Preparing Students to Succeed in a Data-driven World

Soumya Sen
May 28, 2021. IT Teaching Workshop.
MS in Business Analytics (MSBA)

One Year

Full Time. Cohort-based.
45 credits – 15 credits per term.
STEM-designated.

Real-world Experience Built In

Experiential learning is a hallmark of the Carlson School. Students in the MSBA program put what they learn to work for real clients like Mall of America and gain valuable resume experience along the way.

EXPERIENTIAL LEARNING IN ANALYTICS
## MSBA Curriculum

### Business & Technical Fundamentals

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business Essentials</td>
<td>3</td>
</tr>
<tr>
<td>Statistics for Data Scientists</td>
<td>3</td>
</tr>
<tr>
<td>Introduction to Business Analytics in R</td>
<td>3</td>
</tr>
<tr>
<td>Programming for Data Science</td>
<td>3</td>
</tr>
<tr>
<td>Data Management, Databases, &amp; Data Warehousing</td>
<td>3</td>
</tr>
</tbody>
</table>

### Core Analytics Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>Exploratory Data Analytics</td>
<td>3</td>
</tr>
<tr>
<td>Predictive Analytics</td>
<td>3</td>
</tr>
<tr>
<td>Big Data Analytics</td>
<td>3</td>
</tr>
<tr>
<td>Building &amp; Managing Teams</td>
<td>1.5</td>
</tr>
<tr>
<td>Ethics &amp; Data Privacy</td>
<td>1</td>
</tr>
<tr>
<td>Casual Inference via Econometrics &amp; Experimentation</td>
<td>3</td>
</tr>
</tbody>
</table>

### Advanced Analytics & Experiential Learning

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Optimization &amp; Simulation for Decision Making Support</td>
<td>3</td>
</tr>
<tr>
<td>Advanced Issues in Business Analytics</td>
<td>3</td>
</tr>
<tr>
<td>Agile Management of Analytics Projects</td>
<td>1.5</td>
</tr>
<tr>
<td>Elective</td>
<td>2</td>
</tr>
<tr>
<td>Business Analytics Experiential Learning Project</td>
<td>6</td>
</tr>
</tbody>
</table>

### Experiential Learning Projects

- **TREND MARKETPLACE**
  - 4-week competition sponsored by a client partner
  - Tradeshow-style event with industry guests

- **LIVE CASE**
  - CARLSON ANALYTICS LAB Experiential Learning Projects
  - Paying clients, 14 weeks, end-to-end project lifecycle
Carlson MSBA Students

FULL-TIME MSBA CLASS OF 2020 PROFILE  (119 students)

24  3.54  703  320

AGE  GPA  GMAT  GRE

27%  39%  25%  9%

AVERAGE WORK EXPERIENCE

0-1 YEARS  1-3 YEARS  3-5 YEARS  5+ YEARS

119 STUDENTS/ 2 COHORTS

ENGINEERING • 45%
FINANCE/ACCTG • 12%
BUSINESS/MGMT • 11%
MATH/STATISTICS • 8%
COMPUTER SCIENCE • 7%
ECONOMICS • 6%
MIS/IT • 4%
OTHER • 7%

WOMEN 40%
INTERNATIONAL 87%
Carlson MSBA Placements

2019

98% of 2019 graduates received employment offers within six months after graduation

- 95% with U.S. work authorization
- 99% without U.S. work authorization

Base Salary
Mean: $97,290
Range: $68,000 - $140,000

2020

94% of 2020 graduates received employment offers within six months after graduation

- 89% with U.S. work authorization
- 94% without U.S. work authorization

Base Salary
Mean: $94,952
Range: $40,000 - $165,000

WHERE STUDENTS ACCEPTED JOBS
MS in Applied Business Analytics (MABA)

**Program**
- Part Time HyFlex
- 2 Years
- 32 credits
- 2 courses/term
- Capstone project

**Students**
- 15 – 20 students
- Professionals
- 8.4 years avg. exp.
- 20 – 40% female

**Analytics Certificate**
- NEW
- 12 credits
- Subset of MABA courses
- Extensible to MABA degree
Analytics in Carlson MBA Program

Core

MBA 6240. Competing in a Data-Driven Age (2 credits)

Students learn general state-of-the-art analytics skills in the context of new platform based business models, digital search, big-data, social networks, social media and open innovation that pervade competition in the digital age.

Elective

IDSC 6444. Business Analytics for Managers I (2 credits)

Introduction to basic techniques in visualization, association rules, clustering, classification, regression, and elementary natural language processing.

Elective

IDSC 6446. Business Analytics for Managers II (2 credits)

Advanced techniques in data and text mining text, temporal data analytics, and advanced data visualization with real world data from different business contexts.
Analytics in Carlson Core UG Program

BUSINESS AS A FORCE FOR GOOD
Undergraduate Curriculum

PEOPLE & PLANET
Courses That Prepare Students to Lead with Purpose

Career skills, Leadership, Ethics, Sustainability courses

FOUNDATIONS & IMPACT
Courses That Equip Students with Business Fundamentals for Lasting Impact

Managerial economics & core area courses

DATA & DECISIONS
Courses That Build Skills for Solving Complex Problems

Business Statistics in R (4 cr)
Modeling Business Decisions in Excel (2 cr)
Data-driven Business Decisions (3 cr)
Business Analytics (3 cr)

INTERNATIONAL EXPERIENCE
Developing culturally aware leaders through an immersive global experience

IMPACT CORE (I-CORE)
Building core business knowledge in a yearlong community for lasting impact

INDUSTRY LAB (I-LAB)
Students solving real problems for nonprofits, social enterprises & corporations
Analytics for Decision Making Specialization

Boost your career through business analytics. Learn the basics of predictive and prescriptive analytics to further your career options in the area of business analytics.

5.0 6 ratings

Instructors

De Liu
Professor
Information & Decision Sciences
401 Learners
1 Course

Soumya Sen
Associate Professor
Carlson School of Management, Information and Decision Sciences
11,337 Learners
3 Courses

Alok Gupta
Associate Dean of Faculty & Research
Information & Decision Sciences
200 Learners
1 Course