



*Herberger Business School*  
*Master of Business Administration*

**MBA 616**  
***Information Systems Strategy and Management***  
***MBA Core Course***

# MBA 616

## Information Systems Strategy and Management

MBA Core Course

Fall 2022

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Office hours:	Tuesdays, Thursdays: 12:30AM – 5:30PM <i>by appointment</i>
Class Meets:	Section 1: 8/25-10/06/2022, Thursday 5:30-10PM (CH 495) Section 70: 8/22-10/07/2022, <i>online asynchronous</i>

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### Required resources

1. Business Intelligence, Analytics, and Data Science: A Managerial Perspective by Sharda, Delen, and Turban, 4<sup>th</sup> edition. Pearson (*optional*)
  2. Harvard Business Review (HBR) Cases from <http://cb.hbsp.harvard.edu>
  3. Articles from Business Source Premier and ABI/Inform (available at SCSU Library)
  4. Additional resources as assigned (provided in D2L)
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### Course Description

Topics in technology supported business decision-making, reengineering, and related management strategies. Management support technologies, modeling and decision-making techniques.

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### Course Learning Objectives

- CO1: Incorporate various IS, and data analytics software tools
- CO2: Analyze real-world cases, apply IS knowledge and make recommendations
- CO3: Formulate computer models to conduct a quantitative analysis of business problems.
- CO4: Identify how and why Business Intelligence and Business Analytics techniques could be applied to assist in business decision making.
- CO5: Demonstrate the ability to interpret analysis results, evaluate alternatives, and to apply basic data mining techniques and simulation models in the support of a managerial decision-maker.
- CO6: Employ data visualization software to organize, and analyze the data
- CO7: Adopt basic principles and skills for web-development

## Student Learning Outcomes

Upon successful completion of this course, students will be able to:

1. Know concepts of management support systems as well as the associated ethical, political, legal, and cultural issues in their implementation and use.
2. Know IS resources as strategic tools and how they can help to achieve competitive advantage.
3. Critically analyze IS issues and make sound recommendations.
4. Reflect acquired knowledge and skills.

### *Knowledge Learning (40 %) "Know"*

Students will know about:

- Business Intelligence
- Management Support Technologies
- Data Warehouse and data mart
- Data mining and text mining
- Strategic Use of Business Intelligence tools
- Implementation of Business Intelligence

### *Experiential/Active Learning (50 %) "Do"*

Students will:

- Analyze real-world cases, apply IS knowledge and make recommendations
- Conduct data mining, computer simulation, scenario analysis, and OLAP (Online Analytical Processing)
- Learn IS management software

### *Reflective Learning (10 %) "Be"*

Students will reflect using the following guided questions:

- What most surprised you?
  - What contradicted your prior beliefs?
  - What confirmed your prior beliefs?
  - What does this experience suggest to you about your strengths, weaknesses, and opportunities for career development?
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## MBA Program Themes

1. *Global/International:* Most topics in this course are covered based on information systems in global/international business operations.
2. *Ethics:* Some case studies cover ethics in the IS area.
3. *Sustainability* Strategic use of BI (Business Intelligence) tools and sustainability are topics for this class.
4. *Leadership:* BI Implementation and BPM topics cover leadership theme.
5. *Critical thinking:* Experiential learning components require critical thinking.

## Course Assignments and Grading Criteria

Final Test (Take-home Exam, 75 points) .....	75
Individual Written Assignments	
Personal Introduction & Resume (5), and Web Site (20 points) .....	25
1. HBR Case Analysis (3 cases @ 10 points)    30	
2. Critiques of Articles and Topic Discussions (4 @ 10 points).....	40
Hands-on Projects	
1. P1 (DSS using Scenario Manager – Case 6) with <i>Excel</i> .....	15
2. P2 (Data Evaluation Report) with <i>Tableau</i> .....	15
3. P3 (DSS using Solver – Case 9) with <i>Excel</i> .....	15
4. P4 (Simulation Model for Personal Budget) with <i>Simile</i> .....	25
5. P5 (Marketing Strategy using Data Mining) with <i>IBM SPSS Modeler</i> .....	20
Presentations and Leading Discussions (1 HBR case/article and/or 1 hands-on project) .....	30

Total course point value: 300

### Grading Scale

97-100 % = A+	84-86.99 % = B	70-73.99 % = C-
94-96.99 % = A	80-83.99 % = B-	67-69.99 % = D+
90-93.99 % = A-	77-79.99 % = C+	64-65.99 % = D
87-89.99 % = B+	74-76.99 % = C	60-63.99 % = D-
		< 59.99% = F

\* The instructor reserves the right to adjust this scale.

### **Required Software:** *Using your own laptop / computer is mandatory*

#### **Microsoft Office (Word, PowerPoint, Excel)**

#### **Tableau**

- Download Trial version (14 days) <http://www.tableau.com>
- Use <http://public.tableau.com>

#### **Simile** (Systems Dynamics Simulation Modeling Software):

- Download free *Evaluation license* from: <http://simulistics.com>

#### **IBM SPSS Modeler**

- Download instructions from D2L.
- Free *Evaluation version* (30 days): <https://www.ibm.com/products/spss-modeler>

All software is available for both Microsoft Windows and Mac OS.

## MBA 616 Course Schedule

Updated on 8/16/2022

Week	Topic / Module	Hands-on Project	HBR Case / Article Discussion
Week 1	<i>Introductions, Syllabus Review Software Information</i> <b>Module 1</b> Overview of BI &	<i>Assignment of students to presentations of projects / cases / articles, Class Webmaster role.</i>  Individual Website Project	Net Neutrality Discussion
Week 2	<b>Module 2</b> Data Warehousing	Project 1: <b>Monk, Brady</b> <i>Tutorial C. Building DSS in Excel</i> Case 6. The Made4U Doughnuts	<b>HBR Case (604080):</b> Business Intelligence Software at SYSCO
Week 3	<b>Module 3</b> Reporting, Visualization & GIS	Project 2: <b>Tableau / GIS</b> <i>Data Evaluation Report</i>	<b>Scott Berinato</b> Visualizations That Really Work <sup>4)</sup>
Week 4	<b>Module 6</b> Linear Optimization	Project 3: <b>Monk, Brady</b> <i>Tutorial D. Building DSS using Excel Solver</i> Case 9. Golf Club Product Mix Decision	<b>Williams</b> 5 Barriers to BI Success <sup>9)</sup>
Week 5	<b>Module 5</b> Simulation Modeling	Project 4: <b>Simile/Systems Dynamics</b> <i>Simulation Model for Personal Budget</i>	<b>HBR Case (908E08):</b> Canadian Tire: Business Intelligence Strategy  <b>HBR Case (GS50):</b> Harrah's Entertainment Inc.: Real-Time CRM in a Service Supply Chain
Week 6	<b>Module 6</b> Data Mining	Project 5: <b>SPSS Modeler</b> <i>Marketing Strategy using Data Mining</i>	<b>Thomas Davenport</b> What Businesses Can Learn <sup>7)</sup> from Sports Analytics
Week 7	<b>Module 7</b> Big Data	Individual Websites Completion and Review  <b>Final Exam</b>	<b>McAfee, Brynjolfsson</b> Big Data: The Management <sup>8)</sup> Revolution

## Reading Resources

### *Business Source Premier*

- 1) Carr, Nicholas G. (2003), "IT Doesn't Matter", *Harvard Business Review*, May, Vol. 81 Issue 5, pp. 41-49. 9p.
- 2) Porter, Michael E. (2008), "The Five Competitive Forces That Shape Strategy", *Harvard Business Review*, January, Vol. 86 Issue 1, pp. 78-93
- 3) Porter, Michael E. and Heppelmann, James E. (2014), "How Smart, Connected Products Are Transforming Competition", *Harvard Business Review*, November, pp. 64-88
- 4) Berinato, Scott (2016), "**Visualizations That Really Work**", *Harvard Business Review*, June, pp. 1- 10
- 5) Davenport, Thomas H. (2006), "Competing on Analytics", *Harvard Business Review*, Jan, Vol. 84 Issue 1, pp. 98-107
- 6) Thelen, S., Mottner, S., and Berman, B. (2004), "Data Mining: On the trail to marketing gold," *Business Horizon*, v. 47, n. 6, November-December, pp. 25-32

### *ABI/Inform*

- 7) Davenport, Thomas H. (2014), "**What Businesses Can Learn from Sports Analytics**", *MIT Sloan Management Review*, Jun 3, Summer, pp. 9-13

### *Business Source Premier*

- 8) McAfee, A. and Brynjolfsson, E. (2012), "**Big Data: The Management Revolution**," *Harvard Business Review*, October, pp. 59-63
- 9) Williams, S. (2011), "**5 Barriers to BI Success and How to Overcome Them**," *Strategic Finance*, July, pp. 27-33

### *Harvard Business Review (HBR) Cases*

Link for download and purchase of the HBR Cases package is available in D2L.

## Individual Written Assignments

### 1) Harvard Business Review (HBR) Case Analysis:

- First, register as a STUDENT at <https://cb.hbsp.harvard.edu>
- Purchase the cases from the pack (link will be provided in D2L)
- Each student must submit **THREE (3)** written case analyses to D2L dropbox
- Written Case Analysis:
  - 1 – 1 ½ pages,
  - **No summary** of the case needed!
  - Indicate **Issues** and **recommendations** using **bullets**
- Each student must participate in D2L case discussion

### 2) Articles:

- Each student must submit written critique of **FOUR (4)** articles **highlighted** on page 6 to D2L dropbox, and participate in discussion
- **1 – 1 ½** page Critique (**No summary**) using bullets:
  - Criticize the articles by raising issues,
  - You must include what you agree or disagree with your own rational/logic,
  - Provide alternatives or solutions
- **Extra credit:** you may read and critique up to 2 additional articles from the list on page 6 (submit to D2L for **up to 5 bonus** points each).

### 3) Leading Discussion / Presentation

- Two (occasionally 3) students, assigned by instructor to present and start (lead) the discussion on an HBR case / Article / Project (see **Topics Assignment Table** in D2L), will prepare a PowerPoint Presentation additionally to the written case analysis/critique or project solution.
- **In online class:** add audio/video to narrate your slides, or record a video over your PPT.
  - Post the presentation in a respective discussion forum in D2L
- HBR Case Analysis Discussion
  - Start with a brief summary of the case
  - Raise issues (as many as you have)
  - Lead and stimulate class discussion for those issues
  - Additionally, you may use any materials outside the case
  - Summarize and conclude with your suggestions, and 3 discussion questions
- Articles Critique Discussion
  - Start with an explanation of contents.
  - Raise issues that your team wants to discuss (agreement / disagreement)
  - Additionally, you may use any materials outside the article
  - Summarize and conclude with your suggestions, and 3 discussion questions
- Project Discussion
  - Start with explanation of the problem, and the method / approach
  - Demonstrate software utilization, and your solution
  - Discuss issues you faced while working on the project, and workarounds
  - Summarize and conclude with your suggestions, and 3 discussion questions

### 4) Web Development:

- Create individual website for this class, which will also include screenshots/summaries of your MBA 616 assignments e-portfolio
- Instructions provided separately in D2L

## Course Policies

- Using of a sufficiently powerful computer is required for hands-on projects.
  - After Assignment drobox in D2L is closed, late submissions are **no longer accepted**.
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## Assurance of Learning

### 1. *MBA Program Learning Goals Assessment*

MBA Program Learning Goal 1, MBA graduates will be effective communicators, is assessed in this course. Students will be assessed on their ability to write competently in multiple business settings.

### 2. *St. Cloud State University Goals Assessment*

University goals are not currently assessed in this course.

## Herberger Business School Academic Integrity Policy

At the Herberger Business School (HBS), academic integrity is expected of all students, staff, faculty, and administrators in all endeavors.

In addition to St. Cloud State University's policies, procedures, and sanctions, the Herberger Business School has a disciplinary process for cases of academic dishonesty that includes sanctions up to and including immediate dismissal from the Herberger Business School, its courses, and programs.

Examples of academic dishonesty, although not exhaustive, may include actions such as cheating on an exam, using free or paid case analyses to complete your work, using the work of others without appropriate documentation, and working with others on individual assignments.

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For assistance with writing style and documentation, please visit St. Cloud State University's writing center, The Write Place, <http://www.stcloudstate.edu/writeplace/> or the Online writing Lab of Purdue University at <http://owl.english.purdue.edu/>

*The contents of this course syllabus are subject to change at the discretion of the Professor*