COURSE:     PREFIX NO:  |  EFFECTIVE DATE  |  NEXT REVIEW DATE
AHS          126 |  May 2015      |  May 2016

TITLE           |  CREDITS | CONTACTS |  CLASS - LAB - TOTAL
Health Calculations | 1 | | 1 - 0 - 1

PREREQUISITES:  MAT 150 with grade of “C” or better

DESCRIPTION:  LEVEL I: This course is a study of the mathematical concepts needed in health science studies.
LEVEL II: Students will calculate a variety of drug and therapy dosage word problems.


MATERIALS (specifying those to be purchased by student):  The following equipment is required for class:  Pen, paper, and basic computational calculator (no scientific programmable calculator allowed or cell phone calculator).

COLLATERAL READING:

CLASS MANAGEMENT ACTIVITIES (Attendance, tardies, testing, etc.):
Academic Dishonesty:
NETC honors the state SCTCS Student Code with regard to Academic Dishonesty. Students should read the NETC College Catalog. A copy of the Student Code is available at www.netc.edu.

Classroom Attendance:
Students are expected to attend 100% of all class meetings. If a student must be absent, it is the student’s responsibility to notify the instructor, no later than one (1) hour prior to the class scheduled meeting. You may be dismissed from the program if you miss more than one (1) class. The student is expected to call or email the instructor to notify the instructor of any absences or tardies, not other students. It is the student’s responsibility to obtain any information missed during a class.

Classroom Tardy:
Tardy is defined as arriving to the classroom after the assigned time. More than ten (10) minutes tardy will be considered an absence. Students that leave more than ten (10) minutes before the end of class will be given a tardy for the day unless prior arrangements have been made with the instructor. Three tardies are equivalent to one absence.

Statement on Written Assignments:
The instructor reserves the right to refuse any paper or test, which is messy or unreadable, or appears to be copied. Incorrect grammar and spelling errors will be noted. Papers will be graded on the basis of content, organization, grammar, and neatness.
Classroom Etiquette:
An integral part of an education is developing a sense of integrity, responsibility and professionalism, not only toward instructors, but also toward other students. In the classroom, as on the job or in your home, exhibiting appropriate behavior reflects on your maturity. Arriving late to class, being unprepared, inappropriate talking while class is in session, text messaging, etc. negatively reflects on you and your fellow students. Please be considerate.

Electronic Devices:
All electronic devices (cell phone, pagers, etc.) must be turned off during class time. The devices are not part of the instructional environment and may be confiscated by the instructor if utilized during these times. If a student is a member of emergency preparedness, there must be authorization from the Dean of Student Services to keep the device on during these times.

Student ID:
The College requires that students wear their Northeastern Technical College Identification badge at all times while on campus. Failure to wear ID badge may result in the student not being allowed to enter into the classroom setting. If you should forget your badge, you must go to Student Services and get a temporary badge for a fee of $1.00.

Disabilities Statement:
Students with disabilities are encouraged to contact the Dean of Student Services to discuss needs or concerns as they pursue an academic program and participate in campus life. The Dean of Student Services will provide guidance regarding official documentation of disabilities and/or accommodation of needs. (See Catalog)

RESOURCES (A-V, persons, tools/equipment):
1. Lecture/Discussion
2. Demonstrations and return demonstrations
3. Care of selected patients
4. Audiovisuals and computer simulations
5. Handouts
6. Written assignments
7. Independent study
8. Assigned reading
9. Tests

COURSE TOPICAL OUTLINE (List topics and sub-topics of course) and Calendar or approximate length of time devoted to topic.

*NOTE: The following outline is a planned tentative outline. The instructor reserves the right to add or delete as needed and in the best interest of the student learner.
# PLANNED TENTATIVE SCHEDULE

<table>
<thead>
<tr>
<th>WEEK</th>
<th>TOPICS</th>
<th>CHAPTERS</th>
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<tbody>
<tr>
<td>1</td>
<td>Review of Mathematics&lt;br&gt;Review of Math Skill Quiz&lt;br&gt;Units and Measurements for the Calculation of Drug Dosages&lt;br&gt;Information Regarding Drug Calculation Exemption Test Offered in Week #2</td>
<td>Review of Syllabi, Nursing sections, web enhanced material; online resources, etc.&lt;br&gt;1. Fractions (7)&lt;br&gt;2. Decimals (31)&lt;br&gt;3. Percents (53)&lt;br&gt;4. Ratios (71)&lt;br&gt;5. Proportions (87)&lt;br&gt;6. Metric and Household Measurements (109)&lt;br&gt;7. Calculations used in Patient Assessments (133)</td>
</tr>
<tr>
<td>2</td>
<td>Preparation for calculation of Drug Dosages&lt;br&gt;ATI Drug Calculation EXEMPTION TEST</td>
<td>8. Safety in Medication Administration (152)&lt;br&gt;9. Interpretation of the Physician’s Orders (165)&lt;br&gt;10. Reading Medication Labels (175)</td>
</tr>
<tr>
<td>3</td>
<td>Calculation of Drug Dosages</td>
<td>11. Oral Dosages (186)</td>
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<tr>
<td>5</td>
<td>Calculation of Drug Dosages&lt;br&gt;<strong>Test #1 Chapters 9 – 14</strong></td>
<td>14. Reconstitution of Medications (394)&lt;br&gt;15. Intravenous Flow Rates (421)</td>
</tr>
<tr>
<td>6</td>
<td>Calculation of Drug Dosages</td>
<td>16. Intravenous Flow Rates for Dosages Measured in Units (459)</td>
</tr>
<tr>
<td>7</td>
<td>Calculation of Drug Dosages&lt;br&gt;<strong>Test #2 Chapters 15 – 16</strong></td>
<td>17. Critical Care Intravenous Flow Rates (479)</td>
</tr>
</tbody>
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Course Outline
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<table>
<thead>
<tr>
<th>WEEK</th>
<th>TOPICS</th>
<th>CHAPTERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>Calculation of Drug Dosages</td>
<td>18. Pediatric Dosages (503)</td>
</tr>
<tr>
<td>9</td>
<td>Drug Administration Considerations</td>
<td>19. Obstetric Dosages (549)</td>
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<tr>
<td></td>
<td><strong>Test #3 Chapters 17 – 19</strong></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Review of All Material Covered This Semester</td>
<td>ATI Drug Calculation and Saunders NCLEX chapters with drug calculations may be assigned throughout the semester</td>
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<tr>
<td>11</td>
<td>Final Exam Week</td>
<td>Comprehensive Exam on chapters 6 – 19</td>
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**LEARNING OUTCOMES:** Upon successful completion of this course the student will be able to:

1. State with accuracy the household, apothecaries and metric systems of measurement and conversion between systems.

2. Act as a patient advocate demonstrated by the ability to provide safe, direct patient care by calculating correct dosages for oral and parental medications for adults and children.

3. State the meaning of terms and abbreviations commonly used in the administration of medications.

4. Utilize information provided in course to teach health-related information to patients and family members on medication administration.

**COLLEGE WIDE COMPETENCIES:**
Solve problems incorporating effective decision-making, reasoning and creativity.

Apply mathematical/computational skills to solve problems.

**INSTRUCTIONAL METHODS TO COMPLETE OUTCOMES:**

1. Lecture
2. Class discussion
3. Reading assignments
4. Small group practice sessions
5. Skill demonstrations
6. Audio-visual materials
7. Paper and pencil tests
8. Case studies
9. Written assignments

**ASSESSMENT TOOLS:** May include but not limited to:
1. Demonstrations
2. Objective tests 70%
3. Projects/quizzes/presentations** 10%
4. Final Exam (Cumulative) 20%

**If no quizzes/written assignments/presentations are given, the test will be worth 80% of your final grade.**

**EVALUATIVE METHODS TO APPRAISE OUTCOMES:**
Course grade will be derived from theory and practice. A grade below 78 will result in failure of the course. A student who does not achieve 78 or better for the course is permitted to repeat the course ONE time only. A student who repeats the course and does not achieve a grade of 78 or better is ineligible to continue enrollment in the Associate Degree Nursing Program.

**GRADING SCALE:**

<table>
<thead>
<tr>
<th>Grade</th>
<th>Points Range</th>
<th>Quality Points</th>
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</thead>
<tbody>
<tr>
<td>A</td>
<td>93 - 100</td>
<td>4</td>
</tr>
<tr>
<td>B</td>
<td>86 - 92</td>
<td>3</td>
</tr>
<tr>
<td>C</td>
<td>78 - 85</td>
<td>2</td>
</tr>
<tr>
<td>D</td>
<td>70 - 77</td>
<td>1</td>
</tr>
<tr>
<td>F</td>
<td>69 &amp; Below</td>
<td>0</td>
</tr>
</tbody>
</table>

**GUIDELINES FOR AHS 126 STUDENTS:**

1. All written work must have your name on it if you want to get credit for your work.

2. One Half (1/2) point will be taken off for each misspelled word. This applies if the same word is misspelled more than once.

3. Students are expected to be fully prepared for each class.

4. Assignments are to be turned in before lecture begins on the assigned day. If you are unable to turn in the assignment, make arrangements to have the assignment turned in for you. **Each day your assignment is late 5 points will be deducted from the assignment grade.**

5. There is to be no drinking or eating in the classroom or computer area. Bottled water will be allowed in the classroom setting.

6. Test Review: All tests will be graded and returned for in-class review no later than two (2) weeks after the date of administration. **If the student wishes to review a test in greater detail, the student should make an appointment with the instructor to do so. Students will have one (1) week to review test, contest**
an item on the test, or contest the test grade. After the week has passed, the grade is considered final. Exception: the student must see me within 24 hours after the final exam is graded to discuss the test or contest test grade. After 24 hours the exam grade is considered final.

7. All students should have access to Moodle on-line program. If you don’t have access or having difficulty with your access, notify Moodle Administration for assistance. You will need to monitor your email account frequently for information regarding your classes, assignments, and messages.

8. Students will not be allowed to enter class after the instructor has begun to distribute tests/quizzes and will result in the student receiving a grade of "0".

9. Progression into the Spring Semester of the ADN program depends upon successful completion of this course and NUR 101 with a 78 or better on each course.