Discover Viterbi: Computer Science & Informatics Programs

Viterbi School of Engineering
University of Southern California
Spring 2019



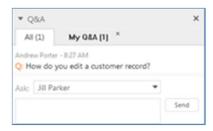
WebEx Quick Facts

Will I be able to get a copy of the slides after the presentation?

YES!

How can I ask a question during the information session?

- 1. Using the Q&A Panel, type a question in the box below the Ask drop-down menu.
- 2. Select a recipient from the Ask drop-down menu.



3. Click Send. We will respond as soon as we are able.



Today's Program

- University of Southern California
- USC Viterbi School of Engineering
- Program Overviews
 Master's Programs in Computer Science
 Master's Programs in Informatics (Data Science)
- DEN@Viterbi
- Tuition & Fees
- **Q&A**









UNIVERSITY OF SOUTHERN CALIFORNIA









The University of Southern California



- Oldest Private University in the western U.S.
 - Founded in 1880
- 47,500 Students
 - 20,000 Undergraduates | 27,500 Graduates
- 4,450 Full-time Faculty
- Diverse Student Population
- Located in Los Angeles



Viterbi School at a Glance



Academic Departments

8 Academic Departments

Faculty

- 185 tenure-track faculty
- 20+ NAE
- 60+ NSF CAREER,
 National & Presidential
 Young Investigator

Alumni

More than 77,000+

Student Populations

- 2,767 Undergraduate
- 5,922 Graduate students

Research

- Leader in funded research
- 35+ Research Centers
- More than \$207M in research expenditures



U.S. News & World Report, 2019

Best Engineering Graduate Schools

Top RankedGraduateEngineering Program

Best Online Graduate Engineering Programs

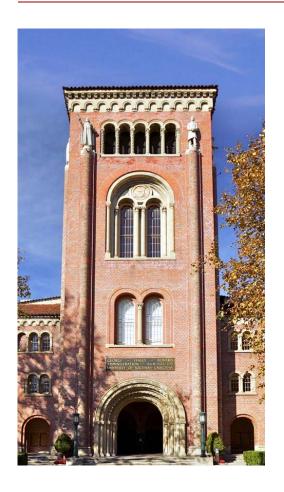
- Ranked #1 Online
 Computer Information
 Technology Program
 (Computer Science)
- Ranked #2 Online Graduate Engineering Programs

Best Online Graduate Engineering Programs for Veterans

- Ranked #1 Online Graduate
 Computer Information
 Technology Program
 (Computer Science) for
 Veterans
- Ranked #2 Online
 Graduate Engineering
 Programs for Veterans



USC Engineering: Points of Distinction



- International Reputation for Excellence
- The Trojan Family Network: 77,000+ (engineers) strong
- Unique engineering programs available: Online, on site & on campus
- Complete range of programs
 - Doctoral, Masters and Bachelors
 - Graduate Certificates
 - Short Courses
 - Custom Programs



The Viterbi School of Engineering: A Leader in Research

Viterbi School is a consistent leader in funded research in the U.S.



Institute for Creative Technologies



National Center for Metropolitan Transportation Research



Biomimetic Microelectronic Systems Engineering Research Center



CREATE
Homeland Security Center

- Highly interdisciplinary research environment
- Diverse research areas such as robotics, software engineering, sensor networks, vision sciences, automated construction and photonics
- Over 35 research centers
- Industrial partnerships and collaboration



Meet Our Faculty



Professor Cyrus Shahabi

- Chair, Computer Science Department
- Director, USC Integrated Media Systems Center
- Professor of Computer Science, Electrical Engineering Systems, and Spatial Sciences



Professor Craig Knoblock

- Director, Information Sciences Institute
- Director, Informatics Program
- Research Professor of Computer Science and Spatial Sciences

Master's Programs in Computer Science



Motivation

Exciting Time for Computer Science

- Growing public interest and awareness: No day goes by without hearing the title of a major computer science research areas such as AI, Machine Learning, Robotics, Privacy, Cyber Security, and Big Data in mainstream media.
- Major companies with societal impacts are CS companies:
 Google, Amazon, Facebook, Twitter, Tencent, Alibaba, Didi



Master of Science Programs in Computer Science

| | <u></u> | Available online via DEN@Viterb |
|--------------------------|---------|---------------------------------|
| ■ Computer Science □ | | |
| CS – Computer Networks | | |
| CS – Computer Security □ | | |

- CS Data Science □
- CS Game Development
- CS High Performance Computing and Simulation
- CS Intelligent Robotics
- CS Multimedia and Creative Technologies
- CS Software Engineering <a>__
- CS Scientists and Engineers <a>__
- Graduate Certificate in Software Architecture <a>__



MS in Computer Science (General)

Total Units: 28

Core Curriculum

Required course (4 units):

CSCI 570 | Analysis of Algorithms

Choose 2 of the following courses (8 units):

- CSCI 561 | Foundations of Artificial Intelligence
- CSCI 571 | Web Technologies
- CSCI 585 | Database Systems

Additional Course Work (16 units):

 The remaining elective units necessary to earn the degree are completed by selecting additional 500-level CSCI courses





MS in Computer Science (Scientists & Engineers)

- An expanded MS degree, designed specifically for students with an academic background in engineering or science, but a limited background in computer science.
- Combines an introductory sequence of undergraduate preparatory and foundational coursework with all the graduate breadth requirements necessary to satisfy the traditional MS in Computer Science.
- Available on campus or online via DEN@Viterbi



MS in Computer Science (Scientists & Engineers)

Total Units: 37 (33 degree applicable units)

Curriculum

Preparatory Programming Requirement (4 units):

CSCI 455x | Introduction to Programming Systems Design

Foundational Requirements (7-8 units)

- CSCI 402 | Operating Systems
- EE 450 | Computer Networks or EE 457 | Computer Systems Organization

Breadth Courses (16 units)

- CSCI 570 | Analysis of Algorithms
- CSCI 561 | Foundations to Artificial Intelligence
- CSCI 571 | Web Technologies
- CSCI 585 | Database Systems

USC Viterbi

Elective Courses (7-8 units of approved graduate-level coursework from CSCI)

USC CS Dept by Numbers!



Students -- MS

- <u>CSCI 1349</u>
- CS Computer Networks 14
- CS Computer Security 42
- CS Data Science-225
- CS Game Development 53
- CS High Performance Computing 17
- CS Intelligent Robotics 65
- CS Multimedia and Creative Technologies –20
- CS Software Engineering 46
- CSES 565

Total: 2396



Faculty

I/II

Current: 45

Teaching

Current: 19

Research

Current: 35

100 Full-Time



The CS Dept Advisory Board

- Laurent Itti Associate Chair for the Ph.D. program and Research Faculty Affairs
- William G.J. Halfond -- Associate Chair for Undergraduate Programs and Teaching Faculty Affairs
- Ellis Horowitz Associate Chair of MS Programs

- Yan Liu-- AI, ML, Privacy/FATE, and Security
- Ramesh Govindan --Systems,
 Databases, Software Engineering
 & CyberPhysical Systems
- David Kempe -- Theory & Computation
- Ram Nevatia -- Vision, Robotics,Graphics & HCI



Three pillars of our CS program

- 1. Classroom interaction
- Peer interaction
- 3. Research



Unique features of USC CSCI

- Many research opportunities, including capstone courses
- Hands-on experience in research labs
- USC alumni network (many at top CS companies, e.g., Google, FB, Apple, Snapchat)
- Multidisciplinary Research (across TOP Schools. E.g., Annenberg, Keck, Price, Marshall, Cinema)
- Entrepreneurship Opportunities (several funding and networking opportunities for startups, e.g., Maseeh Entrepreneurship Prize Competition) -- ("start-up" capstone), Internships
- Proximity to top IT, Game and Entertainment companies (silicon beach, Hollywood)



Evidence! ©



Hands-on Experience

USC Trojans Repeat as Region's Top Team in "Coding Olympics"

Caitlin Dawson | January 11, 2019

The winners of the regional coding contest will compete against more than 100 teams at the world finals in Portugal this summer.



| 1 | | | | | r | | 1 | | p a | | 1 | 1 |
|------|---|--------------------|--------------------|--------------------|---------|---------|---------|--------------------|----------------------|-------------|------------------|---------|
| RANK | TEAM | SCORE | 01 () | 02 🔾 | 03 🔾 | 04 🔾 | 05 🔾 | 06 🔾 | 07 🔾 | 08 🔾 | 09 🔾 | 10 🔾 |
| | USC Trojans University of Southern California | 10 22:42:40 | 0:43:58 | 3:51:27 | | 4:28:45 | | 0:42:42 | | | | 1:34:51 |
| 1 ♥ | | | + | + | 1:45:23 | + | 2:50:06 | + | 1:11:07 | | 0:22:18 | + |
| | | | 0:20:00 | 1:00:00 | 1 try | 0:20:00 | 1 try | 0:20:00 | 1 try | | 1 try | 0:20:00 |
| | | | 2 tries | 4 tries | | 2 tries | | 2 tries | | | | 2 tries |
| 2♥ | UCLA Bruins University of California Los Angeles | | 1:18:46 | | | | | | | | | |
| | | 9 15:07:11 | + | 3:09:43 | 1:55:07 | | 2:05:08 | 0:35:05 | 1:44:16 | | 0:20:01 | 0:58:06 |
| | | 3 13.07.11 | 0:40:00 | 1 try | 1 try | | 1 try | 1 try | 1 try | | 1 try | 1 try |
| | | | 3 tries | | | | | | | | | |
| | BaltechB California Institute of Technology | | 1:12:56 | | | | | | | | 0:50:59 | |
| 3 ♥ | | | + | 2:19:10 | 2:37:54 | | 4:17:30 | 0:43:28 | 3:02:56 | | + | 1:27:02 |
| | | 9 19:33:56 | 0:20:00 | 1 try | 1 try | 4 tries | 1 try | 1 try | 1 try | | 0:40:00 | 1 try |
| | | | 2 tries | | | | | | | | 3 tries | |
| | UCLA Vibranium University of California Los Angeles | | | 2:51:49 | | | 3:39:10 | | | | | |
| 4 ♥ | | | 1:00:20 | + | 3:57:41 | | + | 1:48:52 | 4:22:41 | | 0:30:42 | 3:14:02 |
| | | 9 25:24:16 | 1 try | 0:40:00 | 1 try | | 0:20:00 | 1 try | 1 try | | 1 try | 1 try |
| | | | | 3 tries | | | 2 tries | | | | | |
| | 555 Harvey Mudd College | | 2:08:35 | 1:07:54 | | | | 1:10:57 | | | | |
| | | 8 14:23:25 | + | + | 7 | | 0:59:04 | + | 1:32:17 | | 1:37:24 | 0:51:08 |
| 5 🖤 | | | 0:20:00 | 0:20:00 | 2 tries | | 1 try | 0:20:00 | 1.02.17 1 try | 2 tries | 1.07.24 1 try | 1 try |
| | | | 0.20.00 2 tries | 0.20.00 2 tries | 24,000 | | :0.99 | 0.20.00 2 tries | 0.49 | STORIGHTON) | | 64/89 |
| - | USC Cardinal University of Southern California | | 2 tries | | | | | 2 1165 | | | | - 1 |
| 6 ♥ | | 8 19:53:54 | 0.50.50 | 2:14:17 | | | 0.45.64 | 4 40 40 | 4 == == | | 0.44.04 | 4.45.05 |
| | | | 0:53:56 | + | | | 3:15:01 | 1:12:16 | 100 PM 100 PM 100 PM | | 0:44:34 | 1:45:07 |
| | | | 1 try | 0:20:00 | | | 1 try | 1 try | 1 try | | 1 try | 1 try |
| | | | | 2 tries | | | | | | | | |

Out of more than 90 participating teams, the USC Trojans was the only team to solve 10 questions in the given five hours. This year's win marks the sixth time in eight years that a USC team has advanced to the world's final.



Research ...

From personal experience, I usually have 4-5 MS students per year who work with me at my research lab. They all get offers from top CS companies, the most recent ones are:

Jianfa Lin, Spring'19, Amazon

Akshay Deshmukh, Summer '18, Oracle

Hyunjun Park, Fall '18, IBM

Shivnesh Rajan, Fall '18, Facebook

Sumeet Agrawal, Spring '18, Microsoft



Alumni Network & Entrepreneurs



Ali Khoshgozaran • 1st Software Consulting Tilofy • University of Southern California Greater Los Angeles Area • 500+ &



Director of Engineering



> Hi Professor Papa,

>

> When I got through Google's hiring committee, two managers from YouTube wanted me on their team because of the iOS app I built for your class last semester. Thanks for the really hard class that nonetheless pushed me outside my comfort zone and forced me to learn new things.





Career

INDUSTRY NEWS > EDUCATION

Silicon Valley hires the most alumni from these 10 universities – and none of them are Ivy League

May 2, 2017, 7:39am PDT

INDUSTRIES & TAGS Education, Technology

- 1. UC Berkeley
- 2. Stanford
- 3. CMU

No. 4: University of Southern California

This Los Angeles-based private school in the hub of the entertainment capital boasts the 11th ranked Viterbi School of Engineering, per U.S. News and World Report. The university also maintains a cutting edge interactive media and games division within their highly rated School for the Cinematic Arts.



Two New Initiatives at CS

- The Informatics Program -- > CS For All
- CS Industry Affiliate Program



CS INDUSTRY AFFILIATE PROGRAM (IAP)

For A Closer Interaction with Industry

The Computer Science (CS) Department Industry Affiliate Program provides engagement opportunities with our exceptionally talented students, world-class faculty, and innovative researchers in an array of path-setting disciplines.



USC Viterbi

School of Engineering

Department of Computer Science

Industry Affiliate Program



Current Members

Founding Members Platinum Affiliate











Gold Affiliate

Silver Affiliate

Affiliate

PLUGANDPLAY







Program Kick-Off and Inaugural Affiliates Day

Career Fair on Sept. 12, 2018

- Excellent turnout:
 625 students (CS UG, MS & PhD),
 6 affiliate companies (Google, Lyft, Microsoft, Plug and Play,
 Zillow Group and Honey)
- Affiliate's post comments: Most resumes ever collected.



CS INDUSTRY AFFILIATE PROGRAM

IAP in full swing... sample scheduled events:

- Lyft Tech Talk attended by over 200 students (Star Value: 5)
- Lyft PhD Lunch attended by 80 students (Star Value: 3)
- PhD Social at Plug & Play Tech Center
- UG Microsoft Lunch with 30 CS students (Star Value: 3)
- Google Brain PhD Talk (Star Value: 5) presented by Jessie Jie Ren, USC
 PhD alum. 70 PhD students attended the talk.



Master's Programs in Informatics



Master's Programs in Informatics

- Master of Science in Applied Data Science <a>___
- Master of Science in Data Informatics
 - Merged into Applied Data Science in Fall 2019
- Master of Science in Communication Data Science
- Master of Science in Cyber Security Engineering <a>—
- Master of Science in Healthcare Data Science
- Master of Science in Spatial Data Science
- Master of Science in Public Policy Data Science
- Graduate Certificate in Big Data Fundamentals





Students in MS Degree Programs

Informatics

Applied Data Science 53Data Informatics 197

Cyber Security Engineering 47

Spatial Data Science 14

Communication Data Sci. 22

Health Care Data Science 1

Public Policy Data Science new

Total: 334

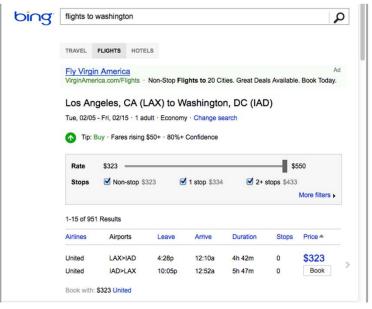


Master of Science in Applied Data Science

Goal of the degree is to provides students with the knowledge and skill to:

- Understand and use large data environments
 - · Hadoop, HDFS, Spark, etc.
- Work with and use the various analysis tools
 - Machine learning
 - Data mining
 - Visualization
 - User interfaces
- Apply these methods to real-world problems





[Etzioni, Knoblock, et al. KDD 2003]

Master of Science in Applied Data Science

Total Units: 32 | Designed for students with a range of backgrounds from no programming experience to a CS undergraduate major

Curriculum

Required courses (12 units):

- INF 551 | Foundations of Data Management
- INF 552 | Machine Learning for Data Informatics
- INF 553 | Foundations and Applications of Data Mining

Recommended courses for students with limited CS background (count as electives):

- INF 510 Principles of Programming for Informatics
- INF 549 | Introduction to Computational Thinking and Data Science
- INF 550 | Overview of Data Informatics in Large Data Environments





Master of Science in Applied Data Science (cont.)

Elective courses (20 units):

- INF 529 Security and Privacy in Informatics
- INF 554 Information Visualization
- INF 555 User Interface Design, Implementation, and Testing
- INF 556 User Experience Design and Strategy
- INF 558 Building Knowledge Graphs
- INF 560 Data Informatics Professional Practicum
- INF 599 Special Topics Units: 1, 2, 3, 4 (Probability and Statistics for Data Science)
- CSCI 544 Applied Natural Language Processing
- CSCI 550 Advanced Data Stores
- CSCI 561 Foundations of Artificial Intelligence
- CSCI 570 Analysis of Algorithms
- CSCI 572 Information Retrieval and Web Search Engines
- CSCI 587 Geospatial Information Management



Master of Science in Cyber Security Engineering

Cyber security's ever-growing brain drain

by Peter Suciu SEPTEMBER 9, 2015, 12:14 PM EST



With each passing hack, the U.S. needs more cyber security professionals—and has fewer options on where find them.

Good help is increasingly hard to find. For proof, just watch the cyber security industry, where it may soon be impossible to fill all the jobs that need to be staffed. And though this isn't a new problem for the space, it's one that's poised to get much worse in years to come. A FireE works i showin trackin FireEye Photogra Reuters



- Focuses on fundamental theory and practice for engineering and operating secure information systems
- The program addresses challenges of
 - policy formulation
 - verifiably secure operating system components
 - security-aware applications
 - use of cryptography
 - high assurance environments
 - highly distributed cloud and network based applications



Master of Science in Cyber Security Engineering

Total Units: 28

Curriculum

Required course (20 units):

- CSCI 530 | Security Systems
- INF 519 | Foundations and Policy for Information Security
- INF 523 | Computer Systems Assurance
- INF 525 | Trusted System Design, Analysis and Development
- INF 529 | Security and Privacy in Informatics

Available online via DEN@Viterbi

At least one of the following (3 or 4 units):

- INF 521 | Applications of Cryptography to Information Security Problems
- INF 526 | Secure Systems Administration
- INF 528 | Computer Forensics

Additional Course Work (4-5 units):

 See department for approved coursework or other courses may be approved in consultation with department advisor



Interdisciplinary Data Science

Computer Science

e.g., Machine Learning Algorithms Data Science

e.g., Data Mining, Scalable Data Management Interdisciplinary
Data Science

e.g., Mining social media for marketing Area of Study

e.g., Marketing

Computer science becomes more applied

Computational needs become more formalized

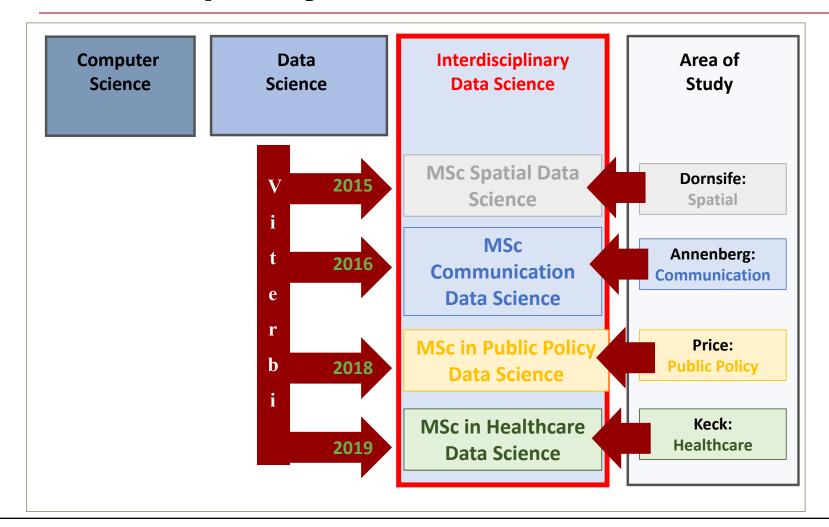
Computer science skills

Basic computer science skills applied to expertise area

Expertise area



Interdisciplinary Data Science





Interdisciplinary Data Science: Common Requirements

Common requirements in data science:

INF 549 Introduction to Computational Thinking and Data Science INF 510 Principles of Programming for Informatics INF 550 Overview of Data Informatics in Large Data Environments

Note that:

Students with no computer science background are introduced to data science fundamentals

Students with a computer science background will have the option of replacing these with INF 551, INF 552, and INF 553, so they can take more data science electives



Master of Science in Communication Data Science

Communication:

- Theories and principles of human communication through technology
- · Emerging platforms: social media, collaboration tools, virtual reality
- Affecting social dynamics and behavior through communication technology



Data Science:

- Computational thinking
- Programming
- Data systems
- Machine Learning
- Privacy
- Visualization



Master of Science in Communication Data Science

Total Units: 32 | A cross-disciplinary joint degree program offered by the Viterbi School of Engineering and the Annenberg School for Communication and Journalism

Curriculum

Communication Informatics Core (20 units):

- COMM 502 | Theoretical Approaches to Multidisciplinary Design Projects
- CMGT 515 | Innovation and the Information Economy
- INF 510 | Principles of Programming for Informatics
- INF 549 | Introduction to Computational Thinking & Data Science
- INF 550 | Overview of Data Informatics in Large Data Environments

Informatics Core (4 units):

Choose from an approved list of courses

Communications Core (8 units):

Choose from an approved list of courses



Master of Science in Healthcare Data Science

Healthcare:

- Manage and process data to improve healthcare
- Data science for clinical research and translational medicine
- Personal devices and mobile apps to monitor health
- Data science to improve health and healthcare delivery processes



https://pixabay.com/en/big-data-data-statistics-analytics-2296821/

Data Science:

- Computational thinking
- Programming
- Data systems
- Machine Learning
- Privacy
- Visualization



Master of Science in Healthcare Data Science

Total Units: 32

Curriculum

Core Courses (20 units):

- BME 501 | Advanced Topics in Biomedical Systems
- BME 566a and BME 566b | Topics in Health, Technology and Engineering
- INF 510 | Principles of Programming for Informatics
- INF 549 | Introduction to Computational Thinking and Data Science
- INF 550 | Overview of Data Informatics in Large Data Environments

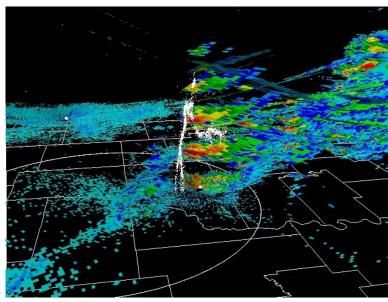
Elective Courses (12 units):

Students must take one course from the Data Science electives and one from the Health Science electives and the remaining units can be chosen from either group.

Master of Science in Spatial Data Science

Spatial:

- Spatial computing and geographic information systems (GIS)
- Spatial decision support and geospatial problem solving
- Spatial databases, spatial modeling, and spatial data analysis



Data Science:

- Computational thinking
- Programming
- Data systems
- Machine Learning
- Privacy
- Visualization



Master of Science in Spatial Data Science

Total Units: 32 | A cross-disciplinary joint degree program offered by the Viterbi School of Engineering and the Dornsife College of Letters, Arts and Sciences

Curriculum

Required courses (24 units):

- INF 549 | Introduction to Computational Thinking and Data Science
- SSCI 581 | Concepts of Spatial Thinking
- SSCI 580 | Spatial Computing
- SSCI 583 | Spatial Analysis
- INF 510 | Principles of Programming for Informatics
- INF 550 | Overview of Data Informatics in Large Data Environments

Spatial & Informatics Elective Courses (8 units):

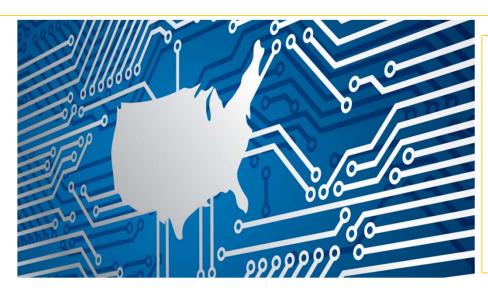
Chosen from an approved list



Master of Science in Public Policy Data Science

Public Policy:

- Improve government data analysis to increase accountability, improve performance, and increase quality of services
- Institutional and legal challenges of collecting data from citizens
- Incorporate data science in government and public policy



Data Science:

- Computational thinking
- Programming
- Data systems
- Machine Learning
- Privacy
- Visualization



https://www.predictiveanalyticsworld.com/patimes/prediction-in-the-public-sector-why-the-government-need-predictive-analytics/9566/

Master of Science in Public Policy Data Science

Total Units: 36 | A cross-disciplinary joint degree program offered by the Viterbi School of Engineering and the Price School of Public Policy

Curriculum

Required courses (20 units):

- PPD 501a Economics for Policy, Planning and Development (2 Units)
- PPD 501b Economics for Policy, Planning and Development (2 Units)
- PPD 554 Foundations of Policy Analysis (4 Units)
- PPD 558 Multivariate Statistical Analysis (4 Units)
- INF 549 Introduction to Computational Thinking and Data Science (4 Units)
- INF 510 Principles of Programming for Informatics (4 Units)
- INF 550 Overview of Data Informatics in Large Data Environments (4 Units)

Elective Courses (8 units)

Capstone Course (4 units)



Graduate Certificate in Big Data Fundamentals

Total Units: 15

Curriculum

Core Courses (15 units):

- INF 510 | Principles of Programming for Informatics
- INF 549 | Introduction to Computational Thinking and Data Science
- INF 550 | Overview of Data Informatics in Large Data Environments
- INF 559 | Introduction to Data Management



General Admission Criteria

Admission criteria differs by program. To review the requirements for your program of interest visit: http://viterbi.usc.edu/msprograms

General Admission Criteria for Masters Programs:

- Undergraduate degree in engineering, math or a hard science from a regionally-accredited university (official transcripts submitted)
- To be competitive, a cumulative undergraduate GPA Of at least 3.0 on a 4.0 scale is recommended *(not required)*
- Satisfactory scores on the general portion of the Graduate Record Examination (GRE) that are less than
 5 years old
- CV/Resume Required
- Required supplemental materials may include Letters of Recommendation and a Statement of Purpose
- TOEFL (International Applicants)



Application Deadlines

Application Deadlines for 2019-2020

Fall 2019

Deadline to submit all required materials: January 15, 2019*

Spring 2020

- Deadline to submit all required materials: September 15, 2019*
- Deadline for Scholarship Consideration (on-campus only): August 31, 2019

Fall 2020

- Deadline to submit all required materials: January 15, 2020
- Deadline for Scholarship Consideration (on-campus only): December 15, 2020

* A deadline extension for DEN@Viterbi applicants may be available. Please email DEN@Viterbi.usc.edu for more information.

Helpful Links:

List of DEN@Viterbi Programs http://viterbi.usc.edu/DENDegrees

USC Graduate Application: https://usc.liaisoncas.com



Where our Alumni are working



- What do our students do?
- What do our graduates do?



Course Delivery Methods



Methods of Course Delivery

- On-campus, full time
 2 classes per semester
 1.5 2 years to complete
- Online delivery via DEN@Viterbi
 1-2 classes per semester
 2.5 3 years to complete degree



How DEN@Viterbi Works

The Viterbi School of Engineering uses a state-of-the-art, proprietary web-based delivery system that enables students from around the world to access classes live or on-demand.

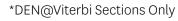
DEN@Viterbi Students:

- View the same lectures as on-campus students, with fresh content every semester
- Participate in highly interactive discussions with professors and peers
- Submit homework electronically
- Take exams at proctored testing centers near their home or work (or at USC if in the Los Angeles area)



DEN@Viterbi Overview

| | DEN@Viterbi Student | On-Campus Student | |
|--|---|--|--|
| Program Admission | USC Graduate Application & required materials | USC Graduate Application & required materials | |
| Weekly Course Lectures | Online with Interactivity | On USC's Campus | |
| Online Course Archives (Lectures & Course Documents) | ✓ | ✓ * | |
| Assignments | Submit electronically according to course deadlines | Submit during lecture or lab according to course deadlines | |
| Exams | Proctored location | USC's campus | |
| Courses per Semester (Average) | 1-2 | 3-4 | |
| Degree Completion Requirements | 27-37 units with a 3.0 GPA or above | 27-37 units with a 3.0 GPA or above | |
| USC Diploma (No Distinction) | ✓ | \checkmark | |





DEN@Viterbi's E-Learning System



DEN@Viterbi Classroom



DEN@Viterbi Additional Info

Limited Status

- Allows strong candidates to begin coursework before formal admission.
- Courses (maximum of 12 units) can be applied toward degree program once admitted but limited status does not guarantee admission.
- Get Started this Summer 2019: https://viterbigradadmission.usc.edu/denviterbi/gettingstarted/

Tuition Deferment Program

- Students supported by company can defer "up front" payment of tuition until after the semester is over.
- Company must pay 75-100% of tuition to be eligible for program.
- For additional information: https://viterbigrad.usc.edu/tuition-and-funding/employer-supported



Tuition & Fees (2018-2019)

| PER-COURSE FEES | Unit Cost | Tuition for 3-Unit Course | Tuition for 4-Unit Course |
|----------------------------------|-----------|---------------------------|------------------------------|
| Tuition for 500/600 level course | \$2,005 | \$6,015 | \$8,020 |

Degree Programs are 27-36 units (7-11 courses)

For an overview of additional fees, please visit:

https://viterbigradadmission.usc.edu/programs/masters/tuition-funding/tuition-funding-masters/

School of Engineering

Getting Started

For those interested in taking classes on campus:

- Visit USC campus
- Start your application: http://www.usc.edu/admission/graduate/apply

For those interested in taking classes online via DEN@Viterbi:

- Start as a Limited Status Student in Summer 2019 or-
- Start your application: http://www.usc.edu/admission/graduate/apply



Contact Us

USC Viterbi School of Engineering Graduate & Professional Programs









