UC San Diego

EXTENDED STUDIES

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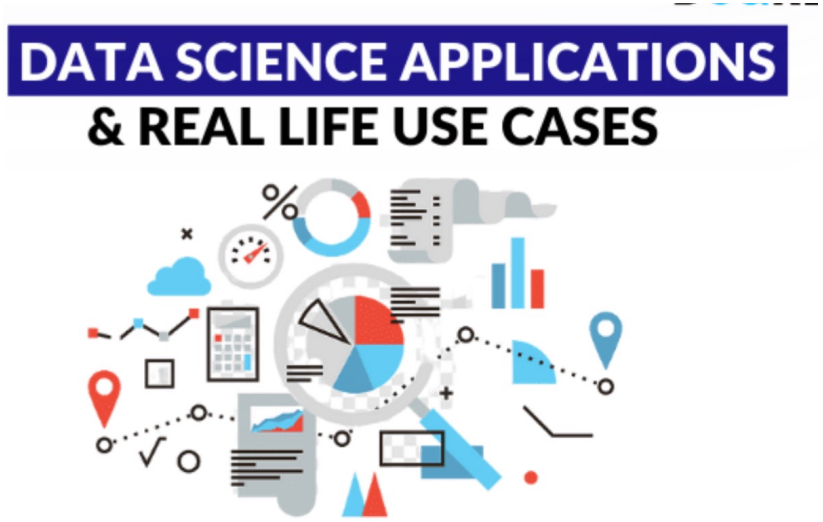

Data Science and Practical Applications Course

This interactive course aims to equip students with an in-depth comprehension of data science principles and methodologies, with a strong emphasis on practical applications. Participants will develop tangible skills and hands-on experience in utilizing data science methods to derive significant insights from varied datasets. Encompassing topics such as data analysis, data engineering, machine learning, data visualization, and business analytics, the course primes students for real-world challenges across diverse industries.

Course Learning Highlights:

- **Python Programming - Data Science Libraries**
- **Data Analysis - Pandas for Python, Exploratory Data Analysis (EDA) techniques**
- **Data Visualization - Visualization tools and techniques, Matplotlib and Seaborn**
- **Data Engineering - Tools and techniques**
- **Machine Learning - Supervised Learning and unsupervised learning, Model evaluation and hyperparameter tuning**
- **Business Analytics - Descriptive analytics, Predictive analytics, Healthcare analytics, Improving decision-making skills**
- **Real Time Lab using latest GPUs/AI Servers**

Credit: 3.00 unit(s)

https://extendedstudies.ucsd.edu/courses-and-programs/data-science-and-practical-applications

Advantages of Continuous Education Units (CEU)and Course

If students complete a course through UCSD Extended Studies and earns CEU Credits, they could leverage those credits in several ways:

- Professional Development: UCSD Extended Studies offers a variety of courses geared towards professional development. Earning 3 credits in a relevant subject could enhance one's skills and knowledge, potentially leading to career advancement or improved job performance.
- Transferable Credits: Depending on the policies of other institutions, credits earned through UCSD Extended Studies may be transferable to other colleges or universities. This could be beneficial for individuals looking to pursue further education or complete a degree program.
- Certificate Programs: UCSD Extended Studies offers certificate programs in various fields. Earning 3 credits could count towards completing the requirements for a certificate program, demonstrating proficiency in a specific area of study.
- Graduate School Preparation: If someone is considering applying to graduate school, completing courses and earning credits through UCSD Extended Studies can strengthen their application. These credits may fulfill prerequisites or demonstrate their academic abilities to admissions committees.
- Personal Enrichment: Some individuals take courses through UCSD Extended Studies for personal enrichment and lifelong learning. Earning 3 credits in a subject of interest can contribute to personal growth and intellectual development.
- Skill Enhancement for Career Switching: If someone is looking to switch careers or enter a new field, completing relevant courses and earning credits through UCSD Extended Studies can help them acquire the necessary skills and knowledge for their desired career path.

Overall, the value of earning 3 credits through UCSD Extended Studies depends on the individual's goals and aspirations, whether they are focused on professional advancement, academic pursuits, or personal enrichment.

Course Instructor/Distinguished Lecturer

Mr. Ganesan Narayanasamy
Distinguished Lecturer,
Founder and CEO at
Object Automation Inc

Ganesh Narayanasamy is the recipient of the Global Technology Enablement award from OpenPOWER foundation and IBM. He possesses a master's degree in computer science. In academia and research, he is a world-renowned leader. He currently leads a tech company in Silicon Valley, USA and is renowned for his contributions at IBM in chip design, artificial intelligence, and high-performance computing technology stack. He served as a worldwide Tech ecosystem leader at IBM for nearly three decades. Among other things, he organized the creation of the OpenPOWER Ecosystem, which includes AI/ML/Cloud solutions, and oversaw the WW Academia team for the OpenPOWER/POWER Server chip to solutions stack. He also established centers of excellence for AI and Chip Design laboratories, Industry Hubs, and Technology labs. Ganesan is constantly excited to work with businesses, partners, academic institutions, and research centers to develop innovative solutions using cutting-edge technology.

Furthermore, he has developed specific curriculum and courses for Chip Design and Data Science/AI with access to special hardware.

https://www.linkedin.com/in/ganesannarayanasamy/

Course Instructor and Special Guest Speakers

Dr Farhang Yazdani
Founder and CEO,
Broadpak

Dr Sameer Shende
Professor, University of Oregon

Dr D K Panda
Professor, Ohio State Univ

Mrs. Sri Kamani
Tech leader, Object Automation Inc, USA

Dr Avesta Sasan
Professor,
UCDavis

Mr. Arasu S
Research , Uni of San Diego

Mr. Sivakumar S
Enterprise Architect,
Werner Enterprises