Business and Managerial Analytics, Certificate

Program Director: Scott Rex
Business and Managerial Analytics website (https://www.marquette.edu/business/graduate/analytics-certificate.php)

Degree Offered
Certificate

Program description
The graduate certificate in business and managerial analytics is designed to develop the knowledge and skills to enable employees to leverage an organization's data and to utilize it in business decision making and risk reduction. The Marquette University Graduate School of Management (GSM) focuses on a deep understanding of the practice and use of analytics in the business environment: how to understand, frame and solve real world business problems across business disciplines. The GSM certificate gives students the tools and knowledge to make informed business decisions. This certificate prepares students to assemble the appropriate information and analytics tools needed to address a specific business problem, identify appropriate data sources and acquire required data, prepare and organize the data for analysis, and interpret appropriate analytical methods to address a business problem using descriptive, predictive and/or prescriptive analytics.

Prerequisites for Admission
Applicants must hold a baccalaureate degree, or its academic equivalent, from an accredited college or university. The undergraduate background must be appropriate to the chosen course of study. Applicants should have a minimum cumulative grade point average of 2.750 (on a scale of 4.000) in their undergraduate course work.

Applicants need to have completed a college-level statistics course with content the equivalent of the GSM statistics foundations course (MBA 6010 Quantitative Analysis). An applicant without college level statistics may seek temporary enrollment in the GSM to complete MBA 6010 before pursuing admission to the certificate program. The marketing, finance and economics electives within the certificate curriculum require foundational knowledge outlined below. Students interested in the marketing, finance and/or economics electives without the associated prerequisite course work may complete foundational courses as part of enrollment in the certificate program with the understanding that foundational courses do not fulfill certificate requirements.

• Marketing: completion of a college-level introduction to marketing course with a B or above.
• Finance: completion of a college-level introduction to finance course with a B or above.
• Economics: completion of intermediate-level macroeconomic and microeconomic courses.

No programming experience is required.

Application Requirements
Application requirements and the online application link are available through the GSM website (https://www.marquette.edu/business/graduate/analytics-certificate.php).

Business and Managerial Analytics Certificate
This business and managerial analytics certificate is a 14- to 15-credit program. Within the application process, students may be considered for a 12-credit program through the prior completion of up to 3 credits within the required course list below or a course approved by the certificate's director of graduate studies.

Required courses:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>MBA 6100</td>
<td>Business Analytics</td>
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<tr>
<td>COSC 6520</td>
<td>Data Analytics</td>
<td></td>
</tr>
<tr>
<td>Skills Courses 1</td>
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<td>2-3</td>
</tr>
<tr>
<td>ECON 6114</td>
<td>R Programming</td>
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<tr>
<td>ECON 6116</td>
<td>SQL</td>
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<td>ECON 6118</td>
<td>Python Programming</td>
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<tr>
<td>Electives</td>
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<tr>
<td>MARK 6130</td>
<td>Customer Relationship Management</td>
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<tr>
<td>MARK 6160</td>
<td>Marketing Research</td>
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<tr>
<td>Course Code</td>
<td>Course Title</td>
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<tr>
<td>MARK 6165</td>
<td>Marketing Analytics</td>
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<tr>
<td>ECON 6560</td>
<td>Applied Econometrics</td>
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<tr>
<td>ECON 6561</td>
<td>Applied Time-Series Econometrics and Forecasting</td>
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<tr>
<td>MSF 6560</td>
<td>Financial Derivatives</td>
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<tr>
<td>MSF 6575</td>
<td>FinTech Foundations and Applications</td>
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<tr>
<td>or FINA 6175</td>
<td>FinTech: Foundations and Applications</td>
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<tr>
<td>or FINA 5075</td>
<td>FinTech Foundations and Applications</td>
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<tr>
<td>HEAL 6830</td>
<td>Quality Improvement Science in Health Care</td>
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<tr>
<td>HEAL 6835</td>
<td>Health Care Informatics, Technology and Professional Issues</td>
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<td>ADPR 5350</td>
<td>Social Media Analytics and Measurement</td>
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<tr>
<td>COMM 6002</td>
<td>Communication Research in Action</td>
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<tr>
<td>COMM 6815</td>
<td>Digital Communication Strategies in Metrics</td>
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</tbody>
</table>

**Total Credit Hours:** 14-15

1. In consultation with the director of the BMAN certificate program prior to the start of the program.

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**University Policies**

- Academic Censure - Graduate School of Management (https://bulletin.marquette.edu/policies/academic-censure/management/)
- Academic Integrity (https://bulletin.marquette.edu/policies/academic-integrity/)
- Academic Misconduct (https://bulletin.marquette.edu/policies/academic-misconduct-policy/)
- Academic Program Definitions (https://bulletin.marquette.edu/policies/academic-programs-defined/)
- Accelerated Degree Programs (https://bulletin.marquette.edu/policies/accelerated-degree-programs/)
- Attendance - Graduate School of Management (https://bulletin.marquette.edu/policies/attendance/management/)
- awarding Diplomas and Certificates (https://bulletin.marquette.edu/policies/ awarding-diplomas-certificates/)
- Background Checks, Drug Testing (https://bulletin.marquette.edu/policies/background-checks-drug-testing/)
- Class Rank (https://bulletin.marquette.edu/policies/class-rank/)
- Commencement (https://bulletin.marquette.edu/policies/commencement/)
- Conferral of Degrees and Certificates (https://bulletin.marquette.edu/policies/conferral-degrees-certificates/)
- Course Levels (https://bulletin.marquette.edu/policies/course-levels/)
- Credit Hour (https://bulletin.marquette.edu/policies/credit/)
- Credit Load - Graduate School of Management (https://bulletin.marquette.edu/policies/credit-load/management/)
- Faculty Grading (https://bulletin.marquette.edu/policies/faculty-grading/)
- Family Education Rights and Privacy Act-FERPA (https://bulletin.marquette.edu/policies/ ferpa/)
- Grade Appeals (https://bulletin.marquette.edu/policies/grade-appeals/)
- Grading System - Graduate School and Graduate School of Management (https://bulletin.marquette.edu/policies/grading-system/graduate-management/)
- Graduation - Graduate School of Management (https://bulletin.marquette.edu/policies/graduation/management/)
- Immunization and Tuberculosis Screening Requirements (https://bulletin.marquette.edu/policies/immunization-and-tuberculosis-screening/)
- Last Date of Attendance/Activity (https://bulletin.marquette.edu/policies/ last-date-of-attendance-activity/)
- Military Call to Active Duty or Training (https://bulletin.marquette.edu/policies/ militarycall-active-duty-training/)
- Registration - Graduate School of Management (https://bulletin.marquette.edu/policies/registration/management/)
- Repeated Courses - Graduate School of Management (https://bulletin.marquette.edu/policies/repeated-courses/management/)
- Student Data Use and Privacy (https://bulletin.marquette.edu/policies/student-data-use-privacy/)
- Transcripts-Official (https://bulletin.marquette.edu/policies/transcripts-official/)
- Transfer Course Credit - Graduate School of Management (https://bulletin.marquette.edu/policies/transfer-course-credit-policy/management/)
- Withdrawal - Graduate School of Management (https://bulletin.marquette.edu/policies/withdrawals/management/)

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**Graduate School of Management Policies**

- Academic Programs Overview - Graduate School of Management (https://bulletin.marquette.edu/business-administration/policies/academic-programs-overview/)
- Academic Review (https://bulletin.marquette.edu/business-administration/policies/academic-review/)
- Accelerated Degree Program (ADP) (https://bulletin.marquette.edu/business-administration/policies/accelerated-degree-program/)

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• Advising (https://bulletin.marquette.edu/business-administration/policies/advising/)
• Appeals (https://bulletin.marquette.edu/business-administration/policies/appeals/)
• Assistanships and Fellowships (https://bulletin.marquette.edu/business-administration/policies/assistanships-fellowships/)
• Certificate Concurrent Enrollment (https://bulletin.marquette.edu/business-administration/policies/certificate-concurrent-enrollment/)
• College of Business Administration Policies (https://bulletin.marquette.edu/business-administration/policies/)
• Communication (https://bulletin.marquette.edu/business-administration/policies/communication/)
• Conduct (https://bulletin.marquette.edu/business-administration/policies/conduct/)
• Confidentiality of Proprietary Information (https://bulletin.marquette.edu/business-administration/policies/confidentiality-proprietary-information/)
• Continuous Enrollment (https://bulletin.marquette.edu/business-administration/policies/continuous-enrollment/)
• Courses and Prerequisites (https://bulletin.marquette.edu/business-administration/policies/courses-prerequisites/)
• Cross-listed Courses (https://bulletin.marquette.edu/business-administration/policies/cross-listed-courses/)
• Deadlines (https://bulletin.marquette.edu/business-administration/policies/deadlines/)
• Dual/Joint Programs of Study (https://bulletin.marquette.edu/business-administration/policies/dual-joint-programs/)
• Graduate Credit (https://bulletin.marquette.edu/business-administration/policies/graduate-credit/)
• Independent Study Courses (https://bulletin.marquette.edu/business-administration/policies/independent-study-courses/)
• Intellectual Property (https://bulletin.marquette.edu/business-administration/policies/intellectual-property/)
• Inter-University Visitation (https://bulletin.marquette.edu/business-administration/policies/inter-university-visititation/)
• Law Student Consent to Take a GSM Course (https://bulletin.marquette.edu/business-administration/policies/law-student-consent-take-gsm-course/)
• Temporary Withdrawal from a Graduate Program (https://bulletin.marquette.edu/business-administration/policies/temporary-withdrawal/)
• Time Limitations (https://bulletin.marquette.edu/business-administration/policies/time-limitations/)
• Undergraduate Students in Graduate Courses (https://bulletin.marquette.edu/business-administration/policies/undergraduate-students-in-graduate-courses/)