Pharm 102

Fall 2020
Welcome to Pharmacy Calculations!

We will be meeting online or in the Race building if permitted, Thursday evenings 5:30-7:30pm. First class will be August 20th.
Our text will be Pharmacy Calculations for Technicians,

by Don A. Ballington (sixth edition). ISBN# 978-0-76386-845-1 (print) or ISBN# 978-0-76386-846-8 (digital) You will need to purchase the online code with your text to activate your Canvas access to the text and quizzes.
You may buy the text on Amazon.com, or rent the text on campusbookrentals.com. It may or may not be available in the campus bookstore.
Please come to class on time, prepared with your text, paper, pencil and a basic calculator.
You may have 2 excused absences during the semester. An excused absence is one that you have informed me about, either in person or by email at mmarquez@santarosa.edu. If you are absent, you will have a chance to make up lost points with 2 extra credit quizzes offered during the semester.
Your grade will result from percentages of points offered during the semester. You will need a minimum of 70% to pass this class. This class may be taken up to 2 times for credit, and is a grade only course. Cheating of any sort will not be tolerated, and result in your immediate expulsion from the class.
I will hold and office hour each week immediately after class to answer any questions or offer any help you may need. Also, you may email me at mmarquez@santarosa.edu with any concerns.
We will have a short quiz each week, covering the previous weeks work. We will have 2 mid-terms during the semester, and our Final will be on December 17. I will offer 2 extra credit quizzes during the semester, in case you have used your excused absences, or you just need to boost your point average. Your homework will consist of the problems offered at the end of each chapter. I will offer 5 points for each packet/chapter of homework turned in. This homework is not mandatory, but is highly recommended to help boost your points. Since there are 9 chapters in the text, there will be 45 points to help you with your average points.
Your cell phone should be silenced during class, but if you must take a call during class, please step outside so you do not disrupt the class.
I look forward to a fun and rewarding semester!
Melinda Marquez, CPhT

Standards of Conduct

Students who register in SRJC classes are required to abide by the SRJC Student Conduct Standards. Violation of the Standards is basis for referral to the Vice President

of Student Services or dismissal from class or from the College. See the Student Code of Conduct pageLinks to an external site..
Collaborating on or copying of tests or homework in whole or in part will be considered an act of academic dishonesty and result in a grade of 0 for that test or assignment. Students are encouraged to share information and ideas, but not their work. See these links on Plagiarism:
SRJC Writing Center Lessons on avoiding plagiarism (Links to an external site.)
SRJC's statement on Academic IntegrityLinks to an external site.

Special Needs

Every effort is made to conform to accessibility standards for all instructor-created materials. Students should contact their instructor as soon as possible if they find that they cannot access any course materials. Students with disabilities who believe they need accommodations in this class are encouraged to contact Disability Resources (527-4278).

PHARM 102 Course Outline as of Fall 2016

New Course (First Version)

CATALOG INFORMATION

Discipline and Nbr: PHARM 102 Title: PHARM CALC/PHARM TECH
Full Title: Pharmaceutical Calculations for the Pharmacy Technician
Last Reviewed:10/26/2015

Units		**Course Hours per Week**		**Nbr of Weeks**	**Course Hours Total**	
Maximum	2.00	Lecture Scheduled	2.00	17.5 max.	Lecture Scheduled	35.00
Minimum	2.00	Lab Scheduled	0	5 min.	Lab Scheduled	0
		Contact DHR	0		Contact DHR	0
		Contact Total	2.00		Contact Total	35.00
		Non-contact DHR	0		Non-contact DHR Total	0

Total Out of Class Hours: 70.00 Total Student Learning Hours: 105.00

Title 5 Category: AA Degree Applicable
Grading: Grade Only
Repeatability: 00 - Two Repeats if Grade was D, F, NC, or NP
Also Listed As:
Formerly:

Catalog Description:

Instruction in pharmaceutic calculations designed for Pharmacy Technician students. Prepares students for success in therapeutic calculations through pharmaceutical skills development (dosage, volume, concentration) of computations with absorption rate, admixtures, medicinal compounding and applied measurement systems. Teaches students approaches in bioavailability and bioequivalence alliteration, accurately recognizing pharmaceutical units as required by the California State Board of Pharmacy.

Prerequisites/Corequisites:

Recommended Preparation:
Eligibility for ENGL 100 or ESL 100 AND CSKLS 100

Limits on Enrollment:

Schedule of Classes Information
Description:

Instruction in pharmaceutic calculations designed for Pharmacy Technician students. Prepares students for success in therapeutic calculations through pharmaceutical skills development (dosage, volume, concentration) of computations with absorption rate, admixtures, medicinal compounding and applied measurement systems. Teaches

students approaches in bioavailability and bioequivalence alliteration, accurately recognizing pharmaceutical units as required by the California State Board of Pharmacy.

(Grade Only)
Prerequisites:
Recommended:Eligibility for ENGL 100 or ESL 100 AND CSKLS 100
Limits on Enrollment:
Transfer Credit:
Repeatability:00 - Two Repeats if Grade was D, F, NC, or NP

ARTICULATION, MAJOR, and CERTIFICATION INFORMATION

Associate Degree: Area:		Effective:	Inactive:
CSU GE:	Transfer Area	Effective:	Inactive:
IGETC:	Transfer Area	Effective:	Inactive:
CSU Transfer:		Effective:	Inactive:
UC Transfer:		Effective:	Inactive:
C-ID:			

Certificate/Major Applicable: Certificate Applicable CourseLinks to an external site.

COURSE CONTENT

Student Learning Outcomes:

1. Accurately interpret information and data employing various types of scientific therapeutics, calculations, and pharmaceutical science computations.
2. Explain correct utilization of pharmaceutical science computations in ambulatory, infusion and inpatient healthcare environments.
3. Identify and differentiate between pharmacodynamics, pharmacokinetics, and pharmaceutics.

Objectives:

Upon completion of the course, students will be able to:
1. Demonstrate working knowledge in computational pharmaceutical science calculations.
2. Explain extemporaneous compounding in ambulatory settings.
3. Cite and evaluate aseptic and infusion compounding techniques.
4. Interpret and compare the collecting, organizing, and evaluating information for direct patient care, drug use review, and departmental management.
5. Employ critical thinking skills in identifying pharmacodynamics, pharmacokinetic, and pharmaceutics in case studies.

Topics and Scope

I. Extemporaneous compounding calculation operations:
   a. Emulsions
   b. Elixirs
   c. Transdermal
II. Pharmaceuticals:
   a. Pharmacokinetics
   b. Pharmacodynamics
   c. Pharmaceutics
III. Pharmacy therapeutics
   a. Half-life
   b. Inert ingredients
IV. Parenteral measurement systems:
   a. High Efficiency Particulate Air (HEPA)
   b. Drop rate
   c. Flow rate
   d. Drop factor
   e. Infusion rate
V. Meniscus:
   a. International system
   b. Apothecary system
VI. Pharmaceutical analysis:
   a. Quality
   b. Solvent
   c. Solute

d. Volume Reconstitution
    1. Normal saline
    2. Volume dosage concentration

VII. Drug targets:
a. Inaccuracies
b. Medication Administration Records (MAR) filling and calculation
c. Safety assessment

VIII. Pharmaceutical and Medicinal abbreviations.

Assignments:

1. Approximately 15 to 25 pages of reading per week
2. 10 quizzes and 1-3 exams
3. Comprehensive final exam
5. 8-12 pharmaceutical calculation assignments

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Methods of Evaluation/Basis of Grade.

Writing: Assessment tools that demonstrate writing skill and/or require students to select, organize and explain ideas in writing.	Writing 5 - 10%
Written response to case studies	
Problem solving: Assessment tools, *other than exams*, that demonstrate competence in computational or non-computational problem solving skills.	Problem Solving 20 - 35%
Calculation assignments and case studies	
Skill Demonstrations: All skill-based and physical demonstrations used for assessment purposes including skill performance exams.	Skill Demonstrations 0 - 0%
None	
Exams: All forms of formal testing, *other than skill performance exams*.	Exams 60 - 75%
Quizzes, exams, final exam	
Other: Includes any assessment tools that do not logically fit into the above categories.	Other Category 0 - 0%
None	