students will understand the steps involved in safely choosing a non-prescription product.

## PHAR 50 1.5 UNITS

### Pharmaceutics

Class Hours: 1.5 Lecture

Total Contact Hours: 27 Lecture

Prerequisite: HO 56 or equivalent with a grade of credit or "C" or higher.

This course is designed to develop the practical application of fundamentals of measurements and mathematics utilized by the pharmacy technician.

## PHAR 55 1.5 UNITS

### Pharmacy Introduction

Class Hours: 1.5 Lecture

Total Contact Hours: 27 Lecture

Corequisite: PHAR 56

This introductory course is designed to provide the student with an overview of the pharmacy profession and the role of the pharmacist, pharmacy technician, and pharmacy clerk in all pharmacy settings. Students will be introduced to pharmacy law and will learn how to read and process prescriptions. This course is not open to students who have received credit for PHAR 60.

## PHAR 56 0.5 UNITS

### Pharmacy Skills Lab Introduction

Class Hours: 0.5 Lecture / 1.0 Laboratory

Total Contact Hours: 9 Lecture / 18 Laboratory

Corequisite: PHAR 55

This course is designed to provide the student with hands-on experience working with a computerized Pharmacy Management System in the retail setting. This course is not open to students who have received credit for PHAR 60L.

## PHAR 57 1.5 UNITS

### Pharmacy Operations I

Class Hours: 1.5 Lecture

Total Contact Hours: 27 Lecture

This course is designed for the student to develop the interpersonal communication skills needed to work in a pharmacy setting dealing with patients, pharmacists, and co-workers. Students will also develop a basic understanding of hospital distribution systems and medication order transcription. This course is not open to students who have received credit for PHAR 62.

## PHAR 63 2.0 UNITS

### Pharmacy Operations II

Class Hours: 2.0 Lecture / 1.0 Laboratory

Total Contact Hours: 36 Lecture / 18 Laboratory

Prerequisite: PHAR 55, PHAR 56, and PHAR 57 or equivalent with grades of Pass or "C" or higher.

This course is designed for the Pharmacy Technician major to develop proficiency in skills necessary to both hospital and community pharmacy settings. It will also introduce students to the many contemporary issues facing the pharmacy profession. Included will be use of forms, drug formularies, patient profiles, patient charts, processing of medication orders, drug manufacturing and packaging, and computers.

## PHAR 64 2.5 UNITS

### Pharmacy Operations III

Class Hours: 2.0 Lecture / 2.0 Laboratory

Total Contact Hours: 36 Lecture / 36 Laboratory

Prerequisite: PHAR 50, PHAR 55, PHAR 56, PHAR 57, and PHAR 63 or equivalents with grades of Pass or "C" or higher. PHAR 63 may be taken concurrently with PHAR 64; however PHAR 64 cannot be taken prior to PHAR 63.

This course is designed to develop proficiency in the preparation and storage of sterile products. Topics include infection control, aseptic technique, sterile product compatibility and the use of pharmacy equipment in medication preparation. United States Pharmacopeia guidelines and California State Board of Pharmacy regulations are emphasized.

## PHAR 65 2.0 UNITS

### Pharmacy Operations IV - Non-Sterile Compounding

Class Hours: 2.0 Lecture / 1.0 Laboratory

Total Contact Hours: 36 Lecture / 18 Laboratory

Prerequisite: PHAR 50 and PHAR 63 or equivalent with grades of Pass or "C" or higher.

This course will provide training in the art, science, and technology of pharmaceutical compounding. It is designed for the Pharmacy Technician major to develop proficiency in the skills necessary for successful compounding technique and practice in both the hospital and community pharmacy settings. This course includes the history and theory of pharmaceutical compounding, non-sterile preparation, use of dosage forms, rationale for use of various drug formulations, patient-specific criteria indicating alternative dosage forms, herbal alternatives, and regulations governing the practice of compounding and packaging.

## PHAR 81 3.0 UNITS

### Over-The-Counter Products

Class Hours: 3.0 Lecture

Total Contact Hours: 54 Lecture

Recommendation: MA 161 or A&P 120 or equivalent with a grade of Pass or "C" or higher.

This course is designed to teach Pharmacy Technician students to recognize the classifications, uses and general action of the various Over-the-Counter (OTC) pharmaceutical and herbal products available to and used by consumers. Lectures and discussions include a brief review of anatomy and physiology, a review of the way drugs exert their effects, major indications for use, adverse effects, consumer precautions and contraindications. The goal is to help a person select a non-prescription drug safely and rationally.

<p><b>PHAR 83</b>  <b>Pharmacy Technician Pharmacology I</b>            Class Hours: 3.0 Lecture            Total Contact Hours: 54 Lecture</p> <p>Prerequisite: MA 161 or A&amp;P 120 or equivalent with a grade of Credit or "C" or higher.</p> <p>This pharmacology course covers information on drugs affecting the gastrointestinal system, vitamin and mineral balance, infectious diseases, neoplastic disorders, immunological function, hormonal function, mood and behavior and the eyes. Content includes how drugs exert their effects, adverse effects and major indications for drug use. Emphasis will be placed on routes of administration and product types.</p>	<p><b>3.0 UNITS</b></p>	<p><b>PHAR 99</b>  <b>Directed Studies</b>            A course to provide opportunity for individual research and field projects under the direction of a faculty member in a given department. With the guidance of the faculty member, students prepare and carry out a written learning agreement describing the purposes and outcomes of the project. Students should expect to meet with the supervising faculty member one to two hours each week for conferences. Credit is based upon the number of hours in the semester expected to complete the project (2 units for 108 hours). This course may be taken a maximum of 2 times.</p>	<p><b>2.0 UNITS</b></p>
<p><b>PHAR 85</b>  <b>Pharmacy Technician Pharmacology II</b>            Class Hours: 3.0 Lecture            Total Contact Hours: 54 Lecture</p> <p>Prerequisite: MA 161 or A&amp;P 120 or equivalent with a grade of Credit or "C" or higher.</p> <p>This pharmacology course covers information on drugs affecting the respiratory, integumentary, nervous and cardiovascular systems. Content includes major indications for drug use, how drugs exert their effects, adverse effects and specific implications for consumer awareness. Drugs of abuse, at-risk populations and treatment regimens are included. Emphasis will be on routes of administration and product types.</p>	<p><b>3.0 UNITS</b></p>	<p><b>PHAR 327</b>  <b>Principles of Pharmacology</b>            Class Hours: 3.0 Lecture            Total Contact Hours: 54 Lecture</p> <p>Prerequisite: A&amp;P 150 and A&amp;P 151 or equivalent with a grade of "C" or higher or "Pass"</p> <p>This is an upper division General Education course, designed for students in the Dental Hygiene Baccalaureate Degree Program. The emphasis is on the clinical indications and uses of medications encountered in dental settings. Students will learn general principles of pharmacology, including pharmacodynamics, pharmacokinetics, and pharmacogenetics and be able to discuss mechanisms of drug action, drug interactions, adverse effects, and toxicities of selected medication. The effects of medications on dental health are also reviewed with a focus on consumer education. This course is open only to California Community College baccalaureate students.</p> <p>Transfer Credit: CSU</p>	<p><b>3.0 UNITS</b></p>
<p><b>PHAR 90</b>  <b>Clinical Experience I</b>            Class Hours: 1.0 Lecture / 7.8 Laboratory            Total Contact Hours: 18 Lecture / 140.04 Laboratory</p> <p>Prerequisite: PHAR 50, PHAR 63, PHAR 65, and PHAR 81 or equivalents with grades of "C" or higher or "Pass".</p> <p>This course is designed to provide the student with practical experiences in selected community pharmacy settings working under the supervision of a registered pharmacist.</p>	<p><b>3.5 UNITS</b></p>		
<p><b>PHAR 95</b>  <b>Clinical Experience II</b>            Class Hours: 1.0 Lecture / 11.1 Laboratory            Total Contact Hours: 18 Lecture / 200 Laboratory</p> <p>Prerequisite: PHAR 64, PHAR 83, and PHAR 85 or equivalent with grades of Credit or "C" or higher.</p> <p>This course is designed to provide the student with practical experiences in the classroom lab and in selected hospital pharmacy settings working with intravenous additives and sterile extemporaneous packaging areas.</p>	<p><b>5.0 UNITS</b></p>		
<p><b>PHAR 98</b>  <b>Directed Studies</b>            A course to provide opportunity for individual research and field projects under the direction of a faculty member in a given department. With the guidance of the faculty member, students prepare and carry out a written learning agreement describing the purposes and outcomes of the project. Students should expect to meet with the supervising faculty member one to two hours each week for conferences. Credit is based upon the number of hours in the semester expected to complete the project (1 unit for 54 hours). This course may be taken a maximum of 2 times.</p>	<p><b>1.0 UNITS</b></p>		