

WSU Curriculum Proposal Form – New Requirement

General Information

RO Intake Number	1056
Working Name	Healthcare Statistics Graduate Certificate
Date Submitted	03/03/26
CSC Number	
Status	College Approved
Department	Department of Nursing and Systems Science
Dept Chair Email	marian.wilson@wsu.edu
Dean Email	anne.mason@wsu.edu
New Requirement Type	Add GRADUATE Certificate

Program Information

Certificate Title	Healthcare Statistics
Program (Grad Degree)	
Plan Title (Optional)	
CIP Code	26.1102
Campus	Everett, Global, Pullman, Spokane, Tri Cities, Vancouver
Effective Date	Fall 2027
Catalog Copy	

Contacts and Approvals

Dept POC	Marian Wilson
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Dept Chair Approval	Submitted
Chair Date	03/03/26
Dept Dean Approval	Approved
Dean Date	03/03/26
CSC Approved	
Community Review Complete	
Committee Approved	
Faculty Senate Approved	

Healthcare Statistics Certificate

Washington State University

College of Nursing

Washington State University College of Nursing will be offering a healthcare statistics certificate that provides doctoral level statistical education. The series of courses are intended for graduate-level students or community-based health researchers who are seeking rigorous statistical instruction to support their research. Students should have already had a basic undergraduate level statistics course prior to joining this series of courses.

Certificate Rationale: We do not anticipate any impact on faculty responsibilities or workloads due to the three courses making up the proposed Healthcare Statistics Certificate already existing as core courses for the Nursing PhD Program. The creation of this certificate has been reviewed and approved by the faculty within the Nursing Science and Systems Department. Our enrollment trends within the Nursing PhD Program have been approximately 4-5 students per cohort. We anticipate that offering this certificate outside the Nursing PhD Program will significantly increase enrolment numbers for the courses that make up the proposed Healthcare Statistics Certificate. We anticipate high program demand for this certificate, including all of our PhD cohort in Nursing, as well as any other Healthcare related field. We will notify current and prospective students, faculty, and staff via WSU wide email, social media, newsletters, and other targeted WSU marketing techniques.

Certificate Details: This is a three-course certificate made up of three separate but complementary statistics courses, delivered by Washington State University College of Nursing faculty with expertise in biostatistics for the health sciences.

Mode of teaching: Online teaching. Access to course materials through Canvas learning platform.

Courses Schedule/Dates:

- Fall semester, offered every 2 years – NURS_SCI 526
- Fall semester, offered every 2 years – NURS_SCI 528
- Spring semester annually – NURS_ADV 554
- Office hours available

526 (Analytical Foundations): Taught by Marian Wilson

This course must precede 528. Explores fundamental knowledge of statistical principles and commonly used univariate and bivariate analyses in health and behavioral sciences. Topics include levels of measurement, reliability and validity, basic research design, descriptive statistics, sampling distribution, parameter estimation, hypothesis testing, t-tests, one-way ANOVA, non-parametric tests, correlation, simple regression, and power and effect size.

This course also provides students the opportunity to learn basic data entry and management skills. SPSS will be used for course work.

528 (Multivariate Statistics): Taught by Lois James

This course must be taken after 526. Focuses on conceptual and methodological issues involved in the analysis of quantitative survey and clinical data using multivariate statistics, including linear and logistic regression, more sophisticated ANOVA models, general linear models, and mixed or multilevel models. Specific topics include factorial analysis of variance, analysis of covariance, multiple regression, logistic regression, and multilevel modeling. SPSS will be used for course work.

554 (Epidemiology and Biostatistics for Health Professions): Taught by Denise Smart

This course can be taken anywhere in the series. Teaches students how to understand, apply, and interpret epidemiological data and statistical concepts relevant to nursing and other health fields. Focused in evidence-based practice, the course develops skills to critically appraise research and apply findings to clinical decisions. The course covers ethical issues in healthcare research, including health equity, social determinants of health (SDOH), and global health. Major analytic topics include analysis of longitudinal data and biometric analyses such as principal components analysis and factor analysis. Relationships between design and analysis, assumptions and limitations of modeling approaches, and strategies to maintain scientific integrity are discussed. Microsoft Excel will be used for course work.

Students will receive a certificate for the completion of these three courses.

Course cost TBD

Please apply for this program by emailing the following information by **(date TBD)** to (point of contact TBD)

Name
Role (PhD student, faculty)
Affiliation
Brief description of current/planned program of research
List of statistical courses previous taken

Please email any questions to (point of contact TBD)