Big Data
Specialized Studies Program • Online

Every two days there is as much new data generated as was created in the first 2000 years of our history. The “Internet of Things” and related trends will further increase the amount of data generated every day. Successful businesses throughout the world have become increasingly reliant on a rapidly expanding amount of data to remain competitive. This “unstructured” data, which often consists of web activity, video and audio recordings, photographs, e-mails, and tweets, can be combined with “structured” data, such as financial specifics of a customer order, to provide the organization with the critical intelligence and insight required to succeed in a highly competitive global marketplace.

A drop in the price of hardware required to deal with these large data sets, coupled, with improved functionality of a wide variety of big data software tools, has created a perfect storm with skyrocketing demand for individuals with the skills to manipulate and analyze these data sets. The Big Data certificate provides individuals with the background needed to effectively collect and manage extremely large amounts of information, perform data-driven discovery and prediction, extract value and competitive intelligence for their organizations.
WHO SHOULD ENROLL
This program is designed for individuals within a wide range of professional or academic backgrounds who desire to learn how to better collect, store, analyze, and act on large data sets to drive business results.

PROGRAM BENEFITS
- Turn existing large, structured and un-structured data sets into cohesive information and extract valuable insight to solve business issues
- Use industry standard analytic tools including, Hadoop, Teradata, Knime, Aster, IBM-Netiza, HP-Veritca, Statistica, R, Python and Crystal Ball
- Develop the strategies and skills needed to effectively collect and manage big data and perform data-driven discovery, prediction, and prescription
- Develop big data architectural strategies for your organization
- Improve business processes efficiency and customer satisfaction
- Work with Data Architecture software including Hadoop, Terradata and Aster, and related tools (Java, SQL and MRSQL)
- Integrate powerful and traditionally untapped sources of unstructured big data including social media data and other web generated information

IEEE Members receive
15% off of one course per quarter.

SPECIALIZED STUDIES AWARD REQUIREMENTS
Students must complete 11 credit units (4 required and 7 elective credit units) with a grade of “C” or higher in each course. All requirements must be completed within 5 years after the student enrolls in his/her first course. Students not pursuing a specialized studies award are welcome to take as many individual courses as they wish.

PROGRAM FEES
The total cost of the program varies depending on the elective courses chosen. Actual fees may differ from the estimate below. Fees are subject to change without prior notice.

Course fees (4 required and 7 elective units) $3,625
Candidacy fee $35
Textbooks $325
**Total Estimated Cost** $3,985

TO ENROLL
Visit ce.uci.edu/bigdata for full course descriptions, instructor biographies, and enrollment information.

FOR MORE INFORMATION:
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(949) 824-6333

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<tr>
<td>I&amp;C SCI X425.80</td>
<td>Introduction to Big Data</td>
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<td>I&amp;C SCI X425.82</td>
<td>Unified Big Data Architecture (UDA)</td>
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<th>COURSE #</th>
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<td>I&amp;C SCI X425.70</td>
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<td>Big Data Tools and Applications</td>
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<td>Teradata: Foundations and Principles</td>
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<td>I&amp;C SCI X425.18</td>
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