Managing Business Intelligence: Preparing Project Facilitators Through a Graduate Degree Concentration

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About DeVry University

- Founded 1931
- More than 90 US locations and online
- Career-oriented grad and undergrad degrees in technology, science, business, and the arts

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Business Intelligence and Analytics Management (BIAM)

- **Graduate**
  - MBA Concentration or Graduate Certificate
  - Prepares students for management roles in BI/analytics projects

- **Undergraduate**
  - BSBA / BSM / BSTM Concentration
  - Prepares students for entry-level management support roles

- Understanding of themes, initiatives, and impacts

- Hands-on familiarity with methods and tools

- Breadth vs. depth

- First courses (graduate) offered March 2014
## MBA Program Objectives

<table>
<thead>
<tr>
<th>Principles</th>
<th>Demonstrate an in-depth knowledge of the principles of accounting and finance, marketing management, leadership and organizational behavior, and business economics in various management situations in a global economy.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication</td>
<td>Demonstrate quality corporate level oral and written communication skills through written reports, research projects, business plans, and oral presentations.</td>
</tr>
<tr>
<td>Analysis</td>
<td>Conduct quantitative and qualitative business analyses, choose legal and ethical courses of action, and use appropriate software applications to develop alternative solutions, evaluate outcomes and make recommendations for effective business decisions.</td>
</tr>
<tr>
<td>Collaboration</td>
<td>Demonstrate effective collaboration with diverse populations in multiple settings.</td>
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## BIAM Concentration Objectives

<table>
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<tr>
<th><strong>Tools</strong></th>
<th>Identify and evaluate based on relative strengths and weaknesses the appropriate analytical tools needed to solve multi-functional business problems.</th>
</tr>
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<td><strong>Translation</strong></td>
<td>Act as a translator by formulating an explanation of the results of a business intelligence project that is understandable by the business function expert and agreeable to the analyst.</td>
</tr>
<tr>
<td><strong>Impacts</strong></td>
<td>Assess the organizational impact of applying business intelligence techniques to an organization's problems and suggest approaches to maximize the benefits and minimize the costs.</td>
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<tr>
<td><strong>Strategy</strong></td>
<td>Support senior level managers in understanding the strategic implications of applying the techniques of business intelligence to their organization.</td>
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Skill Sets and Topics

Business Intelligence
(ability to use the items below)

<table>
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<tr>
<th>Business Analytics (model, predict, optimize)</th>
<th>Business Knowledge (ability to know the past)</th>
<th>Business Analysis (analyze current processes)</th>
</tr>
</thead>
</table>
Curriculum

- Program Core (15 ch)
  - Accounting & Finance
  - Statistics
  - Leadership & Org. Behavior
  - MIS
  - Marketing

- Program-Specific (15 ch)
  - Managerial Accounting
  - Economics
  - Managerial Finance
  - Business Law
  - Business Planning Seminar (Capstone)

- BIAM Concentration (12 ch)
  - Applications of Business Analytics I & II
  - Any 2 other BIAM courses

- General Electives (6 ch)
  - Any 2 courses with prereqs met

Image: Cover of Keller GSM catalog. Used by permission.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIAM500</td>
<td>Applications of Business Analytics I</td>
</tr>
<tr>
<td>BIAM510</td>
<td>Applications of Business Analytics II</td>
</tr>
<tr>
<td>BIAM530</td>
<td>Developing &amp; Managing Databases for Business Intelligence</td>
</tr>
<tr>
<td>BIAM540</td>
<td>Internet Analytics Strategies</td>
</tr>
<tr>
<td>BIAM560</td>
<td>Predictive Analytics</td>
</tr>
<tr>
<td>BIAM570</td>
<td>Modeling for Decision-Making</td>
</tr>
<tr>
<td>GSCM520</td>
<td>Foundations in Global Supply Chain Management</td>
</tr>
</tbody>
</table>
Business Analytics

- **Teaching Strategies**
  - Video-based labs
  - Case studies

- **Tools**
  - GUI
  - Open source
  - Excel add-ins (e.g. NodeXL)
  - R: Rattle, R Commander, R Studio
  - MongoDB: RoboMongo

- **Challenges**
  - Student time requirements
  - Big picture focus
  - Technical hurdles with centralized lab environment

- **Student Reactions**
  - “Tough but worth it”
  - Immediately applicable

Image: Network analysis of a Twitter feed using NodeXL
Internet Analytics

- Teaching Strategies
  - Online discussions
  - Labs with clickstream analytics
  - Course project: Implementing a measurement plan

- Technologies
  - Demo versions of analytical tools
  - Internally developed web analytics simulator (Google Analytics-based)

- Challenges
  - Suitable textbooks
  - Access to tools and realistic data sets
  - Constant tool changes
Database Management and Development

- Teaching Strategies
  - Case studies
  - Lab assignments

- Tools
  - Microsoft Visio
  - Microsoft Access
  - Microsoft SQL Server
    - Management Studio
    - Analysis Services
    - Business Intelligence Development Studio
    - AdventureWorks demo databases

- Challenges
  - Accessibility to students with varying backgrounds
  - Balance between business and technology

Image: SQL Server Analysis Services data cube
Contact Information / Q&A

- Contact me:
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  [@russwalker58](https://twitter.com/russwalker58)

- BIAM at DeVry University/Keller Graduate School of Management
  - [http://www.keller.edu/graduate-degree-programs/mba-program/business-intelligence-mba.html](http://www.keller.edu/graduate-degree-programs/mba-program/business-intelligence-mba.html)

- This presentation:
  [https://sites.google.com/site/russwalker58/managing-bi](https://sites.google.com/site/russwalker58/managing-bi)

- Questions?
What is Analytics Report Finder (ARF)

- ARF is a web analytics tool simulator.
- It simulates the Google Analytics (GA) interface.
- It was developed by DeVry University to support a graduate course in Internet analytics strategies.
- Students can interact with ARF to find predefined (PDF) reports.
- Focuses on working with reports only. No admin features.
Google Analytics (GA)

Analytics Report Finder (ARF)
Analytics Report Finder (ARF)

**Strengths**

- Interface and report formats do not change over time. This makes it easier to coordinate with weekly notes and assignments.
- It is interactive.
- Based on real data for metricagroup.com.
- Great tool for working with analytics reports and learning to work with GA reports.
- Many features are similar to GA
  - Report menu on left
  - Same report format
  - Can expand menu
  - Similar “feel”

**Limitations**

- Limited functionality.
  - Standard predefined reports only.
  - Predetermined report dates.
  - No admin rights.
  - Limited segmentation of data (All users or Mobile/Tablet users only).
  - Not all reports are included
- Interface and report formats do not change to reflect changes in the design of GA.
ARF Demonstration

Click for Demo