



SCHOOL OF PHARMACY

UNIVERSITY *of* WASHINGTON

Office of Professional Pharmacy Education

Advanced Pharmacy Practice Experience Guide

2015-2016

PHARMP 571, 572, 573, 574, 575, 576, 577, 578

PHARMP 581, 582, 583, 584, 585, 586, 587

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Chapter 1: General Program Information

Introduction

This guide contains information specifically about our **Advanced Pharmacy Practice Experience (APPE)** program, which are the experiences that occur in the last professional year of the curriculum. Through APPEs, students obtain 1200 of the 1500 hours needed for pharmacist licensure in the state of Washington.

This guide contains several sections. The introduction covers basic information regarding the rotation schedule, the curriculum, and APPE pre-requisites. There is a chapter on policies and guidelines, a chapter on APPE requirements and assignments, a chapter with tips for learning and teaching, and a chapter regarding giving feedback. We have also included a chapter about what to do if things go wrong (we hope you won't have to read this chapter!), a chapter covering teaching tips, as well as a resources section for students and for preceptors

As always, if you have concerns, call or e-mail your questions to the following people:

Forms and records, deadlines, site assignments, evaluations, grade submission, affiliation agreements, general questions: Email: appemgr@uw.edu Phone: 206-685-8738	Curtis Jefferson, MS Assistant Director for Experiential Education
Compliance and on-boarding requirements: Email: oppe@uw.edu Phone: 206-616-8703	Elise Tyler, BA Experiential Education Assistant
Patient care concerns, professional behavior, things going wrong, things you really love and just want to tell: Email: terrio@uw.edu Phone: 206-543-3324	Teresa O'Sullivan, PharmD, BCPS Director of Experiential Education, Advanced Practice
Questions about the database, web access problems, suggestions for new features on web site: Email: weberst@uw.edu Phone: 206-616-8762	Stanley S. Weber, PharmD, BCPP, FASHP Associate Dean, Chief Assessment Officer
Student questions regarding financial aid, graduation, letters of good standing, and awarding of degrees: Email: cherelyn@uw.edu Phone: 206-616-2916	Cher Espina Assistant Director for Advising, Admissions & Recruitment

We hope this year is fulfilling, creative, and educational for everyone.

2015-2016 Rotation Schedule

July 6 – 31, 2015 (this block not available to most students)

August 3 – 28

September 7 – October 2

October 5 – 30

November 2 – 27

December 7 – January 1, 2016

January 4 – 29

February 1 – 26

March 7 – April 1

April 4 – 29

May 2 – 27

June 6 – 24

A few students may be assigned to rotations of 6-week duration. This can happen when a student is assigned to an experience in a region that hosts students from other schools whose rotations are also six weeks.

6-week blocks

June 22 – July 30

August 3 – September 11

September 14 – October 23

October 26 – December 4

December 28 – February 5

February 8 – March 18

March 21 – April 29

May 2 – June 10

Important Websites

Student Portal (submit assignments, view rotation schedule):

<http://oppe.pharmacy.washington.edu/PracticumSite/SiteHome.lasso>

Preceptor Portal (view scheduled students, submit evaluations):

<http://oppe.pharmacy.washington.edu/PreceptorSite/PrecepHome.lasso>

Experiential Education website (general information about our experiential programs):

<http://sop.washington.edu/pharmd/experiential-education/>

PharmD Program

PharmD Program
FIRST PROFESSIONAL YEAR

MEDCH 400 is required for students who do not pass the MedCh qualifying exam.

Summer Quarter 2014

Summer Quarter 2014

Summer Quarter 2015

Summer Quarter 2015

* Please refer to the student handbook for more information.
FOURTH PROFESSIONAL YEAR

You are required to complete 54 credits of Advanced Pharmacy Practice Experiences (APPEs) as specified in the APPE syllabus. Refer to the advanced practicum student syllabus for information about APPEs. If you have any questions, please contact Terri O'Sullivan.

NOTE: Courses are subject to change by the School of Pharmacy & UW Curriculum Committees. There are 180 core & 28 professional electives for a total of 208 credits. Typically, a student on federal financial aid must carry a minimum of 12 credit hours each quarter to retain full-time status. Please contact Academic & Student Programs or the Office of Student Financial Aid with any questions. Updated: 5/18/14

What Students Should Know and Be Able to Do

Therapeutic Topics the Students have Studied in the Third Year

- **Overview:** drug interactions, pediatrics, geriatrics, fluids/electrolytes, pain, dermatology
- **Infectious disease:** antimicrobial agents, antibiotic resistance, antimicrobial pharmacokinetics, antibiotic allergy, AIDS. Infections of specific organ systems were covered throughout the year.
- **Pulmonary:** asthma, COPD, allergic rhinitis, pharyngitis, sinusitis, theophylline pharmacokinetics
- **GI:** GERD, IBD, PUD, hepatitis, cirrhosis, alcoholism and withdrawal, emesis, diarrhea, constipation, hemorrhoids
- **Oncology:** hematologic and solid organ cancers, pain and nausea assessment and treatment
- **Cardiovascular:** hypertension, hyperlipidemia, thrombosis, CHF, dysrhythmias
- **Kidney:** AKD, CKD, drug dosing and pharmacokinetics in renal disease
- **Endocrine:** diabetes, thyroid, ocular disorders, osteoporosis, contraception, infertility
- **Psychiatry:** mood disorders, schizophrenia, anxiety disorders, ADHD
- **Neurology:** seizures, headache, CVA, Parkinson's, dementia
- **Rheumatology:** arthritis, gout
- **Immunology:** transplant
- **Dermatology**
- **Nutrition**
- **Transplant**

The recommended textbook is the latest edition of Talbert RL, DiPiro JT, Matzke GR, Posey LM, Wells BG, Yee GC, eds. *Pharmacotherapy: A Pathophysiologic Approach*. 8th ed. New York: McGraw-Hill; 2011.

Therapeutic Skills

Students have practiced skills in several areas in their therapeutic skills laboratory. Skills they can and may be expected to perform well include:

- documentation (the students have written numerous SOAP notes)
- pain assessment
- renal and hepatic function assessment
- assessment of laboratory data
- compliance assessment

Assessment of Drug Therapy for Specific Disease States

- CHF: JVD, edema, heart and lung sounds, history
- obstructive lung disease: peak flow, PFTs, lung sounds, ABGs, inhaler use, history
- diabetes: neurologic (including foot exams), renal assessment, glucose monitoring (various meters), diet
- hypertension: BP, history, compliance, diet
- hyperlipidemia: history
- anticoagulation: history, diet
- depression: screening questions
- PUD/GERD: history
- arthritis: history, joint examination, grip strength
- osteoporosis: history, bone density measurement

Although students have also been exposed to other physical examination and verbal assessment tools, they have practiced those listed above most extensively.

Things Students may *not* Know or Do Well

Most students have not had very much practice in the following areas:

- Reading medical charts (the School does not have access to medical records)
- Measuring vitals: blood pressure, heart rate, respiratory rate, and temperature (these are taught, but students have only minimal experience actually performing the functions)
- Patient interviewing for problem detection and drug monitoring
- Physical examination of patients with active disease states (the students have had very limited exposure to real patients with real pathology that they can assess and learn from)
- Working up real and complex patients (the students have seen a lot of “paper” patients this year but need practice, practice, practice using the workup process on real patients; their paper cases have also been growing in complexity through the year but little exposure to highly complex cases)

APPE Prerequisites

Before students begin advanced practice experiences there are a number of requirements that must be completed. Students will *not* be able to begin advanced practice experiences until these activities have been completed.

Students should retain the originals of all required documents and take this file with them on the first day of each APPE. The file should include the following: current WA state intern license, HIPAA completion certificate, copy of background check report, individual immunization summary, proof of first aid and CPR certification, and certificate of bloodborne pathogens training.

Students may be asked to submit part or all of this documentation to the site or preceptor a month or more prior to the start of a rotation. The site may also have additional requirements and forms that will need to be signed. Students should be sure to ask when making first contact *at least one month* before the beginning of the rotation.

Prerequisite activities (students should check off when complete)

- ☐ Make photocopies of your current **Washington state intern license**. Apply for an intern license for any out-of-state sites, if the State Board of that state requires intern licensure. Experiential Education requires a copy of any out-of-state licenses you need to obtain for your rotations.
- ☐ Print a copy of your **HIPAA training completion certificate**.
- ☐ Obtain a copy of your **background check** from Certiphi.
- ☐ Obtain an updated copy of your **Individual Immunization Summary** from myshots@uw.edu showing that you are current through the date of your last day of APPEs. Be sure to request a new copy after you update your TB screening in May/June through the Health Sciences Immunization Program (HSIP). You will also need to get the influenza vaccine this coming autumn. Every time you update immunization and screening information with HSIP, request a new copy of the Individual Immunization Summary and place it in your document file.
- ☐ Complete and obtain certification of training in **infection control and bloodborne pathogens**.
- ☐ Load or update your **resume** online for Experiential Education review.
- ☐ Obtain proof of **current first aid and CPR certification at the healthcare provider level** and submit a copy of the proof to the Experiential Education office. (This should have been done as part of PharmP 532.)
- ☐ Successfully complete your **community and hospital IPPEs** and **PHARMP 541**.

- ☐ Pass all **Therapeutics classes** with a minimum grade of 1.7 in any individual class and minimum 2.0 average overall. Pass all **Therapeutics Skills classes** with a minimum average grade of 2.0. The Office of Academic and Student Programs will confirm your grades.
- ☐ Agree to abide by the **Guidelines for Professional Conduct** and acknowledge understanding of the infection control policy, indemnification policy, and health insurance policy.
- ☐ Students traveling outside the United States need to sign the **Global Health Training and Education program contract**. Students will need to visit the Travel Clinic, if travelling to an area where there are vaccine-preventable diseases.

Description of the Experiential Education Curriculum

Introductory pharmacy practice experiences (IPPEs). The experiential curriculum at the University of Washington contains three IPPE series:

- *Introductory Community Practice Experience.* This experience must be completed prior to the end of winter quarter of the student's second year of the program. It involves documentation of competency in basic pharmacy practice skills in the ambulatory care environment, patient counseling (prescription and OTC), professional behavior and attitude, and attendance at pharmacy association meetings and continuing professional education seminars.
- *Introductory Inpatient Practice Experience.* This experience must be completed prior to the end of winter quarter of the student's third year of the program. It involves an introduction to the patient care activities done by pharmacists in an inpatient environment as well as tasks involved in distribution of medication products. This experience also introduces students to the process of measuring and improving quality.
- *Introductory Clinical Practice Experience.* This experience prepares students for their APPE year by requiring each student to visit an institutional site, read a chart and interview a patient, present that patient in front of peers and a preceptor, and organize and present a seminar to the same group.

Advanced pharmacy practice experiences (APPEs). Students will need to complete a total of 1,440 hours of experiential learning during the fourth year. Most will complete the equivalent of nine full-time, 40+ hours/week, four-week learning blocks.

An APPE *must* involve experiential learning. "Experiential" means that students learn at a practice site, rather than in a classroom. "Learning" means that students cannot do the same tasks they've been doing for the past three years. The goal of each APPE is for students to emerge knowing and understanding something that they didn't know or understand as well before they began the learning experience. Students will set these goals in conjunction with preceptors and at the end of each APPE will be required to describe to us what they have learned.

There are four core learning experiences that all students must complete:

- One APPE (PHARMP 571 or PHARMP 581) must be a general medicine rotation completed in an inpatient/acute care environment.
- One APPE (PHARMP 572 or PHARMP 582) must occur in a health system setting: we interpret this as a second inpatient care experience.
- One APPE (PHARMP 573 or PHARMP 583) must be in an ambulatory clinic site.
- One APPE (PHARMP 574 or PHARMP 584) must be in either a chain or independent community pharmacy site.

These required advanced pharmacy practice experiences must be conducted in the United States or its territories and possessions (including the District of Columbia, Guam, Puerto Rico, and U.S. Virgin Islands).

Further information on core and non-core APPEs:

- Five of the nine learning experiences must involve direct patient care. Direct patient care means that students are interacting one-on-one with patients most days of the experience. The interaction can be in person or remote (e.g., over the phone). In addition to the four core experiences, students may complete PHARMP 575 or PHARMP 585 (Patient Care APPE) or PHARMP 577 or PHARMP 587 (Senior Care APPE) to satisfy the direct patient care requirement. As evidence of direct patient care students will be required to submit two patient care notes online for every direct patient care (PHARMP 571 through 575 and PHARMP 577 or PHARMP 581 through 585 and PHARMP 587) experience. For example, if students do nine direct patient care rotations they will submit 18 patient care notes online.
- If students are completing the geriatric certificate program they will need to complete a Senior Care APPE (PHARMP 577 or PHARMP 587).
- Up to four of APPEs can involve learning outside the patient care setting. PHARMP 576 is a 6-credit and PHARMP 586 is a 9-credit course involving learning in an environment where pharmacists don't provide direct patient care, e.g., industry, pharmacy management, drug information, and health policy development. Students may have anywhere from zero to four PHARMP 576 courses and zero to two PHARMP 586 courses on your transcript.
- If students are completing an experience that is shorter in length than 160 hours (6 credits) of learning, PHARMP 578 is a variable-credit course that will be registered at an appropriate number of credits. In general, University guidelines state that you need 25 to 30 hours of experiential learning for each credit of practice experience for which a student is enrolled. PHARMP 578 can be completed in either a patient care or non-patient care setting.

Within these guidelines, students are free to design your experiential learning as their interests and site availability dictate.

Preceptors will evaluate student learning but the Director of APPE will assign the grade, taking into account the preceptor's evaluation and, where appropriate, the student's response to that evaluation.

APPE-Specific Learning Goals and Objectives

Core Learning Experiences:

PHARMP 571/581: Advanced Pharmacy Practice Experience in Inpatient/Acute Care General Medicine

The student's learning goal for this experience is to develop the essential skills necessary to provide patient-specific care to patients with a variety of medical conditions typically seen in the inpatient setting.

Learning objectives:

1. Evaluate pathophysiology, clinical presentation, treatment goals, drug therapy, monitoring parameters, outcome measures, prognosis, and long-term management of common medical conditions in the acute care setting.
2. Identify drug-related problems; formulate and implement patient-specific, evidence-based patient care plan, and follow up to determine patient progress.
3. Succinctly and clearly present oral and written outlines of patient work-ups.
4. Synthesize succinct, evidence-based answers to drug information questions posed by patients or health care colleagues.
5. Evaluate patient understanding of provided information about medical conditions, drug therapy, outcome goals, potential side effects (and what to do if side effects occur), and other medication-related information.
6. Demonstrate professional conduct and demeanor that is ethical and responsible displaying integrity, compassion, empathy, and respect.

PHARMP 572/582: Advanced Pharmacy Practice Experience in Hospital or Health-System Pharmacy

The student's learning goal for this experience is to develop the essential skills necessary to provide patient-specific care for conditions specific to an assigned service in the inpatient care setting.

Learning objectives:

1. Retrieve, analyze, and interpret the scientific, professional, and lay literature to support patient care.

2. Establish professional relationships with patients, caregivers, prescribers, and other members of the interprofessional health care team.
3. Communicate and collaborate verbally and in writing with patients, caregivers, health care providers, and others to improve patient care.
4. Formulate, implement, evaluate, and revise patient care plans.
5. Demonstrate professional conduct and demeanor that is ethical and responsible displaying integrity, compassion, empathy, and respect.

PHARMP 573/583: Advanced Pharmacy Practice Experience in Ambulatory Care

The student's learning goal for this experience is to develop the essential skills necessary to provide patient-specific care to patients in the ambulatory care (clinic-based) care setting.

Learning objectives:

1. Evaluate pathophysiology, clinical presentation, treatment goals, drug therapy, monitoring parameters, outcome measures, prognosis, and long-term management of common medical conditions in the ambulatory care setting.
2. Identify drug-related problems; formulate and implement patient-specific, evidence-based patient care plans, and follow up to determine patient progress.
3. Succinctly and clearly present oral and written outlines of patient work-ups.
4. Synthesize succinct, evidence-based answers to drug information questions posed by patients or health care colleagues.
5. Evaluate patient understanding of provided information about medical conditions, drug therapy, outcome goals, potential side effects (and what to do if side effects occur), and other medication-related information.
6. Demonstrate professional conduct and demeanor that is ethical and responsible displaying integrity, compassion, empathy, and respect.

PHARMP 574/584: Advanced Pharmacy Practice Experience in Community Pharmacy

The student's learning goal for this experience is to develop the essential skills necessary to provide patient-specific care in the community pharmacy setting.

Learning objectives:

1. Provide medication therapy management; review profile and perform medication history to create a personal medication record; and design medication action plan for a patient.
2. Communicate and collaborate verbally and in writing with patients, caregivers, health care providers, and others to improve patient care.
3. Assess patients and recommend over-the-counter medication, non-drug therapy, medical goods, and complementary therapies beneficial for patient care.
4. Triage patients to appropriate health care providers and social service agencies.
5. Provide public health and wellness services and educational materials tailored to the needs of patients and caregivers in the community practice setting.
6. Demonstrate professional conduct and demeanor that is ethical and responsible displaying integrity, compassion, empathy, and respect.

Non-Core Learning Experiences

PHARMP 575/585: Advanced Pharmacy Practice Experience in Patient Care

The student's learning goal for this experience is to develop the essential skills necessary to provide patient-specific care in the assigned care setting.

Learning objectives:

1. Retrieve, analyze, and interpret the scientific, professional, and lay literature to support patient care.
2. Establish professional relationships with patients, caregivers, prescribers, and other members of the interprofessional health care team.
3. Communicate and collaborate verbally and in writing with patients, caregivers, health care providers, and others to improve patient care.
4. Formulate, implement, evaluate, and revise patient care plans.
5. When needed, prepare and distribute medical products as part of the patient's care plan.

6. Demonstrate professional conduct and demeanor that is ethical and responsible displaying integrity, compassion, empathy, and respect.

PHARMP 576/586: Advanced Pharmacy Practice Experience in Non-Patient Care Setting

The student's learning goal for this experience is to distinguish the role of a pharmacist in a non-patient care setting.

Learning objectives:

1. Retrieve, analyze, and interpret the scientific, professional, and lay literature when necessary in this work setting.
2. Establish professional relationships with other members of the work team.
3. Communicate and collaborate verbally and in writing with others in this work setting.
4. Manage projects, personnel, product distribution, or other systems to meet professional standards.
5. Demonstrate professional conduct and demeanor that is ethical and responsible displaying integrity, compassion, empathy, and respect.

PHARMP 577/587: Advanced Pharmacy Practice Experience in Senior Care

The student's learning goal for this experience is to develop the essential skills necessary to provide patient-specific care for conditions specific to patients in the senior or geriatric care setting.

Learning objectives:

1. Retrieve, analyze, and interpret the scientific, professional, and lay literature to support patient care.
2. Establish professional relationships with patients, caregivers, prescribers, and other members of the interprofessional health care team.
3. Communicate and collaborate verbally and in writing with patients, caregivers, health care providers, and others to improve patient care.
4. Formulate, implement, evaluate, and revise patient care plans.
5. Demonstrate professional conduct and demeanor that is ethical and responsible displaying integrity, compassion, empathy, and respect.

PHARMP 578: Advanced Pharmacy Practice Experience Elective

The student's learning goal for this experience may involve patient care or learning in a non-patient care setting. Generally, one or more of the following objectives will be met:

Learning objectives:

1. Retrieve, analyze, and interpret the scientific, professional, and lay literature to support patient care.
2. Establish professional relationships with patients, caregivers, prescribers, and other members of the interprofessional health care team.
3. Communicate and collaborate verbally and in writing with patients, caregivers, health care providers, and others to improve patient care.
4. Formulate, implement, evaluate, and revise patient care plans.
5. Demonstrate professional conduct and demeanor that is ethical and responsible displaying integrity, compassion, empathy, and respect.

Chapter 2: Policies, Guidelines & Forms

Student Guidelines for Professional Conduct

Students must:

- Communicate effectively and professionally
 - Maintain an active UW email account and check email daily. All announcements to fourth-year students will be done using email. Save important emails to a special APPE email folder.
 - Take the initiative in communicating with physicians, patients and other health professionals only when given permission by the preceptor. Students should expect to gain experience in making professional decisions with the preceptor encouraging greater autonomy as the student learns and demonstrates his or her problem-solving skills.
 - Behave with respect and courtesy toward the preceptor, all other pharmacists and pharmacy staff, technicians, interns, patients and their families, and medical and nursing staff.
 - Reference all information sources in handouts and other written work. Plagiarism is the unacknowledged use of someone else's work and is considered academic dishonesty. Information obtained from specific sources should be paraphrased and referenced using an acceptable reference style. Some assignments may require use of quoted material; all quoted information must be enclosed by quotation marks and the source of the quote identified in the reference list.
- Honor schedule commitments
 - Students must adhere to the rotation schedule agreed upon between the student and the preceptor at the beginning of the rotation. On the first day of a rotation students will print out and bring a blank calendar to populate with their preceptor. The calendar should be populated with due dates, holidays, *preceptor approved* personal time requests, etc. Students will arrive at the rotation site on time and will not leave before the agreed-upon time without first asking for permission from the preceptor. If a valid reason exists for being absent or late, the student must notify the preceptor as soon as possible. Students should be aware that the preceptor or site may request documentation of a reason for being late or absent. Many clinical sites will ask for a detailed description of symptoms or a note from a physician for an absence due to illness.
 - Students will be allowed state holidays off only with the explicit permission of the preceptor. Holiday matters need to be discussed with the preceptor and agreed upon at the start of the rotation. ***Preceptors have the final decision on holiday and personal time requests by their students.*** Students should not schedule vacations or plan life events, such as weddings, during a month when they are also scheduled to complete an APPE.
 - Failure to show up at any scheduled time without notifying the preceptor, failure to contact the preceptor at least one month in advance of the scheduled start date and failure to arrive on time for the first day of the rotation or failure to arrive on time more than twice during a rotation may result in a grade of **no credit**. The student will have to complete an additional rotation in a similar area. This could lead to a delay in graduation and/or extra tuition expenses.
 - Students are responsible for planning and committing to the rotation/site schedule they have set up at the beginning of the fourth year. However, **one** discretionary site change request will be honored during the year. The student must complete this process online, at least four (4) weeks prior to the first day of the APPE being changed. Instructions are on the experiential education webpage. Once a student has used his/her discretionary site change the webpage will not allow additional requests. **Note:** Schedule changes initiated by the site do not count toward the one-time student-initiated site change.
 - Students who are interested in completing projects outside of standard rotation requirements or participating in special services offered by the site must let the preceptor know in advance so these activities can be planned and accomplished.
- Be responsible for learning at the site

- Students should *actively participate* in pharmacy practice during the rotation and seek guidance from their preceptor, other pharmacy staff, health professionals and the Director of APPE.
- The student, not the preceptor, is responsible for learning gained at the site. Pharmacy preceptors volunteer valuable work time to facilitate pharmacy student learning, but the preceptor's first duty is to patients and the work site. Students should not expect their preceptors to be available at all times.
- Maintain confidentiality
 - Students may not communicate patient-specific confidential information to any individual outside the care team. All students must complete all required HIPAA training requested by any site.

The HIPAA regulations, Title 45 CFR § 164.514, specifically state that **all names, geographic subdivisions smaller than a state, dates (birth, death, admission, discharge), medical record numbers, phone/fax numbers, and email addresses must be de-identified**. Additionally, **no other dates, patient initials, names of health care sites, names of other health care professionals providing care to the patient, or any other such identifying information should be on any written material regarding specific patients, e.g., documentation notes, presented cases**. Students must remove all of the above identifying information before submitting patient care notes and when presenting patient information to individuals outside the care team. Students can only view confidential information about patients to whom they are directly providing care – this includes not viewing one's own medical record. *Failure to follow these regulations can result in dismissal from the APPE and no credit for the course. It may also be considered reckless behavior, which could result in refusal of the University to represent the student in the event of a lawsuit.*

- Students must also not communicate proprietary information about site policies and procedures, customers, fee structures or other billing information or any other such information to any individual outside of the site. However, students observing business practices that may be fraudulent, illegal, or unethical are obligated to report such information to the appropriate regulatory agency.
- Students with concerns or grievances may only share these concerns with the individual involved, with their preceptor in as private a setting as possible, or with the Director of APPE. Students and preceptors must not discuss concerns or grievances with any other students, pharmacy staff, other preceptors, patients, or other health care personnel. Gossiping about other students, health care professionals, patients, or staff is considered unprofessional behavior.
- Students should avoid sharing detail about previous APPEs with current preceptors or staff.
- Behave professionally
 - Exhibit professional appearance both in manner and dress. Business casual (implies ties for guys) is the norm for the first day. After that, follow the standards of dress and behavior specified by the site.
 - Arrive at each site with embroidered lab coat and appropriate learning materials.
 - Submit all required evidence of learning on or prior to given deadlines (see below).
- Follow the policies and procedures of the site and regulatory agencies
 - Students must bring a copy of their intern license to the APPE site to be posted as required by law on the first day of the practice experience. Students must obtain an intern license for every state in which they are scheduled to do a rotation. They must also adhere to federal regulations and the laws of the state(s) in which they are doing their advanced learning experience.
 - Students may be asked to make available to the site their background check, immunization record, HIPAA training certification, CPR card, and/or additional forms either on the first day of training or well before the student arrives onsite to start rotations. Some sites will require a urine drug screen in addition to the comprehensive background check.

Failure to adhere to these guidelines could potentially result in a grade of “no credit” for the learning experience.

In addition, students should:

- Have a plan for personal health care/protection
 - It is strongly recommended that each PharmD student acquire comprehensive health and accident insurance that will provide continuous coverage while participating in the rotation program. Prior to the start of APPEs the student will need to sign the standard insurance waiver indicating that the individual student assumes responsibility for his or her own health needs, health care costs, and health insurance coverage.
 - Students planning out-of-the-country experiences will need to sign a Global Health Training and Education Program Contract, copies of which are available online. They will also visit the UW Travel Medicine Clinic for pre-travel advice and information.
 - Students must know and practice appropriate risk management and infection control techniques. If any incident occurs which might entail risk for student, patient or site, students should seek treatment immediately and then contact Experiential Education. Students should *not* sign any forms, unless instructed to do so by the Risk Management Office of the University.
- Contact the Assistant Director for Experiential Education or Director of APPE with any concerns about a site or preceptor
 - Contact should be made in a timely manner if students want assistance in resolving questions or problems. If there is a problem, it is important to have the preceptor complete a mid-rotation evaluation by the end of the second week of the experience.
- Understand grading policies and procedures
 - Grades are credit/no credit with the exception of PHARMP 577 & PHARMP 587, which are numerically graded.
 - No grade will be awarded until all required paperwork is submitted.
 - The preceptor provides an evaluation of student performance to the APPE coursemaster. The APPE coursemaster assigns the grade.
 - A student who feels that an evaluation by a preceptor is arbitrary or capricious should contact the coursemaster and provide the student’s perceptions of performance in the form of a written response to the preceptor’s evaluation. The coursemaster will take this information into account when assigning the grade.
 - If a student receives a grade of “no credit” for an APPE, the student will need to stop scheduled APPEs and repeat the same course (at a different site).
 - All APPEs use the same course prefix of PHARMP. Although the numbers vary to designate the practice experience, all APPEs are considered the same course. According to School of Pharmacy Faculty approved policy, a student who fails the same course twice will be dismissed from the program. Therefore, a student who receives a grade of “no credit” in more than one APPE, regardless of course number designation, will be dismissed from the Doctor of Pharmacy degree program.

Student Guidelines for Infection Control and Exposure Management

http://oppe.pharmacy.washington.edu/PracticumSite/forms/Student_Guidelines_for_Infection_Control.pdf

Students are expected to be familiar with and adhere to the guidelines and procedures for preventing and managing exposure to infectious diseases.

University of Washington Indemnification Policy

http://oppe.pharmacy.washington.edu/PracticumSite/forms/Indemnification_Policy.pdf

Students are expected to be familiar with and adhere to this policy regarding University protection for expenses, settlements, damages, or claims regarding actions of students that cause patient harm or other legal action.

University of Washington Sexual Harassment Guidelines

http://oppe.pharmacy.washington.edu/PracticumSite/forms/Sexual_Harassment_Guidelines.pdf

Students are expected to be familiar with and adhere to the guidelines regarding sexual harassment.

School of Pharmacy Care Definition, Practice Foundations, and Ability-Based Outcomes

http://oppe.pharmacy.washington.edu/PracticumSite/forms/UW_ABOs_Public.pdf

Ability-Based Outcomes (ABOs) are the final or terminal competency statements that are the objective of our entire professional degree curriculum. They are the desired endpoints or achievements of the activity. All course work in the PharmD degree program is intended to prepare the student for mastery of one of these terminal ABOs.

School of Pharmacy Memorandum of Understanding

http://oppe.pharmacy.washington.edu/PracticumSite/forms/Memo_of_Understanding.pdf

This Memorandum is essentially our standard affiliation agreement rewritten to reflect our expectations and requirements of the experience, and includes the School's policies for indemnification, HIPAA, immunizations, etc.

Evaluation of Student Presentation

http://oppe.pharmacy.washington.edu/PracticumSite/forms/APPE_Presentation_Eval_Form.pdf

This evaluation rubric is provided as a tool for preceptors to give feedback to APPE students regarding seminar presentations/in-services they give during their rotations. A copy is not required to be sent to Experiential Education.

Mid APPE Evaluation Form

http://oppe.pharmacy.washington.edu/PracticumSite/forms/APPE_Mid_Eval_Form.pdf

This link to a pdf of the mid APPE evaluation is provided as a reference. All evaluations should be submitted via the experiential education website.

Final APPE Evaluation Form

http://oppe.pharmacy.washington.edu/PracticumSite/forms/APPE_Final_Eval_Form.pdf

This link to a pdf of the final APPE evaluation is provided as a reference. All evaluations should be submitted via the experiential education website.

Chapter 3: APPE Requirements & Assignments

During this rotation year students are required to:

- Write a learning goal and objectives for every APPE.
- Provide quality care to every assigned patient. Students will need to submit online two patient care notes, in the form of a SOAP note, as evidence of their ability to provide care for two different patients during every direct patient care experience.
- Verbally present patients to preceptor(s).
- Present two oral seminars, each at least 20 minutes in length, accompanied by professionally formatted handouts for the audience.
- Write a document where they evaluate and reference primary literature.
- Submit one full formal patient work-up (long case).
- Certify that they have performed core assessment skills by submitting a log of what they did and found.
- Have preceptors submit final evaluations for each advanced practice experience.
- Complete a site evaluation for every APPE.

These requirements are outlined in greater detail below.

Submit Goal & Objectives

Students are required to write a learning goal and objectives for each rotation to help facilitate and direct their learning on the rotation. These should be reviewed with the preceptor during the first week of the rotation and submitted by the student on the experiential education website. (See Chapter 4 for more information on writing goals and objectives.)

Provide Quality Care to Patients

We hope the majority of students' experiences this year will involve problem detection and solving for the patients at APPE sites. By now students should be very familiar with the process of patient workup, but the handout *How To Do a Patient Workup* (http://oppe.pharmacy.washington.edu/PracticumSite/forms/Patient_Workup.pdf) can be a useful resource. The information in the How To Do a Patient Workup is what preceptors expect students to know and do while on rotation. Remember that the information in How To Do a Patient Workup is a *thought process*: something you do in your head, not something you actually write out (unless a preceptor recommends to do so). With the exception of the one long case required, students will write *only a documentation note* for their patients.

Students should be prepared, at a minimum, to demonstrate the following therapeutic knowledge and skills:

Therapeutic knowledge

- Indications, usual doses, mechanism of action, common adverse reactions, route of administration and elimination, and precautions ("Nine to Know") for every single drug one of your patients is receiving or might receive
- Drug interactions, pediatric and geriatric dosing alterations, fluids/electrolytes, pain, dermatology, drug allergy
- Infectious disease: antimicrobial agents, antibiotic resistance, antimicrobial pharmacokinetics, antibiotic allergy, AIDS.
- Pulmonary: asthma, COPD, allergic rhinitis, pharyngitis, sinusitis, theophylline pharmacokinetics
- GI: GERD, IBD, PUD, hepatitis, cirrhosis, alcohol withdrawal, emesis, diarrhea, constipation, hemorrhoids

- CV disease: hypertension, hyperlipidemia, thrombosis, CHF, dysrhythmias
- Renal disorders: ARF, CRF, renal insufficiency, drug dosing and pharmacokinetics in renal disease
- Endocrine: diabetes, thyroid, ocular disorders, osteoporosis, contraception, infertility, HRT
- Psychiatric disorders: mood disorders, psychoses, anxiety, OCD
- Neurologic disorders: seizures, headache, CVA, Parkinson's, dementia
- Rheumatology: arthritis, gout
- Immunology: hematology/oncology, transplant

Therapeutic skills

- Patient interviewing (for problem detection and drug monitoring)
- Documentation
- Vitals: blood pressure, heart rate, respiratory rate, and temperature
- Pain assessment
- Mental status assessment
- Renal and hepatic function assessment
- Assessment of laboratory data
- Adherence assessment
- CPR and first aid therapy

Assessment of drug therapy for specific disease states

- CHF: JVD, edema, heart and lung sounds, history
- Obstructive lung disease: peak flow, PFTs, lung sounds, ABGs, inhaler use, history
- Diabetes: neurologic (including foot exams), glucose monitoring (various meters), insulin injection technique, diet
- Hypertension: BP, history, compliance, diet
- Hyperlipidemia: history, lipid fractionation from fingerstick
- Anticoagulation: history, diet, INR testing via fingerstick
- Depression: screening questions
- PUD/GERD: history
- Arthritis: history, joint examination, grip strength
- Osteoporosis: history, bone density measurement

Other skills

- Retrieve information from appropriate drug and medical information resources
- Speaking clearly and organizing material logically in oral presentation
- Justify statements with evidence or logical reasoning
- Triage primary care questions/problems
- Communicate clearly and cheerfully even in difficult circumstances

What patient care activities will students be asked to do?

Students may expect to do as many of the following activities as possible:

- Patient interviewing
- Monitoring of drug therapy
- Documentation of patient care activities

- Physical assessment
- Patient counseling/teaching
- OTC therapy assessment/triage
- Refill authorization (if protocol in place)
- Specialized services such as prescribing through collaborative drug therapy agreements, where such services are offered and when a student has been trained

Students' ability to provide quality care for their patients will be assessed by preceptors and will be part of the final evaluation (for the experiences where direct patient care is required).

Give Informal and Formal Patient Presentations

For each patient care rotation, students should expect to be required to outline verbally subjective and objective information about the patients they are assigned for their preceptor. They should also expect to be required to outline their assessment and plan. These may be in the form of formal patient presentations or informal patient presentations.

Informal patient presentations

Students may be expected at any time to give a brief 2-3 minute overview/update to their preceptor on any of the patients assigned to them. They should know how to do these after having presented them during lab. The whole point of these informal patient presentations is for students to let their preceptor know what is going on with their assigned patients and to get the preceptor's "OK" on their plan of action for the rest of the day. Informal patient presentations are one way that students will provide an immense amount of value to the preceptor and site at which they are doing the rotation. The SBAR technique is a great way to communicate information in an organized manner. An example of the format is presented below.

- **Situation:** patient age and problem "Mr. Smith is a 65-year old male for whom we have no information about laboratory values."
- **Background:** Pertinent medical conditions, medications, labs, and other information to consider. (e.g., He was recently-diagnosed with heart failure and started on furosemide 20mg po daily and lisinopril 10mg po daily; the physician inquired about adding spironolactone. He also has arthritis for which he takes 600mg of ibuprofen 3 times daily.)
- **Assessment:** Relate what problems you think the patient may have. ("I am concerned about Mr. Smith's kidney function and potassium concentration. Having the patient on a diuretic, an ACE inhibitor, and a NSAID may set him up for drug-induced kidney damage. The lisinopril will increase his potassium which can be balanced by the loop. I don't think the spironolactone is indicated at this time because it's really only useful in severe CHF.")
- **Recommendation:** Your plan for each drug-related problem or disease state. State exactly what you will do and your deadline for getting it done (e.g., "I would like to call the physician's office and see if the patient has a recent chem-7 drawn, and if not, recommend that he get that done. I would also recommend not starting spironolactone at this point.").

Since the preceptor is in charge of providing care to the patient, it is OK to use patient names and dates in informal presentations, as long as people not providing care to the patient cannot overhear the discussions.

Formal patient presentations

Some preceptors may ask students to present a "formal" patient presentation, sometimes as often as weekly. In addition to being valuable evidence of learning for students' portfolios and a test of their therapeutic knowledge base and thought process, formal patient presentations can provide a teaching/learning tool for the preceptor and the other pharmacists who listen to the presentation. Students' formal presentations will be made verbally, but they must provide for all listeners a neatly word-processed outline of patient infor-

mation. Patient information should be assembled using the standard patient history and physical presentation format.

Do not use any patient names, initials, health care provider names, site names, or dates in formal patient presentations. Since most of the audience will not be providing direct patient care, use of names, initials, dates, or other identifiers would be a violation of patient confidentiality. See the case at the end of *How To Do a Patient Workup* for an example of one way to prepare a handout and presentation information. Take guidance from the preceptor as to how he or she would like the patient presentations prepared.

Students will submit to the database at one time during the year, one of their formal patient work-ups (long case).

Prepare and Present at least two 20-minute Oral Seminars

In addition to the informal and formal patient presentations students give during each of their patient care rotations, they are also required to present at least two different 20-minute or longer seminars to an audience of two or more people twice during the clerkship year. *The oral seminars are not the same as formal patient presentations.* One of these seminars must cover some therapeutic topic. At these seminars the student will distribute a neatly word-processed handout for attendees and preferably will use other visual aids such as overheads or slides in the presentation. ***These handouts are to be submitted online by the student as evidence of fulfillment of the two seminar requirements.***

In addition, one of the preceptors listening to the presentation is encouraged to evaluate the content and delivery of the presentation in writing on the Patient Presentation Assessment Form, which can be found in Chapter 2 of this packet. This evaluation should be returned to the student and used as a tool to improve their presentation skills. The preceptor will also be asked evaluate the presentation in a special section on the Final Evaluation, which will be submitted to the Director of APPE. Do not submit the presentation assessment form to Experiential Education.

When giving an educational presentation, students may use charts, graphs, diagrams, drawings, cartoons, or pictures obtained from electronic or print resources as visual aids to enhance or clarify concepts in the educational presentation, but the source of all graphics must be identified using an acceptable reference format.

If a student makes handouts for an audience and has used tables, charts, graphs, figures, or pictures in the handout, there is a maximum of one illustration from any single source and a maximum of nine sources for the entire presentation permitted. All resources used must be referenced using an acceptable reference format. There should be a maximum of one handout for each audience member. Handouts containing works created by someone else cannot be made available to the general public without written permission from the owner of the work.

Complete a Writing Project

During the course of the year, students are required to create a substantial written document that involves evaluation of the primary literature. The paper must:

- be at least five pages in length.
- exhibit excellent technical writing skills.
- include analysis of data obtained from a minimum of three pieces of the primary literature.
- have all appropriate information cited.
- contain a reference list written using the National Library of Medicine (NLM) format.

The project must be submitted online by the student as evidence of fulfillment of the written project requirement.

This project can be conducted through a student's work site (but must be done on non-paid time), or through a non-APPE site. This project can be started and even completed prior to the APPE year.

Suggestions for a written project include:

- Create a collaborative drug therapy agreement that did not previously exist and was not primarily created using a template written by another individual.
- Compose a written response to a drug information question.
- Prepare a pharmacy and therapeutics (P&T) monograph.
- Conduct and write a research project examining some aspect of quality. Examples include a drug use evaluation, medication safety analysis, and workflow analysis.
- Formulate a set of institution-specific clinical practice guidelines.
- Generate a detailed handout for a substantial oral presentation (cannot be for one of the 20-minutes seminars).
- Write a business plan. This can be done in partnership with another student, but each individual student must write at least 5 pages of material and cite at least 3 pieces of primary literature, in the document.

Certify Practice of Core Patient Assessment Skills

Because many students have not had many opportunities in Therapeutics Skills coursework to assess a real patient with a medical condition, we want to be sure that they have this chance in their APPE year. To this end, we ask that students perform the following during their APPE year and record the skill online in the Therapeutic Skills Log:

- Auscultate a pair of abnormal lungs
- Auscultate an abnormal heart
- Inspect a skin lesion or rash
- Assess level of acute or chronic pain control
- Perform a diabetic foot examination

In addition, each student will need to complete at least 5 of the following:

- Assess a minor wound
- Inspect at least one patient with a swollen joint
- Assess at least one patient with an abdominal complaint
- Assess peripheral edema
- Assess the inhaler technique, triggers, frequency of medication use, and understanding of disease state for at least one patient with asthma
- Assess adherence in a patient older than 75 years of age
- Assess adherence in a patient younger than 14 years of age
- Assess symptoms of a patient receiving a medication for a mood disorder
- Screen for osteoporosis
- Assess symptoms of an infection (e.g., upper respiratory tract) to determine whether patient should continue self-care or seek care from the patient's primary care provider

Although obtaining vital signs (HR, BP, temp, RR, height, weight, age, smoking status) are not listed here, we assume students will perform these minimal assessment skills on all patients for whom they provide care and will ask preceptors to evaluate students' ability to perform these skills.

Submit Evaluation Forms

Mid-rotation Assessment (Preceptor)

Halfway through each APPE, preceptors are asked to submit a mid-rotation assessment in which they have the opportunity to state whether or not the student is making reasonable progress in learning, communication, and behavioral skills. If the student is making only marginal or even unsatisfactory progress in the rotation, preceptors should be sure to fill out this form at the two-week mark in the rotation and state exactly what the student needs to do in order to pass the rotation. By doing this preceptors can be assured that the student is made aware and given enough time to fulfill the rotation requirements satisfactorily.

Final Student Evaluation (Preceptor)

At the end of the learning experience at a site, students should ask the preceptor for a meeting to evaluate his/her progress toward the learning goals established in the first week of the rotation. We recommend that preceptors enter the final evaluation online with the student present, or else review the completed evaluation with the student.

Completing the evaluations online allows the preceptor to easily access the student's Goal and Objectives while completing a streamlined Final Evaluation. Our system allows preceptors to immediately receive electronic confirmation that we've received the form. If a site has limited Internet capacity, please let us know and we can provide a paper copy of the form for preceptor use.

To complete student evaluations online, preceptors need two pieces of information. One is the site PIN. This lets preceptors view information specific to their site: site description and contact information, which student is assigned for which rotation, etc. The site PIN is located in the heading of the letter of instruction and schedule that is sent to all sites in the spring. Preceptors also need their preceptor PIN, which they will receive by separate email. We encourage preceptors to change this number to any other that they can remember. If there are any problems with online entry, email appemgr@uw.edu.

Experiential Education should receive final evaluations no later than five working days after the end of a rotation. Students will be expected to follow up with their preceptor if the evaluation is not received by this date.

Site and Preceptor Evaluations (Student)

Students are required to evaluate every preceptor and site using the online form. Students should enter site evaluation during the final week, just before the rotation ends. The preceptor cannot see these until after the end of the academic year.

Deadlines

Students are responsible for submitting completed APPE work on time. Work is to be submitted electronically via the APPE website. Formatting requirements for word-processed documents include one-inch margins with text in 10 or 12-point font.

Description of rotation requirements	Student Completes and Date Due	Preceptor Completes and Date Due
Goal and objectives (required online)	Students submit online before the end of the first week of rotation	
Mid-rotation evaluation (required online)		Preceptor submits no later than the end of the second week of each rotation (particularly important if there is evidence of a problem of any kind)
Final rotation evaluation (required online)		Preceptor submits, preferably online in conjunction with final conference with student, on the last day of each rotation, but definitely no later than five working days after the end of each rotation (except March)
Site/preceptor evaluation (required online)	Students submit online just before completion of each rotation	
Evidence of ability to provide patient care (2 patient notes) (required online)	Students submit two online by the end of every direct patient care rotation	
First oral seminar (required online)	Students submit online seminar handout no later than 1/1/2016	
Therapeutic skills log (required online)	Students submit online no later than 3/1/2016	
Literature evaluation project (required online)	Students submit online no later than 3/1/2016	
Long case (required online)	Students submit online no later than 3/1/2016	
Second oral seminar (required online)	Students submit seminar handout online no later than 3/1/2016	

STUDENTS SHOULD ALWAYS RETAIN A COPY OF ALL THE FORMS YOU COMPLETE AND EVERYTHING YOU SUBMIT TO US FOR YOUR PERSONAL FILES.

If any part of the required documentation has not been submitted by the Friday a week after the final day of the monthly rotation, course credit will be delayed. If all material is still not received by the last day of the relevant quarter, a grade of “no credit” may be submitted for that experience.

Chapter 4: Tips for Teaching and Learning

How to Write Learning Goals and Objectives

The goal and objectives for each of the advanced learning experiences serve as the primary criteria for student performance evaluation. Some sites have predetermined learning objectives and some do not. Either way, it is up to students to tailor the learning objectives to meet their learning needs. The first day (or before) of the rotation is the appropriate time to decide upon learning objectives with the preceptor. Students should talk to their preceptor if they have a project they want to do. Don't wait until after the first day to bring it up!

The goal statement. The goal statement summarizes in one sentence the “big picture” of what a student hopes to learn during the rotation. Since the purpose of each rotation is to change and improve the way a student currently practices, the goal statement should summarize how the experience will help the student accomplish the change. Goal statements can use non-quantifiable verbs such as assist, care for, establish, provide, give, help, know, and understand.

The learning objectives. The objectives, unlike the goal, should be specific and measurable. Although each course has written learning objectives, students are not required to use only these learning objectives. Students can either add to or modify existing learning objectives so that they can tailor the experience to meet their learning needs.

General principles for writing learning objectives for an APPE experience:

- Aim for 3 to 5 measurable objectives, although one may end up with more if the scope of each objective is small.
- Use performance (i.e., action) verbs at the beginning of each learning objective to define how that skill will be measured. To assist in preparing the wording of learning objectives, we have included three taxonomies for learning objectives on the following pages. These include descriptions of the domains as well as verbs that correlate well with each domain. Notice how the taxonomy progresses from the lowest levels of learning at the top of the table to the highest levels of learning at the bottom. Students should strive to move beyond the lowest levels in their experiential learning. Write objectives such that they force learning at the highest levels.
- Students should not create a long list of disease states that they will specifically encounter. Instead, they should focus on patient care skills that are specific to or transferable beyond the type of service they may be on.
- Students should not list learning activities as learning objectives unless the learning activity contains a verb that will allow the preceptor to measure their learning. Examples of learning activities that are not worded as learning objectives:
 - Attending rounds. (verb doesn't measure learning)
 - Watching an open-heart surgery. (verb doesn't measure learning)
 - Filling prescriptions. (verb doesn't measure learning)
 - Sharpening patient care skills. (verb doesn't measure learning and is too vague)

Revised Bloom's Taxonomy for Cognitive Learning Objectives

Adapted from: Anderson LW, Krathwohl DR, editors. A taxonomy for learning, teaching, and assessing: a revision of Bloom's taxonomy of educational objectives. New York: Addison, Wesley, Longman, Inc.; 2001.

Description of the Major Categories in the Cognitive Domain	Illustrative Verbs for Stating Specific Learning Objectives
1. Remember: the ability to retrieve relevant knowledge from long-term memory. Remembering involves recall of specific facts (e.g. being able to describe disease states or drug pharmacology), but does not imply any ability to use those facts to achieve desired outcomes. Knowledge represents the lowest level of learning outcomes in the cognitive domain. Example: learner can define CHF and list the drugs used to treat it.	define, describe, identify, label, list, locate, match, name, outline, recall, recognize, reproduce, select, state
2. Understand: the ability to construct meaning from instructional messages. Understanding may be shown by translating material from one form to another (words to numbers), by interpreting material (explaining or summarizing), and by estimating future trends (predicting consequences or effects). Example: learner can explain why drugs used to treat CHF should help to reduce symptoms.	combine, compare, compute, convert, estimate, explain, extend, generalize, give example, infer, interpret, paraphrase, rewrite, summarize
3. Apply: the ability to carry out or use a procedure in a given situation. Application involves use of rules, methods, concepts, principles, laws, and theories. Example: learner can use a treatment algorithm to modify doses of drugs used for an uncomplicated patient with CHF.	apply, change, demonstrate, determine, manipulate, modify, operate, perform, predict, provide, relate, show, solve
4. Analyze: the ability to break down material into its component parts so that the organizational structure may be understood. Analysis includes the identification of the parts and relationships between parts, including recognition of the organizational principles involved. Learning outcomes require identification of both the content and the structural form of the material. Example: given information about a patient's medications, multiple disease states, and symptoms, a learner can distinguish the use of each medication and identify therapies that may be suboptimal.	analyze, categorize, classify, detect, diagram, differentiate, dissect, distinguish, identify, illustrate, infer, relate, select, separate, subdivide, survey
5. Evaluate: the ability to judge the value of material for a given purpose, based on defined criteria, which may be internal criteria (organization) or external criteria (relevance to the purpose). Learning outcomes in this area are high in the cognitive hierarchy because they contain elements of all prior categories, plus conscious value judgment based on clearly defined criteria. Example: learner can independently assess efficacy and toxicity of all medications for any patient.	appraise, assess, check, choose, contrast, critique, debate, decide, evaluate, judge, justify, measure, relate, support
6. Create: the ability to put parts together to form a new whole. This may involve the production of a unique communication (seminar), a plan of operation (research proposal), or a set of abstract relations (scheme for classifying information). Learning outcomes in this area emphasize the formulation of new patterns or structures. Example: learner can design a treatment regimen of any patient with multiple disease states.	combine, compose, create, devise, design, develop, generate, modify, organize, plan, predict, produce, rearrange, reconstruct, relate, reorganize, revise, write

Krathwohl's Taxonomy for Affective Learning Objectives

Adapted from: Krathwohl DR, Bloom BS, Masia BB. Taxonomy of educational objectives. Book 2: affective domain. New York (NY): Longman, 1964.

Description of the Major Categories in the Affective Domain	Illustrative Verbs for Stating Specific Learning Objectives
1. Receiving. Displays evidence of paying attention. Appears aware of an attitude, behavior, or value. Examples: Listens to others with respect. Observes intently.	differentiate, accept, listen, observe, discriminate, consider, notice, discern
2. Responding. Reacts appropriately to a stimulus. Actively participates. Examples: Replies appropriately to questions. Participates in rounds. Gives a presentation.	comply, follow, commend, volunteer, engage, acclaim, contribute, participate, exhibit
3. Valuing. Measures effect or worth of behaviors, skills, or attitudes. Examples: Demonstrates appreciation for patients' point of view. Recognizes needs of others.	study, feel, follow, form, invite, join, accept, differentiate, distinguish
4. Organization. Prioritizes values and resolves conflicts between them. Adapts behavior to value system. Example: Triage effectively. Accepts responsibility for behavior.	alter, arrange, combine, relate, integrate, weigh, resolve
5. Characterization. Values define behaviors and attitudes to a degree that behaviors and attitudes are predictable and part of the person's character or personality. Examples: Reliably finishes tasks. Accepts criticism gracefully. Revises opinions when presented with new evidence.	discriminate, influence, revise, commit, modify, perform, is consistent

Pierce and Gray's Taxonomy for Psychomotor or Kinesthetic Learning Objectives

Adapted from: Pierce WD, Gray CE. Teaching in the three domains of learning. Independently published, 2013. Previously published by Lanham (MD): University Press of America, 1981.

Description of the Major Categories in the Psychomotor Domain	Illustrative Verbs for Stating Specific Learning Objectives
1. Perceiving. Paying attention. Using sensory information to think about the motor activity. Mentally rehearsing the task. Example: Watching a video which outlines the steps for how to make an intravenous admixture product.	describes, detects, distinguishes, identifies, relates, selects, isolates
2. Activating. Going through the steps of a task slowly and in response to instruction or trial and error. Conscious modeling. Example: Preparing an intravenous admixture for the first time in response to an instructor's verbal instruction.	copies, traces, imitates, initiates, reproduces, follows, trials
3. Executing. Is able to go through all steps of a task without instruction. Independently performs all parts of a task. Example: Writing a SOAP note in response to a case patient workup.	assembles, calibrates, constructs, dismantles, displays, acts, executes
4. Maneuvering. Skillful and confident performance execution. Example: Writing concise and complete care notes in the practice setting.	same verbs as level 3 used with an adverb or adjective indicating mastery e.g., gracefully, quickly, accurately, dexterously, precisely
5. Judging. Skillful performance of a new task through modification of skills mastered for a different task. Example: Write a formulary monograph for use in the practice setting for the first time.	adapts, alters, changes, rearranges, modifies, reorganizes, revises
6. Creating. Creating the steps for a new task. Example: writing a proposal for a new pharmacy service.	arranges, combines, composes, constructs, creates, designs, originates

Planning Learning Activities

The next thing to think about is how to accomplish the goal. As students plan the journey between their current skill level and their desired level, they will probably see several clearly delineated steps in the learning process leading to the overall goal. It can be helpful to write down each of these steps. They will become the list of activities to be performed at the rotation (learning plan).

Learning activities can include just about anything that reasonably helps students reach their learning goal. One thing students should strive for, however, is to *avoid choosing passive learning activities*. For example, the ability to describe the side effects of medications used for arthritis therapy may be nice, but that kind of objective won't change the way one practices. Alternatively, creation of a standardized arthritis pharmacotherapy documentation system with built-in prompts for interview questions and physical exam information could change and improve the way one practices. If coupled with an algorithm (plan) to follow if efficacy fails to occur, or toxicity does occur, a student's learning experience would produce a powerful tool enabling them and their preceptor to provide complete and consistent care to patients who have arthritis. Careful examination of the verbs in the higher-numbered categories in the taxonomies may help students to design active learning experiences.

Putting It All Together

The information in the next several paragraphs should serve as a jumping-off point for rotation goal/objective/activity planning, since patient workup and drug information communication are the most basic of cognitive skills that a pharmacist must possess. If a student hasn't mastered these skills—be honest with yourself about your level of competence—then they should plan on using their first APPEs to improve their abilities in these areas.

Patient Work-up. All pharmacists graduating from this program need to display the ability to do a quick and accurate patient workup. The process of patient workup includes:

- Gathering objective and subjective patient information
- Analyzing it to determine medical and drug-related problems
- Developing and enacting a treatment plan (including referral) for any detected problems
- Developing and enacting a monitoring plan for treatment compliance, efficacy, and adverse effect.

Students should plan to devote a lot of learning time to master this process quickly and efficiently.

Communicating drug information in a professional manner. Most APPEs will include communication of drug information, and students should create at least one learning objective aimed at skill building in this area. The focus of these objectives should vary to match the learning theme. Suggested areas for emphasis include:

- Creating patient information brochures.
- Writing chart notes, written consults, or letters to other health care providers efficiently—you should be able to complete a consult note in 3 minutes or less; practice until you can do this.
- Composing a newsletter article on general or specific health or drug topic.
- Generating a formalized drug literature review for a P&T committee, MUM report, journal club, or seminar presentation.

Factual information. Although quality patient care requires a good understanding of factual information, keep in mind that the purpose of the rotation is to build new practice skills. The acquisition of new factual information should play a minor role in students' rotation activities: 20% or less of rotation learning time. The majority of APPE learning time should be spent *using* the information students have already learned in their therapeutic coursework in some constructive, even innovative, manner.

Chapter 5: Additional Information for Students

Theories of Learning

There are three currently accepted ways in which people learn: behavioral, cognitive, and sociocultural. Each are valid methods of learning and you will find that you use all three, although you may have associated only one method of learning with formal education prior to starting pharmacy school.

Behavioral learning is the type with which you are likely most familiar, as it involves learning designed by another individual. It involves learning in incremental steps, with each step building upon a previous step. To use the illustration of building a chair, using behavioral learning you would first get a book on chair-building, then gather the tools and read how to use each tool properly, then sketch out a plan of how the chair would be built, and then follow that plan to build the chair. Traditional lecturing (i.e., didactic teaching) is generally behaviorist as the lecturer usually starts with the basics and builds on those basics. Sound like most of your therapeutics lectures? Acquisition of psychomotor skills also occurs most optimally via behavioral learning.

Cognitive learning (also referred to as constructivist learning) involves learning that is constructed by the learner. Learners in this mode feel as if they're "jumping in with both feet." To continue the illustration of building a chair, a cognitive learner would simply gather the tools and materials and start building the chair, learning as he or she went along. In this way the learner would have achieved the endpoint (the finished chair) much more quickly than the behaviorist, although the chair would likely be less elegant than the behaviorist's chair. Problem-based learning is quintessential cognitive learning, so all those patient cases you received in your small groups involved cognitive learning.

Sociocultural learning (also referred to as socio-constructivist learning) involves meaning derived through social interaction. It's harder to compare and contrast this type of learning with the other two methods, since the description of this type of learning is very abstract. Basically, all of your social norms are acquired through this mode of learning. Your attitudes toward a patient or a class or an assignment are subtly influenced by what the group around you feels and how the individuals of that group react as a collective whole. To continue with the chair-building example, if you were building the chair via sociocultural learning, you would build it with a group of people and the experience of building that chair, as well as the final endpoint of the chair, would be determined by the group consensus. If the group decided it was a stupid assignment, then the endpoint might be "no chair." If the group decided that everyone needed to use the chair, then the result might be a bench. Many of your values, norms, and attitudes have been formed through sociocultural learning. Role modeling is the primary method of sociocultural learning and you will pick up more than you realize of this type of learning during your fourth year.

So what kind of learning can you expect to perform during your fourth year (and beyond)? Well, really, you will use all three types, although cognitive and sociocultural learning will comprise the majority. This combination will result in something called *self-directed learning*. Knowledge from this type of learning is often retained better, because the information is received in context. Learners have a visual and auditory "picture" in their brains to accompany the "facts." Let's explore this concept a little more.

Self-directed Learning

Most adult learning and, indeed, much of childhood learning is self-directed. Self-directed learning occurs when the person doing the learning has the *primary* responsibility for the design, initiation, completion, and evaluation of a learning experience. Self-directed learning is actually the way you learn best because you have been doing it since you were born. We as educators, however, have *conditioned* you to think that the best way to learn is didactically—in a classroom setting. You think this because almost all of your formalized learning at the primary, secondary, and tertiary instructional levels was conducted in a passive learning format (educators lectured, you took notes). Active learning, which you do every day, does not result in a diploma or other item showing proof of learning, yet you probably use more of the information from your active learning experiences on a daily basis than that material gained from didactic coursework.

At this point you may be mildly alarmed at the idea of using self-directed learning in a formal course of study because, if your self-directed learning is anything like mine, it is usually conducted haphazardly. This is how adult learning commonly occurs: through trial-and-error, fortuitous and unanticipated experiences, and, very occasionally, by design. Because adult learning is triggered by the needs of an individual at a particular time and includes constant redefining of process and goals, it is often only recognized retrospectively. Do you remember scenarios in which you experienced the “aha!” phenomenon (that instance defined in a cartoon by the light bulb appearing over the character’s head)? You probably didn’t consciously decide to learn, but had picked up bits and pieces of information here and there, and a chance encounter or remark made everything come together. You only recognized the presence of a learning experience afterward. Fortunately, self-directed learning *can* occur in a more structured fashion.

One important point that I would like to address is that self-directed learning is *not* synonymous with learning alone. If you do not believe me, then think again about your process of making the decision to enroll in the PharmD program. Remember that all along in your decision-making you were assisted in the information gathering process by people and written materials. Your experiential learning will also not involve learning alone. Rather, it will be a purposeful endeavor to gather together the resources you need, within an organized framework, so that learning can occur. The only difference between the self-directed learning you will do in your rotation and the self-directed learning you have done all of your life is that the learning you acquire in your rotation will be planned ahead of time, so you can recognize the learning as it happens.

Steps involved in self-directed learning

1. Decide what knowledge and/or skill you want to learn.
2. Estimate your current level of the knowledge or skill, and define specifically the level of knowledge or skill you desire to achieve.
3. Identify the specific activities, methods, resources, expenses, and equipment you will need for learning.
4. Decide where to learn, which will also involve identifying who can teach you what you want to know.
5. Set specific outcomes and deadlines (target dates) for your activities, both final and intermediate; identify personal motivators that you will use to increase your motivation throughout the learning experience.
6. Decide when to begin your learning experience.
7. Outline a reasonable pace at which you will proceed during the learning episode.
8. Create time for the learning; obtain all resources or equipment you will need.
9. Begin the learning experience; modify it if you detect factors that hinder your learning or progress.
10. Appraise the outcome of the experience.

These steps have been modified from material originally published in: Tough A. *The adult’s learning projects: a fresh approach to the theory and practice in adult learning*. 2nd ed. Toronto: Ontario Institute for Studies in Education, 1979. Because this process has been well described and validated, you should use it as a tool to plan your self-directed learning.

So how can you optimize your learning experiences? First of all, embrace the concept of self-directed learning. Do not go to your APPEs with the primary purpose of being at the site for eight hours. Instead, go to the site each day with a clear picture of what you hope to learn that day and a plan for how you hope to learn it. Second, do not expect to be taught everything by your preceptor. Your preceptor will be one of many sources of information you will use to enable your learning to occur. Other sources will include textbooks (behavioral learning), other health care professionals (sociocultural learning), and the patients themselves (cognitive learning). Third, do not pass up opportunities for learning when they present themselves. If you think back over your lifetime, you will probably remember some of your best (positive and negative) learning experiences happened without much advance notice. Finally, be aware that the quality of your learning experiences will primarily depend upon your attitude toward that learning.

If Things Go Wrong

The majority of your practice-based learning will be enjoyable experiences. Sometimes unanticipated challenges occur. Although each challenge arising in practice-based learning is unique, it is possible to identify some general categories of situations that trigger contact with the experiential education office.

The experience doesn't meet expectations. It is impossible to enter a practice-based situation without expectations. If expectations (either student's or preceptor's) for the experience are unrealistic or unaligned, then disappointment will occur. It is important to identify clearly what your expectations are for a learning experience. Writing down your expectations (before beginning a learning experience) will help you clarify what they are and will allow you to discuss with your preceptor whether your expectations are reasonable for that site.

If the learning activities agreed upon by you and your preceptor (e.g., contact with patients) are not occurring (e.g., you're spending most of the time performing tasks you have previously mastered, such as product preparation and distribution), then you should speak with your preceptor early on in the experience about other tasks which would allow you to learn new skills or hone partially-developed skills.

The experience seems disorganized/unplanned. Development of an activity schedule aids greatly in organization of a practice-based experience. If your preceptor does not have such a schedule already in place, then create one yourself based on the discussion you have with the preceptor about learning opportunities, prior to start of the practice-based experience. Give the schedule to your preceptor for approval/concordance/modification.

The preceptor/site personnel are inconsistent/unwelcoming/overly critical. It is difficult to be in a situation where criticism occurs frequently and encouragement or identification of skills performed well does not seem to occur. In this case it is again important to inform the preceptor of the situation and events triggering the impression.

The preceptor/site personnel display unprofessional behavior. It is difficult to initiate a conversation with the preceptor when this occurs; many students will choose to say nothing rather than appearing to criticize the site or preceptor. It is important, however, that the preceptor be informed of the situation and the events that triggered the student's impression.

The preceptor's evaluation is not submitted by the deadline. It is challenging to determine the fine line between gentle reminding and appearing to harass a busy preceptor about evaluation submission deadlines. If a preceptor's evaluation is not submitted by the deadline, then students should make at least two but not more than three attempts to remind the preceptor. After that, it is best to inform the experiential education office about each of the attempts and let the office make further attempts to obtain the evaluation.

Life happens. The most frequent reason for things going wrong from a student perspective has nothing to do with the practice-based experience itself, but rather personal situations that occur. Loved ones can become ill or die, students can develop health conditions that make it difficult to meet preceptor expectations, an unanticipated event at the site or elsewhere can be emotionally disturbing; the list could go on. It is important to remember that preceptors in general are very flexible about life events, as long as they are informed about what is going on. If you confide in your preceptor that you are having a challenging personal situation, you have every right to expect that your preceptor will not share the specifics of the situation with other individuals at the site.

Responding to challenging situations

First talk to the preceptor. Be specific, straightforward, and tactful. Approach the conversation collegially, e.g., "I think we may have a problem here and I really want to talk about it to understand your point of view." In most situations you will be able to address the situation without any further intervention.

If the situation is one where you are afraid of sounding overly critical about the site or individuals at the site, then it will be vital to write down in advance all of the actions you observed that led to your response to the situation. When you discuss the actions with your preceptor, you can then in a calm voice outline what actions you observed, and how you interpreted those actions. The preceptor may be able to give you additional information that will allow you to change your interpretation about what you observed or the preceptor may wish to make an intervention at the site. Either way, you owe your site and preceptor the opportunity to respond to your observations and interpretations.

If you and your preceptor determine that you will need some time off from the site, do inform the Experiential Education office that you and the preceptor have agreed that you will be taking time away from the site and how that time will be accounted for (Made up at a later time? Waived?).

If you feel that your attempts to engage the preceptor in a meaningful dialogue are unsuccessful, or if you feel uncomfortable speaking with the preceptor about an issue, then it is time to inform the Experiential Education office about what has occurred. It will be easiest for us to respond to your written account of what occurred. Be prepared to also inform our office of your desired outcome for the situation.

Another reason that students contact our office is to check grounding of fears. We want to be available to listen to your concerns (and your compliments of your sites, preceptors, or activities!). We are very busy between teaching and site coordination activities, however, so please contact us again if we don't return a call or email within a day.

If you are concerned about a site and don't feel it is worrisome enough to call us about, but you still want to tell us about an issue, there is also a section on the Site Evaluation where you may communicate information about a site only to our staff. None of the information in this section will be shared with the preceptors.

Chapter 6: Additional Information for Preceptors

We have created student and preceptor-specific supplements to this guide that contain additional information.

Giving Feedback

Because most of you do not have a background in education, the following information has been developed to give you some very basic information about the way in which adults learn. We hope it will stimulate you to think about the way in which you clinically teach and the types of things your student will learn, depending upon the situation.

The following information on teaching has been developed over years of talking to both students and preceptors about what teaching styles have been successful and what teaching styles have not. Although there is great variability in the type of teaching that works for different students, a few clear themes have emerged. The students have also received this information since these points are important regardless of whether an individual is a student or a preceptor.

1. Be sure that your thoughts and recommendations are evidence-based. Whether you are praising or giving constructive criticism, it helps you to state the exact action you observed, rather than telling the student something vague. A student will benefit from precise feedback. For example, telling your student “I liked the way you used language that the patient understood when you were interviewing her,” will give that student more specific information than, “Nice job interviewing.”
2. Everybody craves positive reinforcement. Negative feedback given on a regular basis tends to result in resentment on the part of the recipient, who will be less inclined to correct deficiencies. Although it is necessary to inform students of deficiencies, it is possible to do it in a constructive fashion. One method to avoid creating a negative learning atmosphere is to always include positive reinforcement whenever constructive feedback is given. Beware of the word, “but,” however, since a positive statement connected to a constructive statement by the word “but,” will make it sound like you don’t really mean the positive statement. Instead, separate the two statements into two completely separate and unconnected thoughts. For example, consider the difference between the following two comments:
“Your organization of the patient data is excellent and I can see that you have put a lot of effort into acquiring a thorough database on your patient. Prior to your next presentation, be sure to completely review each medication that your patient is receiving, since you were unable to answer some of the questions I asked you about mechanism of action for each drug.”
“You did a good job gathering patient data but you really need to study up on the drugs since you couldn’t answer a lot of my questions.”
Notice how the positive comment in the second statement appeared a little less sincere when followed by that “but.”
3. Be as precise with information as possible, since provision of precise and specific information will allow you to role model for your student how you would like him or her to present information to you. Try to avoid use of vague words like “monitor” or “check.” but instead use more specific verbs such as “measure” or “test” since these words will prompt you to outline what specifically should be measured, how often, who should do it, and for how long. Encourage your student to justify his or her statements whenever possible. (“Why do you think that?”)
4. Make a scheduled sit-down time with the student to discuss patient issues, projects, or problems, even if it can only be for a short time. A student will be delighted to have your undivided attention and you will enjoy some structured discussion-teaching.

If Things Go Wrong

There is a chance you will run into a difficult situation with a student during one of the rotations you offer. The reasons preceptors most commonly call us are listed below. If you are aware of them, then you may be able to prevent them from happening with your students. If you encounter any situations that seem worrisome, do not ignore them until the final week of rotation, because the student will not have adequate time to correct behaviors. Instead, please inform your student as early as possible of any deficiencies he or she may display so that he or she has a chance to correct them. The mid-rotation evaluation has been specifically designed to give you the opportunity to notify your student of any deficiencies while there is still a chance to correct them.

It might be useful to review our *Student Guidelines for Professional Conduct*, which may be found at oppe.pharmacy.washington.edu/PracticumSite/forms/Student_Guidelines_for_Professional_Conduct.pdf

1. **Inadequate knowledge base.** Knowledge base is a difficult thing to evaluate. The students have facts flying at them pretty fast during their year of Therapeutics. Many feel unsure about their knowledge base because they have no experience to cement those facts into place. Do expect some incorrect statements from your student (although hopefully few incorrect statements if the student is nearing graduation. As a preceptor, you can help your student understand why the action he or she recommended is inappropriate and explain what an appropriate action would be. It is only when this happens frequently (e.g., daily) that you should worry. At this point it is time to call me to see if this has been a pattern. If it has, we'll decide on a course of action to take with your student.
2. **Tardiness.** Each student has been told to settle with you on the first day of the rotation *exactly* when he or she will be expected to arrive at the site (to avoid misunderstandings). If your student shows up late once or twice during a rotation experience, it is not grounds for failure of the course (unless he or she is hours late, with no reasonable excuse). However, if your student is routinely late (3-4 times more often per rotation), then you should inform the student that he or she is at risk of failing the rotation.

On the other end of the day, leaving early is acceptable if all of the student's work is done, but not if the work is unfinished. If you choose to allow the student to leave early once weekly for a job, be certain that he or she does not neglect his or her responsibilities. You may choose to have the student make up lost learning time in other ways (coming in early, staying late, home projects), if you feel that additional learning time is necessary. While we want the focus of the experience to be on learning and not just hours spent at a site, we feel firmly that the learning experience will be diluted for the student who puts in substantially fewer than 160 hours of learning.

3. **Absences.** Your student should not have *any* unexplained absence-this can be grounds for failure of the course. *Explained* absences are reasonable as long as you are satisfied with the explanation. ("I have to work" is *not* a reasonable excuse for absence.) As preceptor, you have the final say about time missed due to absences (i.e., don't let a student tell you, "Terri said I could...").

Students must adhere to the rotation schedule agreed upon between the student and the preceptor at the beginning of the rotation. Students will arrive at the rotation site on time and will not leave before the agreed-upon time without first asking for permission from you. If a valid reason exists for being absent or late, the student must notify you as soon as possible.

Students will be allowed state holidays off only with the explicit permission from you as preceptor. Holiday matters and other potential absences need to be discussed and agreed upon at the start of the rotation. ***Preceptors have the final decision on holiday and personal time requests by their students.*** Students are informed they should not schedule vacations or plan life events, such as weddings, during a month when they are also scheduled to complete an APPE.

You can offer students the option of making up missed time if your schedule or the schedule of the site allows for it. Additionally, students have a one-week break in their rotations every few months which could potentially be used to make up missed days with preceptor permission.

4. **Inadequate communication skills.** Communication skills are also difficult to evaluate. They can either result in or be caused by behavior problems. Differences in working style can also manifest as a

communication problem. How can you tell whether an apparent communication problem is really a problem? There are a series of steps you can follow to check:

- Does the problem really have anything to do with you? Sometimes events outside of people's lives influence their behavior at work. This does not excuse their behavior if they are rude, thoughtless, or incommunicative, but it does mean that there is probably nothing you can do about it until their situation is resolved. Remember that everyone has a bad day now and again and if you can have one, so can your student.
- Is the problem really one of differences in learning styles? In general, people who go into the practice of pharmacy approach learning in one of two ways. One group of learners loves learning by doing. People in this group have no problem dealing with unanticipated questions or situations. The other group of learners loves learning by thinking. Those in this group want time to examine all aspects of a situation and are less comfortable in situations where they are not given time to think things through. Each type of learner has both strengths and limitations. The thing to remember is that if you learn in one way and your student learns in another, you won't be able to work as well with the student until both of you realize how you learn best, and then respond appropriately.
- If it doesn't seem like there is a problem outside the practice environment, and you think you understand and are trying to meet the student's learning style, then it is time to call our office.

5. Lack of motivation. Infrequently, overt lack of motivation is apparent early on, with a student informing you at the start of a rotation that he or she has no interest in your learning environment. If this happens, please notify us as soon as possible. Your time and energy are too valuable to spend on a student who refuses to perform.

More frequently, you will see subtler signs of motivation lack occurring in students as they approach the end of their fourth professional year or if they have an anticipated event (e.g., wedding) approaching. Most of the time, simply describing to the student in a pleasant tone the behavior you observed and describing the behavior you would prefer to see will be enough to help that student shake off ennui. If this doesn't work then you can inform the student that continuing to not meet expectations may result in a suboptimal evaluation at the end of the experience. If this fails to adequately motivate the student it is time to document observed behaviors that didn't meet your expectations and to call us.

General Advice

Regardless of the reason for the problem, you must address it verbally with your student. Listen as much as you speak. Most of the time, troubles can be discussed and a mutually agreeable solution can be reached. If this doesn't work, it's time to call us. We will ask you to describe the situation and then ask you if you've spoken to the student about it. If your answer is, "no," then be prepared with a good reason why (there are some situations where preceptors are concerned about confronting a student). If your answer is, "yes," and you still are unsatisfied with the situation, then we will discuss your options. The options will depend on the nature of the problem.

In general, you should make the initial effort to solve problems by direct interaction with your student as early on in the rotation as possible. Be specific and straightforward. Don't beat around the bush, but don't be rude either. Simply saying, "I think we may have a problem here and I really want to talk about it to understand your point of view," can go a long way toward easing a tense situation. If there is a deficiency, identify clearly in writing exactly what the student needs to do in order to correct the deficiency. If the deficiency is not corrected, then be sure to note on the final evaluation the specific area of deficiency, describing the specific student actions and reactions that led you to think that the deficiency was not fixed. The more you can explain in writing, the more helpful it is for our office when determining what to do.