

ANLY - ANALYTICS

ANLY 601 Advanced Coding for Data Analytics

Credits 1 to 4. 1 to 4 Lecture Hours.

Advanced coding libraries used for data science; coding the data analysis pipeline; data munging, visualization, modeling, model validation and machine learning.

Prerequisite: Enrollment in Masters of Science in Analytics Program.

ANLY 605 Visualizing and Understanding Data with Modern Tools

Credits 1 to 4. 1 to 4 Lecture Hours.

Navigation and use of various features of modern tools; assessment of data quality and performance of diagnostic analysis; creation and design of visualizations and dashboards for target audiences; data-driven business decision-making based on concepts and models from statistics, econometrics and machine learning.

Prerequisite: Enrollment in Masters of Science in Analytics Program.

ANLY 608 Linear and Logistic Regression and Visualization

Credits 1 to 4. 1 to 4 Lecture Hours.

Application and validation of linear and logistic regression in machine learning; regression visualization; identification of outliers; identification of model shortcomings; missing value imputation; data transformations; making valid inferences and drawing business conclusions to recommend business actions on basis of fitted models.

Prerequisite: Enrollment in Masters of Science in Analytics Program.

ANLY 610 Deploying Enterprise Data Models and Building Optimization Models

Credits 1 to 4. 1 to 4 Lecture Hours.

Formulating and solving mathematical optimization models for business problems; modern methods to deploy and maintain models in production in complex existing infrastructures.

Prerequisite: Enrollment in Masters of Science in Analytics Program.

ANLY 615 Data Wrangling Tools and Techniques

Credits 1 to 4. 1 to 4 Lecture Hours.

Information processing and management involving applications and user orientation in a business environment using commercially available database management systems.

Prerequisite: Enrollment in Masters of Science in Analytics Program.

ANLY 620 Strategic Analytics

Credits 1 to 4. 1 to 4 Lecture Hours.

The role of analytics and analytical approaches in the broader organization from a senior management perspective; case-based approach to business strategy including external analysis, competitor analysis and opportunity analysis; strategic decisions including the introduction of new products or acquisition of another firm; data informed strategic decision-making process and implementation within organizations.

Prerequisite: Enrollment in Masters of Science in Analytics Program.

ANLY 626 Time Series, Machine Learning and Visualization

Credits 1 to 4. 1 to 4 Lecture Hours.

Integrating time series data into analytics and machine learning; visualization methods for temporal data in business and engineering; incorporating ARIMA modeling techniques into machine learning models; interpreting and validating time series models for recommending business and engineering recommendations and actions.

Prerequisite: Enrollment in Masters of Science in Analytics Program.

ANLY 630 Analytics for Financial Reporting

Credits 1 to 4. 1 to 4 Lecture Hours.

Collecting and synthesizing data from multiple sources, including financial documents; textual extraction and analysis; model building, accounting, financial analysis and presentation; understand and create earnings, including line item and cross-sectional models, fraud, bankruptcy, earnings manipulation and growth predictions; creating measures of earnings quality.

Prerequisite: Enrollment in Masters of Science in Analytics Program.

ANLY 656 Machine Learning and Advanced Analytics Applications

Credits 1 to 4. 1 to 4 Lecture Hours.

Introduction to machine learning concepts in analytics; data preprocessing and visualization; quality metrics in machine learning; construction, applications and validation of regression, decision tree, random forest, ensemble and text analytics; internet programming using Python.

Prerequisite: Enrollment in Masters of Science in Analytics Program.