

Executive Summary: MS in Precision Health

Precision health represents a fundamental shift in healthcare delivery—leveraging genomics, data science, and digital health tools to move beyond one-size-fits-all approaches toward targeted, personalized patient care. The proposed MS in Precision Health positions Northeastern as an early leader in this rapidly evolving field, where few graduate programs currently exist in the United States.

Program Overview

The 31-33 credit degree prepares students from diverse backgrounds to work across the precision health landscape. Through a flexible core curriculum covering health sciences, data and technology, and business fundamentals, students build interdisciplinary fluency before specializing in one of three concentrations: Bioinformatics, Clinical Research & Translation, or Public Health Innovation. The program culminates in a capstone project, with optional co-op placement. Two additional concentrations (Business & Commercialization, Precision Diagnostics) are recommended for integration shortly after launch.

Market Opportunity

The precision health industry is experiencing substantial growth and investment. Major pharmaceutical companies have committed billions to build integrated precision medicine capabilities—Roche alone has invested over \$6 billion in strategic acquisitions to create comprehensive patient data ecosystems. Federal data shows that roughly one-third of FDA-approved new molecular entities in 2023 were precision medicines, signaling mainstream adoption.

Labor market indicators are equally strong. Related occupations are projected to grow significantly through 2034, with data scientists (34% growth) and medical and health services managers (23% growth) among the fastest-growing fields. Educational completions in relevant CIP codes have grown 44% over four years, reflecting robust student demand. The program targets an average of 24 students in Year 1, growing to 103 by Year 5—projections that align with Bouvé's most successful new programs and comparable offerings like Johns Hopkins' MS in Individualized Genomics.

Strategic Alignment

The program advances Northeastern's strategic plan by erasing boundaries between disciplines, maximizing experiential learning through co-ops and capstone projects, and deepening industry engagement. The curriculum was validated through extensive stakeholder interviews with professionals across biotech, clinical research, medical devices, and public health. Target launch is Fall 2026.