Course Name: Applied Pharmacology
Course Coordinator: Dr. Wendy Gaudet
Course Number: DHYG 325
Number of Credits: 3

Target Audience: This is a core course intended for students in the Entry-to-Practice of the Dental Hygiene Degree Program.

Course Format: Classroom using Lecture, PBL and Case studies

Calendar Course Description:
Applied pharmacology concepts and principles for the dental health professional.

Program Course Description:
This course is designed to introduce students to the basic principles of pharmacology with some consideration of a drugs origin, physical and chemical properties, mode of administration and effects upon body systems. Case studies will be used to increase the student’s understanding of major drug groups, the pharmacologic effects, adverse reactions and interactions that influence a patient’s drug therapy relative to their oral health care. Students will develop sufficient knowledge to evaluate medication histories using the Dental Hygiene Process of Care Model to support safe and effective dental treatment.

Pre-requisites: successful completion of previous year.

Course Goals:
- Demonstrate a foundational understanding of general pharmacology principles and apply these principles to patient-focused case studies relevant to their oral health and dental interventions.
- Interpret a prescription and basic abbreviations used in writing a prescription.
- Identify the major adverse reactions and drug interactions of the most commonly used medications in Dentistry: autonomic drugs, analgesics, anti-infective agents, antifungal and antiviral agents, general anesthetics, and antianxiety agents.
• Access drug information to identify and assess new/unfamiliar agents pertinent to managing a patient’s oral health care.
• Identify the generic and major brand names of commonly prescribed therapeutic agents.
• Discuss the dental professional’s role in management of oral conditions related to a patient’s drug therapy.
• Discuss drugs that may alter daily dental practice: cardiovascular drugs, anticonvulsants, psychotherapeutic agents, autacoids and antihistamines, adrenocorticosteroids, other hormones, antineoplastic drugs, respiratory drugs, gastrointestinal drugs, antiparkinsons, bisphosphonates, and herbal and dietary supplements.
• Discuss drugs that may be useful in dental office emergencies.
• Describe management procedures of potential medical/dental emergencies that can occur as a result of a drug reaction or interaction.
• Recognize signs of drug use

Course Content:

This course will cover the following topics:
• Principles of Pharmacology
• Drug Actions, Reactions
• Anatomy of the Prescription
• Drug Information Sources
• Autonomic Drugs
• Pharmacological Management of Oral Conditions
• Analgesics
• Anti-infective Agents
• Antifungal, Antiviral Agents, HIV
• Anti-anxiety Agents
• Cardiovascular Drugs
• Anti-convulsants, Psychotherapeutic Agents, Autacoids and Antihistamines
• Adrenocorticosteroids, and other hormones
• Antineoplastic, Respiratory and Gastrointestinal Drugs
• Antiparkinson
• Bisphosphonates
• Herbal and Dietary Supplements
• General Anesthetics
• Local Anesthetics and Vasoconstrictors
• Drug Interactions
• Emergency Drugs, Medical Emergencies
• Pregnancy/Nursing
• Menopause/Osteoporosis
• Drug Use, Street Drugs and Oral Manifestations
Method of Student Assessment:

**UBC Dental Hygiene Competencies assessed include:**

| Professionalism | ✓ | Scientific Investigation |
| Health Promotion | ✓ | Communication | ✓ |
| Oral Health Education | ✓ | Collaboration | ✓ |
| Oral Disease Prevention | | Coordination | ✓ |
| Clinical Therapy | | Advocacy | ✓ |
| Critical Thinking | ✓ | Policy Use |
| Research Use | ✓ | Leadership |

*Foundational knowledge related to the process of dental hygiene care*

1. **Professionalism** (in all classroom and clinical environments) **Pass/ Fail**

   Professionalism must be passed as outlined in all of the following documents:

   - “Professional Standards for Learners and Faculty Members in the Faculties of Medicine and Dentistry at the University of British Columbia”, the “Code of Ethics”, (2015-16 UBC Faculty of Dentistry Academic Policies and Procedures, Undergraduate Programs (DMD, IDDCP, DHDP))
   [secure.dentistry.ubc.ca/intranet/academicpoliciesandprocedures](http://secure.dentistry.ubc.ca/intranet/academicpoliciesandprocedures)

   - The UBC “Student Declaration and Responsibility” statement
   [www.calendar.ubc.ca/vancouver/index.cfm?tree=3,285,0,0#15613](http://www.calendar.ubc.ca/vancouver/index.cfm?tree=3,285,0,0#15613)

2. **Knowledge** (Individual Work) **70%**

   Written Examinations:
   - Mid-term (30%)
   - Final examination (40%)
   - Formative assessment (0%)

3. **Abilities** (Teamwork) **30%**
Abilities & Clinical Therapy: communication, collaboration, critical thinking and research/investigation
  a. PBL Case study (written and oral)*

| Total | 100% |

*NOTE: You will be working collaboratively in teams to complete a course assessment. If there is evidence to suggest that an individual did not contribute substantively to a team project, the grade for that person may be less than the overall team grade.

Student Assessments include the following 3 components:
  Professionalism, Knowledge, and Abilities

Each component must be passed to successfully complete the course.
The passing grade in the Faculty of Dentistry is 60%.

Plagiarism

In order to support the academic integrity of the dental and dental hygiene programs by reducing opportunities for plagiarism and to ensure a level playing field for all students, faculty reserve the right to submit papers and grad theses to turnitin.com to confirm the originality of the material. Students may obtain more information on turnitin.com from the Office of the Provost and VP Academic. Plagiarism, which is the submission of someone else’s work as one’s own without acknowledging the source of the material, is considered to be both academic misconduct and unprofessional, and students who plagiarize will not only receive a grade of zero on the applicable assignment, and therefore the applicable Module or Course, they may be suspended from the University or subject to other academic discipline.

When completing written assignments, students are expected to review multiple sources of information and report their findings in their own words. It is the responsibility of students to familiarize themselves with what constitutes plagiarism and how to prevent it.

Suspected incidents of plagiarism will be referred immediately to the President’s Committee for Academic Misconduct. See the Policies and Regulations > Student Conduct and Discipline section of the UBC Calendar.

Resources:
http://learningcommons.ubc.ca/guide-to-academic-integrity/
http://vpacademic.ubc.ca/integrity/ubc-regulation-on-plagiarism/
http://www.lib.sfu.ca/help/tutorials/plagiarism-tutorial
http://okanagan.students.ubc.ca/calendar/index.cfm?tree=3,54,111,0.

Class Schedule: Please see OSCAR for class timetable.