

**MASTER OF SCIENCE IN GLOBAL CHILD HEALTH
(2020-2021 Catalog Addendum)**



CORE CURRICULUM

Term	Year	Course No.	Course	Credits
Fall	1	GCH8100	New Student Orientation	0
Fall	1	GCH8101	Principles of Biostatistics	3
Fall	1	GCH8111	Introduction to Epidemiology	3
Fall	1	GCH8121	Foundations of Global Health	3
			Fall	9
Spring	1	GCH8132	Research Methods in Global Health	3
Spring	1	GCH8142	Global Health Economics	3
Spring	1	GCH8152	Introduction to Health Systems	3
			Spring	9
Credits Earned Year 1				18
Fall	2	GCH8211	Political Economy of Global Child Health	3
Fall	2	GCH8221	Organizational Leadership and Health Communication	1.5
Fall	2	GCH8231	Thesis Seminar	1.5
			Fall	6
Spring	2	GCH8242	Strategic Management of Child Health	3
Spring	2	GCH8262	Child Health and Health Systems Innovation	1.5
Spring	2	GCH8282	Thesis Practicum	1.5
			Spring	6
Credits Earned Year 2				12
Thesis				
Masters Degree Awarded				30

COURSE DESCRIPTIONS

GCH8100 New Student Orientation

0 credits

The new student orientation course is designed to assist new students in their academic and social preparation for success in the graduate program. This course will assist in the completion of all materials, the student's adjustment to the St. Jude campus and resources, and the faculty members and their research.

GCH8101 Principles of Biostatistics

3 credits

The course is designed to provide students with a strong foundation in principles and methods of Biostatistics. It will assist students in developing the knowledge, skills and perspectives necessary to analyze data. Major topics include descriptive statistics, elements of probability, introduction to estimation and hypothesis testing, nonparametric methods, techniques for categorical data, regression analysis, analysis of variance, and elements of study design. Through lectures, virtual labs and group discussions, this course will focus on identifying data sets, refining research questions, univariate and bivariate analyses and presentation of initial results.

GCH8111 Introduction to Epidemiology

3 credits

The course will provide a basic understanding of the methods and tools used by epidemiologists to study the health of populations. The course will help the student understand that health is defined broadly, and the types of questions asked and answered by epidemiologists are infinitely varied. This happens as new health conditions arise (e.g., widespread gastro-intestinal illness), new methods are developed to better elucidate mechanisms by which disease occurs (e.g., enhanced genetic testing mechanisms), previous health conditions take on new importance (e.g., obesity, antibiotic resistant tuberculosis), or epidemiologic methods are applied to problems in the domain of other disciplines (e.g., violence prevention). This variety makes epidemiology an exciting and useful endeavor.

GCH8121 Foundations of Global Health

3 credits

This course is designed to equip students with an understanding of the foundational concepts, challenges and opportunities in global health and how they relate to child health. It will provide a global population health perspective on child health, childhood cancers and other catastrophic illnesses in children worldwide and discuss how complex social, political, economic, and biomedical factors inform our understanding of child health. The imperative for the students is to understand these factors individually and synergistically and leverage this understanding to set priorities, form policies and design interventions. The students will be able to identify areas of interest and knowledge gaps within the field of global child health that they can focus on through the program.

GCH8132 Research Methods in Global Health

3 credits

The course will provide a foundation in study design, research question development, field implementation, measurement, validity, and reliability. Quantitative, qualitative and mixed methods research approaches will be examined. Students will build critical skills in designing

studies and conducting, interpreting and synthesizing research and scientific literature. It will focus on statistical principles as well as the applied skills necessary to answer questions using data, including data acquisition, data analysis, data interpretation and the presentation of results. The selection of appropriate measurements and survey development will be emphasized.

GCH8142 Health Economics

3 credits

The course will provide an overview of the relevance of microeconomic theories and basic concepts in macroeconomics to global health. It will describe how economists view health and how markets for health and health services differ from other goods. The course will discuss the theoretical and empirical aspects of key health economics issues, including the demand for health and health services, supply side concerns, health insurance, the provision of public goods, and related topics. The course will help understand and apply key economic concepts including efficiency, asymmetric information, agency, moral hazard, and adverse selection to real world problems for child health leaders.

GCH8152 Introduction to Health Systems

3 credits

The course will introduce how health systems science can be applied to drive evidence-based and sustainable improvements in global health and quality care. Course materials will present core concepts and conceptual frameworks used to describe health systems and systems strengthening, illustrate when and how policy analysis and systems thinking can be incorporated for maximal impact, and introduce principles and applications of health systems and policy research. Students will have the opportunity to consider how health systems science can inform policy and priority-setting. Applying systems thinking, students will articulate a local or regional health systems challenge impacting child health, and design and communicate potential strategies to address this challenge considering key stakeholders and the systems context.

GCH8211 Political Economy of Global Child Health

3 credits

The course presents theoretical and historical approaches, empirical cases, and research issues in political economy of global health, that influence health of children. It will help students examine the role and interaction of different stakeholders and provide tools to perform stakeholder analysis. The course also provides strategic skills and lessons for future leaders to influence the health policy process and how that is shaped by interest groups, media, public opinion, coalition building, policy legacies, institutions and the politics of information. Students will learn to examine the implications for children with childhood cancers and other catastrophic diseases and how political economy can inform strategies moving forward.

GCH8221 Organizational Leadership and Health Communication

1.5 credits

The course is designed to provide the knowledge, skills and mindset, applied to create organizational change and systemic transformation with the explicit goal of improving child health. It underscores importance of systems thinking as an effective approach to understand complex adaptive systems and build effective organizations and teams that will drive

productive behavior, leading to a more effective realization of the individual and organizational purpose. The course integrates critical thinking and multidisciplinary approaches including evidence-based health communication strategies to inform and influence decisions and actions to improve child health.

The course builds on the leadership and communication training imparted in the non-credit bearing workshops and seminars in the intersessions.

GCH8231 Thesis Seminar

1.5 credits

The Thesis Seminar is offered in the fall semester of the second year of the program. It is designed to assist students in synthesizing competencies, skills and knowledge acquired in the MSc Program and comprehensively apply to real world challenges. The course will equip students with guidelines and administrative processes necessary to develop and execute their theses. The goal of the Thesis Seminar is for participants to hone the skills and judgments necessary to identify significant and empirically feasible research questions, develop appropriate research/project designs to address those questions, complete independent research to bring evidence to bear on those questions, and write-up the research/project proposal under the supervision of the Thesis Committee selected by each student. The instructors will discuss in detail each master thesis/project idea in order to identify possibilities for improvement and fine-tuning. The seminar will also foster collaboration and mutual support among the students.

GCH8242 Strategic Management of Child Health

3 credits

The course will provide an overview of key concepts and tools in strategic planning and management that students will be able to draw upon throughout their careers. Topics will include competitive analysis, organizational culture, formulation and implementation of strategies, and strategic measurement and management of organizational performance. Students will learn strategies to lead and manage change while scaling up and handling disruptions. The course will include cases that will represent a diverse cross-section of health care organizations, ranging from academic medical centers to government-owned hospitals, as well as ministries of health to non-governmental organizations (NGOs) to private health care corporations, both US and global organizations that provide child health care.

GCH8262 Child Health and Health Systems Innovation

1.5 credits

The course will discuss the importance of innovation in health systems strengthening and new ways of thinking and organizing people, processes, and resources to make this happen. The focus will not be limited to new medicines, diagnostics, health technologies or product innovation and will extend to new ideas, practices, institutional arrangements health policies, systems and delivery methods that improve efficiency, effectiveness, quality, sustainability, safety and/or affordability within the health systems context. Students will learn how combining technological innovations with other innovations in health systems (such as innovative approaches to governance, financing, service delivery, awareness creation and health seeking behavior changes) enables effective adoption of innovations for enhancement of

child health and specifically to treatment and care of childhood cancers and other catastrophic illnesses.

GCH8282 Thesis Practicum

1.5 credits

The Thesis Practicum is offered in the Spring Semester of the second year of the program. In the course, the students will apply the theoretical concepts and methods and build on the conceptual framework developed in the Thesis Seminar in the Fall Semester. The course is designed to equip the students with skills and tools for planning and managing their projects around the core idea/topic related to child health that they intend to address. Students will conduct background research and apply analytical thinking to inform their approach, implementation strategy and project plans. They will conduct a thorough stakeholder analysis and complete the project plan necessary to execute their thesis and postgraduate Capstone, under the supervision of individual Thesis Advisory Committees and guidance from instructors. They will continue to advance professional skills and knowledge from others including practicum instructors, experienced practitioners, and other students.