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| **SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY**  **SAULT STE. MARIE, ONTARIO**  sc-b-w COURSE OUTLINE | | | | | |
| **COURSE TITLE:** | Math for Meds Refresher | | | | |
| **CODE NO. :** | CED2549 | | **SEMESTER:** | W16 | |
| **PROGRAM:** | Practical Nursing | | | | |
| **AUTHOR:** | Janet Piper, RegN, MScN | | | | |
| **DATE:** | Jan, 2016 |  | | |  |
| **APPROVED:** |  | | | |  |
|  | “Ted Newbery”\_Chair | | | | **Jan’16**  **DATE** |
| **TOTAL CREDITS:** | Final Requirements for PNG 236 Math Component | | | | |
| **PREREQUISITE(S):** | Enrolled in PNG 236 | | | | |
| **HOURS/WEEK:** | Eight hours within one week only | | | | |
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| *For additional information, please contact the Chair,* | | | | | |
| *School of Continuing Education* | | | | | |
| *(705) 759-2554, Ext. 2448* | | | | | |

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| **I.** | **COURSE DESCRIPTION:**  This course will identify strengths and gaps in your present math skills which are necessary to prepare and administer medications safely to clients within both healthcare and homecare settings. Interactive practice with one-on-one tutoring will improve present skills to meet the competency requirements as set within your nursing program and in keeping with College of Nurses of Ontario Medication Standards (CNO, 2014). |

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| **II.** | **LEARNING OUTCOMES AND ELEMENTS OF THE PERFORMANCE:** | |
|  | Upon successful completion of this course, the student will demonstrate the ability to: | |
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|  | 1. | Understand basic concepts of fractions, decimals, percentages, ratios, and proportions. |
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|  | 2. | Convert equivalents of household and apothecary measurements to metric measurements. |
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|  | 3. | Interpret physician’s orders |
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|  | 4. | Read drug labels to accurately calculate and prepare medications |
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|  | 5. | Safely and competently administer oral dosages |
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|  | 6. | Safely and competently administer parenteral dosages |
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|  | 7 | Complete written math challenges with 90 to 100% accuracy |
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|  | **TOPICS:** | |
|  | 1. | Fractions / Decimals / Percentages / Ratio-Proportion Method |
|  | 2. | Conversions of apothecary and metric measurements |
|  | 3. | Physician’s Orders |
|  | 4. | Drug Labels and Reconstitution of Medications |
|  | 5. | Non-parenteral drug administration calculations (orals, sublinguals, inhalants) |
|  | 6. | Parenteral drug administration calculations (s/c, I/D, IM) |
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| **IV.** | **REQUIRED RESOURCES/TEXTS/MATERIALS:**  It is **MANDATORY** that you bring to class each day the following workbook:  Ogden and Fluharty (2012). *Calculation of Drug Dosages: a work text.* (9th ed.) St. Louis, Missouri: Elsevier / Mosby.  You must also have activated your registration for Evolve Student Resources for Ogden / Fluharty which comes with your book at <http://evolve.elsevier.com/Ogden/calculation/>  You must also bring any old quizzes or math tests already written within PNG 236 lab sessions for review by instructor(s). This will serve to identify strengths and gaps. |

**V. EVALUATION PROCESS / GRADING SYSTEM:**

Two tests will evaluate objectives for this course as follows:

Day 2: Test of 50 questions 50% Non-parenterals

Day 3: Test of 50 questions 50% Parenterals

**Note: You MUST achieve 90% to be successful.**

**No rewrites allowed**

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|  | Grade | Definition | *Grade Point Equivalent* |
|  | A+ | 90 – 100% | 4.00 |
|  | A | 80 – 89% |
|  | B | 70 - 79% | 3.00 |
|  | C | 60 - 69% | 2.00 |
|  | D | 50 – 59% | 1.00 |
|  | F (Fail) | 49% and below | 0.00 |
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|  | CR (Credit) | Credit for diploma requirements has been awarded. |  |
|  | S | Satisfactory achievement in field /clinical placement or non-graded subject area. |  |
|  | U | Unsatisfactory achievement in field/clinical placement or non-graded subject area. |  |
|  | X | A temporary grade limited to situations with extenuating circumstances giving a student additional time to complete the requirements for a course. |  |
|  | NR | Grade not reported to Registrar's office. |  |
|  | W | Student has withdrawn from the course without academic penalty. |  |

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| **VI.** | **SPECIAL NOTES:**  Your own laptop is allowed into lab as we will be using online resources. | |
| Attendance: MANDATORY for entire eight hours within the one week.  Sault College is committed to student success. There is a direct correlation between academic performance and class attendance; therefore, for the benefit of all its constituents, all students are encouraged to attend all of their scheduled learning and evaluation sessions. This implies arriving on time and remaining for the duration of the scheduled session. | |
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| **VII.** | **COURSE OUTLINE ADDENDUM:** |
|  | The provisions contained in the addendum located on the portal form part of this course outline. |

Class Schedule

Day 1

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| 0830 - 0900 | Introduction / Review of gaps / strengths |
| 0900 - 0930 | Review of physician orders, drug labels |
| **0930 - 0945** | **BREAK** |
| 0945 - 1015 | Log in computers- student resources on EVOLVE |
| 1015 - 1045 | Conversions / formulas for tablets, capsules, and liquids Ch. 13 Ogden |
| 1045 - 1115 | Ch. 13 Ogden Post-test challenge Test #1 (0 marks) |
| 1115-1130 | **BREAK (optional) or final questions** |

Day 2

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| 0830 - 0930 | **50% Final Test** (Non-Parenterals (oral, S/L, enteral, inhalants of liquids/solids) |
| **0930 - 0945** | **BREAK** |
| 0945 - 1015 | Review of parental medications, reconstitution of medications |
| 1015 - 1045 | Formulas for parenteral dosages in liquid or powder form Ch. 14 Ogden |
| 1045 - 1115 | Formulas for parenteral drugs measured in units (Insulins) Ch. 15 Ogden |
| **1115 - 1130** | **BREAK** |
| 1130-1200 | Intravenous flow rates in gtt/min (gravity flow) and ml/hr (electronic pump) Ch. 16 Ogden |
| 1200-1230 | Post-test challenge test (combination of Ch. 14, 15, and 16) |

Day 3

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| 0830 - 0930 | **50% Final Test** (Parenterals (s/c, ID, IM, IV flow rates) |