North Central Kansas Technical College

PHRM102 Pharmacy Calculations

Instructor and Class Information

Instructor Name  Brian Dechant
Email          bdechant@ncktc.edu
Start Date      8/22/2016
End Date        12/16/2016

Course Information

Course Number   PHRM-102
Course Title    Pharmaceutical Calculations

Course Description

Students will demonstrate the ability to perform pharmaceutical calculations required for the usual dosage determinations and solution preparation. Emphasis will be placed on basic computations, use of measuring tools, dosage computations, compounding calculations and solution preparation. Topics covered include ratio and proportion, dilution and concentration, milliequivalent, units, and intravenous flow rates.

Total Credits  3.00

Textbooks


Learner Supplies

Paper and pencil. Description: Paper and pencil. Required.

Calculator. Description: Calculator. Required.

Program Outcomes

1. Perform math function, dosage calculation and compounding techniques.

Course Competencies
1. Given mathematical problems using Roman numerals, Arabic numerals, fractions, Apothecary symbols, and decimals, perform the mathematical steps to solve for the correct answer.  
   Status Active

2. Given mathematical problems involving reducing and enlarging formulas, perform the mathematical steps to solve for the correct answer.  
   Status Active

3. Given mathematical problems involving conversion of weights and measures and direct ratio and proportion, perform the mathematical steps to solve for the correct answer.  
   Status Active

4. Given mathematical problems involving calculation of doses for oral drug administration, perform the mathematical steps to solve for the correct answer.  
   Status Active

5. Given mathematical problems involving percent strength, weight-in-volume(w/v), weight-in-weight(w/w), and volume-in-volume (v/v), perform the mathematical steps to solve for the correct answer.  
   Status Active

6. Given mathematical problems involving ratio strength calculations for pharmaceutical preparations, perform the mathematical steps to solve for the correct answer.  
   Status Active

7. Given mathematical problems involving dilution and concentration, perform the mathematical steps to solve for the correct answer.  
   Status Active

8. Given mathematical problems involving dilution and concentration, perform the mathematical steps to solve for the correct answer using the alligation method.  
   Status Active

9. Given mathematical problems involving flow rate and drip rate, perform the mathematical steps to solve for the correct answer.  
   Status Active

10. Given mathematical problems involving IV dosage calculations, perform the mathematical steps involved to solve for the correct answer.  
    Status Active

**Course Grading Information**

Homework and quizzes  
30% of your final grade comes from homework assignments and quizzes. Homework assignments must be handed in on the due date. Quizzes must be taken when assigned.

Exams  
I will administer a mid-term and a final exam. The mid-term exam will count for 20% of your grade. The final exam will count for 30%.

Class participation  
20% of final grade comes from  
1. Faithful class attendance, if not in class you can not participate and loose all points for that day.
2. Punctuality: you should be in the class at the beginning of class.
3. Mutual respect for teacher, peers and self
4. Constructive participation in class discussions
5. Completion of reading assignments and homework
6. Be prepared everyday with notebook, pen/pencil, relevant homework or assigned material and textbook.
7. Timely completion of formal assessments (Tests and Quizzes).

Final grades
Final grades will be calculated according to the following formula:

Homework and quizzes 30%
Class participation 20%
Mid-term exam 20%
Final exam 30%

**Grading Scale**

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>A</td>
<td>90-100</td>
</tr>
<tr>
<td>B</td>
<td>80-89</td>
</tr>
<tr>
<td>C</td>
<td>70-79</td>
</tr>
<tr>
<td>F</td>
<td>&lt;69</td>
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</tbody>
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**ADA Statement 4**

In compliance with the Americans with Disabilities Act, students are encouraged to register with [INSERT CONTACT INFORMATION HERE] for assistance with accommodations. It is the student's responsibility to voluntarily and confidentially disclose information regarding the nature and extent of a disability. The college cannot assume responsibility for providing accommodations or services to students who have not identified themselves as having a qualifying disability.

**Academic Honesty 2**

Academic honesty is important to the learning organization's purpose of helping learners to develop critical, independent thinking skills and habits. Cheating and other forms of academic dishonesty run counter to this purpose and violate ethical and intellectual principles; they are therefore subject to penalties. For purposes of this course we will define academic dishonesty as:

- **Plagiarism:**
  Presentation of work that originates from another unacknowledged source as one's own. Presenting someone else's ideas, argument, or information verbatim (or close to verbatim) without acknowledgement of the source in assessments, papers, or discussions, constitutes plagiarism.

- **Cheating:**
  a) Giving, receiving, or using, or attempting to give, obtain, or use, unauthorized information or assistance during an assessment or an examination
  b) Obtaining or conveying, or attempting to obtain or convey, unauthorized information about an assessment or examination questions
c) Giving or receiving assistance on an essay or assignment that goes beyond that specifically allowed by the instructor (this includes buying and selling, or attempt to buy or sell essays and/or research assistance relating to course assignments)

d) Impersonating someone else or causing or allowing oneself to be impersonated in an examination, or knowingly availing oneself of the results of impersonation

e) Presenting a single piece of work in more than one course without the permission of the instructors involved

**NCKTC Pharmacy Late Exam**

Students must complete all exams by the scheduled deadline. Make-up exams are permitted only with documentation regarding a situation which prohibited the student from taking the exam on the assigned date. All make-up exams must be scheduled with the instructor and completed before the next scheduled class session or the student will earn a zero for that exam.

**NCKTC Pharmacy Late Homework**

All assignments may be turned in early; however, all late work, regardless of the reason, will lose 20% of the possible points if turned in within two days of due date. After two days, late work will receive no credit.

**NCKTC Pharmacy program attendance policy**

**NCK Tech Modify the Syllabus**

The Instructor reserves the right to modify the syllabus during the semester. Students will be given advanced notice if a change would occur.

**NCK Tech Non-Discrimination**

Discrimination against any individual on the basis of race, color, gender, ethnic or national origin, sex, sexual orientation, gender identity, marital status, ancestry, disability, age, , military status, veteran status or religion in the admission or access to, or treatment or employment in the college’s programs and activities is prohibited. Harassment of an individual on any of these grounds is also prohibited.

The Dean of Student Services, P.O. Box 507, Beloit, KS 67420 has been designated to coordinate compliance with nondiscrimination requirements contained in Title VI of the Civil Rights Act of 1964, Title VII of the Civil Rights Act of 1964 and Title I X of the Education Amendments of 1972.

The Dean of Instructional Services, P.O. Box 507, Beloit, KS 67420 has been designated to coordinate compliance with nondiscrimination requirements contained in Section 504 of the Rehabilitation Act of 1973, and The Americans with Disabilities Act of 1990. Information concerning the provisions of these Acts, and the rights provided thereunder, are available from the compliance coordinator.