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

## Acute Care Advanced Pharmacy Practice Experience

## SPPS 400A
## SPPS 400B

## Office of Experiential Education

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## I. Course Description:  SPPS 400A, 400B (7 units)

SPPS 400A or 400 B is a six week, supervised clinical pharmacy experience in an inpatient setting. Through observation and practice, students will develop and explore their roles in an interdisciplinary health care team. Students will take medication and medical histories, monitor drug therapy, provide patient education, and research patient-specific drug information questions.

Students will have the opportunity to interact with diverse patient populations, and are encouraged to collaborate with other health care professionals in the care of their mutual patients. Through this experience the student will apply the Pharmacist Patient Care Process (PPCP).  The student will educate patients regarding their medication therapy, in addition to educating pharmacists and/or other health care providers regarding the appropriate use of medications.  Students will use evidence-based information to advance patient care.  Acute care patient interactions are done face to face and may involve post-discharge telephone conversations as part of a transitions of care approach.

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:
https://pharmacy.ucsd.edu/current/policies-guidelines

## 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.
C.   Students must meet expectations of professionalism as stated in the SSPPS Guidelines on the Evaluation of Professionalism.
D.  Students must have successfully completed all Introductory Pharmacy Practice Experience (IPPE) and Co-Curricular requirements.
E.  Students must have received a passing score on the Comprehensive Cumulative exam.
F.  Students must have a pharmacy intern license.
G.  Students must have up-to-date immunization records and have received HIPAA training.
H.  Students must have requisite training/certifications/other requirements necessary for the given activity.

## III. Course Goals

A.  Students will interact with patients, pharmacists and other healthcare providers and participate in a variety of patient care activities which will develop and enhance professional judgment, knowledge, and the skills needed to practice in the acute care setting. The student will have opportunities to educate patients and health care professionals on appropriate medication use, and will use evidence-based information to advance patient care.

## IV. Course Domains, Objectives, and Activities[1]

| | Specific Objectives | Example Learning Activities |
|---|---|---|
| **Domain 1: Patient Care Provider** | | |
| **Objective 1:**<br><br>Apply the Pharmacist Patient Care Process (PPCP). | 1.1. Demonstrate appropriate depth and breadth of pharmacotherapeutics and disease-related knowledge for a variety of common | • Participate in and/or lead topic discussions.<br><br>• Apply the PPCP to every patient assigned by the preceptor, essentially independently, and present to the preceptor. |

| | conditions seen in adult acute care patients. | • For those medical problems and drugs which were not covered in the curriculum, the student is expected to efficiently locate appropriate literature resources. |
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| | 1.2. Collect information to identify a patient's medication-related problems and health-related needs. | • Systematically collect information sufficient to identify drug related problems and to support decisions regarding drug therapy.<br><br>• Collect a medication history from a patient or caregiver.<br><br>• Determine a patient's medication adherence. |
| | 1.3. Analyze the information and determine the effects of medication therapy, identify medication-related problems, and prioritize health- related needs. | • Interpret laboratory and diagnostic test results.<br><br>• Identify drug interactions.<br><br>• Compile a prioritized health-related problem list for a patient.<br><br>• Evaluate an existing drug therapy regimen.<br><br>• Assess collected information to evaluate/identify drug related problems. |
| | 1.4. Establish patient-centered goals and create a care plan for a patient in collaboration with the patient, caregiver(s), and other health professionals that is evidence- based and cost-effective. | • Follow an evidence-based disease management protocol.<br><br>• Develop a treatment plan for a patient.<br><br>• Manage drug interactions.<br><br>• Select monitoring parameters to determine the therapeutic and adverse effects related to the treatment plan.<br><br>• Create a patient-specific education plan. |
| | 1.5. Implement a care plan in collaboration with the patient, caregivers, and other health professionals. | • Write a note that documents the findings, recommendations, and plan from a patient encounter.<br><br>• Educate a patient regarding the appropriate use of a new medication, device to administer a medication, or self-monitoring test.<br><br>• Educate a patient on the use of medication adherence aids. |
| | 1.6. Follow-up and monitor therapeutic outcomes of a patient's care plan. | • Collect monitoring data at the appropriate time interval(s).<br><br>• Evaluate the selected monitoring parameters to determine the therapeutic and adverse effects related to the treatment plan. |

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| | | • Recommend modifications or adjustments to an existing medication therapy regimen based on patient response.<br><br>• Present a patient case to a colleague during a handoff or transition of care. |
| | 1.7. Efficiently and appropriately optimize patient-specific outcomes for acute care patients using the Pharmacist Patient Care Process (PPCP). | • Make decisions about a care plan for treatment; prevention; and wellness to optimize patient outcomes that includes, but not limited to, strategies that overcome patient-specific barriers to care.<br><br>• Implement a care plan in collaboration with health care team and patient that includes monitoring and continuity of care, and considerations for triage, patient referral, and follow-up.<br><br>• Monitor and evaluate care plan, make needed adjustments. |
| | 1.8. Accurately prioritize multiple patient care responsibilities/needs in times of high activity and workload. | • Determine which patient's needs should be addressed first.<br><br>• Address patient needs within an appropriate time, based on priority/acuity.<br><br>• Communicate clearly and appropriately regarding patient work that is unable to be completed during an assigned work shift (i.e. hand-off). |
| | 1.9. Apply pharmacokinetic dosing principles for a variety of commonly used drugs to determine the correct dose. | • Accurately adjust doses according to patient's renal and/or hepatic function.<br><br>• Perform dose calculations for drugs that require monitoring for peak and trough concentrations.<br><br>• Participate in dosing protocols that pharmacists are responsible for in the practice site. |
| **Domain 2: Communication and Education** | | |
| **Objective 2:**<br><br>Utilize appropriate education and communication strategies for a diverse patient population. | 2.1. Document patient care activities clearly and concisely to reflect the PPCP in the appropriate site-specific health record system(s). | • Document clinical activity in the patient's medical record.<br><br>• Document pharmacist activities as part of a clinical intervention tracking system (where appropriate).<br><br>• Document treatment plans under protocol (e.g. Vancomycin, anticoagulation).<br><br>• Document medication histories/reconciliation in EMR.<br><br>• Document patient education encounters. |

| [Communication and Education (C&E)] | 2.2. Perform patient-centered medication education. | • Provide patients and their caregivers with appropriate medication education regarding prescription, OTC/self-care products, and supplements<br>• Apply techniques to assess patient understanding in a diverse patient population (e.g. teach-back methodology)<br>• The student learner may use written and verbal materials as well as interpretation services (i.e. MARTI).<br>• Utilize diverse methods for delivering patient-centered education (e.g. telephone encounters, tele-health video sessions) |
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**Domain 3: Interprofessional Team Member**

| **Objective 3:**<br>Collaborate effectively as a member of an interprofessional healthcare team. | 3.1. Actively contribute as a member of an interprofessional healthcare team. | • Independently communicate medication therapy recommendations to members of the healthcare team.<br><br>• Share accountability for patient care decisions with the team.<br><br>• Demonstrate effective teamwork/collaboration skills.<br><br>• Participate in rounds with other health care professionals (if possible). |
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**Domain 4: Population Health Promoter**

| **Objective 4:**<br>Promote Population Health | 4.1. Minimize adverse drug events and medication errors. | • Report adverse drug events and medication errors to stakeholders. |
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| | 4.2. Participate in the appropriate use of medications in a population. | • Participate in antimicrobial stewardship programs.<br>• Apply cost-benefit, formulary, and/or epidemiology principles to medication related decisions. |

**Domain 5: Information Master**

| **Objective 5:**<br>Utilize evidence-based medical information to advance the care of patients. | 5.1. Educate patients and professional colleagues regarding the appropriate use of medications. | • Retrieve, interpret, and apply biomedical literature applicable to the patients seen on this rotation.<br><br>• Respond to questions with the appropriate level of detail necessary to ensure proper patient care and communication with other relevant parties.<br><br>• Analyze a clinical study.<br><br>• Prepare and lead a Journal club or drug/disease-related topic discussion (see Appendices 1,2). |
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| | 5.2. Use evidence-based information to advance patient care. | • Retrieve, interpret and apply medical literature to formulate decisions for optimal patient medication regimens.<br><br>• Analyze, evaluate, and apply a clinical study to promote optimal healthcare.<br><br>• Defend/justify recommendations using published evidence in support of a clinical situation. |
| **Domain 6: Ethics and Professional Behavior** | | |
| **Objective 6**:<br><br>Apply ethical and professional behavior to practice. | 6.1. Demonstrate ethical and professional behavior in all practice activities. | • Adhere to patient privacy standards in verbal and written communications.<br><br>• Demonstrate an attitude that is respectful of diverse individuals, groups, cultures and communities.<br><br>• Wear appropriate attire, have appropriate demeanor and conduct.<br><br>• Adhere to all attendance requirements, including punctuality. |
| **Domain 7: Practice Manager** | | |
| **Objective 7**:<br><br>Apply Systems Management for Medication Use. | 7.1. Participate in institutional systems and programs to assure appropriate drug use. | • Provide discharge counseling as appropriate.<br><br>• Participate in communications regarding transitions of patients between different levels of care in the same institution (ICU to ward).<br><br>• Communicate with community pharmacist and other community providers to facilitate successful transition to home upon discharge.<br><br>• Identify and report medication errors and adverse drug events.<br><br>• Participate in reporting pharmacist interventions or other activities in the electronic medical records.<br><br>• Conduct and document medication reconciliation.<br><br>• Interview and document medication adherence. |

## 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:  An online evaluation 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.

      iv.    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 their Mid-point evaluations in addition to completing evaluations of their sites/preceptors in order to receive their grade.

## VI.    Resources

A.  SSPPS References: Students & Preceptors

B.  UCSD Intranet Medication Resources

C.  Online Clinical Library Resources
1. Clinical Pharmacology
2. Micromedex
3. DynaMed
4. Up to Date
5. Natural Medicines

D.  Suggested textbooks (Updated versions may be available)
1. Medical dictionary.  Examples:  Stedman's Medical Dictionary, Dorland's Medical Dictionary.
2. Krinsky DL, Ferreri SP, Hemstreet B, Hume AL, Newton GD, Rollins CJ, Tietze KJ. *Handbook of Nonprescription Drugs: An Interactive Approach to Self-Care*. 19th ed., American Pharmacists Association, 2017.
3. DiPiro JT, Talbert RL, Yee GC, Matzke GR, Wells BG, Posey LM, eds.  *Pharmacotherapy: A Pathophysiologic Approach*, 10th edition.  McGraw-Hill, New York, 2017.
4. Goodman & Gilman's *The Pharmacological Basis of Therapeutics*, 13th edition.  McGraw-Hill, New York, 2018.  Available on-line (free-of-charge) through the UCSD Biomedical Library Online Clinical Library at http://www.accessmedicine.com/resourceTOC.aspx?resourceID=28
5. The Sanford Guide to Antimicrobial Therapy 2019 (49th edition)

E.  The Pharmacists' Patient Care Process (PPCP)
1. See **Appendix 3** for blank PPCP template

F.  As specified per individual rotation site/preceptor

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[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
- C*ore entrustable professional activities for new pharmacy graduates.* Am J Pharm Educ. 2017 Feb 25; 81(1): S2

Appendix 1

**Student Presentation and/or Conference (example)**

The student may be required, by the preceptor, to present a drug or disease related acute care topic.  The presentation expectations will be guided by the preceptor, who is encouraged to provide specific and clear instructions to the student. An example of student presentation expectations is outlined below:

1.  **Handout should include:**

    a.  Topic of presentation
    b.  Student name, title, date of presentation
    c.  Goal (s) and objective (s) of the presentation.
    d.  Outline of presentation
    e.  Reference list that utilizes primary literature, as appropriate

2.  **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.
    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

Journal Club Format

PIES Method of Critique

## Pharmacist patient Care Process (PPCP) Form

**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):**<br><br>**Exclusions for (Self) Treatment:** | **Treatment Goal(s):** | **Patient Education/Counseling for selected plan (key points) – 3 prime questions, general care, preventive measures, monitoring)** | **Monitoring parameters (efficacy, safety, adherence)** |
| **HPI:** | | | | | |
| | | **Need for therapy:** | **Recommended Drug Therapy**<br>Drug name(s), strength, dose, route, dosing frequency, duration of therapy | | |
| | | **Evaluate Current Therapy** | | | |
| **Relevant Meds:** | | **Treatment Options:**<br>(Pros/Cons of current or new therapy): | | | |
| **Allergies/ADRs:** | | | **Non-Drug Therapy** | | **Evaluate and modify plan if needed (e.g., alternative treatments)** |
| **Relevant PMH/FH:** | | | | | |
| **Relevant SH:** | | **Drugs/Factors To Avoid:** | | | |

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)**