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| **Contra Costa College** |

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| **Course Outline** |

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| **Department & Number** | Nursing 205 | **Number of Weeks** | 18 |
| **Course Title** | Drug Dosage Calculation for Nursing Students | **Lecture Hours** | 2 |
| **Prerequisite** | None | **Lab Hours** |  |
| **Challenge Policy** | Yes  (Nursing 205 waiver exam given 3x/semester) | **\*Hours By Arrangement** |  |
| **Co-requisite** | None | **Activity Hours** |  |
| **Challenge Policy** |  | **Units** | 2 |
| **Advisory** | None |

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| **\*HOURS BY ARRANGEMENT:** | |  | Hours per term. |
| **ACTIVITIES:** (Please provide a list of the activities students will perform in order to satisfy the HBA requirement): | | | | |
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| **COURSE/CATALOG DESCRIPTION** |

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| This course will present mathematical skills and concepts needed by the professional nurse to safely practice in the clinical setting. Content includes interpreting medication labels, calculating drug doses, intravenous flow rates, and enteral feeding solutions. |

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| **COURSE OBJECTIVE** | |
| At the completion of the course the student will be able to: | |

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| 1. Define common terms used in medication administration. |
| 2. Recognize and write conversions using equivalent measurements. |
| 3. Solve practical problems involving metric and household units of measure. |
| 4. Interpret drug labels. |
| 5. Calculate dosages of tablets, capsules, oral solutions, and injectable drugs, including perioperative  medications, insulin, heparin, and reconstitution of powdered drugs. |
| 6. Calculate the rate of flow of IV fluids including milliliters per hour and drops per minute, as well as  infusion and completion time. |
| 7. Calculate problems involving intake and output including hourly, 8-hour shift, and 24 hour totals. |
| 8. Calculate dosages based on body weight. |
| 9. Calculate problems involving nasogastric tube feeding concentrations. |
| 10. Calculate the rate of administration for IV Push drugs. |

**COURSE CONTENT:** (In detail; attach additional information as needed and include percentage breakdown)

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| 5 | **%** | Medication terminology |
| 10 | **%** | Problems with units of measure |
| 10 | **%** | Drug labels |
| 30 | **%** | Dosage calculations |
| 20 | **%** | IV calculations |
| 10 | **%** | Calculations of intake and output |
| 5 | **%** | Dosages based on body weight |
| 5 | **%** | Nasogastric tube problems |
| 5 | **%** | IV push medications |

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| **METHODS OF INSTRUCTION** |

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| Lecture/ discussion |
| Practice problems in class |
| CD practice exercises and module tests |
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| **INSTRUCTIONAL MATERIALS** |

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| **Textbook Title:** | Calculating Drug Dosages: An Interactive Approach to Learning Nursing Math |
| **Author:** | Castillo, Sandra Luz Martinez de, RN, MA, EdD  Werner- McCullough, Maryanne, RN, MS, MNP |
| **Publisher:** | F. A. Davis Company  Philadelphia, PA |
| **Edition/Date:** | 2nd Edition  2007 |

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| **COURSE EXPECTATIONS** (Use applicable expectations) |

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| **Outside of Class Weekly Assignments** | **Hours per week** |

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| Weekly Reading Assignments |  |
| Weekly Writing Assignments |  |
| Weekly Math Problems | 2 hrs |
| Lab or Software Application Assignments | 2 hrs |
| Other Performance Assignments |  |

**STUDENT EVALUATION**: **(Show percentage breakdown for evaluation instruments)**

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| 100 | **%** | Average of four exams will comprise the final grade. Passing grade for N205 is 75% |
|  | **%** |  |
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| **GRADING POLICY (Choose LG, CR/NC, or SC)** |

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| X | **Letter Grade** |  | **Pass / No Pass** |  | **Student Choice** |
| 90% - 100% = A | | 70% and above = Pass | | 90% - 100% = A |
| 80% - 89% = B | | Below 70% = No Pass | | 80% - 89% = B |
| 70% - 79% = C | |  | | 70% - 79% = C |
| 60% - 69% = D | |  | | 60% - 69% = D |
| Below 60% = F | |  | | Below 60% = F |
| *or* |
| 70% and above = Pass |
| Below 70% = No Pass |

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| **Prepared by:** | Maryanne Werner-McCullough |

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| **Content Review Date:** | November 20, 2009 |

Revised 04/09