Discover Viterbi: Engineering Management

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Graduate & Professional Programs

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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 info session?

1. Use the Q&A panel to the right of this presentation.
2. Type your question in the box.
3. An USC representative will answer your question as soon as they are able.
Today’s Program

• The University of Southern California
• Viterbi School of Engineering
• Master of Science in Engineering Management
  • Program Overview
  • Application Criteria
• Distance Education Network (DEN@Viterbi)
• Tuition & Fees
• Q&A
University of Southern California
University of Southern California

- Oldest private university in western U.S. – founded in 1880
- 43,000 Students: 19,000 Undergrads | 24,000 Graduates
- 3,900+ full-time faculty
- Diverse student population
Principal world center for aerospace, communications, biotech R&D, commerce, entertainment and the arts

Los Angeles provides a setting for numerous cultural, educational and career opportunities

California offers rich opportunities for internships and careers, with Silicon Valley to the north; the hub of biotech activity in San Diego, to the south; and Silicon Beach to the west - right in our back yard
Viterbi School at a Glance

• 8 Academic Departments

Faculty

• 180 tenure-track faculty
• 22 NAE
• 60+ NSF CAREER, Nat’l & Presidential Young Investigator

Student population

• 2,600 Undergraduate
• 5,200 Graduate students

Alumni

• More than 60,000+

Research

• Leader in funded research 45+ Research Centers
Recent Announcements

- Top Ranked Graduate Engineering Program

- Ranked #1 in Online Computer Information Technology Program (Computer Science)
- Top 3 Ranked Online Graduate Engineering Program

- Ranked #1 Online Computer Information Technology for Veterans
- Ranked #2 Online Graduate Engineering for Veterans
<table>
<thead>
<tr>
<th>Viterbi School: Points of Distinction</th>
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<tbody>
<tr>
<td>• International Reputation for Excellence</td>
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<tr>
<td>• World Class Faculty &amp; Research</td>
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<td>• NSF Career Awardees</td>
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<td>• Sol Golomb, Nat’l Medal of Science</td>
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<td>• MIT TR35 Faculty Distinctions</td>
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<td>• Trojan Family Network</td>
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<tr>
<td>• Complete range of programs</td>
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<tr>
<td>• Ph.D., Master’s &amp; Bachelor’s Programs</td>
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<tr>
<td>• Graduate Certificates</td>
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<td>• Continuing Education Short Courses</td>
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<td>• Custom Programs</td>
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The Viterbi School of Engineering: A Leader In Research

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

- highly interdisciplinary research environment
- diverse research areas as robotics, software engineering, sensor networks, vision sciences, automated construction and photonics
- over 45 research centers
- industrial partnerships and collaboration
Meet Professor Geza Bottlik

Prof. Geza Bottlik

Degrees in Mechanical Engineering – graduate degrees from USC

34 years of industry experience (24 at Xerox) –
Computer design, research in Physics, Industrial Engineering Management, Strategic Planning and Finance overlapping with

25 years at USC –
Production Planning, Decision Making, Statistics, Project Management, Engineering Economy

Director of the Engineering Management Program
M.S. in Engineering Management

- The engineering management program is intended to prepare engineers for careers in management.

- A third of engineers become managers and are faced with problems they are unprepared for unless they have the preparation provided by this degree.
M.S. in Engineering Management

- The program is intended for both working engineers and recent graduates from bachelor programs.
- Recent bachelor graduates will increase their employability and their chances of being considered for subsequent management positions, as well as becoming better engineers.
### M.S. in Engineering Management

<table>
<thead>
<tr>
<th>Benefits for Working Engineers:</th>
<th>Benefits for Managers:</th>
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<tbody>
<tr>
<td>Working engineers benefit from the degree by enhancing their chances for promotion as well as becoming better engineers.</td>
<td>Engineers who are already managers benefit by a deeper understanding of the issues and methods involved in managing technology oriented projects.</td>
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</table>
M.S. in Engineering Management

- The program averages 100-150 students, with about 75 graduating per year
- About 20% of the students are off campus
- Classes are taught by a combination of full time professor and industry experts with substantial teaching experience
- Graduates find jobs in domestic and international positions and both in large and smaller companies
Related Organizations

- USC is a member of a consortium of top universities offering a degree in engineering management.

- Current students have a very successful student organization dedicated to sharing their experience at USC and disseminating information about job opportunities (EMSA – Engineering Management Student Association).
About the Master of Engineering Management Programs Consortium (MEMPC)

Consortium Members

- Cornell University – Master of Engineering in Engineering Management Program
  Charter Member 2007
- Duke University – Master of Engineering Management Program
  Charter Member 2006
- University of Southern California – Master of Science in Engineering Management
  Charter Member 2013
- Stanford University – Master of Management Science & Engineering Program
  Charter Member 2007
- Dartmouth College – Master of Engineering Management Program
  Charter Member 2006
- MIT System Design and Management Program – Master’s in Engineering and Management
  Charter Member 2011
- Northwestern University – Master of Engineering Management Program
  Charter Member 2006

Benefits of the Consortium

- Sharing best practices, benchmarking studies, curriculum
# M.S. in Engineering Management – Program Details

## Required Courses (both courses)
- ISE 500 | Engineering Management Decisions and Statistics
- ISE 561 | Economic Analysis of Engineering Projects

## Accounting Area (choose one)
- CE 502 | Construction Accounting and Finance
- ISE 566 | Financial Accounting for Engineers

## Engineering Management Area (at least 2 courses)
- ISE 515 | Engineering Project Management
- ISE 544 | Management of Engineering Teams
- ISE 564 | Performance Analysis
- ISE 565 | Law and Finance for Engineering Innovation
### M.S. in Engineering Management – Program Details

<table>
<thead>
<tr>
<th>Quantitative Methods (at least 1 course)</th>
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<tbody>
<tr>
<td>ISE 513</td>
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<td>ISE 514</td>
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<tr>
<td>ISE 525</td>
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<tr>
<td>ISE 527</td>
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<tr>
<td>ISE 530</td>
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</table>

**12 units of electives are also required**

Chosen with the consent of the advisor
Viterbi also offer dual degrees of Engineering Management with

- Electrical Engineering
- Aerospace and Mechanical Engineering

A dual degree requires a total of 48 units

Dual degree programs are only available on-campus.
**Application Criteria for M.S. in Engineering Management**

- Undergraduate degree (Bachelor of Science) in engineering, math, or hard science from a regionally-accredited university

- To be competitive, a cumulative undergraduate GPA of at least 3.0 on a 4.0 scale is recommended

- Satisfactory scores on the general portion of the Graduate Record Examination (GRE) that are less than five years old

- Supplemental Materials:
  - 3 Letters of Recommendation (Highly Recommended)
  - Statement of Purpose (Required)

- Please visit [viterbi.usc.edu/msdegrees](http://viterbi.usc.edu/msdegrees) for complete requirements
## Application Deadlines

<table>
<thead>
<tr>
<th>FALL – January 15</th>
<th></th>
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<tbody>
<tr>
<td>For on-campus students: Apply by December 15 for funding consideration</td>
<td></td>
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</table>

<table>
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<tr>
<th>SPRING – September 15</th>
<th></th>
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<tbody>
<tr>
<td>Apply Online</td>
<td></td>
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<tr>
<td><a href="http://www.usc.edu/admission/graduate/apply">http://www.usc.edu/admission/graduate/apply</a></td>
<td></td>
</tr>
</tbody>
</table>
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**
  - 3 classes per semester
  - 1.5-2 years to complete degree

- **Online delivery via DEN@Viterbi**
  - 1-2 classes per semester
  - 2 ½ - 3 years to complete degree
Distance Education Network (DEN@Viterbi)

More than 40 years of distance education expertise

Online delivery makes earning an MS degree practical and flexible for working professionals

**DEN@Viterbi students:**

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

<table>
<thead>
<tr>
<th></th>
<th>DEN@Viterbi Student</th>
<th>On-Campus Student</th>
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</thead>
<tbody>
<tr>
<td><strong>Program Admission</strong></td>
<td>USC Graduate Application &amp; required materials</td>
<td>USC Graduate Application &amp; required materials</td>
</tr>
<tr>
<td><strong>Weekly Course Lectures</strong></td>
<td>Online with Interactivity</td>
<td>On USC’s Campus</td>
</tr>
<tr>
<td><strong>Online Course Archives</strong></td>
<td>![Checkmark]</td>
<td>![Checkmark] <em>(DEN@Viterbi sections only.)</em></td>
</tr>
<tr>
<td><em>(Lectures &amp; Course Documents)</em></td>
<td>![Checkmark]</td>
<td>![Checkmark] <em>(DEN@Viterbi sections only.)</em></td>
</tr>
<tr>
<td><strong>Assignments</strong></td>
<td>Submit electronically via email or fax according to course deadlines</td>
<td>Submit during lecture or lab according to course deadlines</td>
</tr>
<tr>
<td><strong>Exams</strong></td>
<td>Proctored location</td>
<td>USC’s campus</td>
</tr>
<tr>
<td><strong>Courses per Semester</strong></td>
<td>1-2</td>
<td>3-4</td>
</tr>
<tr>
<td><em>(Average)</em></td>
<td>![Checkmark]</td>
<td></td>
</tr>
<tr>
<td><strong>Degree Completion Requirements</strong></td>
<td>30 units with a 3.0 GPA or above</td>
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</tr>
<tr>
<td><strong>USC Diploma</strong> <em>(No Distinction)</em></td>
<td>![Checkmark]</td>
<td>![Checkmark]</td>
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</table>

*DEN@Viterbi sections only.
DEN@Viterbi’s E-Learning System

Lecture Video 10/20/2015

Chapter 10 Implicit Enumeration

Figure 10-22 The elimination tree completely explored
DEN@Viterbi’s E-Learning System

DEN@Viterbi Classroom on USC’s Campus
### 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: [http://gapp.usc.edu/graduate-programs/den/getting-started](http://gapp.usc.edu/graduate-programs/den/getting-started)

### 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: [http://gapp.usc.edu/tuitiondeferment](http://gapp.usc.edu/tuitiondeferment)
# Tuition & Fees for M.S. Students

## PER-COURSE TUITION

| 500/600 level course: $1,774 per unit | $5,322 |

- Degree Programs is 30 units (10 courses)
- For an overview of additional fees, please visit: [https://gapp.usc.edu/graduate-programs/graduate-funding/masters/tuition](https://gapp.usc.edu/graduate-programs/graduate-funding/masters/tuition)
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 DEN@Viterbi delivery
  - Start as Limited Student next semester or apply for admission at the link above
CONTACT US

USC Viterbi School of Engineering
Graduate and Professional Programs

Email (On Campus): viterbi.gradprograms@usc.edu
Email (DEN@Viterbi): DEN@Viterbi.usc.edu

Phone: 213.740.4488

Web: http://viterbi.usc.edu/msdegrees