Tame Big Data for Big Insight
Course Number: BUS 103

List of content
- Course Description
- Course Goals
- Proposed Texts and books
- Evaluation for students requiring a grade
- Schedule and session details
- Test description

Course Description

Time to claim leadership to lead data projects and foster a data driven culture. Engaging with data goes beyond achieving analytics and delivering reports. The data journey requires a strategic vision to align all forces to a common enterprise goal. It calls for architects of solutions that combine simplicity with scalability. It requires an impeccable understanding of data dynamics. It can't be delivered without thorough change management and understanding how it affects human relationships. Finally, it must always be focused on running on efficient and sustainable processes. We all have a responsibility to lead the charge and avoid the mistakes of the past.

This curriculum aims to teach the key actions to repeatable and successful data projects. By starting on a solid basis, from small or medium projects, students will be equipped to set a trajectory that will propel their analytics capabilities to new levels and to improve their service to their business partners. By mastering the critical business elements of the technical stack, they will become a respected business partner by IT. By mentoring their peers and progressively standardizing to ultra-efficient approach, they will lead the development of high powered teams that process in minutes what used to take hours.

This curriculum is designed individuals eager to make more out of their missions, produce better and faster insights, and add more value to their business counterparts. All this can be done while obliterating the daily frustrations of tedious spreadsheet work.

Keys for success for the class include:
- Eagerness to embrace new, yet simple, techniques
- Ambition to engage on an ever growing journey
- Curiosity to dive deeper on the concepts and applied cases seeded during the sessions

Course Goals

Courses aim to develop the intellectual skills of inquiry, analysis, interpretation and synthesis necessary for successful design, implementation and management of data and BI initiatives. Students will meet domain thought leaders throughout the course that will share their first-hand experience.

The 3 main takeaways:
- Understand the key components of Data Projects (System, Data, People and Process) and become empowered to engage with Business, IT and vendors with confidence.
- Empower students to design and implement the solutions that will work in their organization avoiding sub-optimal cookie cutter approaches.
- Learn actionable solution immediately applicable to the students’ daily job.
Proposed Texts and books
These books are NOT mandatory reads and just indicative reading ideas.

Profiles in Performance: Business Intelligence Journeys and the Roadmap for Change
Howard Dresdner
Hardcover: 174 pages
Publisher: Wiley; 1 edition (November 9, 2009)
Language: English
ISBN-10: 0470408863

Competing on Analytics: The New Science of Winning
Thomas Davenport
Hardcover: 240 pages
Publisher: Harvard Business School Press; 1 edition (March 6, 2007)
Language: English
ISBN-10: 1422103323

Journal of Management Excellence, BI CoE: http://tiny.cc/kbtdj

TDWI Business Intelligence : The New Imperative for Business Schools: http://tiny.cc/ixvfc

Lean Integration: An Integration Factory Approach to Business Agility
John Schmidt
Paperback: 464 pages
Publisher: Addison-Wesley Professional; 1 edition (May 28, 2010)
Language: English
ISBN-10: 0321712315

Performance Management Revolution
Howard Dresdner
Hardcover: 231 pages
Publisher: Wiley; 1 edition (November 16, 2007)
Language: English
ISBN-10: 0470124830

Evaluations for the Students requiring a grade
Students have three grade options:
• No Grade Requested (NGR) – The majority of students opt for NGR. No work is required; no credit shall be received; no proof of attendance can be provided. (Not suitable for those requiring proof of attendance/completion.)

• Credit/No Credit (CR/NC) - Attendance is required

• Letter Grade - Lecture attendance 30% / Final assignment 70%
Schedule (subject to change and adaptations)

Objective: Set the actionable foundation of a data driven culture. Learn the core rules to successful data projects and engage in your projects firing on all cylinders: System, Data, People and Processes. Learn in detail concrete strategies and tactics to accelerate your project deliveries. Effortlessly expand your analytics range by rolling out standardized lean processes. Lead as a team with a constant drumbeat of new analytics wins.

Session 1: Understand the full scope of data applications in business
Limiting the field of data application from the start will hinder creativity and vision of students as they engage on projects. By understanding the spectrum of possibilities, students will grow bolder in the analytics they undertake.

Session 2: Architect systems for agility and scalability in a true partnership with IT
By avoiding initial critical errors, students can design ultra-lean and efficient frameworks that they will not only tailor to their needs but also control. Understand what should drive the implementation of systems to best position them in your organization:
● Learn the core system components of the analytics stack to best leverage and connect them
● Become comfortable with technology to engage with confidence and impact with IT and your vendors
● Smart select your vendors and engage them with best synergies

Session 3 Lead rapid implementations the deliver quick wins and sustainability
From setting the right vision, to defining the project pace, selecting the technology and the consultants, many things will go in the way of a successful plan. Learn how to limit risks by avoiding classic mistakes and knowing when to take the right calls.

Session 4: Harness data with ease and transparency
Data is a raw material and pre-analytics processing is almost as important as the final analysis. Understanding and recognizing data types enables the design of elegant and efficient models and preparation processes that will lead to faster insight with minimal error risk.
● Seize the breadth and depth of the data universe
● Understand databases and how different technologies apply to different business needs
● Learn the data families (Facts, Master Data, Meta-Data, Calculated Data) to optimize their leverage for fast and flawless analytics
● Understand what are the paradigm changes with Big Data

Session 5: Lead Data Quality and Master Data Management for best analytics results
A large and often hidden part of data management relies on quality control and alignment work. Mastering the base of these techniques is key to make progress without being hindered with bad data.

Session 6: Becoming an advocate of a data culture and a change leader
The most common weakness in data project will be the human factor. Identifying the internal and external dynamics of projects and knowing their potential impacts will help leaders to proactively manage transition and foster engagement
● Understand the required managerial changes that must happen with data projects
● Identify and mitigate resistance to change
● Leading with curiosity and design thinking mindset
Session 7: Design processes for performance and sustainability

System, data and people must be organized around processes that achieve the subtle balance between what technology can deliver, the state of the data sources (quality, completeness) and the readiness of the team. If best practices are always a good base from which to start, a focus on speed and repeatability will free up time to create additional business value.

- What makes processes sustainable?
- Identify the key components of any data process
- Learn how to position systems optimally

Session 8: The next frontier in data for business

Big Data technologies are bringing in many options for the business. By remaining focused on addressing business challenges will help students finding their way in the vast array of new solutions. As volume and analytics capabilities are exploding, the foundation of data projects still hold and become even more important to avoid the “Bigger” pitfalls of Big Data:

- Understand where technology and approaches are shifting?
- What new approaches really makes sense for the business?
- How should you balance the "walk before fly" with data?
- What are the true impacts of engaging in Big Data. How can you get ready for them?

Session 9: Windy Sales Case Study

Build a complete project, straight from the best practices learned in the class and solidify new understanding with an applied case study.

- Create and automate data capture
- Design data quality checks
- Optimize your data for business analytics
- Run analysis and automate reporting
- Connect external data to enrich your view

Session 10: with a jump start for your projects - Open Q&A and Brainstorming / White boarding Session

Open session where the students will engage to get support and get rapid start on their project or learn immediate techniques to address data challenges.

Test

The test will consist of a multi choice survey of 25-30 questions.