



SPECIALIZED
STUDY CERTIFICATE

APPLIED DATA SCIENCE FOR EDUCATORS

*SHOW HOW
DATA CHANGES
EVERYTHING*

Teach your students why understanding data matters, by learning the fundamentals of data science and Python within the context of implementing both into your curricula.

- An introduction to data science, as designed for high school teachers
- A concise reiteration of the mathematical foundation for, and involvement in, data science
- Data management and programming with Python
- Methods for building different graphics and visualizations in Python

Teach future tech leaders. Enroll now.
extension.ucr.edu

UCR | Extension
Professional Studies

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ONLINE PROGRAM

“We recognize how valuable time is for teachers, and we understand the needs of non-traditional learners, so we strive to design our programs and schedule our courses with a work, life, and learning balance in mind. Whether you want to add a credential, enhance your skills, complete a professional certificate, or get started on a Master’s degree, we have what you need.”

—Annette Webb
Associate Dean of
Academic Programs
UCR Extension
Riverside, CA

HELP STUDENTS ANALYZE, COMMUNICATE, AND INFORM THE FUTURE

Data science is the new frontier for navigating and distilling the vast amount of information available. So how do you start teaching data science skills to your middle or high school students, let alone learn them in a concise and manageable way? Start with this two-course program designed in conjunction with the UCR Physics Department and the NASA MAAA LaunchPad Program—specifically to help teachers like you, take data analysis skills directly into the classroom.

First, learn the basics of data science, arranged for the high school curriculum and applying to different lessons in STEM. Refresh your understanding of the mathematical foundation that makes data analytics possible, including statistics and probability. Use the lab course on Python to gain working knowledge of preparing and organizing data, then learn how to manipulate and query it for results and insight. Enroll in both courses concurrently to qualify for a fellowship opportunity with the NASA MAAA LaunchPad Program—and have your tuition and fees covered for your data science courses. Take your solid understanding back to your classroom to get students thinking about data science at an early age and inspire them to build a skillset that could change the way the world understands itself.

WHAT YOU’LL LEARN

- Basics of data science within a high-school lens
- An emphasis on the mathematical principles behind data science, such as linear algebra, Bayesian methods, and probability theory
- Data management, manipulation, and query skills
- Python programming, organizing data, building graphics

WHO CAN BENEFIT

This program is designed for high school teachers who want to learn basic data science applications, middle school teachers with a strong background in mathematics, or school or district administrators want to bring data science into their curricula.

ADMISSION

Take individual courses or fulfill all of the requirements to complete your UCR Extension certificate. Whichever you choose, you will gain the personal power that comes through learning new skills. Be assured that you are receiving education that is backed by the UC tradition of excellence.

HOW TO EARN THIS CERTIFICATE

Individuals must complete a total of 6 quarter units, with a grade of C or better.

INTRODUCTION TO APPLIED DATA SCIENCE
FOR HIGH SCHOOL TEACHERS 4 UNITS

INTRODUCTION TO PYTHON AND DATA PREPARATION
2 UNITS

- This program can typically be completed within 3 months.

PROGRAM INFORMATION

Prices, requirements and courses are subject to change. For the most up-to-date information:
Phone: 951.827.4105
Email: credentials@ucx.ucr.edu
Website: extension.ucr.edu



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