

Notre Dame de Namur University
BUS 2600 Operations and Information Technology Systems
Spring Term 1, 2010

This course syllabus and schedule are subject to change in the event of extenuating circumstances.

INSTRUCTOR: Dr. Rodney Heisterberg

Rodney Heisterberg serves as Professor in the School of Business and Management at Notre Dame de Namur University. Dr. Heisterberg has over 25 years of experience in the fields of Information Technology and Operations Management. He has worked and consulted for numerous Global 500 companies, including British Aerospace, Eli Lilly, Ford, General Motors, Lockheed Martin, Mitsubishi, Procter & Gamble, Sunbeam, South African Breweries, and US Steel, as well as the U.S. Department of Defense at the Pentagon. Career highlights include serving as Program Director for a Personal Computer industry initiative sponsored by the U.S. Department of State to establish a PC manufacturing industrial base for economic development of the Government of Iraq.

He was Director of Information Technology Management Consulting for Gartner in San Jose where he led engagements for eBusiness transformation strategy and applications architecture development. His responsibilities focused on strategic planning for Collaborative Commerce including formation, implementation, and operation of businesses as virtual enterprises. This role leveraged his decade of experiences as virtual enterprise architect for Lockheed Martin which provided the credentials for him to be appointed as US industry advisor to NATO where he continued to serve as virtual enterprise architect for multinational government/industry programs. Before joining Gartner, he was responsible for product management and direction of the international launch of an enterprise software solution targeted at collaborative R&D and product lifecycle management applications for Formtek.

Recent consulting engagements have focused on Collaborative Commerce applications for building Internet communities using Web 2.0 enabling technologies incorporating RSS, blog, wiki, and social networking. Example projects include:

- Creation of a collaborative Build-to-Order strategy and new product development architecture for a leading fluid processing equipment manufacturer,
- Implementation of an integrated Customer Relationship Management and Product/Project Portfolio Management system for a biotech tools community,
- Development of an Internet architecture and recruitment advertising solution roadmap for a nationwide employment network. It featured interactive video content delivered via cable TV and Internet platforms

integrated with converged human capital management and Internet marketing business processes.

Most recently he served as Strategic Technology Advisor for Holmes Digital Media in Malibu. There he was also responsible for product management of a multiplatform travel advertising product for publishing interactive ad campaigns via cable TV, Internet, and mobile devices. Furthermore, in his business development role, he directed the launch of the pilot *Travel OnDemand* product for Norwegian Cruise Line with Bright House Networks in Tampa Bay.

Dr. Heisterberg holds a Bachelors and Masters degree, as well as a Ph.D., from Purdue University, where he studied industrial engineering, computer science, and business administration. He is an internationally recognized speaker and writer, and has authored the Collaborative Commerce chapter of the award winning publication of *The Internet Encyclopedia* by John Wiley & Sons. His forthcoming chapter featuring interactive travel marketing solutions for *The Handbook for Technology Management* was published by Wiley in November 2009. This experience provides unique insights into virtual enterprise management from software product management to enterprise systems integration, as well as new product development and business development perspectives.

PHONE AND OFFICE LOCATION: 650-508-3618 at Notre Dame de Namur University campus in Belmont, location TBD.

EMAIL: rheisterberg@ndnu.edu

OFFICE HOURS: one-half hour before and after class meeting or by appointment.

CLASS LOCATION: CU 23.

CLASS DATES AND TIMES: from 6:00 p.m. to 10:15 p.m. on Tuesday from January 19 through March 2. Any exceptions to this schedule will be noted on the calendar or in case of emergency students will be notified by telephone or email. Activity using asynchronous Moodle discussion environments is also part of the course meeting.

REQUIRED TEXT:

Baltzan, P., & Phillips, A. (2010). *Business Driven Technology, 4th Edition*. New York, NY: McGraw-Hill/Irwin. ISBN 978-0-07-337679-0.

DESCRIPTION: Provides and overview of business information systems a survey of technical components within systems and with a focus on the implications for business professionals.

BACKGROUND: This course leverages the current trend in business and management known as Collaborative Commerce (C-Commerce). Traditionally, technology has been utilized within the "four walls" of the enterprise to facilitate improvements in business processes. With the advent of the Internet, enterprises have extended their use of information technologies to include external transactions with trading partners termed as "eCommerce". The emerging electronic business (eBusiness) models provide the enterprise with a collaboration capability across suppliers and customers that facilitate ease of information sharing and improved decision-making. The need to establish a sustainable competitive advantage requires the transition from the current eBusiness model of eCommerce to C-Commerce. This in turn requires the development of virtual enterprise management principles with new business practices for the formation and operation of alliances with collaborative partners having a mutual interest in their shared value chain.

C-Commerce is a strategy for the next stage of eBusiness evolution. C-Commerce business practices enable trading partners to create, manage, and use data in a shared environment to design, build, and support products throughout their lifecycle, working separately to leverage their core competencies together in a value chain that forms a virtual enterprise.

The hallmark of C-Commerce architecture is the Integration Hub which is the eBusiness platform that facilitates the sharing of information between trading partners as either a Private Trading Exchange or public e-marketplace using *Software-as-a-Service*. Integration Hub messaging services, such as inventory visibility, event notification, and performance measurement, provides the fundamental enabling technology for real time decision-making in a virtual enterprise. C-Commerce application software developed using a services-oriented architecture and deployed as web services has provided the technology base for the concept of the next generation Internet --- Web 2.0.

Though Web 2.0 is over-hyped, the blogs, wikis, social networks, RSS feeds, etc. are differentiated from the original Web technology because they replace static HTML web pages with dynamic JavaScript web services that have interactivity using peer-to-peer communication which facilitate sharing information. The characteristics of Web 2.0 are more clearly understood and appreciated in the context of a shared data environment by looking at collaboration in social networks. The interactions within and between virtual teams, focusing on the roles and responsibilities of the people and related value-added processes, provide a map that organizations can use to adapt communication and collaboration patterns for value chain optimization. This facilitates applying the appropriate collaboration technologies to deploy as online communities with best practices based on shared experiences working with these types of communities as e-marketplaces.

C-Commerce strategies are being built around Collaborative Product Commerce (CPC) and Collaborative Planning, Forecasting and Replenishment (CPFR) business models. While CPC scenarios are most prevalent in the industrial products sector for Build-to-Order solutions, CPFR was created to solve supply chain problems in the consumer packaged goods market space. The eBusiness transformation that is being realized via C-Commerce can be described in terms of management decision-making processes which leverage feedback using real time information throughout the value chain.

The two key adaptive strategic planning processes are: building the virtual enterprise infrastructure using Integration Hubs, and making decisions to optimize value chain business performance. An example is a C-Commerce framework that facilitates the management of an interactive marketing value chain. This is an adaptive strategic planning system for demand chain optimization deployed as a suite of marketing Decision Support System (DSS) applications using Web 2.0 enabling technology to provide the functionality needed to implement C-Commerce business models.

As C-Commerce continues to evolve as the mainstream eBusiness strategy for effective value chain management, the reengineering of management decision-making processes becomes the critical success factor for enterprise profitability and growth in the 21st century.

OBJECTIVES:

The course includes lectures, classroom and online discussions, textbook, library and Internet readings. The group activities and discussions will primarily consist of case analysis and will encompass a large portion of the classroom work. Additionally, students will prepare a project report/class presentation. This is a learning experience for all students, no matter what their past experience with information technology in decision support and collaborative work.

In terms of course learning objectives, upon successful completion of this course the student should have acquired the ability to:

1. Analyze enterprise management decision-making needs in terms of appropriate business applications.
2. Understand frameworks for C-Commerce strategic planning and development of implementation roadmaps for intranet, extranet and Internet enterprise integration projects.
3. Assess appropriate methodologies used to develop technical and applications architectures for intranet, extranet, and Internet systems for enterprise business management.
4. Identify the individual enterprise and extended value chain issues in management decision making for collaborative business patterns.

5. Understand how to develop collaborative enterprise business management practices.
6. Evaluate enterprise application software needs for intranet, extranet, and Internet systems for collaborative business scenarios.
7. Understand the systematic steps in research, development and presentation of a business case analysis for the design and implementation of C-Commerce management systems.

ASSIGNMENT GUIDELINES:

Term Project: Each member of the class is required to deliver an operations management system project. For this project, you will analyze and design a business solution for implementation of an enterprise information management system in a virtual enterprise.

It may focus on how the enterprise manages the strategic and operational decision-making encountered by organizations in the private and public sectors. Topics may cover the role of management information systems in finance, research & development, marketing, production, sales, and customer support value chain. Knowledge management principles and practices for enabling the strategic alignment and for promoting collaborative problem-solving between virtual enterprise stakeholders are emphasized.

You will make a formal presentation on your project. This is intended to be a professional quality project presentation to the class with problem statement, analysis, discussion, results, conclusions, and recommendations.

Case Studies/Report: There are four weekly case study assignments for each student. You will use the Internet to support research of specified topics and write the results of your analysis in the following format:

1. Problem Statement
2. Challenge/Opportunity
3. Management Solution
4. Lessons Learned/Business Case
5. Why I Care
6. References

You will post these case studies on Moodle, as well as review and comment on other class members' case studies. During the course you will use these case studies to present/discuss descriptions of business practices/methodologies/tools of your interest and collaborate with class team members using Moodle. By the end of the course, you will develop the four case studies into a cohesive technical report/business white paper, incorporating new observations, key learnings from class, and comments from other students.

Classroom and Online Discussions: This is a course that depends heavily on your contributions to understanding business practices and reviewing/evaluating software tools and processes. Your earnest and informed contributions are critical.

GRADING:

Four Case Studies - Online Reports	@50 pts each: 200 pts
Technical Report/Business White Paper	400 pts
Term Project: Proposal and Presentation	300 pts
Participation: Classroom and Online Discussions	100 pts
TOTAL	1000 pts

BEFORE First Class:

1. READING/WRITING ASSIGNMENT to be done before first class meeting.
 - Introduce yourself online in the Moodle discussion space for this course.
 - Note: If you are registered for the class, then you should have access to Moodle for this course.

2. PRESENTATION ASSIGNMENT to be done before first class meeting:
 - Develop your “elevator pitch”, a 30-60 second explanation of who you are and why you would make an excellent team project member.

 - Prepare for your classroom presentation during the first class session.

COURSE SCHEDULE:

The schedule shows chapters to read BEFORE each class is held. Content assigned will be covered during the class meeting, but your effort to read and apply the material before class meetings will greatly improve your ability to learn the material. Where an assignment is noted for a particular class, it is to be prepared prior to the class and a hardcopy of the document is brought to class.

Class 1: January 19 Course Introduction & Overview	Discuss term project criteria & guidelines. Form project study teams & begin collaboration in class to establish Moodle online discussion process. <i>Read:</i> Baltzan – Chapter 1
Class 2: January 26 The Search for a Sustainable Competitive Advantage	Post individual Case Study 1 in Moodle before class. <i>Read:</i> Baltzan – Chapters 2, 3, 4, & 5
Class 3: February 2 Event-driven Time-Based Strategies	Review team members' Case Study 1 before class. Post individual Case Study 2 before class. <i>Read:</i> Baltzan – Chapters 6, 7, & 8

Class 4: February 9 Workflow Management enables Value Chain Integration	Review team members' Case Study 2 before class. Post individual Case Study 3 before class. <i>Read:</i> Baltzan – Chapters 9, 10, 11, & 12
Class 5: February 16 Virtual Enterprise Integration	Review team members' Case Study 3 before class. Post individual Case Study 4 & Project draft Presentations online before class. <i>Read:</i> Baltzan – Chapters 13, 14, 15, & 16
Class 6: February 23 Decision Process Reengineering	Review team members' Case Study 4 before class. <i>Read:</i> Baltzan – Chapters 17, 18, 19, & 20
Class 7: March 2 Collaboration →Core Competency	Final Term Project Presentations delivered. Technical Report/Business White Paper due.

SUPPLEMENTARY READINGS:

To Be Determined

ONLINE FORUM:

Internet access is required for this class. Participation in the online interactive forum represents a significant portion of your grade. If you are registered for the course then you should have already been registered for the online access. There will also be additional course material and resources found only in this online forum. To use Moodle go to the website <http://moodle.ndnu.edu/> and click on this course title to enroll. After clicking on the course link you will be asked to provide your username and password.

ACADEMIC HONESTY:

Academic honesty is a cornerstone of our values at NDNU. If any words or ideas used in an assignment submission do not represent your original words or ideas, you must cite all relevant sources and make clear the extent to which such sources were used. Words or ideas that require citation include, but are not limited to, all hard copy or electronic publications, whether copyrighted or not, and all verbal or visual communication when the content of such communication clearly originates from an identifiable source. Consult the NDNU Student Handbook regarding consequences of misrepresenting your work.

PRIVACY and CONFIDENTIALITY:

One of the highlights of the NDNU academic experience is that students often use real-world examples from their organizations in class discussions and in their written work. However, it is imperative that students not share information that is confidential, privileged, or proprietary in nature. Students must be mindful of any contracts they have agreed to with their companies.

LEARNING and OTHER DISABILITIES:

If you have a learning disability or other circumstance that requires accommodations in this class, you must bring it to the attention of Program for

Academic Support and Services (PASS) to arrange for possible accommodations. Phone: 650-508-3670.

SYLLABUS CHANGES:

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CLASS ATTENDANCE:

Your attendance is very important to your studies at the University. Non-attendance or lack of participation in the class will be considered during the grading process.

ATTENDANCE FOR SEVEN –WEEK OR INTENSIVE COURSE:

Your attendance is very important to your studies at the University. Non-attendance or lack of participation in the class will be considered during the grading process. Two missed classes (or major portions of those classes) will yield an automatic “F” for the course.

WRITTEN ASSIGNMENTS:

The School of Business and Management requires the use of the American Psychological Association (APA) publication guidelines as a standard for all papers.

LATE HOMEWORK:

Assignments are to be completed and submitted by the start of each class meeting. Assignments not turned in on time are considered late. Late assignments will be accepted only for one week after the due date; after which time the assignment will not be accepted. Late assignments scores will incur a reduction of 20% of point value.

PARTICIPATION:

Online and classroom discussion activities are organized to maximize student involvement in the learning process. Because this is a Graduate course, it is through your participation in all these discussions where you are expected to demonstrate your mastery and comprehension of the material.