eCornell

Data Analytics 360

Cornell Certificate Program

Overview

Enhance Business Performance with Data-Driven Insights

Data analytics is among today's fastest-growing and highest-paid professions, as organizations have begun to increasingly rely on data to drive strategic business decisions. Multiple studies across the globe project that demand for professionals with Data Analytics skills will continue to soar in the current decade.

Data Analytics 360 Cornell Certificate Program is designed to take your strategic decision making to the next level by expanding your analytical capabilities. The course will explore in detail the advanced techniques in prescriptive analytics like modelling and optimization. By enrolling into this course, you'll learn how prescriptive analytics enables you to not only forecast what will happen, but will also suggest actions for achieving predicted outcomes dependent upon the interdependent effects of multiple decisions. The course will follow an approach based on hands-on exercises and video instructions which will enable you to combine data visualization, prescriptive analytics, and predictive models to increase the accuracy of your predictions and make better, more agile business-related decisions.

Whether you're planning to enter the arena of analytics, starting out as an analyst or are a senior executive, this certificate course is designed to take your decision making to the next level by enhancing the functional literacy in critical business analytics. This course will also impart knowledge of scientific methods for data analysis and visualization and help you gain a 360 degree understanding of risk and probability, using statistical representations to optimize results for complex, and often simultaneous, business decisions.

What will you Learn 

- **Create Statistical Summaries & Data Visualizations**

Create and interpret statistical summaries and data visualizations that support understanding and guide decision making

- **Learn to Build Dashboards that Simplify Complex Business Situations**

Use data and key performance indicators to build a dashboard that uses visuals to improve your understanding of complex business situations

- **Use Statistical Methods to test Scientific Hypotheses**

Formulate a business question as a scientific hypothesis that can be tested using statistical methods

- **Create Regression Models to Predict Likely Outcomes**

Create and validate regression models that can be used to determine the effect of attributes on a decision and predict likely outcomes

- **Reduce Uncertainty in Decision Making**

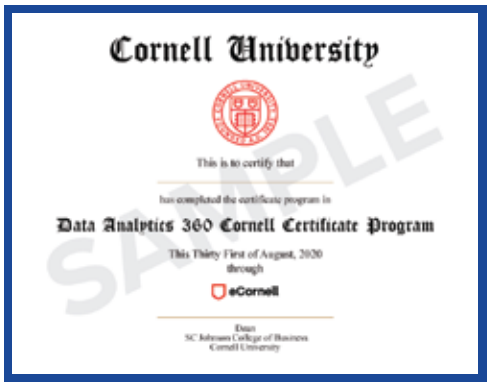
Use data to describe and reduce uncertainty in decision making and incorporate uncertainty and risk into decision models

- **Predict Outcomes in Complex Situations**

Use data models to predict outcomes in complex situations with multiple, simultaneous decisions

What You Will Earn

- Certificate of Completion in Data Analytics 360
- 75 Continuing Education Units (7.5 CEUs)
- 26 Professional Development Units (PDUs) Toward PMI Recertification



Inside the Program

- This certificate consists of 5 three-week courses with a 1-week break between courses.
- Students spend approximately 3-5 hours on each course per week.
- Lectures, text transcripts, readings, discussions, and projects are accessible 24 hours a day for three weeks each.
- Courses include multiple-choice quizzes and instructor-moderated discussions. A final project is required for each course, allowing you to practice what you've learned in a real-world context.
- Expect plenty of opportunities for collaboration and networking with fellow participants both during and after your courses.

Who Should Enroll

- Analysts
- Functional managers
- Executives
- Consultants
- Any professional that uses data to make business decisions

Eligibility

- Graduates (10+2+3) or Diploma Holders (only 10+2+3) from a recognized university (UGC/AICTE/DEC/AIU/State Government) in any discipline.
- Proficiency in English, spoken & written is mandatory.

Syllabus

1. Understanding and Visualizing Data (SHA571)

Learn to apply the principles of data analysis and make the most of available data to ensure that decisions are well informed and objectives are met.

- Learn to utilize your own decision-making framework to achieve desired outcomes
- Evaluate decisions by looking at key performance measures and determining their implications for stakeholders

2. Implementing Scientific Decision Making (SHA572)

Learn how to examine data scientifically to limit generalizations. While intuition and business knowledge play an important role in the decision-making process, this course will prepare you to apply a level of scientific rigor that will lead to better results for your organization.

- Learn to utilize your own decision-making framework to achieve desired outcomes
- Evaluate decisions by looking at key performance measures and determining their implications for stakeholders

3. Using Predictive Data Analysis (SHA573)

When you look at data and are able to make connections, your ability to predict and estimate the impact of certain outcomes makes you a valuable asset to your organization. Increase your proficiency with modeling and turn your ability to use data for sound decision-making into a career advantage.

- Identify data relationships to reduce uncertainty and use regression models to drive decisions
- Make better predictions and estimates for outcomes using modeling frameworks

4. Modeling Uncertainty and Risk (SHA574)

Decision making is never as simple as we would like it to be, since rarely does a single factor alone predict an outcome. In business, not taking this uncertainty into account has serious costs. Enhance the predictive strength of data analytics by incorporating uncertainty and risk into decision models so you can make better, more adaptive business decisions.

- Use estimates of probable future outcomes for simple Yes/No decisions, based on increasingly complex modeling situations
- Develop and use a Monte Carlo simulation to examine outcomes that vary based on multiple, interdependent decisions

Syllabus

5. Optimization and Modeling Simultaneous Decisions (SHA575)

In business, we usually face multiple decisions in complex situations, where each decision has potentially far-reaching impacts. To thrive in this environment, you need to move beyond prediction. Take your analytical capabilities to the next level by modeling simultaneous decisions and using these data models to optimize outcomes.

- Create an optimization model for linear and nonlinear decision situations
- Use data models to predict and optimize outcomes in complex situations involving multiple, simultaneous decisions

Faculty

Chris Anderson

Professor, Cornell University

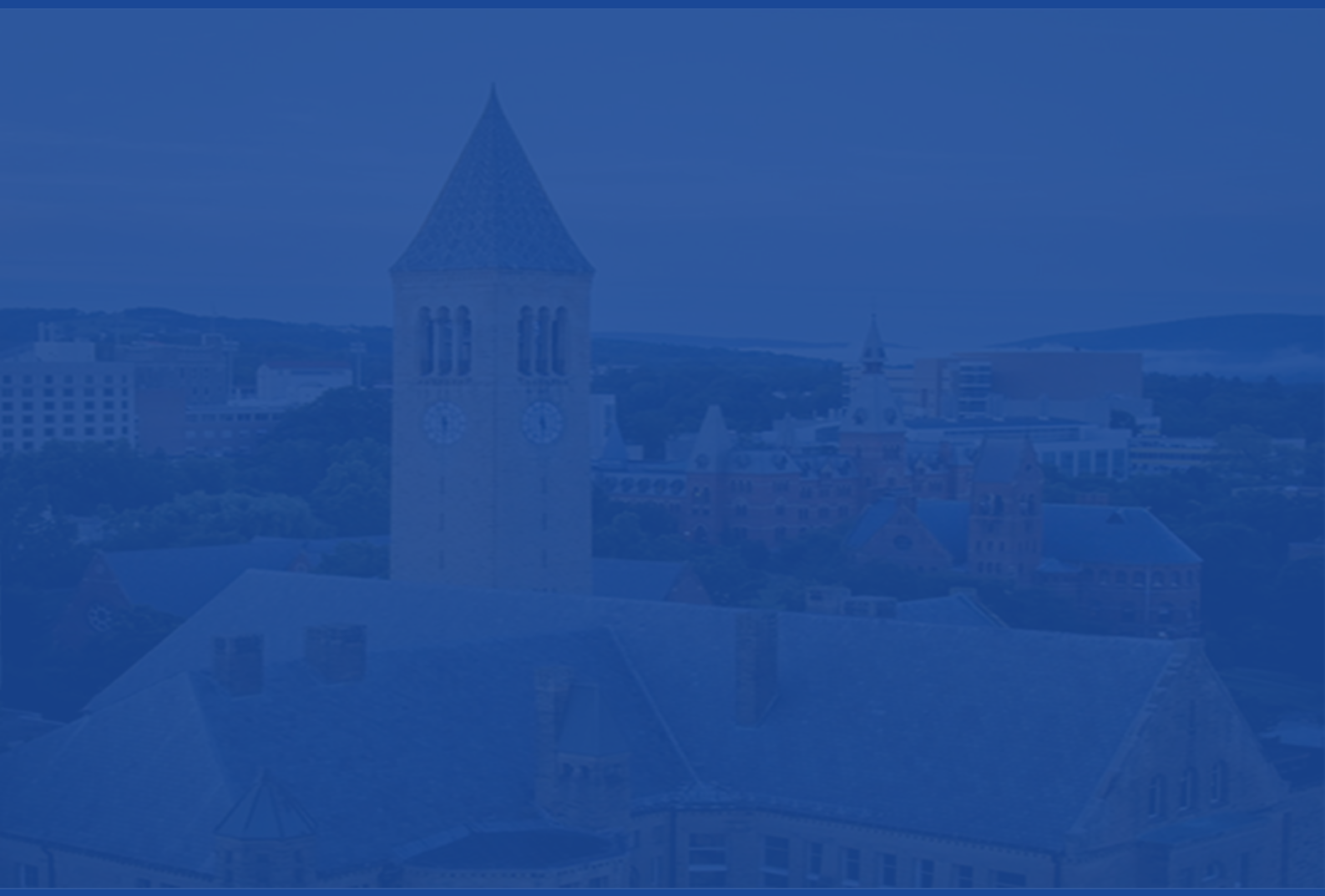
Chris Anderson is a professor at the Cornell School of Hotel Administration. Prior to his appointment in 2006, he was on faculty at the Ivey School of Business in London, Ontario, Canada. His main research focus is on revenue management (RM) and service pricing. He actively works with industry, across numerous industry types, in the application and development of RM, having worked with a variety of hotels, airlines, rental car and tour companies, as well as numerous consumer packaged goods and financial services firms. Anderson's research has been funded by numerous governmental agencies and industrial partners. He serves on the editorial board of the Journal of Revenue and Pricing Management and is the regional editor for the International Journal of Revenue Management. At the School of Hotel Administration, he teaches courses in revenue management and service operations management.

About eCornell

As Cornell University's online learning unit, eCornell delivers online professional certificate programs to individuals and organizations around the world. Courses are personally developed by Cornell faculty with expertise in a wide range of topics, including hospitality, leadership and management, marketing, human resources, technology and data analytics. Students learn in an interactive, small-class format to gain skills they can immediately apply in their organizations. eCornell has offered online learning courses and certificate programs for 18 years to over 150,000 students at more than 2,000 companies.

Program Details

- **Duration:** 19 Weeks
- **Program Fee:** INR 2,36,000 (Inclusive of taxes)
- **No. of Courses:** 5
- **Effort:** 3-5 hours per week
- **Format:** 100% online
- **Model:** Instructor-led



For More Details

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