



# Rensselaer

why not change the world?®

Education for Working Professionals

## Production Analytics Graduate Certificate

**Global supply chains and logistics require data analytics expertise to achieve organizational performance.**

Today's cutting-edge organization simply can't survive without using intelligence generated data to constantly monitor and improve operations. As a leader, you need the power of data analytics to ensure you are making the right decisions. Rensselaer's Production Analytics Graduate Certificate prepares you to model the organization accurately, differentiate true intelligence from "hunches", turn unknowns into knowns, and make the best use of data possible.

**The Production 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 6205: Production and Logistic Analysis**

Use visualization and cluster analysis tools to gain deeper insights into production and logistic relationships. Apply data analytic processes to real-world production problems and questions, including evaluating production throughput, factor isolation and output risk analysis, model production changes, forecasting environmental control factor changes, and minimizing defects and shortages. Then, tune and adjust models as underlying assumptions change.

- **ENGR 6206: Modeling Production Decisions**

Working with an instructor as a mentor, develop a big data inquiry model for a production related 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](http://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](mailto: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](http://ewp.rpi.edu). We look forward to meeting you!