



UC San Diego
SKAGGS SCHOOL OF PHARMACY
AND PHARMACEUTICAL SCIENCES

Ambulatory Care Advanced Pharmacy Practice Experience

SPPS 401A
SPPS 401B

Office of Experiential Education

James Colbert, Pharm.D.
Associate Dean of Experiential Education
Clinical Professor
jcolbert@ucsd.edu
(858) 822-6699

Sarah Lorentz, Pharm.D.
Director, Ambulatory Care and
Community Practice-Experiential Education
Email: slorentz@ucsd.edu
Phone: 858-822-5574

Lisa Avery
APPE Experiential Education Coordinator
lavery@ucsd.edu
(858) 822-2216

I. Course Description: SPPS 401A, 401B (7 units)

In response to the evolving role of the pharmacist in the delivery of health care services, the University of California Skaggs School of Pharmacy and Pharmaceutical Sciences and the UC San Diego Health Sciences and affiliated health systems offer students the opportunity for a patient oriented drug therapy education with an emphasis on patient responsibility and effective communication with the other members of the health care community.

Through this experience the student will be able to apply academic basic science and clinical didactic course work to the situations which daily challenge the pharmacist in the clinical settings. The student will consult and discuss drug therapy with patients, the clinical pharmacist, medical staff, nurses, medical and other health care students in several different settings. As proficiency increases, more responsibility for monitoring and developing drug therapy will be given. As a result, the basic tools and insights necessary to deliver high quality rational health care will be at the student's fingertips for learning.

SSPPS 401A & B is a supervised clinical pharmacy experience in ambulatory care. Through observation and practice, students will develop and explore their roles in an interdisciplinary health care team. Students will provide medication reconciliation, monitor drug therapy, provide patient education, and research patient-specific drug information questions. Students may also develop skills in providing comprehensive medication reconciliation. Ambulatory care patient interactions may be face to face, over the telephone or via telemedicine. In addition, students may have opportunities in the expanding areas of Medication Therapy Management (MTM) practice and transitional care with the ambulatory patients. Experiences include working with patients, caregivers and providers as medications are being managed in clinics and pharmacy office settings. Student will have opportunities to encounter contemporary pharmacy practice with a focus on reaching out to the ambulatory care patient population.

Students should refer to the Experiential Education website for additional information: <http://pharmacy.ucsd.edu/faculty/experiential.shtml>. Students are expected to adhere to all Policies and Guidelines at SSPPS (<http://pharmacy.ucsd.edu/current/policies.shtml>).

II. Prerequisites

- A. Students must have successfully completed years 1-3.
- B. 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.
- C. Students must have successfully completed all Introductory Pharmacy Practice Experience (IPPE) requirements.
- D. Students must have received a passing score on the Comprehensive Cumulative exam.
- E. Students must have a pharmacy intern license.
- F. Students must have up-to-date immunization records and have received HIPAA training.
- G. Students must have requisite training/certifications necessary for the given activity.

III. Course Goals

Students will interact with a number of different healthcare providers and participate in a variety of patient care activities with the pharmacy preceptor and medical teams. The student will be provided with many opportunities to apply academic basic science and clinical didactic course work to patient care in the ambulatory care setting.

IV. Course Objectives

- A. Demonstrate adequate data collection and interpretive skills such as obtaining patient information, prioritizing and researching patient problems, presenting patient, and monitoring patient data.
- B. Develop patient-specific drug therapy by applying PK and/or pharmacoeconomic principles, as appropriate, and evaluating possible drug interactions, adverse events, medication errors and response to therapy.
- C. Provide effective verbal and written patient education or communication to a diverse patient population
- D. Demonstrate ethical and professional behavior in all practice activities.
- E. Participate in institutional systems and programs to assure appropriate drug use
- F. Be organized in performance of clinical functions
- G. Provide patient-specific recommendations for prescription and nonprescription medications, dietary supplements, diet, nutrition, traditional nondrug therapies, and complementary and alternative therapies
- H. Identify, evaluate, and communicate the appropriateness of specific therapeutic agents, dosing regimens, dosage forms, routes of administration, and delivery systems.

V. Activities

- A. Students will be expected to participate in activities, as assigned by the preceptor and other healthcare professionals that are deemed appropriate and necessary for the care of patients in the clinic. Activities may include, but not limited to, the following:
 - 1. Establish professional rapport with pharmacy and other healthcare professionals and practice as a member of an interprofessional team
 - 2. For all assigned patients, interview and obtain medication histories , monitor current and recommended drug therapy, anticipate and identify drug therapy problems, maintain an up-to-date database, educate patients, and provide drug information to patients and healthcare professionals
 - 3. Attend relevant grand rounds and medical conferences
 - 4. Practice as a member of an interprofessional team
 - 5. Identify, evaluate, and communicate to the patient and other health care professionals the appropriateness of the patient's specific pharmacotherapeutic agents, dosing regimens, dosage forms, routes of administration, and delivery systems
 - 6. Consult with patients regarding self-care products
 - 7. Recommend prescription and nonprescription medications, dietary supplements, diet, nutrition, traditional nondrug therapies, and complementary and alternative therapies
 - 8. Recommend appropriate medication dosing utilizing practical pharmacokinetic principles
 - 9. Administer medications where practical and consistent with the practice environment and where legally permitted (ex. immunizations)
 - 10. Identify and report medication errors and adverse drug reactions
 - 11. Manage the drug regimen through monitoring and assessing patient information
 - 12. Provide pharmacist-delivered patient care and education to a diverse patient population

13. Educate the public and health care professionals regarding medical conditions, wellness, dietary supplements, durable medical equipment, and medical and drug devices
 14. Retrieve, evaluate, manage, and use clinical and scientific publications in the decision-making process
 15. Access, evaluate, and apply information to promote optimal health care
 16. Ensure continuity of pharmaceutical care among health care settings
 17. Participate in discussions and assignments regarding compliance with accreditation, legal, regulatory/legislative, and safety requirements
 18. Participate in discussions and assignments regarding the drug approval process and the role of key organizations in public safety and standards setting
 19. Participate in discussions and assignments concerning key health care policy matters that may affect pharmacy
 20. Work with the technology used in pharmacy practice
 21. Maintain efforts to adhere to patient privacy standards
 22. Appropriately triage patients
 23. Apply disease oriented knowledge to effectively solve actual/potential drug related problems and treatment of medical conditions
 24. Monitor patients in the health care setting and familiarize policies and process for POC testing
 25. Document a medication reconciliation and medication adherence
 26. Participate in collaborative interdisciplinary practice regimens
- B. Students will prepare and make at least one in-service presentation to the clinicians in their clinic on a drug or pharmacy-related topic [e.g., nursing in-service, medication education]. The goals of this presentation are:
1. To provide practical information for clinicians (e.g. basic pharmacology, recognition, and minimization of common drug side effects, proper and safe administration of drugs)
 2. To give the student the opportunity to organize and relate drug information to a specific audience (under the supervision of a faculty or resident preceptor).

VI. Student Conference

- A. The goals of the Student Conference are:
1. To provide an opportunity for the student to present a drug/disease topic in a conference setting.
 2. To provide the student with an evaluation of his/her presentation based on the criteria listed.
 3. To create and orally present a PowerPoint presentation to his/her colleagues.
- B. In a defined time period, the student will present a drug or disease related topic. Criteria for evaluation are as follows:
1. Handout will include:
 - a. Topic of presentation
 - b. Goal (s) and objective (s) of the presentation.
 - c. Outline of presentation
 - d. Reference list that utilizes primary literature as appropriate

- C. If the topic includes a patient presentation, the student will be able to give the patient presentation with the following elements:
1. No patient name or initials will be included for HIPAA reasons. Also if the age is > 89 it cannot be included either, but ok to say "> 89 yrs", race, sex
 2. Reason for clinic visit and chief complaint
 3. History of present illness (in chronological order along with treatments, medications; concurrent unrelated active problems will also be included)
 4. Past medical history
 5. Present medication history (medication on admission, allergies/ADRs)
 6. Summary of pertinent review of systems and physical examination
 7. Available labs
 8. Presenting impression
 9. Therapeutic plan
 10. Therapeutic considerations (emphasis will be placed on this element)
 11. Clinical course (include, in chronological order, any procedure (s), complication (s), new problem (s), as well as any significant changes in active problems during recent visits).
 12. A summary of the patient being presented.
- D. The student will be able to clearly discuss a drug-related or disease-related topic. In this discussion, the student will include (when appropriate):
1. Identification of the medical problem (s) to be discussed
 2. Assessment of response and appropriateness of current therapy
 3. Evaluation of the rationale for its use
 4. Discussion of pertinent pharmaceutical considerations (dosage form, stability, flavor, etc.)
 5. 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).
 6. Discussion of recent developments and/or controversies on the topic or drug presented and a critical evaluation of literature reviewed.

Students will present the topic in a manner so as to stimulate group participation.

Student will submit a final PowerPoint copy of presentation to the course coordinator via e-mail by the last day of the APPE (slorentz@ucsd.edu).

VII. Evaluations

- A. Grading will be Pass/No Pass
- B. Three evaluations using the standardized Pharmacy Evaluation Form are required for this course:
- a. 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.
 - b. Preceptor & Site Evaluation: An online evaluation completed by the student at the end of the rotation.
 - c. Summative Evaluation: An online evaluation completed by the preceptor at the end

- of the rotation and discussed with the student.
 - d. 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 Mid-Point Formative evaluation in addition to evaluations of their sites/preceptors in order to receive their grade.
- D. For a summative evaluation, a student has to average at least a “three” on a scale of “one to five” overall in order to successfully pass an APPE rotation. Less than “three” for the summative evaluation is considered a failure for that experience.

VIII. Recommended Texts and References

- A. SPPS References (<http://pharmacy.ucsd.edu/faculty/experiential.shtml>)
1. Goals and Essential Elements for Monitoring Drug Therapy
 2. How to Present A Patient for Pharmacy Rounds
- B. Textbooks
1. Mager R. Preparing Instructional Objectives, 3rd Edition. Belmont, CA: Fearon Publishers, 1984. *[Updated version may be available]*
 2. Alldredge, BK, Corelli RL, Ernst ME, Guglielmo BJ, Jacobson PA, Kradjan WA, Williams BR. *Koda-Kimble & Young’s Applied Therapeutics: The Clinical Use of Drugs*, 10th ed., Lippincott Williams & Wilkins, 2012. *[Updated version may be available]*
 3. Medical dictionary. Examples: Stedman’s Medical Dictionary, Dorland’s Medical Dictionary.
 4. DiPiro JT, Talbert RL, Yee GC, Matzke GR, Wells BG, Posey LM, eds. *Pharmacotherapy: A Pathophysiologic Approach*, 8th edition. McGraw-Hill, New York, 2011. *[Updated version may be available]*
 5. Kasper DL, Braunwald E, Fauci AS, Hauser SL, Longo DL, Jameson JL, Isselbacher KJ, eds. *Harrison’s Principles of Internal Medicine*, 18th edition. McGraw-Hill, New York, 2012. Available on-line (free-of-charge) through the UCSD Biomedical Library at <http://www.accessmedicine.com/resourceTOC.aspx?resourceID=4>
 6. Pharmacology textbook. Example: Goodman & Gilman’s *The Pharmacological Basis of Therapeutics*, 12th edition. McGraw-Hill, New York, 2010. Available on-line (free-of-charge) through the UCSD Biomedical Library Online Clinical Library at <http://www.accessmedicine.com/resourceTOC.aspx?resourceID=28>
- C. As specified per individual rotation site/preceptor.