

# DENTAL - GRADUATE ORAL AND POPULATION HEALTH (GOPH)

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## **GOPH 5000 Epidemiology and Oral Health**

The online course "Epidemiology and Research Methods in Oral Health" offers a comprehensive learning experience, blending asynchronous interactive lectures with synchronous seminars. Designed as an introductory course, its primary goal is to provide students with a holistic understanding of essential epidemiological and population research methods. The course content encompasses various key aspects, including study design, study conduct, and specialized analysis per design.

1.5-3 Credit Hours

## **GOPH 5001 Biostatistics and Oral Health**

The online course "Biostatistics and Oral Health" comprises asynchronous interactive lectures complemented by synchronous seminars. Designed as an introductory course, its primary goal is to provide students with the fundamental knowledge and skills to design, conduct, and interpret statistical analyses in population research. The course content focuses on statistical methods from a frequentist approach, including numerical and graphical representation of data, probability and distributions, hypothesis testing, regression methods, and survival analysis.

1.5-3 Credit Hours

## **GOPH 5002 Community, Population, and Public Health: An Oral Health Lens**

This course will provide foundational knowledge in community, population, and public health in the context of oral healthcare. The course will focus on the determinants of health, understanding population health from the elements that define population health progressing to systems that affect health, and will help students develop a framework to understand evidence-informed policies.

1.5-3.5 Credit Hours

## **GOPH 5003 Bioethics in Oral and Population Health**

The online course "Bioethics in Oral and Population Health" uses asynchronous interactive lectures and synchronous seminars to equip students with the knowledge and skills required to address ethical considerations and challenges inherent in conducting research within diverse populations. This course provides students with a deep understanding of the ethical frameworks, principles, and practices that guide population research, fostering their ability to critically analyze and navigate complex ethical dilemmas.

1.5-3.5 Credit Hours

## **GOPH 5004 Essential Research Skills in Oral and Population Health: Seminar Series**

The online seminar series (asynchronous interactive lectures and synchronous seminars), "Essential Research Skills in Oral and Population Health: Seminar Series," is designed for aspiring health professionals and researchers in the field of oral and population health. The program aims to instill a comprehensive understanding of essential research skills, equipping students with complementary tools beyond health research methods. The series comprises five seminars: Scientific Writing, Grant Writing, Searching the Scientific Literature, Critical Thinking, and Introduction to Statistical Packages. By the end of the series, participants will have a solid foundation in research skills necessary for successful career progression in oral and population health.

0.5-3 Credit Hours

## **GOPH 5100 Systematic Reviews and Meta-analysis**

The online course (asynchronous interactive lectures and synchronous seminars) "systematic Reviews and Meta-analysis" is designed to provide participants with the knowledge and skills necessary to conduct comprehensive and rigorous systematic reviews in various fields. This course provides a deep understanding of the principles, methodologies, and practical techniques involved in conducting systematic reviews and meta-analyses. Participants will learn to formulate focused research questions, develop comprehensive search strategies, and systematically retrieve and assess relevant primary studies. They will gain proficiency in data extraction and analysis, including statistical techniques for meta-analysis. The course also covers methods for assessing the certainty of the evidence using the GRADE approach, and optimal protocol development and registration, and manuscript preparation.

1.5-3 Credit Hours

## **GOPH 5101 Health Economics and Oral Health**

The online course "Health Economic and Oral Health" explores the intersection of health economics and oral health, providing participants with a deep understanding of the economic principles and policies shaping oral healthcare systems. The course uses a combination of asynchronous interactive lectures and synchronous seminars. Through sessions covering foundational topics such as health economics introduction, health production, and demand/supply of healthcare, participants gain the knowledge to analyze the impact of economic factors on patient and provider behavior in oral health care. The course further delves into evaluating interventions, conducting economic evaluations, and assessing risk of bias in model-based economic evaluations specific to oral health. Participants will develop the skills to conduct systematic reviews of economic evaluations and explore strategies for workforce planning within the context of oral health.

1.5-3 Credit Hours

## **GOPH 5102 Methodology of Healthcare Guidelines**

The online course "Methods for healthcare guidelines" aims to provide students with the fundamental knowledge and practical skills to produce healthcare guidelines. Using asynchronous interactive lectures and synchronous seminars and role-play activities, students will learn about the role of guidelines in healthcare, their development process, critical appraisal skills, and stakeholder engagement. In addition, they will learn how to define clinical questions, design evidence synthesis strategies to inform the formulation of recommendations and apply the GRADE approach to assess the certainty of the evidence and move from the evidence to the decisions. By the end of the course, students will become familiar with key strategies for the dissemination, implementation, and evaluation of healthcare guidelines.

1.5-3 Credit Hours

**GOPH 5103 Vulnerable Populations and Oral Health**

The online course “Vulnerable Populations and Oral Health” uses a combination of asynchronous interactive lectures and synchronous seminars and aims to explore the unique oral health challenges faced by vulnerable populations. Students will gain a holistic understanding of how factors such as disease, socio-economic status, race, ethnicity, caste, age, gender, sexual orientation, and specific life circumstances impact oral health. Through this course, students will gain insights into conducting population-level research and the identification of oral healthcare strategies tailored to diverse needs.

1.5-3 Credit Hours

**GOPH 5104 Integrative Global Oral Health**

The online course “Integrative Global Oral Health” provides a synoptic view of global oral health, diving into topics like disease burden, care delivery systems, and major global health initiatives, policies, and the mission of key nongovernmental organizations and health care agencies. Through asynchronous interactive lectures and synchronous seminars, the course will address what are the needs of special populations, examine significant global oral health policies and reports, and connect oral health to larger issues like sustainable development goals and planetary health. This course is an essential journey for anyone committed to promoting oral health globally.

1.5-3 Credit Hours

**GOPH 5105 Planetary Health and Oral Health**

This innovative course provides a comprehensive understanding of the interconnectedness between planetary health and oral health. Engaging with global policies, stakeholder roles, conflict resolution, implementation strategies, and progress measurement, it equips learners to foster holistic health perspectives. Emphasizing leadership in the health sector, the course promotes advocacy and policy-making geared towards sustainable health outcomes at multiple levels.

1-3 Credit Hours

**GOPH 5106 The Aging Process and Oral Health**

The online course “The Aging Process and Oral Health” explores the intricacies of aging, health care, oral health, and population-based research. Through asynchronous interactive lectures and synchronous seminars, students will delve into the epidemiology of oral diseases in older people, the systemic consequences of poor oral health, preventive measures, and relevant policies. The course also covers the unique challenges frail and dependent populations face and ways to address them. The course provides students with the knowledge and skills to contribute meaningfully to oral health research and policy-making for older adult populations.

1.5-3 Credit Hours

**GOPH 5201 Thesis I**

Students will work on their thesis work, which is required to graduate.

8-11 Credit Hours

**GOPH 5202 Thesis II**

Students will work on their thesis work, which is required to graduate.

8-11 Credit Hours

**GOPH 5203 Thesis III**

Students will work on their thesis work, which is required to graduate.

8-11 Credit Hours

**GOPH 5204 Thesis IV**

Students will complete and defend their thesis work.

8-11 Credit Hours