

Notre Dame de Namur University
BUS 4200 Enterprise Information Management Systems
Fall Term 1, 2017

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. 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: CU9

CLASS DATES AND TIMES: from 6:00 p.m. to 10:15 p.m. on Wednesday from August 30 through October 11. 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. (2017). *Business Driven Technology, 7th Edition*. New York, NY: McGraw-Hill/Irwin. ISBN 978-1-259-56732-2.

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: Focuses on how the enterprise manages the strategic and operational decision-making encountered by organizations in the private and public sectors. Topics 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.

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:

This course is predicated on the NDNH Hallmarks which cultivate Lifelong Learning (LIL). Lifelong Learning is the continuous pursuit of knowledge for both personal and professional development enabled by skills for collaboration, critical thinking, and data-driven decision-making.

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 the business value of Information Technology 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:

- Identify the individual enterprise and extended value chain issues in management decision making for collaborative business patterns.
- Understand how to develop collaborative enterprise business management practices.

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

CLO3:

- Understand frameworks for C-Commerce strategic planning and development of implementation roadmaps for intranet, extranet and Internet enterprise integration projects.

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

CLO4:

- Assess appropriate methodologies used to develop technical and applications architectures for intranet, extranet, and Internet systems for enterprise business management.
- Evaluate enterprise application software needs for intranet, extranet, and Internet systems for collaborative business scenarios.

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

CLO5:

- Analyze enterprise management decision-making needs in terms of appropriate business applications.

- Understand the systematic steps in research, development and presentation of a business case analysis for the design and implementation of C-Commerce management systems.

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

CLO6:

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

ASSIGNMENT GUIDELINES:

This course is predicated on the NDNU Hallmarks which cultivate Lifelong Learning (LIL). Lifelong Learning is the continuous pursuit of knowledge for both personal and professional development. So I'll be emphasizing collaboration, critical thinking, and data-driven decision-making processes in our work together.

As a hybrid course, the course work will be accomplished by conducting research & development of Cloud-based technology to enable deploying *Personal Learning Environments* (PLE) to facilitate your LIL experiences using *Self-Regulated Learning* (SRL) concepts. This experiential learning approach leverages a management simulation methodology that includes lectures, classroom and online discussions, textbook, library and Internet readings, as well as writing associated business reports. The group activities and discussions will primarily consist of case analysis and will encompass a large portion of the classroom work. Additionally, students will develop a team project solution delivered with a 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.

Individual Case Study Reports: There are four weekly case study assignments for each individual. 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 --- The problem being addressed.
2. Challenges & Opportunities --- Background information on the problem.
3. Business Solution --- How management responded to the problem.
4. Lessons Learned/Business Case --- The results from the case that may provide learning points for use by others including economic justifications.
5. Why I Care --- Your conclusions for the impact on the Team Project.
6. References --- A minimum of three scholarly references in addition to the course textbook using APA format.

You will post these case studies on Moodle, as well as review and comment on your team 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 other team members using Moodle.

PLE→Term Paper: Each member of the class is required to create a PLE and use it to develop a Term Paper featuring a workplace solution for Business Intelligence & Analytics Collaboration via a Self-service model deployed by means of a Business Intelligence Competency Center (BICC). It is expected that this will be demonstrated with a story showcasing a Business problem – learning scenario business case in the context of a Technical solution – learning scenario use case. As a key course deliverable your enterprise information management term paper is intended to document your learning of how you would design and develop a business solution for implementation of an enterprise information management system in a virtual enterprise.

By the end of the course, you will use your PLE to develop a term paper based on a digital business transformation strategy. It will use the four case studies as your basic research for developing a compelling and 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 team processes and reviewing/evaluating software tools and processes. Your earnest and informed contributions are mandatory.

Team Project: Each member of the class is required to participate in an information management team project. For this project, you will design and develop a digital business solution for implementation of an enterprise information management system in a virtual enterprise operating in a well-defined business ecosystem. Your team will make a formal presentation on your project. This is intended to be a professional quality team project presentation to the class with problem statement, analysis, discussion, results, conclusions, and recommendations.

GRADING:

Four Individual Case Studies - Online Reports	@50 pts each: 200 pts
Individual PLE & Technical Report/Business White Paper	300 pts
Team Project (Preparation and Presentation): Team Grade	200 pts
Team Project: Individual Contribution (From Team Members)	200 pts
Participation: Classroom & 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 “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 following Case Study documents as PDF files and review them in preparation for the *Team Project* kick-off activities during Class 1:

- ✓ Destination Marketing Whitepaper (i.e., DMAI Futures Study)
- ✓ SFCVB 2010-11 Strategic Business Plan
- ✓ ROLE Project → PDF

Kroop, S., Mikroyannidis, A. and Wolpers, M., Editors (2015[R1]). Responsive Open Learning Environments: Outcomes of Research from the ROLE Project, Springer. <http://link.springer.com/book/10.1007%2F978-3-319-02399-1>

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 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: August 30 Course Introduction & <i>Business Value of IT Overview</i> : Digital Business Transformation ; ERP-SCM-CRM in Cloud; SoR→SoE Gap Analysis	Discuss coursework activities & criteria, team project scenarios & guidelines. Form project team organizations & begin discussion in class to establish team online collaboration processes. <i>Read</i> : CBA - Chapter 1, ROLE Chapter 1, Baltzan – Chapter 1
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Class 2: September 6 <i>Disruptive Innovation: Decision Process Reengineering</i> ; F-5 Tornado Technologies; Business Intelligence & Analytics with Big Data	Post individual Case Study 1 in Moodle before class. <i>Read:</i> CBA - Chapters 2, 3, & Epilogue Baltzan – Chapters 2, 3, 4, & 5 ROLE Chapter 2
Class 3: September 13 <i>Search for a Sustainable Competitive Advantage: Culture Change Management</i> ; Best/Next Practices, Processes, Protocols	Review team members' Case Study 1 before class. Post individual Case Study 2 before class. <i>Read:</i> CBA - Chapter 4 Baltzan – Chapters 6, 7, & 8
Class 4: September 20 <i>Create, Manage, Share Digital Data is Core: Collaborative Commerce</i> ; Master Data Management; Ecosystem Hubs for Social-Mobile-Video Collaboration	Review team members' Case Study 2 before class. Post individual Case Study 3 before class. <i>Read:</i> CBA - Chapters 5 & 6 Baltzan – Chapters 9, 10, 11, & 12
Class 5: September 27 <i>Using a Silicon Crystal Ball: Business Agility Readiness</i> ; Predictive Analytics to Sense & Respond; Dashboards linking Balanced Scorecards	Review team members' Case Study 3 before class. Post individual Case Study 4 & Team Project draft Presentations online before class. <i>Read:</i> CBA - Chapters 7 & 8 Baltzan – Chapters 13, 14, 15, & 16
Class 6: October 4 <i>Ecosystemism: Adaptive Enterprise Performance Management</i> ; Data-driven Decision Making Culture enabled by Ecosystem Hub networks	Review team members' Case Study 4 before class. <i>Read:</i> CBA - Chapters 9 & 10 Baltzan – Chapters 17, 18, & 19
Class 7 October 11 <i>Roadmap for Business Agility Readiness Assessment: Virtual Enterprise Integration</i>	Final Team Project Presentations delivered. Technical Report/Business White Paper due.

SUPPLEMENTARY READINGS:

Case study reference documents to be determined & downloaded from Moodle.

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 seven week Intensive course mode of delivery, the average amount of coursework is approximately 26 hours per week. In addition to class attendance, this level of effort includes

assignments estimated to take over twenty 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 ----- 4
- ✓ Textbook Reading and Note Taking ----- 6
- ✓ Case Study/Term Paper Research-Writing ----- 8
- ✓ Team Project Collaboration and Presentation Development ----- 8

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.

STUDENTS WITH DISABILITIES:

As required by section 504 of the Rehabilitation Act, the instructor will make appropriate accommodations for all students with documented disabilities. In order for accommodations to be in place, you are required to bring appropriate documentation (evidence must be in writing) to the PASS office. You should notify the PASS office by either calling Dr. Peggy Koshland Crane at 650-508-3670 or stopping by the office at New Hall 19E or sending an email to mcrane@ndnu in order to schedule an appointment.

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.