BIOSTATISTICS - M.P.H.

College of Public Health and Health Sciences
www.kent.edu/publichealth

About This Program

Explore Kent State University's STEM-designated Master of Public Health program in Biostatistics, designed to equip students with the statistical tools necessary for advancing public health research and policy. Dive into the intricacies of data analysis, epidemiology and research methodology, empowering you to make meaningful contributions to improving community health outcomes. Read more...

Contact Information

- **Lynette Phillips** | lphill20@kent.edu | 330-672-6324
- Connect with an Admissions Counselor

Program Delivery

- **Delivery:**
  - Mostly online
  - In person
- **Location:**
  - Kent Campus

Examples of Possible Careers and Salaries*

Statisticians

- 34.6% much faster than the average
- 42,700 number of jobs
- $92,270 potential earnings

Accreditation

The M.P.H. degree in Biostatistics is accredited by the Council on Education for Public Health (CEPH).

* Source of occupation titles and labor data comes from the U.S. Bureau of Labor Statistics' Occupational Outlook Handbook. Data comprises projected percent change in employment over the next 10 years; nation-wide employment numbers; and the yearly median wage at which half of the workers in the occupation earned more than that amount and half earned less.

For more information about graduate admissions, visit the graduate admission website. For more information on international admissions, visit the international admission website.

Admission Requirements

- Bachelor's degree from an accredited college or university
- Minimum 3.000 undergraduate GPA on a 4.000-point scale
- Official transcript(s)
- Goal statement
- Résumé
- Two letters of recommendation
- English Language Proficiency - all international students must provide proof of English language proficiency (unless they meet specific exceptions to waive) by earning one of the following:[1]
  - Minimum 79 TOEFL iBT score
  - Minimum 6.5 IELTS score
  - Minimum 58 PTE score
  - Minimum 110 DET score

[1] International applicants who do not meet the above test scores will not be considered for admission.

Application Deadlines

- **Fall Semester**
  - Priority deadline: March 15 (international student)
    All application materials (including applicable fee, transcripts, recommendation letters, etc.) submitted by this deadline will receive the strongest consideration for admission.
  - Rolling admissions (domestic student)
- **Spring Semester**
  - Priority deadline: August 15 (international student)
    All application materials (including applicable fee, transcripts, recommendation letters, etc.) submitted by this deadline will receive the strongest consideration for admission.
  - Rolling admissions (domestic student)
- **Summer Term**
  - Rolling admissions (domestic student)

Program Requirements

Major Requirements

Code	Title	Credit Hours
Major Requirements		
BST 62019	BIOSTATISTICS IN PUBLIC HEALTH	3
BST 63012	SURVIVAL ANALYSIS IN PUBLIC HEALTH	3
BST 63013	EXPERIMENTAL DESIGNS IN PUBLIC HEALTH RESEARCH	3
BST 63014	APPLIED REGRESSION ANALYSIS OF PUBLIC HEALTH DATA	3
EHS 62018	ENVIRONMENTAL HEALTH CONCEPTS IN PUBLIC HEALTH	3
EPI 62017	FUNDAMENTALS OF PUBLIC HEALTH EPIDEMIOLOGY	3
EPI 63016	PRINCIPLES OF EPIDEMIOLOGIC RESEARCH	3
EPI 63034	LONGITUDINAL DATA ANALYSIS	3
HPM 62016	PUBLIC HEALTH ADMINISTRATION	3
HPM 63020	COMMUNITY HEALTH NEEDS ASSESSMENT	3
SBS 64634	SOCIAL DETERMINANTS OF HEALTH BEHAVIORS	3
Major Electives, choose from the following: [1]		6
BST 60010	USING R IN PUBLIC HEALTH	
BST 60011	USING SAS IN PUBLIC HEALTH	
BST 60012	USING EXCEL IN PUBLIC HEALTH	
BST 62020	DATA MANAGEMENT AND LOGIC USING SAS® SOFTWARE	
EPI 50017	PHARMACOEPIDEMIOLOGY	

EPI 50018	REGULATORY AFFAIRS IN CLINICAL RESEARCH	
EPI 63014	EPIDEMIOLOGY OF CHRONIC DISEASES	
EPI 63015	EPIDEMIOLOGY OF INFECTIOUS DISEASES	
EPI 63019	EXPERIMENTAL DESIGNS FOR CLINICAL RESEARCH	
EPI 63020	ADVANCED EPIDEMIOLOGY AND CLINICAL RESEARCH METHODS	
Any graduate course (50000 level or higher) with advisor approval		
Culminating Requirement		
BST 60192	APPLIED PRACTICE EXPERIENCE IN BIOSTATISTICS [2]	2
PH 61199	INTEGRATIVE LEARNING EXPERIENCE	1
Minimum Total Credit Hours:		**42**

[1] Students must consult with their advisor prior to registering for an online elective course.

[2] It is expected that students enrolled in BST 60192 who do not complete the course in one term will continuously register for BST 60292 each semester, until all requirements have been met. Credit hours for BST 60292 do not apply to the minimum 42 credit hours for the degree.

Graduation Requirements

Minimum Major GPA	Minimum Overall GPA
-	3.000

- Applied practice experience placement at an approved public health agency under the guidance of a qualified preceptor (150 or 300 contact hours).
- Final portfolio/report and a presentation integrating theory and practice.
- Participation in at least one approved interprofessional education event (IPE); IPE requires students to participate at a specific time/date to be determined in consultation with the student's advisor.
- No more than one-half of a graduate student's coursework may be taken in 50000-level courses.
- Grades below C are not counted toward completion of requirements for the degree.

Program Learning Outcomes

Graduates of this program will be able to:

Evidence-based Approaches to Public Health

1. Apply epidemiological methods to the breadth of settings and situations in public health practice.
2. Select quantitative and qualitative data collection methods appropriate for a given public health context.
3. Analyze quantitative and qualitative data using biostatistics, informatics, computer-based programming and software, as appropriate.
4. Interpret results of data analysis for public health research, policy or practice.

Public Health and Health Care Systems

1. Compare the organization, structure and function of health care, public health and regulatory systems across national and international settings.
2. Discuss the means by which structural bias, social inequities and racism undermine health and create challenges to achieving health equity at organizational, community and societal levels.

Planning and Management to Promote Health

1. Assess population needs, assets and capacities that affect communities' health.
2. Apply awareness of cultural values and practices to the design or implementation of public health policies or programs.
3. Design a population-based policy, program, project or intervention.
4. Explain basic principles and tools of budget and resource management. Select methods to evaluate public health programs.

Policy in Public Health

1. Discuss multiple dimensions of the policy-making process, including the roles of ethics and evidence.
2. Propose strategies to identify stakeholders and build coalitions and partnerships for influencing public health outcomes.
3. Advocate for political, social or economic policies and programs that will improve health in diverse populations.
4. Evaluate policies for their impact on public health and health equity.

Leadership

1. Apply principles of leadership, governance and management, which include creating a vision, empowering others, fostering collaboration and guiding decision making.
2. Apply negotiation and mediation skills to address organizational or community challenges.

Communication

1. Select communication strategies for different audiences and sectors.
2. Communicate audience-appropriate public health content, both in writing and through oral presentation.
3. Describe the importance of cultural competence in communicating public health content.

Interprofessional Practice

1. Perform effectively on interprofessional teams.

Systems Thinking

1. Apply systems thinking tools to a public health issue.

Full Description

The Master of Public Health degree in Biostatistics prepares students in the quantitative science of health data collection, storage, retrieval, analysis and interpretation. Graduates are equipped to use statistical methods to design and analyze health-related surveys and experiments for improving health. The college's faculty research interests include applying biostatistical analysis to understand critical health problems.

Graduates in biostatistics are in demand at hospitals, pharmaceutical companies, state and local health departments, federal health agencies and biotechnology companies to analyze the effectiveness of new drugs and interventions, identify risk factors for disease and develop effective prevention strategies.