

Course Outline  
**Hocking College**

Course No: Math 104  
Credit Hours: 1  
Date: Winter 2008  
To Be Updated:

Course Name: Pharmacology Math Online  
Class Hours: 1  
Prepared By: Roxane Barrows  
Approved By : \_\_\_\_\_

**Prerequisites**

C- or better in Pre-Algebra OR by placement test.

**Course Description**

Computational skills necessary to safely administer medications. Includes temperature conversions. This course includes and evaluates the Success Skills "Maintains Professional Skills and Attitudes," D10, "Demonstrates Math Skills," B1-B7.

**Course Outcomes**

Upon completion of this course, the learner is able to do the following:

1. Use unit analysis to quickly and accurately solve dosage problems that involve Metric units.
2. Use unit analysis to quickly and accurately solve dosage problems that involve U.S. Customary units.
3. Use unit analysis to quickly and accurately solve dosage problems that involve Apothecary units.
4. Use unit analysis to quickly determine the appropriateness of a medication order or prescription.
5. Quickly and accurately read most medication orders, prescriptions, and drug labels and perform the calculations needed to fill the complete prescription or medication order.
6. Recognize and discuss many common sources of medication error.
7. Use unit analysis to quickly and accurately calculate intravenous drip rates and flow rates.
8. Convert from Fahrenheit temperature to Celsius temperature and vice versa.

**Course Materials**

Text: Medical Dosage Calculations, 9<sup>th</sup> edition. Olsen, Giangrosso, Shrimpton, Dillon.  
Pearson/Prentice Hall.

**Safety Practices**

1. Please take note of the exit route to take in case of fire or other emergency. If the alarm sounds, quickly collect all your valuables and proceed as a group along the emergency exit route. Listen to your instructor's directions. Once outside the building please report to your instructor.

2. In the event of a medical emergency call the HC Police (ext. 6598).

### **Topical Outline**

REVIEW: Chapter 1: Review of Arithmetic for Medical Dosage Calculations  
Topic 1: Chapter 2: Safe and Accurate Drug Administration  
Topic 2: Chapter 3: Dimensional Analysis  
Topic 3: Chapter 4: The Metric, Household, and Apothecary Systems  
Topic 4: Chapter 5: Converting From One System of Measurement to Another  
Topic 5: Chapter 6: Calculating Oral Medication Doses  
Topic 6: Chapter 10: Calculating Flow Rates and Durations of Enteral Solutions and Intravenous Infusions  
Topic 7: Chapter 11: Calculating Flow Rates for Intravenous Medications  
Topic 8: Appendix D: Time and Temperature

### **Use of Cell Phones or other Electronic Devices**

The use of cell phones during classes and labs is a disrespectful distraction to your instructor and other classmates. *Please turn your cell phone and other electronic devices off while you are in class/lab.* In emergency situations, please discuss limited use of a cell phone with your instructor prior to the class during which you would like to use your cell phone.

### **Student Insurance/Coverage**

Hocking College insurance does not cover a student in cases of an accident or illness. Students are responsible for providing their own health and accident insurance. The Hocking College Health Center provides information on a student health insurance plan. Please see the Health Center (JL 241) for information on costs, coverage and how to enroll in the plan.

### **Disability Notice**

If you have been diagnosed with a disability that impacts your academic success, please immediately contact the Access Center, Office of Disabilities Services in JL 249 regarding accommodations.

## **HOCKING TECHNICAL COLLEGE EVALUATION OF STUDENT**

Course No. Math 104  
Instructor: Roxane Barrows  
Date: Spring 2009

Course Name: Pharmacology Math  
Approved by \_\_\_\_\_

This course is designed to help the student learn mathematical skills and methods for calculating drug dosages accurately and safely. The purpose of evaluation is to give you feedback on how you are progressing.

### **SPECIFIC FACTORS**

1. (a) **Examinations:** There will be seven tests; each test is worth 100 points. You may use a calculator on the tests. The tests are **ONLINE**. The tests are on chapters 2, 3, 4, 5, 6, 10 and 11.

(b) **Final Exam:** The final exam is comprehensive and counts as 200 points. The final exam **must be taken at a proctored site**. You may take the final exam in the testing center JL 363 or the Math PACE lab in JL 363. Check times and days both are open, the days and times change quarterly. You may use a calculator on the final exam. **NO FORMULA SHEETS ARE ALLOWED ON THE FINAL EXAM.**

2. **Projects & Homework:** You will post a brief bio on the discussion board and respond to two others. There will be 6 discussion questions that students must post an answer to and respond to two other student's postings. All 7 postings and responses are worth **35 points**.

3. **Attendance:** This is an online course. Attendance is monitored through Webct logon and discussion question participation.

4. **Class Participation:** To receive the maximum amount of benefit from attendance, students are expected to participate in the discussion questions.

5. **Extra Credit:** There will be no extra credit opportunities in this course.

6. **Grading Scale:**

A	92-100
B	85-91
C	80-84
F	Below 80

7. **Final Grade Calculation:** Add all test scores, final exam score and discussion board points. Divide this total by 935.

8. **Honesty Statement**

Honesty and integrity are major elements in professional behavior and are expected of each student. This is part of the Success Skill "Maintains Code of Ethics." All work is assumed to be your own unless special permission is granted from the instructor or sources are appropriately cited. It is expected that you will be honest in all endeavors related to the completion of this course, just as you must be in all activities at work.

The definition of academic misconduct that is provided in the *Hocking College Student Guide* applies to this course and all other courses that you are taking at the College. It is a Code I Offense:

- A. **Academic Misconduct** refers to dishonesty in examination (cheating); presenting the ideas or writing of someone else as one's own (plagiarism); knowingly furnishing false information to the college by forgery, alteration, or misuse of college documents, records or identification. Academic dishonesty includes but is not limited to:

1. Permitting another student to plagiarize or cheat from your work,
2. Submitting an academic exercise, written work, project, or computer program that has been prepared totally or in part by another,
3. Improperly acquiring knowledge of the contents of an exam,
4. Using unauthorized material during an exam,
5. Submitting the same paper in two different courses without knowledge and consent of all faculty members involved,
6. Obtaining academic material through stealing or other unauthorized means,
7. Falsification of research findings and methodology.

Academic Misconduct is unacceptable behavior in all Hocking College courses. A student observed or found to be engaged in academic misconduct on a test or assignment in this course will receive A GRADE OF ZERO FOR THAT WORK. A written report of the incident, signed by the instructor and the student, will be submitted to the Campus Judiciaries Office. Should a second incident of cheating occur in any course, the student will again be referred to the Campus Judiciaries Office, and if the incident is in the same course the student will RECEIVE A FAILING GRADE FOR THE COURSE.

Further information pertaining to Academic Misconduct can be found by contacting the Office of Campus Judiciaries, Oakley 210, or by referring to the *Student Guide* found on the Hocking College website ([www.hocking.edu](http://www.hocking.edu)).

**9. ACADEMIC GRADE APPEAL PROCESS (Required language – must be included as is)**

Academic grade appeals consist of complaints from students concerning final grades given. The Appeals Process is available only for final grades not for an individually graded assignment. When a student believes that his or her academic performance has been unfairly or improperly graded, the first recourse will be communication with the faculty member in an attempt to resolve the complaint. Grade appeals will be considered only if grading was based on something other than performance, if different standards were used for different students, or if the grading was a departure from the instructor's previously stated final grade calculations. If the informal attempt at resolving the complaint between student and faculty is unsuccessful, a formal appeal will begin. A student appeal of a final grade must be formally initiated within one term of the grade being posted. Students should understand that the burden of proof will be theirs to demonstrate. The steps for the grade appeal process are available in each academic unit office and online in the current Student Code of Conduct found under the current student link on the Hocking College website.

**10. STUDENT GRIEVANCE DUE PROCESS PROCEDURES (Required language – must be included as is)**

Due process procedures for the College are located in the current *Student Code of Conduct* listed as Hocking College Student Grievance Procedures available online under the current student link on the Hocking College website.

**11. DISABILITIES NOTICE (Required language – must be included as is)**

If you have been diagnosed with a disability that impacts your academic success, please immediately contact the Access Center, Office of Disability Services in JL 249 regarding accommodations.

