Course Title: Pharmacology for the Medical Assistant

Course Number: CMA 136

Number of Credits/Contacts: 2

Dates: 8/27/18 – 12/14/18

Class Days/Times: Online/In class Friday 9am – 10am

Room: A323

Instructor: Mary Kay Sorrels, RN
Academic Building – Office A306
Email: marykays@gogebic.edu
Phone: 906-932-4231 ext. 210

Office Hours: Mon: Noon – 2pm; Tues: 10am – Noon; Wed: Noon – 2pm; Thurs: 10am – Noon
Fri: By appointment (I will also be available via email, checking my email occasionally throughout the day.)

Prerequisites: Admission into the Program.

Required Textbooks/Materials:
- Pharmacology Clear & Simple 3rd Edition, By Cynthia J. Watkins

Course Description:

This course is an introduction to basic pharmacology with an emphasis on the importance of medications, helping clients maintain a healthy life style. The top nationally prescribed medications will be discussed with the emphasis in classifications, uses, routes of administration, drug/drug and drug/food interactions, adverse effects and contraindications. Also addressed are special precautions, legal considerations, patient education, and preparation and administration of medications as directed by the physician. Additional emphasis will be placed on the performance of basic math, calculation of drug doses, immunization schedules and administration.

Course Objectives: Upon completion of the course, students will be able to:
• Document using legally accepted abbreviations and state rational for their need.
• Correctly interpret medication orders and prescriptions.
• State legal and ethical issues application to prescriptions, drug dispensing, drug inventory, and controlled substances.
• Demonstrate basic knowledge of commonly prescribed medication categories including indications, contraindications, adverse effects, of drugs and their physiologic process in the body.
• Identify resources for medication information including, drug reference guides, PDR and online resources including intranet and internet.
• Demonstrate competence in administration of subQ and IM injections, as well as transdermal patches, ointments and creams.
• State relationship of medication to patient disease processes.
• Demonstrate use of vaccination record, administration of vaccinations, and patient instruction.
• Perform medication related math and conversions.

**Major Divisions:**

• Principles of Pharmacology including legal, ethical, and documentation of medication administration.
• Introduction to major drug classifications
• Medication Administration, including administration, and patient instruction.
• Immunizations and vaccinations
• Classifications of medications
• Medications related to specific body systems.

**Competencies:**

**Competency (Cognitive)**

I. Anatomy & Physiology
   6. Compare structure and function of the human body across the life span
   11. Identify the classifications of medications including:
       a. indications for use
       b. desired effects
       c. side effects
       d. adverse reactions

II. Applied Mathematics
   1. Demonstrate knowledge of basic math computations
   2. Apply mathematical computations to solve equations
3. Define basic units of measurement in:
   a. the metric system
   b. the household system
4. Convert among measurement systems
5. Identify abbreviations and symbols used in calculating medication dosages
6. Analyze healthcare results as reported in:
   a. graphs
   b. tables

III. Infection Control
2. Describe the infection cycle including:
   a. the infectious agent
   b. reservoir
   c. susceptible host
   d. means of transmission
   e. portals of entry
   f. portals of exit
3. Define the following as practiced within an ambulatory care setting:
   a. medical asepsis
   b. surgical asepsis
4. Identify methods of controlling the growth of microorganisms

Competency (Psychomotor)

I. Anatomy & Physiology
4. Verify the rules of medication administration:
   a. right patient
   b. right medication
   c. right dose
   d. right route
   e. right time
   f. right documentation
5. Select proper sites for administering parenteral medication
7. Administer parenteral (excluding IV) medications

II. Applied Mathematics
1. Calculate proper dosages of medication for administration
2. Differentiate between normal and abnormal test results
3. Maintain lab test results using flow sheets

III. Infection Control
2. Select appropriate barrier/personal protective equipment (PPE)

**Competency (Affective)**

II. Applied Mathematics
   1. Reassure a patient of the accuracy of the test results

III. Infection Control
   1. Recognize the implications for failure to comply with Center for Disease Control (CDC) regulations in healthcare settings

Other:

1. Identify personal safety precautions as established by the Occupational Safety and Health Administration (OSHA)
2. Describe implications for treatment related to pathology
3. Describe the relationship between anatomy and physiology of all body systems and medications

**Grading Policy:** In order for the learner to prove competency in the objectives of the course, he or she must receive a passing grade of C (75%) or higher for the course. The grading scale is as follows:

<table>
<thead>
<tr>
<th>Percentage Range</th>
<th>Grade</th>
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<tbody>
<tr>
<td>100% - 94%</td>
<td>A</td>
</tr>
<tr>
<td>93% - 90%</td>
<td>A-</td>
</tr>
<tr>
<td>89% - 88%</td>
<td>B+</td>
</tr>
<tr>
<td>87% - 83%</td>
<td>B</td>
</tr>
<tr>
<td>82% - 80%</td>
<td>B-</td>
</tr>
<tr>
<td>79% - 78%</td>
<td>C+</td>
</tr>
<tr>
<td>77% - 75%</td>
<td>C     Minimum accepted passing score</td>
</tr>
<tr>
<td>74% - 70%</td>
<td>C-</td>
</tr>
<tr>
<td>69% - 67%</td>
<td>D+</td>
</tr>
<tr>
<td>66% - 63%</td>
<td>D</td>
</tr>
<tr>
<td>62% - 60%</td>
<td>D-</td>
</tr>
<tr>
<td>59% - 0%</td>
<td>F</td>
</tr>
</tbody>
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**Assessment Areas/Composition of Final Grade:** Calculation of the final grade is based on the following:

<table>
<thead>
<tr>
<th>Assessment Area</th>
<th>Weight of Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assignments</td>
<td>10%</td>
</tr>
<tr>
<td>Quizzes/Tests/Exams/Projects/Presentations</td>
<td>80%</td>
</tr>
</tbody>
</table>
**Competency Rubric 10%**

<table>
<thead>
<tr>
<th>Competencies</th>
<th>Pass/Fail</th>
<th>Totals 100%</th>
</tr>
</thead>
</table>

**Competencies addressed are on a Pass/Fail basis – these need to be completed at 100% to pass the course**

**Tests and Quizzes:**
- Any test missed will be placed in ACES; late tests will receive a 5% deduction
- A 10% deduction will occur if the test is not taken within 2 days
  - Each student will have this option a maximum of 2 times; all late tests after the student has taken 2 late tests will result in a zero score however because each test addresses specific competencies, students will still need to take the test to show competency.
- A score of zero will be given if the test is not taken within one calendar week; however because each tests addresses specific competencies, students will still need to take the test to show competency.
- An alternate test may be used when late testing is necessary
- Quizzes (worth 10 points or less) will not be able to be made up if students are late to class or absent the day the quiz is given; however, if the quiz addresses specific competencies, the student will still need to take the test to show competency (without receiving a grade)
  - Quizzes with more than a 10 point value may be made up with 10 points subtracted from the grade earned

**Extra Credit:** Extra credit may be available for this course but is under the discretion of the instructor.

**Late Work:** Late work (1-2 days after due date) will be marked down 10%. Any work received after 2 days will not be accepted and will receive a grade of zero. Early work is acceptable. If you know you will have a conflict, arrange to get the work done ahead of time. Students must be in class for tests, quizzes and presentations. If you know you will be absent for one of these, you must notify me to schedule an alternative date.

**Attendance Policy:** Per college policy, attendance will be taken each class period and reported at the end of the semester. If you must miss class, email or call me. If it is possible for work to be made up (most work in class cannot be made up), I will assist you if the absence is due to serious illness or emergency. You are responsible for material covered in class and all assignments regardless of your other responsibilities. If Gogebic Community College is closed
due to weather, we will not meet. If I will miss a class, I will announce my absence ahead of time. Otherwise, GCC will announce the cancellation prior to our scheduled meeting time.

Excessive absences are defined as more than $\frac{1}{16}$th of the total class hours.
- Each unexcused absence over $\frac{1}{16}$th of the course will result in 10% being subtracted from the next scheduled test.
- Each subsequent absence will result in another 10% deduction.

Being late is viewed as disrespectful to fellow classmates and your instructor.
- A 5% deduction will be assessed from the following test beginning with the 3rd tardy.
- Five percent will continue to be deducted for every tardy after that.

**Academic Honesty/Plagiarism:** Any student caught cheating on a test or assignment will fail that assignment or test. This includes the student doing the cheating and any other student who is found to be willingly sharing information. Plagiarism will not be tolerated and will result in failing the assignment or test in which it took place.

**Academic Support/Advisement:** Available to all students through the services provided in the ACES Center; 906-932-4231 extension 209. Inquire the center regarding hours of operations and specific subjects for which tutors are available. In addition, some subject area specialist tutors are available for courses through specific departments. Ask your instructor if specialized tutors are available for your individual course. Advising for Medical Assistant students is available through the Allied Health Department.

**Classroom Community:** In a classroom, each person’s behavior affects the others present. You will be expected to show courtesy and respect for others. Class starts on time and you will be expected to be on time and stay for the entire class period. Cell phones MUST be turned off in class. Please do not come to class if you are ill and please do not bring children to class. The following behaviors are prohibited:
- Verbal attack on the person, integrity or moral character of another
- Disparaging remarks about or derogatory language aimed at another’s group of origin or affinity (e.g. age, gender, health status, physical or mental abilities, race, culture, sexual orientation, ethnicity, political philosophy, social views, religion)
- Any behavior manifesting direct or implied sexual harassment

**ADA Accommodation Statement for Students with Disabilities:** If you believe that you need academic accommodations for a disability that qualifies under the Americans with Disabilities Act and Section 504 of the Rehabilitation Act, please contact the Office of Disability Services, located in office T105C of the ACES Center, call (906) 932.4231 x 237, or e-mail jessicaln@gogebic.edu to discuss your needs and the process for requesting accommodations. This office is responsible for coordinating disability-related academic accommodations and will
issue students with verification letters as appropriate. Since accommodations may require early planning and generally are not provided retroactively, please contact the office as soon as possible.

*The instructor reserves the right to change this syllabus at any time during the course. Such changes, if any, will be announced. Students are responsible for all changes made during the course which will be announced during class. This syllabus will not be updated.*