

**UC San Diego**  
**SKAGGS SCHOOL OF PHARMACY**  
**AND PHARMACEUTICAL SCIENCES**

**Community Pharmacy Advanced Pharmacy Practice Experience**

**SPPS 402**

**Office of Experiential Education**

Renu Singh, Pharm.D.  
Assistant Dean of Experiential Education  
Clinical Professor  
[rfsingh@ucsd.edu](mailto:rfsingh@ucsd.edu)  
(858) 822-5585

Felix Yam, Pharm.D.  
Director, APPEs  
Associate Clinical Professor  
[fyam@ucsd.edu](mailto:fyam@ucsd.edu)  
(858) 822-3648

Jayne Laity, MPH  
APPE Experiential Education Coordinator  
[jlaity@health.ucsd.edu](mailto:jlaity@health.ucsd.edu)  
(858) 822-2458

## **I. Course Description: SPPS 402 (7 units)**

SPPS 402 is a six week, core advanced pharmacy practice experience, supervised by licensed pharmacist(s) in a community pharmacy setting. Through direct supervision and some independent practice, students will engage in advanced pharmacy practice roles. Students provide patient education, prescription and OTC recommendations, customer service, and interact with pharmacists, pharmacy staff, health care professionals, and other medical staff. Students will also process, bill, prepare and dispense medications while becoming familiar with management related issues such as medication acquisition, disposal, pharmacy metrics, training, administration of vaccines and supervision of pharmacy staff. Students will have the opportunity to provide patient oriented drug therapy education, recommendations, disease and medication adherence monitoring to a diverse patient population, with an emphasis on effective communication with patients and other members of the health care team.

Through this supervised experience the student will be able to apply concepts from clinical didactic course work, simulations, and IPPEs to effectively address a wide range of situations encountered in community settings. Students will also appropriately utilize the Pharmacist Patient Care Process (PPCP) and online drug information resources. Depending on the particular pharmacy and consent of preceptor, the student may consult and discuss drug therapy with patients, pharmacists, physicians and other health care providers.

Pharmacy settings may include independent, chain and institutional community sites. This opportunity will provide students with advanced expertise in accessing, evaluating, and applying information to promote optimal patient care to a diverse population, while enhancing their pharmacy practice and managerial skills to become effective pharmacists in this setting.

Students should refer to the Office of Experiential Education section on the Resources tab of PILS for specific Rotation Descriptions and additional resources.

Students are expected to adhere to all [Policies and Guidelines at SSPPS](#).

## **II. Prerequisites**

1. Students must have successfully completed years 1-3.
2. Students must meet eligibility requirements to progress to APPEs per SSPPS Progression Policy Students must meet expectations as stated in the SSPPS Guidelines on the Evaluation of Professionalism.
3. Students must have successfully completed all Introductory Pharmacy Practice Experience (IPPE) and Co-Curricular requirements.
4. Students must have received a passing score on the Comprehensive Cumulative exam.
5. Students must have a pharmacy intern license.
6. Students must have up-to-date immunization records and have received HIPAA training.
7. Students must have requisite training/certifications/other requirements necessary for the given activity.

## **III. Course Goals**

- A. Students will interact with patients, the pharmacy staff and other healthcare providers while participating in a variety of learning activities which will further develop and enhance professional judgment, knowledge, and the skills needed to practice in the community pharmacy setting. Under the preceptorship of the pharmacist, the student will be provided with many opportunities to apply academic basic science and clinical didactic course work to patient care in the community setting. Students will demonstrate ethical and professional behavior in all practice activities.

IV. Course Domains, Objectives, and Activities<sup>1</sup>

	Specific Objectives	Example Learning Activities
<b>Domain 1. Patient Care Provider</b>		
<b>Objective 1:</b> Apply the Pharmacist Patient Care Process (PPCP).	1.1 Collect information to identify a patient's medication-related problems and health-related needs.	<ul style="list-style-type: none"> <li>• Collect a medical history from a patient or caregiver.</li> <li>• Collect a medication history from a patient or caregiver.</li> <li>• Determine a patient's medication adherence.</li> <li>• Identify patient barriers to compliance with treatment plan.</li> <li>• Utilize medical and/or pharmacy records to determine a patient's health-related needs relevant to the community pharmacy setting.</li> </ul>
	1.2 Analyze and assess information to determine the effects of medication therapy, identify medication-related problems, and prioritize health-related needs.	<ul style="list-style-type: none"> <li>• Perform effective prospective, concurrent, and retrospective drug utilization review.</li> <li>• Identify medication adherence concerns and construct patient-specific interventions to improve adherence.</li> <li>• Conduct formal MTM process including comprehensive medication reviews (CMR) and targeted interventions.</li> <li>• Identify drug-drug, drug-food, and drug-disease interactions.</li> <li>• Assess a patient's signs and symptoms to determine whether the patient can be treated. within scope of practice or requires a referral.</li> <li>• Provide patients with appropriate information and resources to contact other healthcare providers when warranted.</li> </ul>
	1.3 Educate patients about self-care and medication self-administration including making recommendations regarding medications (prescription and OTC) and non-drug therapy alternatives.	<ul style="list-style-type: none"> <li>• Provide appropriate OTC counseling/consulting</li> <li>• Perform self-care consults.</li> <li>• Recommend appropriate dietary supplements, diet, nutrition, complementary and alternative therapies.</li> <li>• Assess a patient's signs and symptoms to determine whether the patient can be treated within scope of practice or requires a referral.</li> </ul>

	1.4 Establish patient-centered goals and create a care plan for a patient in collaboration with the patient, caregiver(s), and other health care professionals that is evidence based and cost-effective.	<ul style="list-style-type: none"> <li>• Conduct formal MTM process including comprehensive medication reviews and targeted interventions.</li> <li>• Recommend alternative medication therapy based on a patient's ability to pay and/or insurance formulary.</li> <li>• Follow an evidence-based disease management protocol.</li> </ul>
	1.5 Implement a plan in collaboration with the patient, caregivers, and other health care professionals.	<ul style="list-style-type: none"> <li>• Document a care plan that conveys the findings and recommendations from a patient encounter.</li> <li>• Educate a patient or caregiver on the use of medication adherence aids.</li> </ul>
	1.6 Follow-up and monitor a care plan.	<ul style="list-style-type: none"> <li>• Recommend modifications or adjustments to an existing medication therapy regimen based on patient response.</li> <li>• Provide appropriate patient-specific updates to the pharmacy team during a handoff or change in staff.</li> <li>• Follow-up with a patient to ensure compliance with agreed upon plan.</li> <li>• Identify patients at risk of non-adherence to prescribed therapy and recommend potential solutions (medication synchronization, auto-refills, pick-up reminders, etc.).</li> </ul>
<b>Domain 2. Communication and Education</b>		
<b>Objective 2:</b> Use appropriate education and communication strategies for a diverse patient population.	2.1 Educate patients and professional colleagues regarding the appropriate use of medications	<ul style="list-style-type: none"> <li>• Develop and deliver an educational program to health professionals and/or lay audience</li> <li>• Educate a patient regarding the appropriate use of a new medication, device to administer a medication, or self-monitoring test</li> <li>• Utilize diverse methods for delivering patient-centered education (e.g., telephone encounters, tele-health video sessions)</li> </ul>
	2.2 Adjust communication styles and techniques (e.g. motivational interviewing, coaching, counseling, education) in response to patient specific needs and individual social determinants of health (e.g. culture, religion, health	<ul style="list-style-type: none"> <li>• Implement motivational interviewing techniques to improve patient adherence.</li> <li>• Maintain sensitivity to cultural, socioeconomic, and other factors which may impact a patient's care.</li> <li>• Incorporate validated health literacy assessments and tools into pharmacy</li> </ul>

	literacy, disabilities, and cognitive impairment).	<p>workflow, operations and/or individual patient's care plans, when appropriate.</p> <ul style="list-style-type: none"> <li>Assess effectiveness of counseling or other communication using the teach back method and re-adjust technique until understanding is confirmed.</li> </ul>
<b>Domain 3. Population Health Promoter</b>		
<b>Objective 3:</b> Promote population health.	3.1 Identify patients at risk for prevalent diseases in a population.	<ul style="list-style-type: none"> <li>Deliver preventative disease screening services, if available.</li> <li>Participate in point-of-care testing services.</li> <li>Participate and engage community members at health fairs.</li> </ul>
	3.2 Minimize adverse drug events and medication errors.	<ul style="list-style-type: none"> <li>Identify and report medication errors and adverse drug reactions.</li> <li>Assess medication errors for root cause.</li> </ul>
	3.3 Ensure patients have been immunized against vaccine-preventable diseases	<ul style="list-style-type: none"> <li>Screen patients for appropriate immunizations based on patient specific factors (age, chronic health conditions, past immunization status, etc.)</li> <li>Utilize state and local online immunization registries</li> <li>Administer immunizations</li> <li>Participate in and/or support immunization-related activities</li> </ul>
<b>Domain 4. Practice Manager</b>		
<b>Objective 4:</b> Apply Dispensing System and Safety Management (D&S).	4.1 Accurately apply the prescription verification process (e.g. legitimate prescription, appropriate dose, interactions, DUR).	<ul style="list-style-type: none"> <li>Fulfill medication orders appropriate to community practice including prescription verification, telephone orders, proper selection, preparation, compounding, labeling, storage, packaging, handling and disposal.</li> <li>Identify and resolve drug-drug, drug-disease, and drug-nutrient/food interactions.</li> <li>Utilize Controlled Substance Utilization, Review and Evaluation System (CURES), or equivalent prescription drug monitoring program (PDMP) to ensure appropriate dispensing of controlled substances.</li> <li>Participate in QI/QA projects related to operational and/or workflow specific issues.</li> </ul>

	<p>4.2 Use a computerized pharmacy management system and best practices related to safe medication use in distribution of medications to patients.</p>	<ul style="list-style-type: none"> <li>• Dispense medications appropriate to community practice including prescription verification, telephone orders, proper selection, preparation, compounding, labeling, storage, packaging, handling and disposal.</li> <li>• Identify and report medication errors and adverse drug reactions per appropriate pharmacy laws, policies, and procedures.</li> </ul>
	<p>4.3 Fulfill a medication order.</p>	<ul style="list-style-type: none"> <li>• Prepare commonly prescribed medications that require basic non-sterile compounding prior to patient use.</li> <li>• Determine the patient co-pay or price for a prescription.</li> <li>• Assist a patient to acquire medication(s) through support programs.</li> </ul>
<p><b>Domain 4.1:</b> Apply operational knowledge and leadership qualities as a practice manager (PM).</p>	<p>4.1.1 Demonstrate the role of a pharmacist in managing legal, human, financial, technological and/or physical resources for day-to-day operations in the pharmacy.</p>	<ul style="list-style-type: none"> <li>• Discuss pharmacy budget and financial projections.</li> <li>• Participate in a conference/discussion on a routine basis to discuss community pharmacy related topics (See Appendix 1).</li> <li>• Prepare formal verbal and written presentations on topics related to community pharmacy practice as assigned by preceptor (See Appendix 2).</li> <li>• Given a human resources conflict, describes perspectives of all involved.</li> <li>• Identify opportunities for pharmacy staff training and create training material and/or plan.</li> <li>• Understand the application of pharmacy laws in community pharmacy practice.</li> <li>• Participate in purchasing/inventory management activities.</li> <li>• Supervise pharmacy technical staff.</li> </ul>
	<p>4.1.2 Participate in continuous quality improvement techniques to optimize the medication use process.</p>	<ul style="list-style-type: none"> <li>• Participate in QI/QA projects related to operational and/or workflow specific issues.</li> <li>• Evaluate CQI data to determine opportunities for improvement.</li> <li>• Prepare formal verbal and written presentations on topics related to community pharmacy practice as assigned by preceptor (See Appendix 2).</li> </ul>

	4.1.3 Oversee pharmacy operations for an assigned work shift.	<ul style="list-style-type: none"> <li>• Coordinate the activities of pharmacy technicians and other support staff.</li> <li>• Appropriately troubleshoot and solve patient and/or workflow issues.</li> </ul>
<b>Domain 5. Ethics and Professional Behavior</b>		
<b>Objective 5:</b> Apply ethical and professional behavior.	5.1 Demonstrate ethical and professional behavior in all practice activities.	<ul style="list-style-type: none"> <li>• Adhere to patient privacy standards in verbal and written communications.</li> <li>• Wear appropriate attire; have appropriate demeanor and conduct.</li> <li>• Adhere to all attendance requirements, including punctuality.</li> <li>• Demonstrate an attitude that is respectful of diverse individuals, groups, cultures and communities.</li> </ul>

## V. Evaluations:

- A. Grading will be Pass/No Pass
- B. Three evaluations using the standardized Pharmacy Evaluation Form are required for this course:
- Mid-point Formative Evaluation: An online self-evaluation completed by the student and discussed with the preceptor. The preceptor will provide written and verbal comments and sign off.
  - Preceptor & Site Evaluation: An online evaluation completed by the student at the end of the rotation.
  - Summative Evaluation: An online evaluation completed by the preceptor at the end of the rotation and discussed with the student.
  - Students may be evaluated at any other time at the discretion of the preceptor. Preceptors may evaluate students more frequently, so that the student is informed of areas requiring improvement early in the rotation. The primary preceptor may obtain feedback from all team members as well as any patient comments.
- C. Students must have submitted a completed Midpoint Formative evaluation in addition to evaluations of their sites/preceptors in order to receive their grades.

## VI. Resources

- SSPPS References: [Students & Preceptors](#)
- [UCSD Intranet Medication Resources](#)
- [Online Clinical Library Resources](#)
  - Clinical Pharmacology
  - Micromedex
  - DynaMed
  - Up to Date
  - Natural Medicines
- Suggested Textbooks (Updated versions may be available)
  - Krinsky DL, Ferreri SP, Hemstreet B, Hume AL, Newton GD, Rollins CJ, Tietze KJ. *Handbook of Nonprescription Drugs: An Interactive Approach to Self-Care*. 19<sup>th</sup> ed., American Pharmacists Association, 2017.

2. Pharmacology textbook. Example: Goodman & Gilman's *The Pharmacological Basis of Therapeutics*, 13<sup>th</sup> edition. McGraw-Hill, New York, 2018. Available on-line through UCSD Biomedical Library Online Clinical Library under Access Medicine catalog (<https://accessmedicine.mhmedical.com>)
  3. DiPiro JT, Talbert RL, Yee GC, Matzke GR, Wells BG, Posey LM, eds. *Pharmacotherapy: A Pathophysiologic Approach*, 10<sup>th</sup> edition. McGraw-Hill, New York, 2017.
  4. Centers for Disease Control and Prevention. Epidemiology and Prevention of Vaccine-Preventable Diseases. Hamborsky J, Kroger A, Wolfe S, eds. 13<sup>th</sup> ed. Washington D.C. Public health Foundation, 2015. Available at <https://www.cdc.gov/vaccines/pubs/pinkbook/index.html>
  5. Drugs and Lactation Database (LactMed) [Internet]. Bethesda (MD): National Library of Medicine (US); 2006-. Available from <https://www.ncbi.nlm.nih.gov/books/NBK501922/?report=classic>
- D. [The Pharmacists' Patient Care Process \(PPCP\)](#)
1. See **Appendix 3** for blank PPCP template
- E. As specified per individual rotation site/preceptor

<sup>1</sup> Course Goals, Objectives, and Activities Adapted from:

- *Essential Elements for Core Required Advanced Pharmacy Practice Experiences.* [Am J Pharm Educ.](#) 2019 May; 83(4): 6865
- *Core entrustable professional activities for new pharmacy graduates.* [Am J Pharm Educ.](#) 2017 Feb 25; 81(1): S2

## Appendix 1

Topics for discussion may include:

1. Operations:
  - a. Pharmacy layout
  - b. Security
  - c. Prescription processing
  - d. Dispensing
  - e. Billing and reimbursement
  - f. Insurance
  - g. Compounding
  - h. Specialty medications
  - i. Transferring prescription orders
2. Education and Clinical Interventions:
  - a. Counseling (Rx, OTC, complementary, herbals)
  - b. Medication therapy management (MTM)
  - c. Health education
  - d. Screening
  - e. Referrals
  - f. Immunizations
3. Legal and Quality Issues:
  - a. HIPAA
  - b. Application of pharmacy law
  - c. Controlled substances
  - d. Risk Evaluation and Mitigation Strategy
  - e. Liability issues
  - f. Clinical practice dilemmas
4. Management:
  - a. Supervision
  - b. Scheduling
  - c. Personnel issues – including human resource conflicts
  - d. Organizational structure
  - e. Productivity measures
  - f. Marketing
  - g. Creating a business plan
  - h. Budget and financial projections

## Appendix 2

Prepare formal verbal and written presentations on topics related to community pharmacy practice as assigned by preceptor

1. The goals of this discussion are:
  - a. To provide practical information for clinicians, staff or patients
  - b. To give the student the opportunity to organize and relate drug information to a specific audience
  - c. To provide verbal and/or written feedback to the student
2. Assignments may include (but not limited too):
  - a. New drug evaluations
  - b. Discussion of current guidelines
  - c. Patient educational materials
  - d. Department newsletters
  - e. Patient case presentation\*

**\*If the topic includes a patient case presentation, the student should include the following elements:**

- a. Reason for clinic visit and chief complaint
- b. History of present illness
- c. Past medical history
- d. Medication history (Rx, OTC,, allergies/ADRs, adherence)
- e. Summary of pertinent review of systems and physical examination
- f. Pertinent labs
- g. Assessment of response and appropriateness of current therapy
  - i. Evaluation of the rationale for its use
  - ii. Comparison of alternative therapies and therapeutic approaches which may be beneficial for the problem in question (this will include a comparison of efficacy, adverse reactions, toxicity and relative advantages and disadvantages of each therapy).
  - iii. Discussion of recent developments and/or controversies on the topic or drug presented and a critical evaluation of literature reviewed.
  - iv.
- h. Therapeutic plan
- i. Therapeutic considerations
  - i. Discussion of pertinent pharmaceutical considerations (dosage form, stability, cost, insurance coverage, ease of use by the patient, dexterity issues, etc)
- j. Monitoring parameters
- k. Planned follow-up

Appendix 3

**Pharmacists' Patient Care Process (PPCP) Form**

Patient Name:		DOB:	Age:	Sex:	Wt:	Ht:
COLLECT		ASSESS	PLAN	IMPLEMENT	FOLLOW-UP	
Subjective	Objective					
CC:	Lab results, physical exam, procedures and diagnostic test results, documented history	Primary Problem(s):	Treatment Goal(s):	Patient Education/Counseling for selected plan (key points)		Monitoring parameters (efficacy, safety, adherence)
HPI:		Exclusions for (Self) Treatment:		- 3 prime questions, general care, preventive measures, monitoring)		
		Need for therapy:	Recommended Drug Therapy Drug name(s), strength, dose, route, dosing frequency, duration of therapy			Evaluate and modify plan if needed (e.g., alternative treatments)
Relevant Meds:		Evaluate Current Therapy				
Allergies/ADRs:		Treatment Options: (Pros/Cons of current or new therapy):				
Relevant PMH/FH:		Drugs/Factors To Avoid:	Non-Drug Therapy			
Relevant SH:						

Counseling/Three Prime Questions: What is it for (symptom(s) you are treating); How to take (medication name(s), strength, dose, dosing frequency, length of Tx); What to expect (e.g., onset time, common side effects and management, potential drug interactions, when to see provider, storage)