



Rensselaer

why not change the world?®

Education for Working Professionals

Health Analytics Graduate Certificate

Today's health and sciences industries rely on data to facilitate clinical trials, optimize care, and evaluate therapies.

The rate of innovation in health industries requires leaders to quickly determine if a particular therapy is working or what factors impact efficacy, given overwhelming data from multiple sources. As a leader, you need data analytics to ensure proper interpretation and decisions. Rensselaer's Health Analytics Graduate Certificate prepares you to model operations accurately, differentiate true intelligence from "hunches", turn unknowns into knowns, and make the best use of data possible.

The Health Analytics Certificate consists of three courses:

- **ENGR 6200: Data-Driven Decision Making**

Frame questions and resolve problems using data wrangling tools; employ models using linear/nonlinear multivariate methodologies using R, Python and Excel; validate results and develop algorithms that can be used to make recommendations and forecasts; and work with stakeholders to scope and frame questions and problems for actionable results.

- **ENGR 6210: Health Industry Analysis**

Use visualization and cluster analysis to gain deeper insights into health industry relationships. Apply data analytics to real-world health care problems and questions, including resource scheduling, therapeutic effectiveness, population intervention studies, demographically-related health trends, and benchmark setting for standard of care dashboards. Students tune and adjust models as underlying assumptions change.

- **ENGR 6211: Modeling Health Decisions**

Working with a faculty member as mentor, develop a big data health industry inquiry model for an issue, question or problem of your choice. Over the semester, frame the question to be analyzed, collect and prepare data for analysis, perform the analysis and present actionable results and recommendations back to the organization.

Quick Facts

Begin the certificate in January, May, or August.

Certificate can be completed in 7 months or at a pace that suits you.

Each course is 3 credit hours and the certificate totals 9.

The certificate's blended online delivery reflects today's dynamic workplace.

Experienced practitioner faculty guide the completion of project work related to your career objectives.

The outcomes of your projects will highlight your expertise in business intelligence.

Work and learn with other professionals from a wide variety of industries in the certificate program.

Certificates can count towards the completion of graduate degrees designed for your specific needs.

Application details and important dates can be found at:
ewp.rpi.edu

You're invited to explore this and other Rensselaer graduate programs and certificates for working professionals. Please let us know your interest via email at ewp@rpi.edu or phone at 860.548.2403. You're also welcome to join Dean Aric Krause for an Informational Webinar of your choice. Find the webinar schedule at ewp.rpi.edu. We look forward to meeting you!