



# BROWARD COMMUNITY COLLEGE COURSE OUTLINE

**LAST REVIEW: 2008-09**  
*(i.e. 2003-2004)*

**NEXT REVIEW: 2013-14**  
*(i.e. 2008-2009)*

**STATUS: A**  
*(A, I, D)*

**COURSE TITLE: Pharmacology for Medical Assisting**

**COMMON COURSE NUMBER: MEA 0242**

**CREDIT HOURS:**

**CONTACT HOUR BREAKDOWN**

*(per 16 week term)*

**CLOCK HOURS: 64**  
*(Voc. Course ONLY)*

Lecture: **64**      Lab:  
Clinic:              Other:

**PREREQUISITE(S): Program Admission**

**COREQUISITE(S): All courses in Term II**

**PRE/COREQUISITE(S):**

**COURSE DESCRIPTION:** Provides a basic course in medications with stress placed on sources, classifications, administration, dosages, contraindications and side effect

General Education Requirements – Associate of Arts Degree (AA), meets Area(s):      Area

General Education Requirements – Associate in Science Degree (AS), meets Area(s):      Area

General Education Requirements – Associate in Applied Science Degree (AAS), meets Area(s):      Area

## UNIT TITLES

1. Consumer Safety & Drug Regulations
2. Drug Names & References
3. Sources & Bodily Effects on Drugs
4. Safe Dosage Preparations
5. Responsibilities & Principles of Drug Administration
6. Poison Control
7. Vitamins, Minerals & Herbs
8. Administration by  
    Gastrointestinal Route  
    Parenteral Route
9. Skin Medications
10. Autonomic Nervous System Drugs
11. Urinary and Gastrointestinal Drugs
12. Gastrointestinal Drugs
13. Anti-Infective drugs
14. Eye Medications
15. Analgesics, Sedatives and Hypnotics
16. Psychotropic Medications, Alcohol & Drug Abuse
17. Musculoskeletal & Anti-Inflammatory Drugs
18. Anticonvulsants & Antiparkinsonian Drugs
19. Endocrine Drugs
20. Reproductive Drugs
21. Cardiovascular Drugs
22. Respiratory and Drugs for Older Adults



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## EVALUATION:

Please provide a brief description (Students will be assessed using unit examinations and assignments. that details how students will be assessed on the course outcomes.

Students will be assessed using unit examinations, assignments and projects.

*\*\*\* Complete the following only if course is seeking general education status \*\*\**

## GENERAL EDUCATION Competencies and Skills \*:

Please highlight in green font all Competencies/Skills from the list below that apply to this course. In the box to the right of the Competency/Skill, enter all specific learning outcome numbers (i.e. 1.1, 2.7, 5.12) that apply.

<b>1. Read with critical comprehension</b>	
<b>2. Speak and listen effectively</b>	
<b>3. Write clearly and coherently</b>	
<b>4. Think creatively, logically, critically, and reflectively</b> (analyze, synthesize, apply, and evaluate)	
<b>5. Demonstrate and apply literacy in its various forms:</b> (highlight in green ALL that apply) ( 1. technological, 2. informational, 3. mathematical, 4. scientific, 5. cultural, 6. historical, 7. aesthetic and/or 8. environmental )	
<b>6. Apply problem solving techniques to real-world experiences</b>	
<b>7. Apply methods of scientific inquiry</b>	
<b>8. Demonstrate an understanding of the physical and biological environment and how it is impacted by human beings</b>	
<b>9. Demonstrate an understanding of and appreciation for human diversities and commonalities</b>	
<b>10. Collaborate with others to achieve common goals.</b>	
<b>11. Research, synthesize and produce original work</b>	
<b>12. Practice ethical behavior</b>	
<b>13. Demonstrate self-direction and self motivation</b>	
<b>14. Assume responsibility for and understand the impact of personal behaviors on self and society</b>	
<b>15. Contribute to the welfare of the community</b>	

*\* General Education Competencies and Skills endorsed by '05-'06 General Education Task Force*



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Common Course Number: MEA 0242

## UNITS

### Unit 1 Consumer Safety & Drug Regulations

#### General Outcome:

- 1.0 The student shall: be able to describe the appropriate drug laws and consumer safety regulations.

#### Specific Measurable Learning Outcomes:

Upon successful completion of this unit, the student shall be able to:

- 1.1 Explain what is meant by drug standards.
- 1.2 State the first drug law passed in the US for consumer safety.
- 1.3 Summarize the provisions of the Federal Food, Drug, and Cosmetic Act of 1938.
- 1.4 Identify the government agency that enforces drug laws.
- 1.5 Interpret what is meant by USP/NF.
- 1.6 Summarize the provisions of the Controlled Substances Act of 1970.
- 1.7 Explain what is meant by a DEA number.
- 1.8 Define schedules of controlled substances.
- 1.9 State the responsibilities involved in dispensing medications.
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- 1.11
- 1.12
- 1.13
- 1.14
- 1.15



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## Unit 2 Drug Names and References

### General Outcome:

- 2.0 The student shall: be able to define the terminology utilized for drug names and list sources used for drug reference.

### Specific Measurable Learning Outcomes:

Upon successful completion of this unit, the student shall be able to:

- 2.1 Define: pharmacology, classification, prototype, action, indication, adverse reaction, precautions, interactions, and contraindications.
- 2.2 Differentiate among the following drug names: generic name, official name, trade name, and chemical name.
- 2.3 Explain what is indicated by a # included in a drug trade name.
- 2.4 Explain the restrictions of drug sales.
- 2.5 List at least two drug references available today.
- 2.6 Identify the types of information listed on drug cards.
- 2.7 Describe the following side effects: ototoxicity, nephrotoxicity, tinnitus, and photosensitivity.
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- 2.15



**Common Course Number: MEA 0242**

**Unit 3 Sources & Bodily Effects of Drugs**

**General Outcome:**

- 3.0 The student shall: be able to describe the sources of drugs and their bodily effects.**

**Specific Measurable Learning Outcomes:**

**Upon successful completion of this unit, the student shall be able to:**

- 3.1** Identify the four sources of drugs.
- 3.2** Differentiate between drug actions and drug effects.
- 3.3** Describe the passage of drugs through the body.
- 3.4** Define: absorption, distribution, metabolism, and excretion.
- 3.5** Define: selective distribution, toxicity, placebo, synergism, potentiation, and antagonism.
- 3.6** List several variables that may affect the action of drugs.
- 3.7** Identify the fastest route of drug administration.
- 3.8** Describe undesirable drug effects.
- 3.9** Define: teratogenic effect, idiosyncrasy, tolerance, dependence, hypersensitivity, and anaphylactic reaction.
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- 3.11**
- 3.12**
- 3.13**
- 3.14**
- 3.15**



**Common Course Number: MEA 0242**

**Unit 4 Safe Dosage Preparations**

**General Outcome:**

- 4.0 The student shall: be able to describe and perform the proper procedures involved in safe drug dosage calculation.**

**Specific Measurable Learning Outcomes:**

**Upon successful completion of this unit, the student shall be able to:**

- 4.1** Identify the three steps involved for calculation of the dosage ordered when it differs from the dosage on hand.
- 4.2** Write and process formulas for the calculation of drug dosages.
- 4.3** Convert from one system of measurement to another using ratio and proportion.
- 4.4** Solve dosage problems using the basic calculation method.
- 4.5** Calculate safe dosages for infants and children.
- 4.6** List the variables when assessing geriatric patients for safe dosage.
- 4.7** List the steps to take to reduce medication errors.
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**Common Course Number: MEA 0242**

**Unit 5 Responsibilities & Principles of Drug Administration**

**General Outcome:**

- 5.0 The student shall: be able to describe the responsibilities and principles of drug administration**

**Specific Measurable Learning Outcomes:**

**Upon successful completion of this unit, the student shall be able to:**

- 5.1** Describe four responsibilities of the health care provider in safe administration of medications.
- 5.2** List the seven rights of medication administration.
- 5.3** Explain moral, ethical, and legal responsibilities regarding medication errors.
- 5.4** Cite three instances of medication administration that require documentation.
- 5.5** Explain the rights of health care workers to question or refuse to administer drugs.
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# BROWARD COMMUNITY COLLEGE COURSE OUTLINE

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## Unit 6 Poison Control

### General Outcome:

- 6.0 The student shall: be able to describe the procedure involved for effective poison control.**

### Specific Measurable Learning Outcomes:

**Upon successful completion of this unit, the student shall be able to:**

- 6.1 Define: poison, overdose, emetic, antidote, and ingestion.
- 6.2 Identify four routes by which poisons may be taken into the body.
- 6.3 List five conditions in which an emetic would be contraindicated.
- 6.4 Explain the purpose of activated charcoal.
- 6.5 Name three clinical procedures required when caring for patients who have been poisoned.
- 6.6 Describe the appropriate therapy used for poisoning by inhalation, insect sting, snakebite, and external poisoning.
- 6.7 Identify two groups of people at risk for poisoning.
- 6.8 List ten recommendations for patient education to help prevent poisoning.

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**Common Course Number: MEA 0242**

**Unit 7 Vitamins, Minerals & Herbs**

**General Outcome:**

- 7.0 The student shall: be able to describe the various types of vitamins, minerals and herbs, their uses, side effects, and contraindications.**

**Specific Measurable Learning Outcomes:**

**Upon successful completion of this unit, the student shall be able to:**

- 7.1** Categorize vitamins as water or fat-soluble.
- 7.2** Identify the sources of vitamins, their functions, and signs of deficiency.
- 7.3** Identify vitamins by their name and letter.
- 7.4** Identify the sources of minerals, their functions, and signs of deficiency.
- 7.5** Identify the chemical symbol for each mineral.
- 7.6** Describe conditions that may require vitamin and/or mineral supplements.
- 7.7** Explain the use of antioxidants in nutrition therapy.
- 7.8** Describe why and how consumers should be more vigilant in the use of herbal products.
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**Common Course Number: MEA 0242**

**Unit 8 Administration by Gastrointestinal & Parenteral Routes**

**General Outcome:**

- 8.0 The student shall: be able to describe the responsibilities of the Medical Assistant in safe administration of medications via the gastrointestinal and parenteral routes**

**Specific Measurable Learning Outcomes:**

**Upon successful completion of this unit, the student shall be able to:**

- 8.1** Describe the advantages and disadvantages of administering medications orally, or rectally, and parenterally.
- 8.2** Explain appropriate action when patient is NPO, has dysphagia, refuses medication, vomits or has allergies.
- 8.3** List special precautions in preparation of timed-release capsules, enteric-coated tablets, and oral suspensions.
- 8.4** Explain measurement of liquid medications with cup or syringe.
- 8.5** Explain how to administered medications orally, and rectally.
- 8.6** Name four parenteral routes with systemic effects.
- 8.7** Explain
  
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Common Course Number: MEA 0242

## Unit 9 Skin Medications

### General Outcome:

- 9.0 The student shall: be able to describe the various types of skin medications, their uses, side effects, and contraindications

### Specific Measurable Learning Outcomes:

Upon successful completion of this unit, the student shall be able to:

- 9.1 Define: antipruritic, emollient, demulcent, keratolytic, antiseptic, disinfectant, bactericidal and bacteriostatic.
- 9.2 Describe the various application procedures for skin preparations.
- 9.3 Identify the side effects for the six major categories of skin medications.
- 9.4 Compare and contrast scabicides and pediculicides.
- 9.5 Explain the factors that influence the absorption of skin medications.
- 9.6 Describe the importance of patient education when using skin medications.
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**Common Course Number: MEA 0242**

**Unit 10 Autonomic Nervous System Drugs**

**General Outcome:**

**10.0 The student shall: be able to**

**Specific Measurable Learning Outcomes:**

**Upon successful completion of this unit, the student shall be able to:**

- 10.1 Define sympathomimetic and parasympathomimetic.**
- 10.2 Compare and contrast characteristics of the four categories of nervous system drugs.**
- 10.3 List the most frequently used nervous systems drugs.**
- 10.4 Describe the possible side effects of nervous system drugs.**
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**Common Course Number: MEA 0242**

**Unit 11 Urinary and Gastrointestinal Drugs**

**General Outcome:**

**11.0 The student shall: be able to describe the various types of urinary system drugs, their uses, side effects, and contraindications**

**Specific Measurable Learning Outcomes:**

**Upon successful completion of this unit, the student shall be able to:**

- 11.1 Compare and contrast the four types of diuretics.**
- 11.2 Define hypokalemia, hyperkalemia, calculus, diuretic and uricosuric.**
- 11.3 Identify the medications given for gout and their differences.**
- 11.4 Explain the role of certain antispasmodics used to reduce contractions of the urinary bladder.**
- 11.5 Identify the actions of phenazopyridine and bethanechol.**
- 11.6 Describe the importance of patient education when using urinary systems drugs.**
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# BROWARD COMMUNITY COLLEGE COURSE OUTLINE

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## Unit 12

### General Outcome:

12.0 The student shall:

### Specific Measurable Learning Outcomes:

Upon successful completion of this unit, the student shall be able to:

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# BROWARD COMMUNITY COLLEGE COURSE OUTLINE

**Common Course Number:**

## **Unit 13**

**General Outcome:**

**13.0 The student shall:**

**Specific Measurable Learning Outcomes:**

**Upon successful completion of this unit, the student shall be able to:**

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