CERTIFICATION IN THE PRACTICE OF DATA ANALYTICS

Data Analytics is a burgeoning field due to the exponential growth of information created with today’s sophisticated technologies. The Certification in Practice of Data Analytics (CPDA) offers working professionals the opportunity to acquire the knowledge and skills that support the management and use of big data. If you want to embark on this exciting career path or enhance the path you’re on, the CPDA is for you.

Upon successful completion of the certificate program, you will be able to:

- Collect, clean, model and report data as well as build data products
- Analyze data to support informed data driven decisions

ADVANTAGES OF THIS DATA ANALYTICS PROGRAM

Busy professionals find this program meets their professional goals while providing a flexible learning experience. As a student in the program, you’ll enjoy:

- A 100% distance learning format
- Being taught by top faculty from The Ohio State University’s College of Engineering and Department of Statistics
- Courses that focus on the most important and marketable components of data analytics
- The option to take standalone courses for targeted learning or complete four courses to earn the certification
- Certification can be achieved in less than one year or longer if necessary

WHAT YOU CAN EXPECT

The online delivery of the courses is composed of:

- Instructional material equivalent to a one semester credit hour class.
- All course lectures are recorded and available to you 24/7 through the university’s Learning Management System called Carmen.
- Course duration of approximately seven weeks. See course pages on the website for exact dates.
- 4 CEUs are granted upon successful completion of each course

COURSES

Introductory Statistics for Data Analytics

Introductory Statistics for Data Analytics includes a short discussion of where data comes from, data exploration, probability and random variables, the basics of statistical inference (e.g., sampling and inferring upon population parameters using statistics), testing statistical hypotheses and building confidence intervals, and an introduction to regression. Students will use the R software package in this course.

Data Mining

This course is an data mining fundamentals and algorithms. Students will develop an appreciation for data preparation and transformation, an understanding of the data requirements for the various algorithms and learn when it is appropriate to use which algorithm. Specific topics also include distance/similarity measurement, anomaly detection, and association, classification, clustering and pattern algorithms.

Applied Machine Learning

This course builds on the CPDA Data Mining course. Students will learn practical approaches to constructing scalable data pipelines for machine learning applications. Using various case studies, students will work through data ingestion, data pre-processing, and training and evaluating machine learning models on a variety of data types including tabular data, imagery/video, and natural languages (e.g., social media, literature, etc.).

Visual Analytics for Sensemaking

This course covers the information visualization techniques that help people analyze massive amounts of digital data to combat overload and aid sensemaking with applications in retail and financial decision making, logistics, information systems, manufacturing, health care, energy and smart grids, cybersecurity and social networks.

Course list continues on page two
**Pricing**

An early bird price of $675 per course is offered when you register approximately three weeks prior to the course start date.

**Register**

To register, visit: [go.osu.edu/dataanalyticssertificate](go.osu.edu/dataanalyticssertificate)

**Contact**

Professional and Distance Education Programs Office (PDEP)

Darla da Cruz, Program Coordinator

614-292-7153 | eng-profed-CPDA@osu.edu