

**Notre Dame de Namur University**  
**BUS 4982-01 Project Systems Analysis**  
**Fall, 2017**

This MSSM Capstone 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. He teaches courses on the application of Information Technology (IT) for enabling strategic management decision-making in virtual enterprises for the Master of Business Administration and Master of Science in Systems Management degree programs. He applies the learnings of those principles and practices as Managing Partner of Rod Heisterberg Associates for clients who are IT users and vendors.

Dr. Heisterberg has over 25 years of experience in the field of IT. He holds BS, MS, and Ph.D. degrees from Purdue University studying industrial engineering, computer science, and business administration. 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 performed technology product forecasting and 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 a virtual enterprise architect for Lockheed Martin. This provided the credentials for him to be appointed as U.S. industry advisor to NATO where he continued to work as virtual enterprise architect for a collaborative ecosystem of multinational government-industry programs. He is known as an international thought leader based on his early work in cloud computing serving as the co-chair of the joint government-industry group that authored the first U.S. standard for providing content management applications Software-as-a-Service.

Dr. Heisterberg is active in the travel industry as a destination and event marketing professional. He conducts research and develops products for delivering visitor experience management solutions including social media and mobile technology featuring marketing apps integrated with streaming video. He serves the Destination Marketing Association International on the Technology Committee where he is leading initiatives for integration of cloud computing with

social, mobile, and video applications to produce big data analytics solutions for destinational ecosystem competitiveness, as well as past Chair of the Student Educator Advisory Council.

He is distinguished as an entrepreneur with active business and technology endeavors spanning the past three decades serving in the role of Chief Technology Officer. He performed market research and managed advisory programs that focused on Collaborative Commerce applications for building Internet communities using Web 2.0 enabling technologies incorporating cloud computing, social media, and mobile marketing technologies. He continues to be active as the Graduate Student Faculty Advisor at NDNU for mentoring prospective start-ups. In this role, he has also conducted workshops on developing business plans and investor presentations for undergraduate and graduate student entrepreneurs, as well as alumni start-ups.

As an internationally recognized speaker and writer, Dr. Heisterberg authored the Collaborative Commerce chapter of John Wiley & Sons' award winning *The Internet Encyclopedia* in 2003. He contributed a chapter featuring interactive travel marketing solutions for *The Handbook for Technology Management* that was published by Wiley in 2010. His latest book entitled *Creating Business Agility: How Convergence of Cloud, Social, Mobile, Video, and Big Data Enables Competitive Advantage*, published by Wiley in 2014, provides a business case and game plan for integrating technology to build a smarter, more customer-centric digital business for a successful business ecosystem. The focus is on Business Agility Readiness (BAR) in terms of the five major developments transforming the IT environment. It describes how BAR is achieved by utilizing data-driven platforms enabling reengineered decision-making processes which leverage digital relationships with a social business model to drive innovation and collaboration.

**OFFICE LOCATION:** Notre Dame de Namur University campus in Belmont, location CU 17.

**EMAIL:** rheisterberg@ndnu.edu

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

**CLASS LOCATION:** CU 6

**CLASS DATES AND TIMES:** from 6:00 p.m. to 9:15 p.m. on Thursday from August 31 through December 7. 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:**

Heisterberg, R. and Verma, A. (2014). *Creating Business Agility: How convergence of Cloud, Social, Mobile, Video, and Big Data Enables Competitive Advantage*. John Wiley & Sons. ISBN 978-1-118-72456-9.

**DESCRIPTION:** This course is used to integrate and apply the knowledge gained from previous courses with an emphasis of analysis of business ecosystems, assessment of virtual enterprise strengths and weaknesses, systems program/project planning and iterative incremental implementation, and the formulation of business system solutions.

**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 21<sup>st</sup> century.

### **OBJECTIVES:**

The course includes lectures, classroom and online discussions, textbook, library and Internet readings. The group activities and discussions will primarily consist of capstone project analysis and will encompass a large portion of the classroom work. Additionally, students will prepare a capstone project report & class presentation. This is a collaborative project work-learning experience.

In terms of the following Course Learning Outcomes (CLOs), in accordance with the corresponding Program Learning Outcomes (PLOs) --- upon successful completion of this course the student should have acquired the ability to:

PLO1. Students will be able to understand, analyze and communicate global, economic, legal, and ethical aspects of business.

CLO1:

- Perform research on state-of-practice C-Commerce topics relevant to analyzing systems management scenarios in a business ecosystem and communicating the results via business reports/presentations.

PLO2. Students will be able to demonstrate effective leadership and collaboration skills needed to make business-critical decisions, accomplish functional, organizational and professional goals.

CLO2:

- Understand frameworks for project systems analysis processes and their use for management of digital business projects collaborating with internal business units and external virtual enterprise partners.

PLO3. Students will be able to demonstrate written and oral communication and information literacy competencies that support the effectiveness of strategic planning, research & development, marketing and operational activities.

CLO3:

- Clearly communicate applied business system management concepts both orally and in writing, while integrating knowledge gained in earlier MSSM courses.

PLO4. Students will be able to evaluate and apply the effective use of technology to optimize business performance.

CLO4:

- When faced with a business technology implementation situation, identify key factors driving the problem or situation, assess additional information needed to understand the situation, and set priorities for decisions and actions.

PLO5. Students will develop comprehensive solutions to business problems by synthesizing and evaluating information using qualitative and quantitative methods of reasoning and analysis.

CLO5:

- Demonstrate the ability to think strategically about a digital business management system, analyze its strategic virtual enterprise performance relative to the external environment of relevant business ecosystems, assess its capabilities and competencies, evaluate alternative systems, and recommend a solution with a business case.

PLO6. Students apply the NDNU hallmarks (community engagement and social justice) to course curriculae.

CLO6:

- Evaluate the impact of contemporary business ethics on project system management resource allocation decision-making processes.

### **ASSIGNMENT GUIDELINES:**

Individual Capstone Project Report: Your task is to select a real business system problem, evaluate the current state and develop a future state solution. Your project deliverables will include: project proposal, thematic outline of report, preliminary & final drafts, as well as a class presentation.

Classroom and Online Discussions for Team Knowledgebase: This is a course that depends heavily on your contributions to understanding team collaboration processes and building a collaborative learning knowledgebase using Moodle and your PLE with tools and processes to enable your project systems analysis. Your earnest and informed contributions are critical success factor.

### **GRADING:**

Collaboration & group discussion leadership	100 pts
Capstone project proposal & thematic outline of report	100 pts
Capstone project report- preliminary draft	200 pts
Capstone project report- final draft & presentation	400 pts
Collaborative learning knowledgebase using Moodle/PLEs	200 pts
<b>TOTAL</b>	<b>1000 pts</b>

### **BEFORE First Class:**

1. READING/WRITING ASSIGNMENT to be done before first class meeting.
  - Introduce yourself online in the Moodle “Student Introductions” workspace for this course.  
Note: If you are registered for the class, then you should have access to Moodle for this course.
  - Download from the Moodle WEEK ONE workspace the research documents as PDF files and review them in preparation for the *Capstone Project* kick-off activities during Class 1:

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 collaborative learning project partner.
- Prepare for your classroom presentation during the first class session.

**COURSE SCHEDULE:**

The schedule shows assignments to prepare for BEFORE each class is held. Content assigned will be covered during the class meeting, but your effort to review and assess the assigned material before class meetings will greatly improve your ability to learn the course key concepts. 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.

<b>Date</b>	<b>Ecosystemism</b>	<b>Discussion Topic</b>	<b>Assignments</b>
August 31	Business Ecosystems	Virtual Enterprise Formation & Operation	Capstone Project selection
September 7	Systems Iterative Incremental Implementation (I <sup>3</sup> )	Virtual Enterprise Integration Best/Next Practices: MDM & Data Governance	<b>Capstone Project proposal</b>
September 14	I <sup>3</sup> Methodology	Nested Functional Decomposition	<b>Capstone Report thematic outline</b>
September 21	I <sup>3</sup> Methodology	Decide, Design	Capstone Project Report Review
September 28	I <sup>3</sup> Methodology	Plan, Acquire	Capstone Project Report Review
October 5	I <sup>3</sup> Methodology	Build, Verify	Capstone Project Report Review
October 12	I <sup>3</sup> Methodology	Deliver, Transform	Capstone Project Report Review
October 19	<b>Capstone Project Report</b>	<b>Individual Project Systems Analysis</b>	<b>Preliminary Draft</b>
October 26	Change Management	Systematic Principles & Practices	Capstone Project Report Review
November 2	Change Management	Applying Data Science	Capstone Project Report Review
November 9	Change Management	Virtual Enterprise Balanced Scorecard	Capstone Project Report Review

November 16	Change Management	<b>Ecosystemism @Work</b>	Capstone Project Report Review
November 23	Systemic Reflection	<b>No Class</b>	<b>Thanksgiving</b>
November 30	Business Agility Readiness Assessment	<i>Creating Business Agility Epilogue → ...and Beyond!!!</i>	<b>Team Project: Moodle/PLEs knowledgebase</b>
December 7	<b>FINIS!!!</b>	<b>Individual Project Presentation</b>	<b>Capstone project report- final draft</b>

### **SUPPLEMENTARY READINGS:**

Chan, W. K. & Mauborgne, R. (2004, October). Blue ocean strategy. *Harvard Business Review*, 82(10), 76-84. Retrieved from Business Source Complete database

Chan, W.K. & Mauborgne, R. (2009, September). How Strategy Shapes Structure. *Harvard Business Review*, 87(12), 72-80. Retrieved from Business Source Complete database

Dalton, D. & Dalton, C. (2008 March). Corporate governance in the post sarbanes-oxley period: Compensation Disclosure and Analysis. *Business Horizons*, 51(2) 85-92, Retrieved from Business Source Complete database

Dyer, J., Kale, P. & Singh, H. (2004 July/August). When to ally and when to acquire. *Harvard Business Review*. 82 (7/8), 108-115., Retrieved from Business Source Complete database

Eisenhardt, Kathleen M., (1999 May/June). Patching: Restitching Business Portfolios in Dynamic Markets. *Harvard Business Review*. 77(3), 72-82.

Goleman, Daniel. (2004 January) What makes a leader? *Harvard Business Review*, 82 (1), 82-91, Retrieved from Business Source Complete database

Kotter, J. (2001 December). What leaders really do? *Harvard Business Review*. 79 (11) 85-96, Retrieved from Business Source Complete database



Kotter, John P.. (1995 March/April) Leading Change: Why Transformation Efforts Fail, *Harvard Business Review*, 73(2), 59-67 Retrieved from Business Source Complete database

Montgomery, C. (2008 January) Putting leadership back into strategy. *Harvard Business Review*, 86 (1)54-60, Retrieved from Business Source Complete database

Porter, M. (1979 March/April) How competitive forces shape strategy. *Harvard Business Review*, 57 (2), 137-145, Retrieved from Business Source Complete database

Porter, M. (2008 January) The five competitive forces that shape strategy. *Harvard Business Review*, 86 (1), 78-93, Retrieved from Business Source Complete database

Prahalad, C & Hamel, G. (1990 May/June) The core competence of the corporation. *Harvard Business Review*, /Jun90, 68 (3), 79-91, Retrieved from Business Source Complete database

Sonnenfeld, J. (2002 September) What makes great boards great? *Harvard Business Review*, 80 (9), 106-113, Retrieved from Business Source Complete database

Stayer, R. (1990 November/December) How I learned to let my workers lead. *Harvard Business Review*, 68 (6), 66-83, Retrieved from Business Source Complete database

Treacy, M. & Wiersema, F. (1993 January/February) Customer intimacy and other value disciplines. *Harvard Business Review*, 71(1), 84-93, Retrieved from Business Source Complete database

### **WORKLOAD:**

Every three credit hour course in a graduate program at NDNU requires 180 hours of instruction and study. When classes are conducted in accordance with the fifteen week course mode of delivery, the average amount of coursework is approximately 12 hours per week. In addition to class attendance, this level of effort includes assignments estimated to take nine hours per week outside of class. The distribution of the average weekly hours of instruction/study for this class will follow that norm, as shown below:

- ✓ Class Contact Hours ----- 3
- ✓ Textbook Reading and Note Taking ----- 2
- ✓ Capstone Project Report Research-Writing ----- 4
- ✓ Team Project Collaboration and Presentation Development ----- 3

**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:**

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

**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.