

# DATA ANALYTICS (DAT)

# Course numbers with the # symbol included (e.g. #400) have not been taught in the last 3 years.

## DAT 510 - Introduction to Data Analytics

**Credits:** 4

Data analytics is defined as a scientific process that produces actionable insights. Students will be introduced to the concepts of data analysis, what the role of a data analyst will do, and the tools that are used to perform daily functions. This course will cover data analytics and data governance where students will learn about the fundamentals of data gathering, data mining, and how the decision-making process can be affected. This course also addresses the skills that are required to effectively communicate data to co-workers, leadership, and stakeholders. Excel proficiency is expected prior to enrollment in this course. Students should consider completing CMPL 402 Excel if they have not completed an Excel course in transfer.

**Equivalent(s):** DATA 510G

**Grade Mode:** Letter Grading

## DAT 535 - Data Mining, Cleaning, and Visualization

**Credits:** 4

This course will cover data mining, cleaning, and visualization preparation, including what data mining is and how it pertains to data analytics. Data cleaning and preparation for data analysis will also be covered. Students will have the opportunity to learn about data visualizations, which includes data modeling, mapping data attributes to graphical attributes, and using data visualization tools.

**Prerequisite(s):** DAT 510 with a minimum grade of D- or DATA 510G with a minimum grade of D-.

**Equivalent(s):** DATA 520G

**Grade Mode:** Letter Grading

## DAT 610 - Data Analytics and Technologies

**Credits:** 4

Students will have the opportunity to explore contemporary systems and technologies impacting the field of data analytics, including the cloud, AI, and machine learning. This course will also explore areas of technology that provide opportunities for future professional specialization, such as emerging Big Data technologies that support the work of data analysts, and the role of Information Technology (IT).

**Prerequisite(s):** DAT 535 with a minimum grade of D- or DATA 520G with a minimum grade of D-.

**Equivalent(s):** DATA 610G

**Grade Mode:** Letter Grading

## DAT 620 - Data Analytics in Business Intelligence

**Credits:** 4

This course will examine the role of data analysis through the lens of multiple business disciplines such as business, health care, and marketing. Students will have the opportunity to explore key areas in the analytical process, including how data are created, stored, and accessed. The course covers how businesses and organizations work with data to create environments in which analytics can drive effective and efficient decision making.

**Prerequisite(s):** DAT 610 with a minimum grade of D- or DATA 610G with a minimum grade of D-.

**Equivalent(s):** DATA 620G

**Grade Mode:** Letter Grading

## DAT 670 - Advanced Data Analytics

**Credits:** 4

Students will have the opportunity to explore more advanced data analytics methods such as collaborating on hypothesis testing and performing root cause analysis and practice presenting visualizations of data analysis that highlight the insights gained from analysis. The handling of imperfect data will also be covered.

**Prerequisite(s):** (DAT 620 with a minimum grade of D- or DATA 620G with a minimum grade of D-).

**Equivalent(s):** DATA 630G

**Grade Mode:** Letter Grading