### COURSE SYLLABUS

<table>
<thead>
<tr>
<th>Course Title:</th>
<th>Pharmacology</th>
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<tbody>
<tr>
<td>Department:</td>
<td>Biology, Chemistry, Allied Health</td>
</tr>
<tr>
<td>Curriculum:</td>
<td>Dental Hygiene</td>
</tr>
<tr>
<td>Date submitted:</td>
<td>March 2022 (AAC: 22-14)</td>
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#### Course Code:
- **DHY*264**

#### Course Type:
- **L/D**

#### Prerequisites:
- C in Dental Hygiene II Theory (DHY*239) and C in Dental Hygiene II Clinic (DHY*240)

#### Elective Type:
- **G**

#### Credit Hours:
- 3

#### Contact Hours:

<table>
<thead>
<tr>
<th>Developmental</th>
<th>No</th>
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<tbody>
<tr>
<td>Lecture</td>
<td>3</td>
</tr>
<tr>
<td>Clinical</td>
<td>0</td>
</tr>
<tr>
<td>Lab</td>
<td>0</td>
</tr>
<tr>
<td>Studio</td>
<td>0</td>
</tr>
<tr>
<td>Other</td>
<td>0</td>
</tr>
<tr>
<td>TOTAL</td>
<td>3</td>
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#### Class Maximum:
- 25

#### Semesters Offered:
- F/Su

### Catalog Course Description:
Acquaints dental hygiene students with medications used in modern dental practice. Focus is on various drugs, their modes of action, and their principle uses.

### Topical Outline:
1. Introduction to pharmacology
2. Drug action and handling
3. Drug interaction
4. Adverse reactions
5. Autonomic drugs
6. Nonopioid analgesics
7. Opioid analgesics
8. Anti-infective agents
9. Antimicrobial agents  
10. Anti-anxiety agents  
11. Psychotherapeutic agents  
12. Anticonvulsive agents  
13. General anesthesia  
14. Cardiovascular drugs  
15. Adrenocorticosteroids  
16. Antacids/Antihistamines  
17. Respiratory drugs  
18. Gastrointestinal drugs  
19. Emergency drugs  
20. Oral condition  
21. Hormones  
22. Anti-neoplastic drugs  
23. Vitamins and minerals  
24. Drug abuse

Upon successful completion of this course, the student will be able to do the following:

1. discuss the basic principles of pharmacodynamics and pharmacokinetics  
2. describe the drug schedule including abuse potential, handling and examples of drugs in each schedule  
3. explain the mechanism of drug interaction and the categories of adverse drug reactions  
4. explain the mechanisms of action, pharmacologic effect, adverse reactions, drug interactions, uses, precautions, and contraindication for each drug group; opioids, nonopioids, gastrointestinal drugs, cardiovascular drugs, adrenocorticosteroids, autacoids, antihistamines, anti-infectives, antimicrobials, anti-anxiety, psychotherapeutic, cholinergic, anti-cholinergic, adrenergic, adrenergic blocking, anticonvulsant, anti-neoplastic, and respiratory drugs  
5. explain the pharmacologic and pharmacokinetic effects of general anesthetics  
6. define the following terms: psychological and physical dependence, tolerance, withdrawal syndrome, and addiction  
7. describe the withdrawal symptoms and withdrawal treatment from opioid analgesic agents  
8. describe the dental clinician’s role in prevention and treatment of an opioid overdose  
9. discuss for each vitamin and mineral the major sources, function, recommended daily allowance, deficiency state, toxicity, and clinical considerations  
10. discuss female and male sex hormones, pancreatic hormones, pituitary, and thyroid hormones  
11. describe the drugs utilized in the treatment of necrotizing gingivitis, herpes labials, aphthous stomatitis, oral candidiasis, xerostomia  
12. list and describe the signs, symptoms, and drug/general treatment of each of the following emergency situations: syncope, angina pectoris, asthma, acute myocardial infarction, anaphylactic shock, convulsions, hypo and hyperglycemia, apnea, cardiac arrest  
13. Identify drug contents of dental emergency kits

PROGRAM: (Numbering reflects Program Outcomes as they appear in the college catalog)

DENTAL HYGIENE A.S. Degree
<table>
<thead>
<tr>
<th>Evaluation:</th>
<th>Assessment will be based on the following criteria:</th>
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<tbody>
<tr>
<td></td>
<td>Quizzes</td>
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<tr>
<td></td>
<td>Homework</td>
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<td>Exams</td>
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<tr>
<th>Instructional Resources:</th>
<th>Required: course management system</th>
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<tr>
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<td>Desired: None</td>
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| Textbook(s)             | Haveles, Elena, Applied Pharmacology for the Dental Hygienist, Latest edition |