SPPS 201 Pharmacy Practice I
The Pharmacy Practice course is designed to introduce the pharmacy students to the profession of pharmacy. As a foundation students will begin to acquire a body of knowledge and professional practice skills. These basic foundations will be based on and include OTC medications, alternative therapies, patient assessment skills, patient counseling skills, point-of-care testing, parenteral therapy preparation, pharmaceutical calculations and prescription practice. The course will include lecture, laboratories, conferences and workshops.

SPPS 202 Pharmacy Practice II
The Pharmacy Practice course is designed to introduce the pharmacy students to the profession of pharmacy. As a foundation students will begin to acquire a body of knowledge and professional practice skills. These basic foundations will be based on and include OTC medications, alternative therapies, patient assessment skills, patient counseling skills, point-of-care testing, parenteral therapy preparation, pharmaceutical calculations and prescription practice. The course will include lecture, laboratories, conferences and workshops.

SPPS 202A Concepts in Pharmacy Practice
The Concepts in Pharmacy Practice course is designed to introduce the pharmacy students to the profession of pharmacy. Best pharmacy practices will be showcased from the San Diego health care industry and select practices from other California communities and the nation. Students will be exposed to pharmacy practice leaders from community practice, institutional practice, HMO providers and managed-care, home health care, biotechnology research and manufacturing, pharmaceutical industry, clinical research, and investigational drugs, PBMs, drug information/poison information, pharmacokinetics and geropsychiatry and chronic drug therapy management. The course will be presented in lecture and seminar format.

SPPS 203 Pharmacy Practice III
Introduction to the profession of pharmacy. Students will acquire knowledge and professional practice skills based on OTC medications, alternative therapies, patient assessment/counseling skills, point-of-care testing, parenteral therapy preparation, pharmaceutical calculations and prescription practice. Includes lectures, laboratories, conferences, workshops and introductory pharmacy practice experiences (IPPEs).

SPPS 204 Law & Ethics
Law and ethics of pharmacy practice, including: key drug and pharmacy laws; the nature and scope of pharmacist practice, drug manufacturing, compounding, preparation, dispensing, and record-keeping, the role of various government agencies; potential bases for discipline or other liability; licensure requirements.

SPPS 205 Pharmacy Informatics
The objective is to provide the student with fundamental skills in pharmacy information technologies and their impact on the practice of pharmacy. Topics include database design and applications, effective database searching, pharmacy computer systems, electronic medical records, patient privacy and safety, drug information systems, pharmacogenomics, and pharmacokinetics.
SPPS 206 Biostatistics
An introduction to basic statistical concepts used in biomedical literature: confidence intervals, P values, significance, power, goodness-of-fit. Emphasis will be on understanding the appropriate use in interpretation of the tests, rather than the calculations.

SPPS 208 Clinical Research Design & Applications
Students attain critical appraisal skills of medical/pharmacy literature for therapeutic decisions. Study designs range from randomized controlled trials to observational registries including clinical, economic and humanistic endpoints. Elements of hypothesis, populations, procedures, methods, validity, execution, analysis, reporting, and ethical considerations are presented.

SPPS 220 Drug Information
This course will review the various types of drug information available to the pharmacy practitioner and its application to patient care. Practical exercises will provide the student with hands-on experience using numerous drug information sources and evaluation techniques.

SPPS 221 Pharmaceutical Chemistry I – Organic Chemistry
Survey of the chemistry of drug molecules. Topics will include the relationship between size and absorption, functional group chemistry (pKa, nucleophiles, electrophiles), factors that influence aqueous solubility, stereochemistry, conformational flexibility, reactivity, and macromolecules including DNA, RNA, polypeptides and their mimetics. A computational laboratory will accompany the course. Laboratory exercise will include molecular modeling of drug molecules, analysis of analytical chemical data on drug metabolites, and analysis of absorption parameters as they depend on pKa.

SPPS 222 Pharmaceutical Chemistry II – Physical Chemistry
This course will be a thorough and rigorous treatment of the basic principles of thermodynamics and chemical kinetics of molecular reactions. Students will be introduced to thermodynamics, molecular behaviors and kinetics in the context of drug examples and drug absorption. Topics will include solvation, electrostatic interactions, intramolecular (conformational) energetics, thermodynamics and statistical thermodynamics, chemical equilibria of acid-base and reaction rate orders, rate laws, and integrated rate laws and discussion of passive transport across membranes, and temperature and ionic strength dependences.

SPPS 223 Pharmaceutical Chemistry III – Pharmacological Biochemistry
Survey of the ways in which macromolecules interact with drugs. Topics will include enzyme kinetics and inhibition, receptor-ligand interactions, the interaction between ribosomes and antibiotics, proteases and their inhibition as anticoagulant therapy, cancer chemotherapy and HIV therapy, kinases and phosphatases and drug metabolism with emphasis binding analyses, the kinetics of drug resistance and metabolism, and the consequences of metabolic induction.
SPPS 224 Biopharmaceutics
This course presents an understanding of the basic fundamentals of biopharmaceutics including the major physical, chemical and biological factors that influence the systemic availability of drugs from their dosage forms. Topics included are rates and extent of absorption, gastrointestinal transit and physiologic considerations, membrane transport, first pass effects, parenteral and oral absorption, dissolution, bioequivalence, immediate and modified release.

SPPS 225 Dosage Forms & Drug Delivery Systems
This course complements Pharmaceutics I & III (Biopharmaceutics and Pharmacokinetics) and presents a thorough understanding of the fundamental principles necessary to administer therapeutic agents. This includes review of the chemical, physical chemical and physiologic barriers necessary for drug delivery, the vehicle for drug delivery, systems used for drug delivery, routes of administration, standards for formulation, FDA regulations, testing standards, expiration standards and labeling.

SPPS 226 Pharmacokinetics
This course presents an understanding of the basic fundamentals of clinical pharmacokinetics including rates of drug absorption distribution, metabolism and excretion in humans. Topics included are drug clearance, volume of distribution, and elimination of half-life. Emphasis will be placed on understanding pharmacokinetics in the normal state and will also use examples of change in pharmacokinetic parameters due to drug interactions, concurrent diseases and genetic differences.

SPPS 240 Histology
This course presents the structural basis of normal histology essential for understanding both altered structure and function of cells, tissues and organs in disease and sites of drug action. Students are expected to identify the specialized cells, tissues and organs of the human body and understand the structural basis of their function.

SPPS 241 Gross Anatomy
The gross anatomy course will provide the student with a basic knowledge of human anatomy using a regional approach (head and neck, extremities, thorax, abdomen and pelvis). The student will acquire an understanding of structure as it relates to function, and a working vocabulary of human anatomy, facilitating their introduction into clinical pharmacy and therapeutics. Lectures will be combined with active participation in laboratory dissections and supplemental by prosecution demonstrations. Computer based anatomical information supports and encourages self-instruction.