RESOLVED: That the Academic Senate of CSU, Bakersfield recommends to the President the approval of the Pharmacy Technician Certificate Program.

RATIONALE: All steps have been followed in the development of this certificate program.

Approved by the Academic Senate on May 14, 2015
Sent to the President for approval on May 26, 2015
Approved by the President on September 16, 2015
PROPOSAL FOR A NEW ACADEMIC CREDIT CERTIFICATE

Proposals to add a new academic credit certificate must receive appropriate campus approval prior to implementation. All attachments are to be added to this cover sheet and remain with the proposal through the required steps of evaluation. Please consult with the Associate Vice President of Academic Programs for questions or assistance.

This new proposal is designed to be offered through:

☐ General-fund Support, “State-side,” and/or
☒ Self Support

Title Pharmacy Technician Certificate (Non-Academic Credit) effective (term):

Originating Department or Individual: Nursing Department

If a department formally approved the attached proposal, attach the appropriate memorandum and approval date.

Signature: [Signature]  date: 3/13/15

Curriculum Committee(s): Interschool programs should attach comments or approval from relevant school or department curriculum committees before being submitted to the Academic Affairs Committee, acting as the University Curriculum Committee. A memorandum and approval date from the curriculum committee must be attached. If any revisions were required or agreed to, a revised copy of the proposal must be attached.

Chair Signature: [Signature]  date: 03/13/15

Dean(s): Include the Dean of Extended University, where appropriate. I have reviewed this proposal and send it forward for university-wide review with my comments attached. These comments include my analysis of the resource commitments that must be made to support the program and the origin(s) of those resources.

Dean Signature: [Signature]  date: 3/19/15

AVP of Academic Programs: I have reviewed this proposal and send it forward to the Provost.

AVP Signature: [Signature]  date: 

Date of Senate Approval:  Date of President Approval:

Please attach the final Academic Senate Resolution, as signed by the President and return to the Office of Academic Programs. A copy of this form and final electronic catalog copy must be sent to the Director of Academic Operations and Support.
FULL COURSE TITLE: Pharmacy Technician Certification Exam Preparation

Short Course Title: (as it will appear on transcript -- 30 SPACE MAXIMUM)

Course Number: 803
Instructor: James "Pat" Person

Department: NURS
Grading Basis: □ Normal □ CR/NC □ No Grade
Credit Value/Units: 80 hours

Length of Course: 10 weeks
Prerequisites: *SEE ADDITIONAL COMMENTS

Course Description:
This is the final course associated with the program. During the course of this particular class, the student will:
Continue preparation to successfully complete the PTCB pharmacy technician certification exam. This will be the course that will serve
as the final review for everything that has been introduced in "Introduction to Pharmacy Technician" and "Introduction to
Pharmacology". This can also serve as a review class for current pharmacy technicians who would like to take the PTCB certification
test. This course will bring together all of the previously introduced material, and explain how it all relates to the current practice of
pharmacy.

Additional Comments:
*Passage of "Introduction to Pharmacy Technician" and "Introduction to Pharmacology" courses or working as a pharmacy technician
for 6 months or more.

Also known as PHR-3
Course Organized/Requested By: Jennifer Patino

Approved By:       Dr. Mark Novak, Dean, EUD          Dr. Anne Houtman, Dean, NSM & E
                    2/27/15                        4/01/15
Deborah Boschini, Chair, Nursing Department
2/27/15

Peoplesoft Catalog (Office Use Only)
SUBJECT CATALOG# TERM ORIG NBR

ACADEMIC ORGANIZATION ACADEMIC GROUP
CRS LEVEL: Ext Ed PostBac Undergrad
GRADE BASIS: ___ CNC (Credit/No Credit) ___ GRD (Normal Grade) ___ AU (Audit)
SCHEDULE TYPE: ___ Discussion ___ Seminar ___ Lecture ___ Other
FULL COURSE TITLE: Introduction to Pharmacology and Advanced Pharmacy Calculations

Short Course Title: (as it will appear on transcript -- 30 SPACE MAXIMUM)
Intro. to Pharmacology

Course Number: 802

Instructor: James "Pat" Person

Department: NURS

Grading Basis: 
- Normal  
- CR/NC  
- No Grade

Credit Value/Units: 80 hours

Length of Course: 10 weeks

Prerequisites: Passage of Introduction to Pharmacy Technician course - PHR-1

Course Description:
This course will serve as the second phase of the pharmacy technician training program. This course will provide a more in-depth look into the profession of the pharmacy and the technician's role. The student will receive instruction on the following:
The student will receive more advanced instruction on pharmaceutical calculations and review those that were previously introduced in PHR1. The student will also continue with the instruction on pharmacology, this time focusing on a new set of drug classes and disease states. The student will also be introduced to compounding (sterile and non-sterile) and receive training on how to perform some of the duties required to work in that particular setting. The student will learn about medication errors, the financial impact that they have on the health care delivery system, and most importantly, receive instruction on how to prevent them from happening. The student will also learn about the non-dispensing duties of the pharmacy technician. Finally, the student will receive instruction on HIPAA and how it effects the profession of pharmacy. In addition to the coursework mentioned above, the student will also receive assistance with job seeking skills (resume' writing, interviewing) and will begin preparations to take the PTCB exam.

Additional Comments:
Also known as PHR-2

Course Organized/Requested By: Jennifer Patino

Approved By:
Dr. Mark Novak, Dean, EUD  2/27/15
Dr. Anne Houtman, Dean, NSM & E  4/1/15
Deborah Boschini, Chair, Nursing Department  2/27/15

Peoplesoft Catalog (Office Use Only)

SUBJECT ______________ CATALOG# ______________ TERM _________ ORIG NBR _________

ACADEMIC ORGANIZATION ___________ ACADEMIC GROUP ___________

CRS LEVEL: Ext Ed _____  PostBac _____  Undergrad _____

GRADE BASIS:  ____ CNC (Credit/No Credit)  ____ GRD (Normal Grade)  ____ AU (Audit)

SCHEDULE TYPE:  ____ Discussion  ____ Seminar  ____ Lecture  ____ Other
FULL COURSE TITLE: Introduction to Pharmacy Technician Education

Short Course Title: (as it will appear on transcript -- 30 SPACE MAXIMUM)
Intro. to Pharmacy Tech.

Course Number: 801
Instructor: James "Pat" Person

Department: NURS
Grading Basis:
☑ Normal □ CR/NC □ No Grade
Credit Value/Units: 80 hours

Length of Course: 10 weeks
Prerequisites: High School graduate or GED and Passage of basic Math skills test

Course Description:
This course will serve as the introductory phase of the pharmacy technician training program. During the course, the student will be introduced to the following: The expanding role of the pharmacy technician and the profession of pharmacy itself. The various pharmacy practice settings, and pharmacy professional organizations that offer technician membership. They will learn pharmacy and medical terminology, and information about the top 200 selling prescription drugs (brand name, generic name, drug classification, and indication for use). The laws pertaining to the pharmacy profession, the technician’s duties and responsibilities, and laws governing the handling and dispensing controlled substances. Basic pharmaceutical calculations and conversions. The handling, preparation and distribution of a variety of dosage forms. Students will also be instructed on the concepts surrounding insurance plans, billing, and reconciliation as they relate to the practice of pharmacy. Finally, the student will receive introductory level instruction on the pharmacology of many of the medications that they will be handling on a daily basis.

Additional Comments:
Also know as PHR-1

Course Organized/Requested By: Jennifer Patino

Approved By:
Dr. Mark Novak, Dean, EUD 2/27/15
Dr. Anne Houtman, Dean, NSM & E 4/01/15

Deborah Boschini, Chair, Nursing Department 2/27/15

Peoplesoft Catalog (Office Use Only)

SUBJECT ______________ CATALOG# ______________ TERM __________ ORIG NBR __________
ACADEMIC ORGANIZATION __________ ACADEMIC GROUP __________
CRS LEVEL: Ext Ed _____ PostBac _____ Undergrad _____
GRADE BASIS: ___ CNC (Credit/No Credit) ___ GRD (Normal Grade) ___ AU (Audit)
SCHEDULE TYPE: ___ Discussion ___ Seminar ___ Lecture ___ Other
March 13, 2015

To: Anne Houtman, Dean of NSME

CC: Deborah Boschini, Chair of Nursing
    Mark Novak, Dean of Extended University

Re: Pharmacy Technician Certificate Program

The NSME Curriculum Committee discussed the proposal to offer a Pharmacy Technician certificate program through Extended University, with Nursing as the home department (see attached request).

The committee unanimously approved the request on March 13, 2015.

Sincerely,

Dr. Melissa Danforth
Associate Professor, Chair of CEE/CS
Chair of the NSME Curriculum Committee
Date: February 25, 2015

To: Melissa Danforth, Chair
Curriculum Committee
School of Natural Sciences, Mathematics, and Engineering

Anne Houtman, Dean
School of Natural Sciences, Mathematics, and Engineering

Charles Lam, Associate Dean
School of Natural Sciences, Mathematics, and Engineering

Re: Proposed Pharmacy Technician Certificate Program

The Extended University Division has proposed the creation of a Pharmacy Technician program. The Department of Nursing agrees to serve as the home department for this non-degree certificate training program. The Department of Nursing will assume responsibility for approving instructors and ensuring that the Pharmacy Technician program conducts assessment activities as required by the CSUB Academic Senate.

Please feel free to contact me regarding questions related to the role of the Department of Nursing for this proposed certificate program.

Sincerely,

Deborah Boschini, MSN, PHN, RN
Associate Professor and Chair
(661) 654-3110
dboschini@csub.edu

Cc: Mark Novak, Dean, Extended University
Jennifer Patino, New Programs Coordinator, Extended University
March 5, 2015

Jennifer Patino  
Marketing & New Programs Coordinator  
California State University, Bakersfield  
Extended University Division  
9001 Stockdale Hwy  
Bakersfield, CA 93311

Dear Ms. Patino,

I am pleased to provide this letter of recommendation for Pat Person, RPh, on behalf of the California Pharmacists Association (CPhA) for the development of a pharmacy technician training program within the California State University – Bakersfield Extended University Division.

I have had the pleasure of knowing and working directly with Mr. Person for the past four years in my capacity as Chief Executive Officer for CPhA. With his leadership role on the Board of Trustees and as President of CPhA, Mr. Person has led many important policy changes that have expanded the scope of practice of pharmacists in California. While these changes are for the betterment of patients and the pharmacists that serve them, they also have implications for pharmacy technicians. As pharmacists begin to provide expanded clinical care services, pharmacy technicians will become an even greater component of the pharmacy healthcare team as they are asked to perform job functions that were once provided by pharmacists. As such, the evolution of pharmacy technician training becomes necessary in order to prepare the workforce for these emerging roles.

Mr. Person has a passion for pharmacy education, and specifically, has taught for several pharmacy technician educational programs over a number of years. He understands the evolution of the training and education needs of pharmacy professionals because of his direct involvement in the changes in pharmacy practice. This knowledge is important for ensuring that pharmacy technicians completing educational programs are trained for a broadening of their roles as they enter the workforce and are asked to perform duties that they may not have been asked previously.

We support the expansion of pharmacy technician training programs and Mr. Person’s vision for leading a program at the California State University – Bakersfield Extended University Division.

Should you have any questions please do not hesitate to contact me at 916-779-4500.

Best Regards,

[Signature]

Jon E. Roth, MS, CAE  
Chief Executive Officer

c: Mr. Pat Person, RPh

4030 Lennane Drive • Sacramento, CA 95834 • Ph 916.779.1400 • Fx 916.779.1401 • www.cpha.com
February 24, 2015

Regarding Pharmacy Technician Program

Dear Cal State Bakersfield,

At the request of Pat Person, I would like to briefly describe the current pharmacy technician market and where the profession needs to go and improve. Also, I’d like to recommend Mr. Person to help guide the direction of the program. He is very knowledgeable of the changing regulations, well respected in our profession and has a good teaching knowledge and disposition.

As a local community pharmacist and entrepreneur that owns 5 pharmacy operations and has practiced in Kern County for over 30 years, I have encountered hundreds of pharmacy technician candidates and have found many are not properly qualified. We currently employ over 50 technicians in our company performing various roles and responsibilities. Additionally, the role of pharmacy and pharmacists is changing dramatically and the need for better educated and skilled pharmacy technicians will be increasing. Pharmacists are preparing to take a larger role in healthcare and as such, this will open the door for skilled pharmacy technicians. I would encourage the University to investigate these changes and create a Pharmacy Technician Program to entice better qualified students to enter the Pharmacy Technician profession. Currently, the pharmacy technician programs from the community college have provided individuals that meet common retail pharmacy services. However, the new opportunities that are developing will require better qualified students and a much better understanding of health science than is currently being taught.

Pharmacists will be playing a much larger role in direct patient care and services, so their current role must be filled with a skilled technician professional. We are fortunate to have Pat Person in our community who has been a President in the California Pharmacist Association during the passage of the new pharmacy laws. He has a firsthand understanding of the legislation and what will be needed to meet the new regulations. Also, as an instructor at the community college level, Mr Person has the knowledge of what is currently being taught, the level of the competition and the shortcomings the program has for the new direction. CSUB has a far superior quality of students when compared to other local institutions and a pharmacy technician candidate from CSUB with better quality education and skills will be attractive to the new higher skilled positions that will be coming.

I am hopeful that CSUB will develop a strong pharmacy technician program that can help our profession move forward in the new healthcare reform. I believe Pat Person can greatly help guide the university in that development.

Respectfully,

Brian Komoto, PharmD, Pres/CEO
February 24, 2015

Jennifer Patino  
Marketing & New Programs Coordinator  
California State University, Bakersfield  
9001 Stockdale Hwy 30BDC  
Bakersfield, CA 93311

Re: Pharmacy Technician Program

Dear Jennifer,

I am writing to endorse the efforts of yourself and Pat Person in establishing a Pharmacy Technician instructional program at CSUB. I am the owner of two local pharmacies (Lee's Pharmacies), and I know that quality, well-trained pharmacy technicians are vital to the success of the business. I believe that CSUB can attract the types of individuals who are more motivated and qualified than other "professional schools" in the area and therefore offer their students a higher success rate at potential employment. Pat has been an instructor at these other schools for a number of years and he has the knowledge and expertise to build a successful Pharmacy Technician program. He is also the Past-President of the California Pharmacists Association, which gives him insight on the issues facing our rapidly changing profession.

Please feel free to contact me via email if you have any other questions at randy@lees.com. Thank you.

Sincerely,

Randy Lee, Pharm.D.  
Owner, Lee's Pharmacies
Jennifer Patino  
Marketing and New Programs Director  
CSUB Extended University Division  
9001 Stockdale Hwy 30BDC  
Bakersfield, CA 93311  

February 20, 2015  

Dear Jennifer,  

I have been asked to send you this letter for a couple of reasons. One is to add my support to the proposed Pharmacy Technician being proposed for Cal State, and the second is to submit a recommendation on behalf of one of our local pharmacists, Mr. Pat Person. I’ll begin with the second reason, and then address the first.  

I have known Pat since he started practicing as a pharmacist, back in the early 80’s. We have served together on our local pharmacy association board. Pat has also served in our state Pharmacy Association in many positions, most recently completing his year as President of the Association. Pat has been an active advocate for the profession of pharmacy, and I know that was involved in the legislative process that successfully had SB493 signed into law. This bill expands the scope of practice for the pharmacy, and goes a long way in advancing the profession. Pat has also been very involved with student pharmacists, serving as a community pharmacy advanced practice preceptor for many schools of Pharmacy, and I believe that he currently considered adjunct faculty for the University of the Pacific School of Pharmacy. Pat has been precepting pharmacy students for about 20 years now. In addition, he has also been involved in the local pharmacy technicians training programs here in Bakersfield. His involvement with the pharmacy associations on a local and state level has provided his students with additional background and input, that they would not have received from any other instructor. On several occasions I have contacted Pat to see if he knew of any of his past students that might be looking for a job, or if I had a specific need, I would ask Pat if he could recommend someone. The students he has referred to me, once I hired them, turned out to be very good employees. I believe that the training that they received from Pat was responsible for them being prepared for employment.  

In regards to CSUB considering a pharmacy technician program, I can support that idea, with a very simple caveat. It needs to be headed by someone who has a very good idea of what is happening in the profession. With the expanding role of the pharmacist there will be a need for the technicians to expand their role as well. Currently, I do not think that the programs in Bakersfield spend enough time on teaching their students the “basics”. I do not think that this is simply because Pat is not teaching at this time, but I do believe that when he was actively involved in the education process, the program he was teaching in was producing a better technician prospect. I think having a technician program at Cal State is also a good idea because of the credibility associated with the
Cal State University brand. I truly feel that a pharmacy technician program, headed by a knowledgeable pharmacist who is involved with the profession and able to monitor the changes that are taking place, almost on a daily basis, would benefit the University as well as the pharmacists of Kern County.

I would like for you to consider this a letter of support for both the pharmacy technician program being proposed, and to recommend that you allow Pat Person to head up the curriculum and instructional aspects of this program.

If you would like any additional comments or information, I can be reached at the address or phone number listed above.

Respectfully submitted,

[Signature]

Gregg Gunner, Owner and Pharmacist
Gregg’s Pharmacy, Bakersfield
To: Dr. Anne Houtman, Dr. Melissa Danforth, Dr. Charles Lam, NSME Curriculum Committee Members

From: Jennifer Patino, New Programs Coordinator, Extended University Division

Re: Proposed Pharmacy Technician Certificate Program

Cc: Dr. Mark Novak

Date: February 25, 2015

The Extended University Division is proposing the creation of the non-degree/non-credit certificate training program, Pharmacy Technician. The courses have been created with the knowledge that to apply to become a certified Pharmacy Technician within the State of California a student must complete at least 240 hours of instruction covering the following:

1. Knowledge and understanding of different pharmacy practice settings.
2. Knowledge and understanding of the duties and responsibilities of a pharmacy technician in relationship to other pharmacy personnel and knowledge of standards and ethics, laws and regulations governing the practice of pharmacy.
3. Knowledge and ability to identify and employ pharmaceutical and medical terms, abbreviations and symbols commonly used in prescribing, dispensing and record keeping of medications.
4. Knowledge of and the ability to carry out calculations required for common dosage determination, employing both the metric and apothecary systems.
5. Knowledge and understanding of the identification of drugs, drug dosages, routes of administration, dosage forms and storage requirements.
6. Knowledge of and ability to perform the manipulative and record-keeping functions involved in and related to dispensing prescriptions.
7. Knowledge of and ability to perform procedures and techniques relating to manufacturing, packaging and labeling of drug products.

The education provided will help local community members pursue careers that have a strong future as defined by the Bureau of Labor Statistics, “employment of Pharmacy Technicians and aides is expected to increase by 20% from 2012 to 2022” (the average for all occupations is 14%) (Source: www.bls.gov, 01/2012).

Thank you for your consideration.
Proposal for a new certificate training program in Pharmacy Technician

California has one of the largest growing aging populations and Kern County is no exception. By the end of 2015 there will be an estimated 135,000+ people aged 60 and older living within our communities. Due to the influx of our aging population requiring medication and care, the need to provide enough qualified/trained professionals in the area of medication dispensing will arise. Our proposed Pharmacy Technician certificate program will provide the educational training that is needed for our students to become state licensed Pharmacy Technicians. The Bureau of Labor Statistics states the need for, “employment of Pharmacy Technicians and aides is expected to increase by 20% from 2012 to 2022” (the average for all occupations is 14%) (Source: www.bls.gov, 01/2012). The proposed Pharmacy Technician certificate addresses a local need as well as providing education students may use throughout California when looking for job placement.

A. Program Cost Analysis
   There will be no stateside costs associated with this certificate program.

B. Criteria for Admission
   Admission into the Pharmacy Technician certificate program requires the student be a high school graduate or possess a general educational development (GED) certificate. There is also a basic math test (9th grade) that must be passed with 90% or better to be accepted into the program.

C. Certificate Courses
   The State of California requires a student complete at least 240 hours of instruction which will be broken down into three required courses with the third course preparing students for the state certification test. The seven key factors previously mentioned will be addressed and reinforced in each course.

- **Introduction to Pharmacy Technician Education (80 hours).** This course will serve as the introductory phase of the pharmacy technician training program. During the course, the student will be introduced to the following: The expanding role of the pharmacy technician and the profession of pharmacy itself. The various pharmacy practice settings and pharmacy professional organizations that offer technician membership. They will learn pharmacy and medical terminology, and information about the top 200 selling prescription drugs (brand name, generic name, drug classification, and indication for use). The laws pertaining to the pharmacy profession, the technician’s duties and responsibilities, and laws governing the handling and dispensing controlled substances. Basic pharmaceutical calculations and conversions. The handling, preparation and distribution of a variety of dosage forms. Students will also be instructed on the concepts surrounding insurance plans, billing, and reconciliation as they relate to the practice of pharmacy. Finally, the student will receive introductory level instruction on the pharmacology of many of the medications that they will be handling on a daily basis. Prerequisite: Passage of a basic math skills test and admission to the certificate program.

- **Introduction to Pharmacology and Advanced Pharmacy Calculations (80 hours).** This course will serve as the second phase of the pharmacy technician training program. This course will provide a more in-depth look into the profession of the pharmacy and the technician's role. The student will receive instruction on the following: The student will
receive more advanced instruction on pharmaceutical calculations and review those that were previously introduced in PHR1. The student will also continue with the instruction on pharmacology, this time focusing on a new set of drug classes and disease states. The student will also be introduced to compounding (sterile and non-sterile) and receive training on how to perform some of the duties required to work in that particular setting. The student will learn about medication errors, the financial impact that they have on the health care delivery system, and most importantly, receive instruction on how to prevent them from happening. The student will also learn about the non-dispensing duties of the pharmacy technician. Finally, the student will receive instruction on HIPAA and how it effects the profession of pharmacy. In addition to the coursework mentioned above, the student will also receive assistance with job seeking skills (resume’ writing, interviewing) and will begin preparations to take the PTCB exam. Prerequisite: Passage of Introduction to Pharmacy Technician Education.

- **Pharmacy Technician Certification Exam Preparation (80 hours).** This is the final course associated with the program. During the course of this particular class, the student will: Continue preparation to successfully complete the PTCB pharmacy technician certification exam. This will be the course that will serve as the final review for everything that has been introduced in "Introduction to Pharmacy Technician" and "Introduction to Pharmacology". This can also serve as a review class for current pharmacy technicians who would like to take the PTCB certification test. This course will bring together all of the previously introduced material, and explain how it all relates to the current practice of pharmacy. Prerequisite: Passage of "Introduction to Pharmacy Technician Education" and "Introduction to Pharmacology" courses or working as a pharmacy technician for 6 months or more.

D. Required Qualifications for Instructors
Instructors for these courses will be licensed Pharmacists (Pharm.D.) with a minimum of three years’ experience employed within the private and/or public sector and a preference of some experience teaching at the college level. All instructors will be approved through the Nursing Department.

E. Relationship to Existing Degree Programs
There is no current degree or certificate program that relates to this area within CSUB.
Certificate in Pharmacy Technician Education

Admission Date: ____________________

Student Name: ____________________     Student ID: ____________________

Student Address: ____________________

Street                      City          Zip

Student Phone Number: ____________________

Math Pre-test Score: ___________

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<th>Course</th>
<th>Quarter Completed</th>
<th>Grade Received</th>
<th>Need to Retake Course</th>
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<td>Introduction to Pharmacology &amp; Advanced Pharmacy Calculations</td>
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<tr>
<td>Pharmacy Technician Certificate Exam Preparation</td>
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Date of Program Completion: ________________

Date Certificate was requested: ________________     Date Certificate was sent: ________________

NOTES: __________________________________________________________________________
________________________________________________________________________________
________________________________________________________________________________

Program Advisor: ____________________     Date: ________________

G. Proposed catalog copy
   This certificate program will not be recorded in the CSUB catalog.
H. Draft Certificate
Certificate of Completion
California State University, Bakersfield - Extended University Division

HEREBY CERTIFIES THAT

John Smythe

HAS SUCCESSFULLY COMPLETED THE REQUIREMENTS FOR THE
Pharmacy Technician
Certificate Program

The bearer of this certificate has successfully completed
240 hours of education in the area of Pharmacy Technician
March 23, 2016

Dr. Mark Novak, Dean, Extended University

Dr. Anne Houtman, Dean, NSM & E
Introduction to Pharmacy Technician Education
Instructor: Pat Person, Pharmacist Instructor: Pat Person, R. Ph.
Contact Information: Phone (831-4050) Text (345-4342)
Hours of Availability: Mon – Fri 9am to 6pm @ Ming & H Drugs

Course Description: This course will cover the introductory phase of the Pharmacy Technician training program. During the course, the student will be introduced to the following: The expanding role of the pharmacy technician and the profession of pharmacy itself. Students will also be introduced to the various pharmacy practice settings, and made aware of the existence of pharmacy professional organizations that offer technician membership. The students will also be introduced to pharmacy practice, where they will learn pharmacy and medical terminology, and information about the top 200 selling prescription drugs (brand name, generic name, drug classification, and indication for use). The students will also be introduced to laws pertaining to the pharmacy profession, the technician’s duties and responsibilities, and laws governing the handling and dispensing controlled substances. The students will also receive instruction on basic pharmaceutical calculations and conversions after a brief basic math review session. There will also be instructions on the handling, preparation and distribution of a variety of dosage forms in multiple pharmacy practice settings. Students will also be instructed on the concepts surrounding insurance plans, billing, and reconciliation as they relate to the practice of pharmacy. Finally, the student will receive introductory level instruction on the pharmacology of many of the medications that they will be handling on a daily basis.

Student Learning Objectives: Upon completion of this course, the students will be able to:

- Understand the role of the pharmacy technician in assisting the pharmacist
- Have knowledge of the different practice sites available for pharmacy technicians that can assist the student in deciding which practice site might be most attractive
- Understand the professional responsibilities associated with being a pharmacy technician, in addition to the job related responsibilities
- Interpret prescriptions using the common abbreviations utilized in the profession today
- Perform basic pharmaceutical calculations using accepted equations and conversion factors to help formulate precise answers
- Recognize and categorize the top 200 prescription drugs and know their brand name, generic name, drug classification, and indication for use
- Begin to recognize potential drug interactions and understand what to do when the potential for an interaction arises
- Have an understanding on the laws governing the practice of pharmacy and how they specifically affect the role of the technician
- Understand what controlled substances are, and all of the additional requirements that are associated with the handling and dispensing of these products
- Understand the relationship between pharmacy and insurance companies, and the vital role that technicians play in the billing process
- Introduced to the pharmacy computer system, and begin to understand how the information is input and utilized to assist the technician with product preparation and labeling
- Have an opportunity to do some hands on training at instructor’s work place
Required Textbooks:
Principles and Practice, Hopper
Math Calculations for Pharmacy Technicians, Fulcher
Pharmacy Technician University, Online Subscription, Therapeutic Research
(http://pharmacytechniciansuniversity.therapeuticresearch.com/Content.aspx?cs=&s=PTU&page=content&lm=ptu_toc) (use link to see what is covered by PTU, link removed from final copy)
Mosby’s Drug Handbook, Mosby or Drug Facts and Comparisons, Wolters/Kluwer

Outside Hours:
Outside hours will consist of performing required work on the assigned module of the Pharmacy Technicians University (PTU), an online site that will enhance the information being distributed during class hours. The student will be expected to remain current with all assigned modules over the course of the class. Each quarter, the student will also be given an outside assignment which will require them to prepare a pharmacy related presentation that must be presented to the class, or to interact with pharmacy professionals and present reports of their findings.

Grading:
Students will be graded based on the following breakdown:
Terminology/drug quizzes and assignments: 10%
Calculations quizzes and assignments: 10%
Textbook/workbook and other reference quizzes and assignments 10%
Mid-term exam, final exam 30% each
Participation in classroom discussions/projects 10%

Week 1:
Introduction to the profession of pharmacy and the role of the technician (Ch 1, Hopper)
Basic math review and introduction to pharmacy calculations (Ch 1 & 2, Fulcher)
Drugs 1-25 of top 200 (brand/generic names, classification, indication)
Introduction to prescription interpretation (learning how to “speak” pharmacy) (Ch 5, Hopper)
Corresponding module(s) in PTU

Week 2:
Introduction to practice settings for pharmacy technicians (Ch 2, Hopper)
Introduction to pharmacy laws and ethics/professional responsibilities (Ch 3, Hopper)
Introduction to pharmacy calculations and conversions (Ch. 3, Fulcher)
Drugs 26-50 of top 200
Continuation of prescription interpretation
Corresponding module(s) in PTU

Week 3:
Introduction to prescription processing (Ch 7 Hopper)
Continuation of pharmacy conversions (Ch. 4, 5 Fulcher)
Drugs 51-75 of top 200
Corresponding module(s) in PTU

Week 4:
Introduction to dosage forms and routes of administration (Ch 5, Hopper)
Continuation of pharmacy conversions (Ch. 4, 5 Fulcher)
Drugs 76-100 of top 200
Corresponding module(s) in PTU


**Week 5:**
Review of weeks 1-4, preparation for and performance of midterm exam

**Week 6:**
Introduction to hospital pharmacy and aseptic technique (Ch. 10, 12 Hopper)
Introduction to prescription drug labels (Ch. 6, Fulcher)
Drugs 101-125 of top 200
Corresponding module(s) in PTU

**Week 7:**
Overview of OTC medications and alternative therapies (Ch 8-9, Hopper)
Introduction to dosage calculations (Ch. 7, Fulcher)
Drugs 126-150 of top 200
Corresponding module(s) in PTU

**Week 8:**
Medication safety and prescription error prevention (Ch 14, Hopper)
Continuation of dosage calculations (Ch. 7, 8 Fulcher)
Drugs 151-175 of top 200
Corresponding module(s) in PTU

**Week 9:**
Drug repackaging and compounding (Ch 11, Hopper)
Continuation of dosage calculations (Ch. 8, 9 Fulcher)
Drugs 176-200 of top 200
Corresponding module(s) in PTU

**Week 10:**
Preparation for and performance of final exam

**Policies/Procedures:**
Student will be expected to attend class each day it is offered, and be prepared to discuss assigned material(s). Students must maintain XX% (this number will be added before final copy created for student) attendance to receive credit for participation in the class. Students will be expected to dress and act professionally at all times while in the classroom or any other learning environment associated with the program.
PHR-1 Objectives and Outcomes:

Objectives:

Students enrolled in this course will:

1. Receive instruction on the “profession of pharmacy”. The expanding role of the pharmacy technician will be discussed.
2. Receive introductions to various pharmacy practice sites and made aware of professional pharmacy organizations.
3. Receive historical background on pharmacy law, review California pharmacy law and how it affects pharmacy technicians, and review requirements and regulations regarding controlled substances.
4. Receive instruction on basic handling, preparation and distribution of prescriptions based on a prescriber’s order.
5. Receive instruction on basic math and be introduced to pharmacy math and calculations.
6. Receive instruction on 3rd party billing (insurance companies), reconciliation, formularies, and the effects they have on the practice of pharmacy.
7. Receive instruction on the pharmacology of medications from a variety of body systems.

Outcomes:

After successfully completing this course, the student will be able to:

1. Have a working knowledge of the profession of pharmacy and the role of the pharmacy technician.
2. Understand the daily duty requirements of the pharmacy technician position, and be familiar with medical/pharmacy terminology and prescription “sig” codes.
3. Understand pharmacy law as it pertains to technicians, and controlled substances.
4. Understand and be able to handle, prepare, and distribute prescriptions based on a prescriber’s order.
5. Be competent in pharmacy conversions and dose calculations.
6. Understand 3rd party (insurance company) involvement in the profession.
7. Understand the pharmacology behind many of the medications used to treat a variety of disease states.
Pre-Pharmacy Technician Math Test

This test must be passed with a 90% or better to be accepted into the Pharmacy Tech. Certificate Program at CSU, Bakersfield.

Do NOT use calculator, phone or other electronic device to solve equations. You may use a sheet of scrap paper but it must be turned in with test.

1. 27 \times 8 =
2. 852 \div 3 =

3. 1154 \times 26 =
4. 36 \times 9 =

5. 91 \div 4 =
6. 127 \div 3 =

7. 2598 + 1253 =
8. 17886 + 24685 =

9. 13854 - 1586 =
10. 698.23 - 52.98 =

11. What is $\frac{14 \frac{5}{16}}{}$ rounded to the nearest whole number?

12. Write 0.7 as a fraction is simplest form.

13. Key: 1 Tbsp = 3 tsp
    Convert:
    5 Tbsp + 1 tsp = __?__ tsp

14. Put these numbers in order from least to greatest.
    $$7 \quad \frac{2}{10} \quad \frac{10}{20}$$

15. Subtract. Simplify your answer and write it as a proper fraction or as a whole or mixed number.
    \[
    \frac{1}{2} - \frac{3}{5} =
    \]

16. Convert the temperature from degrees Celsius to degrees Fahrenheit, using the formula below.
    \[
    F = \left(\frac{9}{5} \times C\right) + 32
    \]
    \[5^\circ C = \text{____}^\circ F\]
17. Mrs. Merriweather is picking up an order of “Drug X” 100 tablets, which costs her $122.00. While you’re ringing up her order, she asks “How much does each tablet cost?” Solve for price per pill.

18. Your pharmacy has a 40% markup and $1.75 dispensing fee. The wholesale price for 10 “Drug Q” pills is $120.00, what will the retail price be?

19. Indicate what number is represented, in Roman Numerals or numeric form:
   
   26 = ___  
   XIV = ___  
   17 = ___  
   IX = ___  
   54 = ___  
   101 = ___  
   XLV = ___

20. Solve this equation, s = 8 and t = -14
    
    t + s = ?

21. Mrs. Blick has a prescription for “Drug C”; her dosage is 2 tablets twice a day for 21 days. How many tablets will Mrs. Blick receive in the prescription bottle?

22. A prescription calls for one pill, three times a day for 15 days. How many pills will the patient have taken after 10 days’ time?

23. A “Brand Name” drug costs 84¢ per pill, while the “generic” costs 51¢ per pill. How much will it cost Mr. Bill to purchase his prescription of 30 pills if he goes with the “Brand Name”? How much will he save if he purchases the “generic”?

24. The price of Drug “K” wholesale is $1 per pill; the hospital has a 25% markup. Your prescription is for 30 pills. How much will your prescription cost you?
Introduction to Pharmacology and Advanced Pharmacy Calculations
Instructor: Pat Person, Pharmacist Instructor: Pat Person, R. Ph.
Contact Information: Phone (831-4050) Text (345-4342)
Hours of Availability: Mon – Fri 9am to 6pm @ Ming & H Drugs

Course Description: (pre-requisite: successful completion of Introduction to Pharmacy Technician course). This course will provide a more in-depth look into the profession of pharmacy and the technician’s role. Continuing on from the first quarter, the student will receive instruction on:

The student will receive more advanced instruction on pharmaceutical calculations and review those that were previously introduced in the introduction course. The student will also continue with the instruction on pharmacology, this time focusing on sets of drug classes and disease states associated with specific body systems. The student will also be introduced to compounding (sterile and non-sterile) and receive training on how to perform some of the duties required to work in that particular setting. The student will be re-educated about medication errors, the financial impact that they have on the health care delivery system, and most importantly, receive instruction on how to prevent them from happening. The student will also learn about the non-dispensing duties of the pharmacy technician. Finally, the student will receive instruction on HIPAA and how it effects the profession of pharmacy. In addition to the coursework mentioned above, the student will also receive assistance with job seeking skills (resume’ writing, interviewing) and will begin preparations to take the PTCB exam.

Student Learning Objectives: Upon completion of this course, the student will be able to:

- Reaffirm the importance of the role of the pharmacy technician in assisting the pharmacist
- Gain knowledge about specific disease states and the medications used to treat them
- Learn about HIPAA requirements and how they affect the profession
- Continuing prescription interpretations with the introduction of some additional abbreviations utilized in the profession today
- Perform more advanced pharmaceutical calculations using accepted equations and conversion factors to help formulate precise answers
- Continue review of the top 200 prescription drugs and know their brand name, generic name, drug classification, and inclusion into the treatment regimens of the body systems discussed
- Continued review of laws governing the practice of pharmacy and how they specifically affect the role of the technician
- Understand what controlled substances are, and all of the additional requirements that are associated with the handling and dispensing of these products
- Learn more advanced billing techniques
- Increased proficiency with the pharmacy computer system, and begin to understand how the information is input and utilized to assist the technician with product preparation and labeling
- Have additional opportunities to do some hands on training at instructor’s work place
Required Textbooks:
Principles and Practice, Hopper
Math Calculations for Pharmacy Technicians, Fulcher
Pharmacy Technician University, Online Subscription, Therapeutic Research
(http://pharmacytechniciansuniversity.therapeuticresearch.com/Content.aspx?cs=&s=PTU&page=content&lm=ptu_toc) (use link to see what is covered by PTU, link removed from final copy)
Mosby’s Drug Handbook, Mosby or Drug Facts and Comparisons, Wolters/Kluwer

Outside Hours:
Outside hours will consist of performing required work on the assigned module of the Pharmacy Technicians University (PTU), an online site that will enhance the information being distributed during class hours. The student will be expected to remain current with all assigned modules over the course of the class. Each quarter, the student will also be given an outside assignment which will require them to prepare a pharmacy related presentation that must be presented to the class, or to interact with pharmacy professionals and present reports of their findings.

Grading:
Students will be graded based on the following breakdown:
Terminology/drug quizzes and assignments: 10%
Calculations quizzes and assignments: 10%
Textbook/workbook and other reference quizzes and assignments 10%
Midterm exam, final exam 30% each
Participation in classroom discussions/projects 10%

Week 1:
Review basic pharmacy math, and review conversions
Learn about diseases and medications affecting the endocrine system (Ch. 15 Hopper)
Continued review of the top 200 prescription drugs
Corresponding module(s) in PTU

Week 2:
Learn about diseases and medications affecting the nervous system (Ch 16, Hopper)
Learn dose calculations based on patient age or body weight (Ch 10 Fulcher)
Continuation of prescription interpretation
Corresponding module(s) in PTU

Week 3:
Introduction to prescription processing (Ch 7 Hopper)
Calculation of medications measured in units, mill-equivalents and percent's of concentration (Ch 11, Fulcher)
Prescription interpreting, review of additional prescription medications
Corresponding Module(s) in PTU

Week 4:
Introduction to ordering systems, insurance billing, prior authorizations (Ch 13, Hopper)
Calculation of medications for intravenous uses (Ch 12, Fulcher)
Psychopharmacology (Ch 17, Hopper)
Corresponding module(s) in PTU
**Week 5:**
Review of weeks 1-4, preparation for and performance of midterm exam

**Week 6:**
Respiratory system (Ch 18, Hopper)
Calculation of mixtures from stock medications (Ch 13, Fulcher)
Reproductive system (Ch 23, Hopper)
Corresponding module(s) in PTU

**Week 7:**
Cardiovascular system (Ch 22 Hopper)
Interpreting physician's orders for dosages (Ch 14, Fulcher)
HIPAA regulations and interpreting physician's orders for dosages (Ch 14 Hopper)
Corresponding module(s) in PTU

**Week 8:**
Anti-inflammatories and antihistamines (Ch 25 Hopper)
Business math for pharmacy technicians (Ch 15 Fulcher)
Visual and auditory systems (Ch 19 Hopper)
Corresponding module(s) in PTU

**Week 9:**
Comprehensive post-test (Fulcher Text)
Comprehensive review of top 200 drugs
Corresponding module(s) in PTU

**Week 10:**
Preparation for and performance of final exam

**Policies/Procedures:**
Student will be expected to attend class each day it is offered, and be prepared to discuss assigned material(s). Students must maintain **XX%** (this number will be added before final copy created for student) attendance to receive credit for participation in the class.
Students will be expected to dress and act professionally at all times while in the classroom or any other learning environment associated with the program.
PHR-2 Objectives and Outcomes

Objectives:

Students enrolled in PHR-2, will be expected to learn the following:

1. Be instructed on more advanced types of pharmacy conversions and calculations.
2. Continue to receive instruction on the pharmacology of many medications being used against a variety of disease states or conditions.
3. Receive instruction on basic compounding skills and calculations.
4. Receive instruction on medication errors and their prevention.
5. Receive instruction on the non-dispensing duties of pharmacy technicians.
6. Receive assistance with job-seeking skills.

Outcomes:

After successfully completing the course, the student will:

1. Be able to perform the advanced types of pharmacy dose calculations and conversions.
2. Understand additional pharmacology based on a new set of disease states/conditions.
3. Be able to perform the entry level skills needed for a compounding pharmacy technician.
4. Understand the impact of medication errors and steps taken to prevent them.
5. Understand the non-dispensing role of the pharmacy technician.
6. Have a resume and cover letter prepared, to present to any potential employers.
CSUB Pharmacy Technician Education Program

Course Syllabus

Pharmacy Technician Certification Exam Preparation
Instructor: Pat Person, Pharmacist  Instructor: Pat Person, R. Ph.
Contact Information: Phone (831-4050)  Text (345-4342)
Hours of Availability: Mon – Fri 9am to 6pm @ Ming & H Drugs

Course Description: (Pre-requisite: Successful completion of two (2) previous introductory courses or employment as a pharmacy technician for a period of not less than 6 months). This course will provide additional training and information that will assist the student with taking one of the nationally recognized pharmacy technician examination.

In this course the student will continue preparation to successfully complete the PTCB pharmacy technician certification exam. This will be the course that will serve as the final review for everything that has been introduced in PHR-1 and PHR-2. This can also serve as a review class for current pharmacy technicians who would like to take the PTCB certification test. This course will bring together all of the previously introduced material, and explain how it all relates to the current practice of pharmacy. Hands on training will continue during the review process, to strengthen product preparation skills of the student/technicians.

Student Learning Objectives: Upon completion of this course, the student will be able to:

- Have an increased understanding of what the PTCB is all about
- Continuing prescription interpretations with the introduction of some additional abbreviations utilized in the profession today
- Perform more advanced pharmaceutical calculations using accepted equations and conversion factors to help formulate precise answers
- Continue review of the top 200 prescription drugs and know their brand name, generic name, drug classification, and inclusion into the treatment regimens of the body systems discussed
- Continued review of laws governing the practice of pharmacy and how they specifically affect the role of the technician
- Understand what controlled substances are, and all of the additional requirements that are associated with the handling and dispensing of these products
- Learn more advanced billing techniques
- Increased proficiency with the pharmacy computer system, and begin to understand how the information is input and utilized to assist the technician with product preparation and labeling
- Have additional opportunities to do some hands on training at instructor’s work place

Required Textbooks:
- Mosby’s Review for the Pharmacy Technician Certification Examination (Mizner)(new text for this quarter)
- Principles and Practice, Hopper
- Math Calculations for Pharmacy Technicians, Fulcher
- Pharmacy Technician University, Online Subscription, Therapeutic Research (http://pharmacytechniciansuniversity.therapeuticresearch.com/Content.aspx?cs=&s=PTU&page=content&lm=ptu_toc) (use link to see what is covered by PTU, link removed from final copy)
**Outside Hours:**
Outside hours will consist of performing required work on the assigned module of the Pharmacy Technicians University (PTU), an online site that will enhance the information being distributed during class hours. The student will be expected to remain current with all assigned modules over the course of the class. Each quarter, the student will also be given an outside assignment which will require them to prepare a pharmacy related presentation that must be presented to the class, or to interact with pharmacy professionals and present reports of their findings.

**Grading:**
Students will be graded based on the following breakdown:
- Terminology/drug quizzes and assignments: 10%
- Calculations quizzes and assignments: 10%
- Textbook/workbook and other reference quizzes and assignments: 10%
- Midterm exam, final exam: 30% each
- Participation in classroom discussions/projects: 10%

**Week 1-4:**
- Review of calculations, dosing, and conversions
- Introduction to Mizner text (prep for PTCB exam) and study disc
- Continued review of the top 200 prescription drugs
- Corresponding module(s) in PTU

**Week 5:**
- Review of weeks 1-4, preparation for and successful completion of midterm exam

**Week 6-9:**
- Finalize review for PTCB exam (Mizner)
- Review questions/concerns from PHR1, PHR2 and PHR3
- Practice PTCB exam (in class to understand correct answers)

**Week 10:**
- Preparation for and successful completion of final exam

**Policies/Procedures:**
Student will be expected to attend class each day it is offered, and be prepared to discuss assigned material(s). Students must maintain XX% (this number will be added before final copy created for student) attendance to receive credit for participation in the class.
Students will be expected to dress and act professionally at all times while in the classroom or any other learning environment associated with the program.
**PHR-3 Objectives and Outcomes**

Students enrolled in this class will:

1. Have an opportunity to hone their skills, so that they can find jobs.
2. Be prepared to take/pass the pharmacy technician certification exam.

Upon successful completion of this course students will:

1. Be qualified to apply for licensure as a pharmacy technician in California.
2. Be adequately prepared to fulfill the duties of an entry level pharmacy technician.
3. Be prepared to take the PTCB test and pass it.
CURRICULUM VITAE

for

JAMES PATRICK “PAT” PERSON

California Pharmacy License #38446 (Exp 7-2013)

Educational Background

• California State College at Bakersfield - September 1976 to June 1977
• Oregon State University, Corvallis - September 1977 to June 1979
• Oregon State University, School of Pharmacy, Corvallis - September 1979 to March 1983
• Graduated, Oregon State University, Bachelor of Science, Pharmacy, June 1983

Offices Held, Student Affiliations, Awards Received at OSU

Member - Student APhA (SAPhA) 1979 to 1983
Member - Kappa Psi Pharmaceutical Fraternity 1981 to Present
President - Kappa Psi OSU Chapter, September 1982 to March 1983
Chair - OSU School of Pharmacy Executive Council - September 1982 to March 1983
Received - Professional Society of Pharmacists (PSOP) Award - 1983

Professional Affiliations and Offices Held – State/National Associations

California Pharmacists Association (CPhA) and American Pharmacists Association (APhA)

American Pharmacists Association

Member – 2011 to Present

California Pharmacists Association

Member - 1984 to Present
President- California Pharmacists Association, (March 2013 – April 2014)
Member- CPhA Governance Task Force - 2013
President Elect, California Pharmacists Association - 2012
President- Pharmacy Foundation of California (PFC) – 2004-2005(previously known as CPhA Education Foundation)
President - CPhA Education Foundation Board of Directors - 2003
Member - CPhA Education Foundation Board of Directors - 1997 to 2005
Speaker elect CPhA House of Delegates - 2010
Member- CPhA Board of Trustees - Trustee CPhA District 5 - 1997 to 1999
Member- Educational Advisory Committee – 2000-2001
Candidate - Vice Speaker of the House of Delegates - 1992 and 1994
Candidate - Trustee District 5 - 1989, 1991, 1993
Chair - Professional Affairs Committee - 1990
Member - Governmental Affairs Committee - 1991
Chair - Governmental Affairs Committee - 1995
Member - Awards Committee 1991
Member - Nominating Committee – 1993, 1996, 2000
Chair- Nominating Committee – 2002, 2009
Judge- PFC Student Patient Counseling Competition 2011 (Outlook)
Chair- OUTLOOK Review Task Force – 2010 to present
Chair- ByLaws Revision Ad Hoc Committee – 2011
Chair- Student/Pharmacist Mentor Program Task Force- 2011
Professional Affiliations and Offices Held – Local Association
(Kern County Pharmacists Association)
Member - 1984 to Present
Member- KCPhA Board of Directors 1984 to present
President - 1989 and 1993, 2009
President Elect - 1988 and 1992
Vice President - 1987
Second Vice President - 1986 and 1997
Recording Secretary - 1984 to 1993, 1998 to 2009
Newsletter Editor - 1984 to 1994 and 1996 to 2010
Golf Tournament Chairman - 1990 to 2008
Continuing Education Coordinator - 1991 to 1996
Safe Halloween Chairman - 1988 to 1995, 2003- Present
Fund Raising Chairman - 1988 to 1989
Member - Lincoln Lee Memorial Scholarship Committee - 1992 to Present
Representative to CPhA Legislative Day - 1989 to 1995, 2008
Chairman - Medi-Cal Managed Care Task Force (KCPhA) - 1993
Member - Medi-Cal Managed Care Advisory Committee (KCPhA) 1994 to 1997
Co-Chairman - Publicity Committee (responsible for creating a television commercial)
Publicity Chairman - Poison Prevention Week, Brown Bag Program 1991

Awards, Recognitions, Presentations

- Presentation- Understanding your “Why” and making it your “I Am” to P1 and P2 students at Oregon State University College of Pharmacy – October 2013
- Panel Participant in UC Davis 11th Annual Pre-Health Professions National Conference – October 2013
- Participant – National Association of State Pharmacy Associations (NASPA) Leadership Training Event – Rockville, Maryland – May 2012
- Participant – APhA Immunization Training program December 2011 (received certification)
- Presentation- PHARMACY 101 – Understanding How to Get the Most out of Your Pharmacy Visit, Preventing Medication Errors (Presented to Kern Regional Center Facility Administrators and Caregivers)- May 2011, March 2012
- Kern County Pharmacist of the Year 1991 and 1996
- Marion Merrell Dow California Distinguished Young Pharmacist of the Year- 1991
- Featured in May 1991 Edition "Drug Topics"
- APPE Preceptor – Oregon State University – Community Rotation – 2007 to present
- APPE Preceptor- Western University of Health Sciences – Community Rotation - 2010
- APPE Preceptor - University of the Pacific School of Pharmacy – Community Rotation 1991 to Present (Adjunct Faculty as of September 2012)
- APPE Preceptor – University of Washington School of Pharmacy – Community Rotation – 2004 to present
- APPE Preceptor – Campbell University School of Pharmacy – Community Rotation – 2005
- Graduate of Lifescan “Pharmacy Partners in Diabetes Care” Education Program- Milpitas, California – September 2000
- Participant - Glaxo-Wellcome’s Symposium on “Emerging Issues in Health Care” Research Park Triangle, North Carolina, 1995
- Member - A.H. Robbins National Community Pharmacy Advisory Board, 1986
Community Involvement

Member - Kiwanis International (Westchester Club) - 1987 to 1993
Chair - Westchester Kiwanis Sponsored Youth Committee - 1990
Member - Board of Directors - Westchester Kiwanis - 1989 to 1991
Chairman - Westchester Kiwanis Fund Raising Committee - 1989
Advisor - Westchester Kiwanis JR. High School Youth Group - 1989 to 1991
AYSO Youth Soccer referee - 1999 to 2001
Head Coach – Bakersfield Beavers Baseball Club 2004 to 2008
Sponsor and Assistant Coach - Junior Baseball Association (JBA) - T-ball league 1996
Sponsor and Head Coach - Junior Baseball Association (JBA) - 1997 & ’98
Head Coach - North Bakersfield Parks and Recreation Summer Baseball League (NOR) 1999, 2000, 2001 (League Champions), 2002 (League Champions), 2003 (League Champions)
Assistant Coach - Northwest Bakersfield Baseball League – 2002 spring
Member - Bakersfield Blaze Booster Club - 1996 to 2007, 2012
President - Bakersfield Blaze Booster Club - 1998 to 1999
Newsletter Editor - Eissler Elementary School Booster Club Newsletter - 1997 to 1999
Team Pharmacist - Bakersfield Condor Professional Hockey Team - 1997 to 2003
Team Pharmacist - Bakersfield Blaze Professional Baseball Team - 1996 to 2010
Member- Oregon State University Baseball “Diamond Club” 2008, 2009, 2010
Life Member- Oregon State University Alumni Association

Employment History

- Ming & H Drugs - Bakersfield, CA - Retail Pharmacy Manager & Consultant Pharmacist - July 1999 to present
- Instructor – UEI College Pharmacy Technician Program – October 2012 to February 2013, August 2013 to present
- Instructor – Boston-Reed College Pharmacy Technician Program – May - October 2012
- Instructor – San Joaquin Valley College Pharmacy Technician Program – 2001 to 2003, 2004 to 2011
- Walgreen’s Pharmacy - Bakersfield, CA - Retail Employee Pharmacist - March 1999 to July 1999, Per diem Pharmacist – November 2008 to 2010
- Komoto’s Pharmacy - Delano, CA - Employee Pharmacist - October 1998 to March 1999
- Lee’s Pharmacies - Bakersfield, CA - Retail Pharmacist and Consultant Pharmacist Specializing in Long Term Care Facilities - November 1994 to October 1998
- Pat Person Consultant Pharmacist Services - Relief Pharmacist and Consultant Pharmacist Services for Long Term Care Facilities - October 1992 to March 1999
- Medical Pharmacy - Bakersfield, CA - Consultant Pharmacist specializing in Long Term Care Facilities - October 1992 to October 1994
- Wal-Mart Pharmacy #1624 (Bakersfield - East Hills) - Retail Pharmacy Manager - June 1991 to October 1992
- Wal-Mart Pharmacy #1574 (Bakersfield - White Lane) - Retail Pharmacy Manager - November 1990 to June 1991
- Ming & H Drugs (Bakersfield) Employee Pharmacist - December 1986 to October 1990
- Payless Drugs (Bakersfield- Oswell Street) - Employee Pharmacist - October 1986 to December 1986
- Lucky Pharmacy (Bakersfield - White Lane) - Retail Pharmacy Manager and Employee Pharmacist - January 1986 to October 1986
- Gemco Pharmacy (Bakersfield) - Employee Pharmacist - June 1984 to January 1986
- Pipkin’s Pharmacy (Bakersfield) - Employee Pharmacist - March 1984 to June 1984, Pharmacy Intern 1980 to March 1984
PHARMACY SIGS AND ABBREVIATIONS

The sooner you learn these, the better off you will be!
QD, BID, TID, QID

Once daily, twice daily, Three times daily, Four Times daily
Bedtime
AC, PC

Before meals

After meals
OS, OD, OU

Left eye, Right Eye, Both Eyes
PO, PR, SL

By mouth, rectally, under the tongue
Let's Learn Pharmacy Conversions

Metric System:

<table>
<thead>
<tr>
<th>kg</th>
<th>g</th>
<th>mg</th>
<th>mcg</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>l</td>
<td>ml</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Other Conversions:

- Tsp → x (5) ÷ ← ml
- gr → x (60) ÷ ← mg
- fl. oz → x (30) ÷ ← ml
- tbsp → x (15) ÷ ← ml

(#{}) = conversion factor

Practice what we’ve learned:

Convert the following

1. 3kg = g
2. 470ml = l
3. 2.5mg = mcg
4. 0.2 l = ml
5. gr iii = mg
6. 44 lbs = kg
7. 2.5ml = tsp
8. 2 oz. = g
9. 45ml = fl. oz.
10. 487 mcg = g
11. 6.6 lbs = mg
Drug Classes

Beginnings and endings
Determine which drug class each of the following belong to
Based on generic name
Ranitidine

H2 receptor blocker
Pravastatin

HMG-CoA Reductase inhibitor
Ciprofloxacin

Quinolone Antibiotic
Ampicillin

Penicillin
Antibiotic
Amlodipine

Calcium Channel Blocker
Cefadroxil

Cephalexin

Antibiotic
Alendronate

Bisphosphonate
Valcyclovir

Anti-Viral
(herpes type)
Irbesartan

Angiotensin

Receptor

Blocker
Carvedilol

Beta
Receptor Blocker
Name the class

Based on drug name ending
-sartan

Angiotensin
Receptor
Blocker
Angiotensin Converting Enzyme inhibitor (ACE) inhibitors
-dronate

Bisphonates
-statin

HMG-CoA Reductase inhibitor
Below are 10 questions regarding the profession that YOU are about to enter. Choose three (3) of these questions and write a response to each of your chosen questions. These responses need to be well thought out and informational. A “yes” or “no” answer MUST include reasons for that response, and be prepared to present one of your answers to the rest of the class. If you have done this assignment before, choose 3 different questions.

1. Would YOU use a generic medication? Why or why not? (be specific and try to provide justification for your answer)

2. In your own words, discuss why patient confidentiality is important. And what can happen if confidentiality is not kept.

3. Discuss in your own words why understanding math will be important in your career as a pharmacy technician.

4. List 4 various routes of drug administration. Next, list advantages and disadvantages of each.

5. Many doctors prescribe antibiotics too often. Do you agree or disagree with this practice and why.

6. What communication skills are needed for working in a Hospital Pharmacy? What communication skills are needed for working in a community pharmacy?

7. Do you think the general public understands the risk of OTC medications? What are the dangers of the public NOT understanding what might possible happen?

8. Do you think patients should be able to return unused prescription drugs to the pharmacy for a refund? Why or why not? (Consider what is uncontrollable once the medication leaves the pharmacy, like storage)

9. Why do you think that compounding is an area of pharmacy that is growing? Is compounding an area that interests you, why or why not?

10. Do you think the pharmacy technician’s role in OTC medications sales is active enough? Should the pharmacy technician be allowed to answer patient questions regarding OTCs?
Compounding Math.....

Now it gets a little harder!
Need to prepare 125ml of a 20mg/ml solution from a stock solution of 50mg/ml. How many mls of stock solution and diluent will you need?

Need to know…
- 50mg/ml = 5% soln
- 20mg/ml = 2% soln
- diluent = 0% soln

50ml  5%
75ml  0%
Need to prepare 250ml of a 10mg/ml solution from a stock solution of 35mg/ml. How many mls of stock solution and diluent will you need?

Need to know…
- 35mg/ml = 53.5% soln
- 10mg/ml = 1% soln
- diluent = 0% soln

<table>
<thead>
<tr>
<th>Solution</th>
<th>Volume (ml)</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stock</td>
<td>71.4</td>
<td>3.5%</td>
</tr>
<tr>
<td>Diluent</td>
<td>178.6</td>
<td>0%</td>
</tr>
</tbody>
</table>
Need to prepare 500ml of a 25mg/ml solution from a stock solution of 100%.

How many mls of stock solution and diluent will you need?

Need to know…5mg/ml = 2.5% soln
diluent = 0% soln

100%

2.5%

0%

12.5ml 100%
487.5ml 0%
Need to prepare 125ml of a 2mg/ml solution from a stock solution of 15mg/ml. How many mls of stock solution and diluent will you need?

Need to know…
- 2mg/ml = 0.2%
- 15mg/ml = 1.5% soln
- diluent = 0% soln

16.7ml 1.5%
108.3ml 0%
Need to prepare 175ml of a 2% solution from a stock solution of 10%. How many mls of stock solution and diluent will you need?

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Ml</th>
</tr>
</thead>
<tbody>
<tr>
<td>10%</td>
<td>35</td>
</tr>
<tr>
<td>2%</td>
<td>140</td>
</tr>
<tr>
<td>0%</td>
<td>0</td>
</tr>
</tbody>
</table>
Need to prepare 300ml of a 27% solution from a stock solution of 70%. How many mls of stock solution and diluent will you need?

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>70%</td>
<td>115.7ml</td>
</tr>
<tr>
<td>27%</td>
<td></td>
</tr>
<tr>
<td>0%</td>
<td>184.3ml</td>
</tr>
</tbody>
</table>
Need to prepare 500ml of a 20% solution from a stock solution of 70%. How many ml of stock solution and diluent will you need?

- 143ml 70%
- 357ml water
Need to prepare 750ml of a 45% solution from stock solutions of 50% and 10%. How many ml's of each stock solution will you need?

50%: 656ml
10%: 94ml

656ml 50%
94ml 10%
Order calls for 1 ounce of ointment with the following recipe: (remember, 1 ounce = 30g)

Hydrocortisone 5g
Triacontolone  3g
Water based ointment  42g

How much hydrocortisone is needed to make the final Product?

Set up ration to solve:

\[
\frac{5g \text{ HC}}{50g} = \frac{Xg}{30g}
\]

3g HC
Order calls for 15 g sunburn cream with the following recipe:

Lidocaine 1g  
QS with Ointment base to 60g

How much lidocaine is needed to make the final Product?

Set up ratio to solve:

\[
\frac{1 \text{ g Lidoc.}}{60 \text{ g}} = \frac{X \text{ g}}{15 \text{ g}} \quad \text{or} \quad 0.25 \text{ g or 250 mg}
\]
Order calls for 90ml anti-itch lotion with the following recipe:
Calamine lotion 15ml
QS to 60ml

How much calamine is needed to make the final product?

Set up ratio to solve:

\[
\frac{15\text{ml calamine}}{60\text{ml lotion}} = \frac{\text{Xml}}{90\text{ml}}
\]

22.5ml
Quiz Freebies: The following are some answers to quiz questions from chapter 13.

An Order calls for 50mg of drug. The prescription balance has sensitivity of 6mg and the margin of error is 4.5%. How much drug needs to be weighed?

A. 150mg   B. 133mg   C. 100mg   D. 77mg

An order calls for 75mg of drug. The balance used has a sensitivity of 10mg and a margin of error or 6.5%. If a multiple of 8 is used for the diluent, what amount of aliquot mixture will contain the ordered amount of drug?

A. 450mg   B. 600mg   C. 3150mg   D. 3600mg
Quiz Freebies: The following are some answers to quiz questions from chapter 13.

A prescription is written for 0.4ml of a drug. The minimum volume that can accurately be measured in this pharmacy is 1.0ml. What amount of aliquot mixture will contain the ordered volume of drug?
A. 0.4ml  ★  1.2ml  C. 2.4ml  D. 3.6ml
### Sound alike/look alike potential errors?
#### What could possibly go wrong?

Figure out what might happen if these drugs pairs were accidentally dispensed for each other:

<table>
<thead>
<tr>
<th>Drug 1</th>
<th>vs.</th>
<th>Drug 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bupropion</td>
<td></td>
<td>Buspirone</td>
</tr>
<tr>
<td>Baclofen</td>
<td></td>
<td>Bactroban</td>
</tr>
<tr>
<td>Metolazone</td>
<td></td>
<td>Metaxolone</td>
</tr>
<tr>
<td>Chlorpropamide</td>
<td></td>
<td>Chlorpromazine</td>
</tr>
<tr>
<td>Guanfacine</td>
<td></td>
<td>Guaifenesin</td>
</tr>
<tr>
<td>Hydralazine</td>
<td></td>
<td>Hydroxyzine</td>
</tr>
<tr>
<td>Metoprolol (tartrate)</td>
<td></td>
<td>Metoprolol (succinate)</td>
</tr>
<tr>
<td>Metoprolol</td>
<td></td>
<td>Metaproterenol</td>
</tr>
</tbody>
</table>
Certificate of Completion

California State University, Bakersfield - Extended University Division

HEREBY CERTIFIES THAT

John Smythe

HAS SUCCESSFULLY COMPLETED THE REQUIREMENTS FOR THE
Pharmacy Technician
Certificate Program

The bearer of this certificate has successfully completed
240 hours of education in the area of Pharmacy Technician

March 23, 2016

Dr. Mark Novak, Dean, Extended University

Dr. Anne Houtman, Dean, NSM & E