UC San Diego

SKAGGS SCHOOL OF PHARMACY AND PHARMACEUTICAL SCIENCES

Advanced Pharmacy Practice Experience (APPE)
Community Pharmacy

SPPS 402

Office of Experiential Education (OEE)

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I.   Course Description: SPPS 402 (8 units)

SPPS 402 is a six week, core APPE, supervised by licensed pharmacist(s) in a community pharmacy setting. Through direct supervision and some independent practice, students will engage, develop and explore roles in a community pharmacy practice. Students provide patient education, prescription and over-the-counter (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, students will be able to apply concepts from clinical didactic course work, simulations, and Introductory Pharmacy Practice Experiences (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 pharmacy and preceptor's consent, the student may consult and discuss drug therapy with patients, pharmacists, physicians and other health care providers.

Pharmacy settings may include independent, chain, grocery, 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 OEE section on the Resources tab of Canvas and Core ELMS for specific Rotation Descriptions and additional resources.

Students are expected to adhere to all Policies and Guidelines at SSPPS.

II.   Prerequisites
Students must:
1. Have successfully completed didactic pharmacy years 1-3.
2. Meet eligibility requirements to progress to APPEs per SSPPS Progression Policy.
3. Meet expectations of professionalism as stated in the SSPPS Guidelines on the Evaluation of Professionalism.
4. Have successfully completed all IPPE requirements.
5. Have received a passing score on the Comprehensive Cumulative exam.
6. Have a valid and active pharmacy intern license.
7. Have up-to-date immunization records and received HIPAA training.
8. Have requisite training/certifications necessary for the given activity as well as all required components set by the practice site.

III. **Course Goals**
   A. Students will interact with patients, 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[1]**

	Specific Objectives	Example Learning Activities
Domain 1. Patient Care Provider		
Objective 1: Apply the Pharmacist Patient Care Process (PPCP).	1.1 Collect information to identify a patient's medication-related problems and health-related needs.	• Collect a medical history from a patient or caregiver. • Collect a medication history from a patient or caregiver. • Determine a patient's medication adherence. • Identify patient barriers to compliance with treatment plan. • Utilize medical and/or pharmacy records to determine a patient's health-related needs relevant to the community pharmacy setting.
	1.2 Analyze and assess information to determine the effects of medication therapy, identify medication-related problems, and prioritize health-related needs.	• Perform effective prospective, concurrent, and retrospective drug utilization review. • Identify medication adherence concerns and construct patient-specific interventions to improve adherence. • Conduct formal MTM process including comprehensive medication reviews (CMR) and targeted interventions. • Identify drug-drug, drug-food, and drug-disease interactions. • Assess a patient's signs and symptoms to determine whether the patient can be

		treated. within scope of practice or requires a referral. • Provide patients with appropriate information and resources to contact other healthcare providers when warranted.
	1.3 Educate patients about self-care and medication self-administration including making recommendations regarding medications (prescription and OTC) and non-drug therapy alternatives.	• Provide appropriate OTC counseling/consulting • Perform self-care consults. • Recommend appropriate dietary supplements, diet, nutrition, complementary and alternative therapies. • Assess a patient's signs and symptoms to determine whether the patient can be treated within scope of practice or requires a referral.
	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.	• Conduct formal MTM process including comprehensive medication reviews and targeted interventions. • Recommend alternative medication therapy based on a patient's ability to pay and/or insurance formulary. • Follow an evidence-based disease management protocol.
	1.5 Implement a plan in collaboration with the patient, caregivers, and other health care professionals.	• Document a care plan that conveys the findings and recommendations from a patient encounter. • Educate a patient or caregiver on the use of medication adherence aids.

	1.6 Follow-up and monitor a care plan.	• Recommend modifications or adjustments to an existing medication therapy regimen based on patient response.
		• Provide appropriate patient-specific updates to the pharmacy team during a handoff or change in staff.
		• Follow-up with a patient to ensure compliance with agreed upon plan.
		• Identify patients at risk of non-adherence to prescribed therapy and recommend potential solutions (medication synchronization, auto-refills, pick-up reminders, etc.).

Domain 2. Communication and Education

Objective 2: Use appropriate education and communication strategies for a diverse patient population.	2.1 Educate patients and professional colleagues regarding the appropriate use of medications	• Develop and deliver an educational program to health professionals and/or lay audience
		• Educate a patient regarding the appropriate use of a new medication, device to administer a medication, or self-monitoring test
		• Utilize diverse methods for delivering patient-centered education (e.g., telephone encounters, tele-health video sessions)
	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 literacy, disabilities, and cognitive impairment).	• Implement motivational interviewing techniques to improve patient adherence.
		• Maintain sensitivity to cultural, socioeconomic, and other factors which may impact a patient's care.
		• Incorporate validated health literacy assessments and tools into pharmacy workflow, operations and/or individual patient's care plans, when appropriate.
		• Assess effectiveness of counseling or other communication using the teach

		back method and re-adjust technique until understanding is confirmed.
Domain 3. Population Health Promoter		
Objective 3: Promote population health.	3.1 Identify patients at risk for prevelant diseases in a population.	• Deliver preventative disease screening services, if available. • Participate in point-of-care testing services. • Participate and engage community members at health fairs.
	3.2 Minimize adverse drug events and medication errors.	• Identify and report medication errors and adverse drug reactions. • Assess medication errors for root cause.
	3.3 Ensure patients have been immunized against vaccine-preventable diseases	• Screen patients for appropriate immunizations based on patient specific factors (age, chronic health conditions, past immunization status, etc.) • Utilize state and local online immunization registries • Administer immunizations • Participate in and/or support immunization-related activities
Domain 4. Practice Manager		
Objective 4: Apply Dispensing System and Safety Management (D&S).	4.1 Accurately apply the prescription verification process (e.g. legitimate prescription, appropriate dose, interactions, DUR).	• Fulfill medication orders appropriate to community practice including prescription verification, telephone orders, proper selection, preparation, compounding, labeling, storage, packaging, handling and disposal. • Identify and resolve drug-drug, drug-disease, and drug-nutrient/food interactions. • Utilize Controlled Substance Utilization, Review and Evaluation System (CURES), or equivalent prescription drug monitoring program (PDMP) to ensure appropriate dispensing of controlled substances.

		• Participate in QI/QA projects related to operational and/or workflow specific issues.
	4.2 Use a computerized pharmacy management system and best practices related to safe medication use in distribution of medications to patients.	• Dispense medications appropriate to community practice including prescription verification, telephone orders, proper selection, preparation, compounding, labeling, storage, packaging, handling and disposal. • Identify and report medication errors and adverse drug reactions per appropriate pharmacy laws, policies, and procedures.
	4.3 Fulfill a medication order.	• Prepare commonly prescribed medications that require basic non-sterile compounding prior to patient use. • Determine the patient co-pay or price for a prescription. • Assist a patient to acquire medication(s) through support programs.
Domain 4.1: Apply operational knowledge and leadership qualities as a practice manager (PM).	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.	• Discuss pharmacy budget and financial projections. • Participate in a conference/discussion on a routine basis to discuss community pharmacy related topics (See Appendix 1). • Prepare formal verbal and written presentations on topics related to community pharmacy practice as assigned by preceptor (See Appendix 2). • Given a human resources conflict, describes perspectives of all involved. • Identify opportunities for pharmacy staff training and create training material and/or plan. • Understand the application of pharmacy laws in community pharmacy practice. • Participate in purchasing/inventory

		management activities.
		• Supervise pharmacy technical staff.
	4.1.2 Participate in continuous quality improvement techniques to optimize the medication use process.	• Participate in QI/QA projects related to operational and/or workflow specific issues. • Evaluate CQI data to determine opportunities for improvement. • Prepare formal verbal and written presentations on topics related to community pharmacy practice as assigned by preceptor (See Appendix 2).
	4.1.3 Oversee pharmacy operations for an assigned work shift.	• Coordinate the activities of pharmacy technicians and other support staff. • Appropriately troubleshoot and solve patient and/or workflow issues.
Domain 5. Ethics and Professional Behavior		
Objective 5: Apply ethical and professional behavior.	5.1 Demonstrate ethical and professional behavior in all practice activities.	• Adhere to patient privacy standards in verbal and written communications. • Wear appropriate attire; have appropriate demeanor and conduct. • Adhere to all attendance requirements, including punctuality. • Demonstrate an attitude that is respectful of diverse individuals, groups, cultures and communities.

[1] *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.

V. **Evaluations:**
   A. Grading will be Pass/No Pass.
   B. Three evaluations using the standardized Pharmacy Evaluation Form are required for this course:
      I. 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.

II. Preceptor & Site Evaluation: Separate online evaluations completed by the student at the end of the rotation.

III. 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.

Students **must** submit a completed Mid-point Formative evaluation in addition to evaluations of their sites/preceptors in order to receive their a grade for the experience.

VI. SSPPS Rotation Equity, Diversity and Inclusion Statement

Each rotation is a place to expand knowledge and experiences safely, while being respected and valued. We support the values of UC San Diego to "create a diverse, equitable, and inclusive campus in which students, faculty, and staff can thrive." It is our intent that students from all diverse backgrounds and perspectives be well served by this rotation, that students' learning needs be addressed, and that the diversity that students bring to this rotation be viewed as a resource, strength and benefit. It is our intent to present materials and activities that are respectful of diversity: gender, sexuality, disability, age, socioeconomic status, ethnicity, race, religion, and culture. We ask that everyone engage in interactions with patients, caregivers and other members of the healthcare team with similar respect and courtesy. All people have the right to be addressed and referred to in accordance with their personal identity. We encourage everyone to share the name that they prefer to be called and, if they choose, to identify pronouns with which they would like to be addressed. We will do our best to address and refer to all students accordingly and support colleagues in doing so as well. We hope you will join us in creating a learning experience that upholds these values to further enhance our learning as a community.

VII. Resources
   A. SSPPS References: Students & Preceptors
   B. UCSD Intranet ("Pulse") Medication Resources
   C. Online Clinical Library Resources
      i. Clinical Pharmacology
      ii. Micromedex
      iii. DynaMed
      iv. Up to Date
      v. Natural Medicines Database
   D. Suggested Textbooks (updated versions may be available)

     i.   Medical dictionary (ex: Stedman's Medical Dictionary, Dorland's Medical Dictionary).

    ii.   Krinsky DL et al. *Handbook of Nonprescription Drugs: An Interactive Approach to Self-Care*. 20th ed., American Pharmacists Association, 2020.

  iii. DiPiro JT, Yee GC, Posey LM, Haines ST, Nolin TD, Ellingrod V, eds. *Pharmacotherapy: A Pathophysiologic Approach*, 11th edition. McGraw-Hill, New York, 2020.

  iv. Goodman & Gilman's *The Pharmacological Basis of Therapeutics*, 14th edition. McGraw-Hill, New York, 2023. Available on-line (free-of-charge) through the UC San Diego Biomedical Library Online Clinical Library at https://accessmedicine.mhmedical.com/Book.aspx?bookid=2189#165936881 https://accessmedicine.mhmedical.com/book.aspx?bookid=3191

E. The Sanford Guide to Antimicrobial Therapy 2023 (53rd edition)

F. The Pharmacists' Patient Care Process (PPCP) - see **Appendix 3** for blank PPCP template.

G. Journal club format: PIES Method of Critique

H. As specified by rotation site/preceptor.

Appendix 1

Topics for discussion may include:
- A. 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
- B. Education and Clinical Interventions:
    - a. Counseling (Rx, OTC, complementary, herbals)
    - b. Medication therapy management (MTM)
    - c. Health education
    - d. Screening
    - e. Referrals
    - f. Immunizations
- C. Legal and Quality Issues:
    1. HIPAA
    2. Application of pharmacy law
    3. Controlled substances
    4. Risk Evaluation and Mitigation Strategy
    5. Liability issues
    6. Clinical practice dilemmas
- D. Management:
    1. Supervision
    2. Scheduling
    3. Personnel issues – including human resource conflicts
    4. Organizational structure
    5. Productivity measures
    6. Marketing
    7. Creating a business plan
    8. 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) Template

Patient Name:	Age:	Race/Ethnicity:	Gender/Pronouns:	Wt:

COLLECT: What data is relevant to assess the primary problem?

Subjective	**CC (Chief Concern/Complaint):** reason for the visit or admission **HPI (S**ymptoms, **C**haracteristics, **H**istory, **O**nset, **L**ocation, **A**ggravating factors, **R**emitting factors): **Meds (Rx, OTC, herbal/supplements):** dose, route, frequency ± duration, indication, efficacy, ADEs, adherence **Allergies** and type of reaction: **Relevant PMH/FH:** **Relevant SH:** diet, exercise, alcohol, tobacco, recreational drugs, occupation, etc.
Objective	**Labs, vitals** (e.g., BP, HR, RR, temp, O2 sat, pain score), **physical exam** (positive findings, Ht, Wt), **procedures/imaging**

ASSESS

Primary Problem		
Problem Status	**What needs to be done for the problem:** ☐ **Needs treatment** (e.g., chronic condition is uncontrolled, acute problem requires drug therapy) ☐ **Refer**	
Current Therapy ▪ Indicated? ▪ Effective? ▪ Safe?	▪ **Indicated?** Does the problem require drug therapy? Should current therapy be continued, changed or stopped? Why? ▪ **Effective?** What is the anticipated effect of current therapy (e.g., average A1c reduction)? Is the dose optimized (too high/low, appropriate for age, comorbidities, renal/liver function, convenient to take/administer, etc.) ▪ **Safe?** Any ADEs, DDIs or contraindications?	
	PROS: Identify patient-specific pros of current therapy ▪	**CONS:** Identify patient-specific cons of current therapy ▪
New Therapy ▪ Add-on? ▪ Alternative med?	**What other meds could be considered? What is the anticipated effect of new therapy? Will it achieve goals?**	
	PROS: Patient-specific pros of new drug/class	**CONS:** Patient-specific cons of new drug/class
New drug/class	▪	▪
New drug/class	▪	▪
New drug/class	▪	▪
New drug/class	▪	▪
New drug/class	▪	▪

PLAN / IMPLEMENT / FOLLOW-UP

Treatment Goal(s)	Cure/reduce symptoms, correct lab/vitals, minimize/avoid ADE/DDI, prevent complications, reduce morbidity/mortality ▪	
Recommended Drug Therapy	▪ **Current therapy** (continue/increase/decrease/stop): ▪ **New drug therapy** (start): Drug name(s), strength, dose, route, dosing frequency ± duration of therapy	
Non-Drug Therapy	Patient-specific lifestyle modifications (e.g., specific targets for diet, exercise, tobacco, alcohol, actions to do/avoid…) ▪	
Monitor/Follow-up ▪ What ▪ When With who	**Efficacy monitoring** ▪ What monitoring (S/O) parameters will indicate if therapy is working? ▪ How often should parameters be checked?	**Toxicity/adverse effects monitoring** ▪ What monitoring (S/O) parameters will indicate if ADEs or toxicity is occurring? ▪ How often should monitoring occur? ▪ How would ADEs or toxicity be managed?
Patient Education (for selected plan) 3 Prime Questions Disease education ± **Coordinate Care** ± **Documentation**	▪ What the drug is for: indication/symptoms being treated, why the drug is needed/preferred for this patient ▪ How to take it: medication name(s), dose, frequency, duration, administration, how to optimize adherence ▪ **What to expect:** onset, common side effects and how to manage, potential drug interactions, missed doses, storage ▪ General care/preventative measures ▪ Lifestyle changes/non-drug therapy ▪ ± Considerations for ensuring access to medication (e.g., who will prescribe, where to get medication, cost) ± Communicate plan to other providers (e.g., document in health record, phone call, provide written summary to patient)	