

## DENTAL HYGIENE DEGREE PROGRAM

**Course Name:** Oral Microbiology and Immunology

**Course Coordinator:** Dr. Hossain Najar

**Course Number:** DHYG 405

**Number of Credits:** 3

**Target Audience:** This course is a core course for students in all admissions options of the Dental Hygiene Degree Program

**Course Format:** Online and classroom based, 4<sup>th</sup> Year, 1 term

### Calendar Course Description:

Microbiology and immunological concepts relevant for dental hygiene practice.

### Program Course Description:

This course is designed to increase understanding of microbiological and immunological concepts that are the scientific basis for understanding human responses in health and disease with a particular focus on oral health.

**Prerequisites:** Successful completion of previous year.

### Course Goals:

- To expand theoretical knowledge and understanding of the immune response.
- To facilitate integration of expanded knowledge of microbiology and immunology within the dental hygiene Process of Care.
- To provide opportunities to identify possible questions for future study.

### Learning Outcomes:

Upon completion of this course students will have an increased ability to:

- Explain the pathogenic properties and disease characteristics of microbes influencing oral health practice and important to oral health.
- Analyze our understanding of immunological recognition and its significance in the development of disease in humans.
- Explore human immunological responses in inflammation and immunity.
- Analyze the role of microorganisms in health and disease with an emphasis on their role in oral diseases.
- Analyze how theories of oral ecology have been shaped in the last two decades.
- Explore interventions for the control and destruction of microbes associated with oral diseases.
- Demonstrate professionalism by taking responsibility for learning, and making constructive contributions to the learning of others through course activities and projects

### Course Content:

- Bacterial metabolism
- Animal viruses
- Protozoa and fungi
- Virulence factors of microbes
- The innate immune response
- The adaptive immune response
- Pathogenic microbes in the dental environment
- Oral microbes in health and diseases
- The role of the immune response in periodontal diseases
- Transplantation immunology
- Tumor immunology

### 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	
<i>Foundational knowledge related to the process of dental hygiene care</i>			✓

**1. Professionalism** (all course related 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)

Instructor Assessment\*

**2. Knowledge:** **65%**

- Mid Term Examination (30%)
- Final Exam (Cumulative) (35%)

**3. Abilities:** **35%**

- Case development (Team work)\* (15%)
- PBL Case (Teamwork)\* (20%)

**Total** **100%**

**\*NOTE: You will be working collaboratively in teams to complete some course assessments. 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.