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| COURSE GUIDE***GSI 7559 – K. Kyu Kim – Fall 2017***BIG DATA and BUSINESS ANALYTICS MANAGEMENT |
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** COURSE DESCRIPTION AND OBJECTIVES**

This course focuses on the growing phenomenon of “Big Data” and how firms can prepare themselves to benefit from this phenomenon. Companies now have the ability to collect and analyze far more information than ever before. This phenomenon, often referred to as ‘Big Data’, has allowed firms to improve their marketing, innovation, manufacturing and distribution activities. There are numerous well-known examples of companies such as Google, Proctor & Gamble and GE that have implemented ‘big data’ initiatives successfully and reaped the benefits. Despite these success stories, there are other examples of companies such as Tesco or Havas or that stumbled and faltered when attempting to implement ‘big data’ initiatives.

This course takes a strategy approach to understanding how companies can implement ‘big data’ initiatives to improve their business activities. The course does not focus on technical details related to ‘big data’ such as algorithms, data warehousing or processing. Instead, the course looks at leading companies that have been able to successfully implement “big data” initiatives as well as several cases of companies that have tried and failed to implement such initiatives. By the end of this course, students will be able to summarize the skills, tools and resources that companies need to successfully implement “big data” initiatives. This course will prepare students to work in technology companies as they transition towards using “big data”.

This course uses a combination of lectures, case studies and industry guest speakers.

By the end of the course, students should be able to:

1. Analyze the strategic tradeoffs surrounding the use of business analytics and big data.

2) Demonstrate the ability to think critically and evaluate the challenges associated with big-data in real world scenarios.

3) Recognize the different challenges that firms face when attempting to implement big data and business analytics.

4) Evaluate the ability of firms to implement big data initiatives and identify potential problems or pitfalls.

5) Formulate strategies for overcoming challenges associated with implementing big data initiatives.

**Place:** New Millennium Hall 302 **Time:** Tue., 9:00 a.m. – 12:00 p.m.

**Instructor:** K. Kyu Kim,Professor, Graduate School of Information

**CONTACT INFORMATION**

1. **Office Location:**  New Millennium Hall 413
2. **Office Hours:** After class or by appointment
3. **Office**  **phone:** (02) 2123-4525
4. **e-mail:** **kyu.kim@yonsei.ac.kr**

**Tentative TOP VIEW of COURSE**

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| **Introduction to Business Analytics** |
| 1 | 9/05/17  | Intro to Business Analytics | 4th Industrial Revolution  |
| **Managing Big Data and Business Analytics**  |
| 2 | 9/12/17 | Case 1: Duetto: Industry transformation with big data (HBS 2016, 816028) | Growth of Big Data and the Internet of Things |
| 3 | 9/19/17 | Case 2: Carolinas HealthCare System: Consumer Analytics (HBS 2015: 9-515-060) | Data Strategy |
| 4 | 9/26/17 | Case 3: Numenta (HBS 2017, 9-716-469) | Machine Learning Management |
| 5 | 10/03/17 | **No Class (개천절)**  |  |
| 6 | 10/10/17 | Case 4: Recruit Japan: Harnessing Data to Create Value (IMD 2016, IMD824)  | Artificial Intelligence and Human Jobs |
| 7 | 10/17/17 | Case 5: Fintech: Choosing a cloud services provider (NACRA 2017, NA0473) | Big Data and Cloud Computing |
| 7 | 10/24/17 | **Mid-Term Exam**  | In-Class Exam |
| **Big Data Business and Implementation** |
| 8 | 10/31/17 | Case 6: Luminar: Leveraging Big Data Using Corporate Entrepreneurship (Ivey 2014, W14175) | Digital Leadership |
| 9 | 11/0717 | Case 7: Bridj and the Business of Urban Mobility (HBS 2017, 9-316-025) | Big Data for Innovation |
| 10 | 11/14/17 | Case 8: Philips Healthcare: Marketing in the Healthcare Digital Platform (HBS 2015: 5-515-113) | Data Business, Ownership of Data, Identity Management,  |
| 11 | 11/21/17 | Case 9: Netflix: Designing the Netflix Prize (HBS 2014: 9-615-015) | Crowd-Sourcing |
| 12 | 11/28/17 | Case 10: Fashion: Art vs. Science in Fashion Retailing (HBS 2017: 617059) | Business Analytics Implementation |
| 13 | 12/05/17 | **Student Project Presentation** | Use Cases in Practice |
| 14 | 12/12/17 | **Final Exam** | Grande Finale! |

 **COURSE MATERIALS**

1. **Books:** GSI participants are not enthusiastic book readers, so will spare you the pain. They are however video and PowerPoint fans, so we will take advantage of those preferences throughout the course.
2. **Harvard Business School Cases & Articles**: The Harvard Business cases can be purchased online directly and downloaded in electronic form from Harvard Business Press. The articles are accessible (not the cases) for free through the Yonsei University libraries.
3. **Other Readings:** Articles from professional journals and trade press, and industry reports (to be made available on-line through Yscec class folder).
4. **Yscec Course Folder:** ***There will be a session preparation guide with case questions posted for every session on Yscec***. Other readings will be posted on Yscec course folder – as will session PowerPoints, assignment instructions, administrative information, guest speaker bios etc. Please check it frequently! Sections that are populated are Syllabus, Assignments, and Content. The Content section is updated for every session, so please check it out frequently!

 **COURSE EFFORT / GRADING INFORMATION** 

Each individual's effort and grade will be based on the following 5 components. Please note that extraordinary effort in any of those components will be recognized. Conversely, plagiarism in written assignments will be dealt with very severely as per Yonsei University and GSI policies.

1. Class participation related to readings, case discussions, & deep dives 10 %
2. Team Presentations & key recommendations for business cases 20 %
3. 2 written case assignments 20 %
4. Mid-Term Exam 20 %
5. Final Exam 30 %

**Academic Integrity:** Yonsei Universityseeks to maintain an optimal learning environment. General principles of academic honesty include the concept of respect for the intellectual property of others, the expectation that individual work will be submitted unless otherwise allowed by an instructor, and the obligations both to protect one’s own academic work from misuse by others as well as to avoid using another’s work as one’s own. All students are expected to understand and abide by these principles.

**[1] CLASS PARTICIPATION**

Your participation grade is based on quality and a sincere effort to provoke, learn and understand, rather than quantity. The more you engage with the class, the higher will be your participation grade, and the more successful our learning experience will be.

**Attendance:** You are expected to attend all sessions. If you cannot attend for a specific reason then please inform professor through e-mail that you are unable to attend, or your absence will negatively affect your participation grade. Treat it like a professional meeting at work: if you cannot attend for any reason, you are expected to inform the person running the meeting as a professional courtesy. No unexplained disappearances please! This is not an undergraduate class. I treat you professionally and I expect the same in return.

**Engagement:** You are expected to prepare for each class and to actively engage in the discussion of readings and cases. If you don't keep up with the reading, you will not enjoy the class. Thus it is very important that you be prepared for each class. You are expected to actively discuss both readings and cases and add to the learning of the class, whether in the live classroom or on-line (if you see an article that is pertinent to the class – let us all know). You are also expected to raise questions provoking the thinking of others to the case-presenting teams. You will sometimes be randomly called upon in class to comment and answer questions, so please be prepared.

**Laptops & Mobile Devices:** It is a professional courtesy to devote your full attention in the class as you would in a face-to-face meeting at work. If you are using a laptop or mobile phone/device to follow the class or take notes, that will be allowable. If you are using it for e-mail, instant messaging, twittering, etc., or doing other assignments for other courses while in class, that will be deemed unprofessional and unallowable – and it will affect your participation grade too as it is distracting to others.

**[2] TEAM PRESENTATION & KEY RECOMMENDATIONS FOR BUSINESS CASES**

Each case discussed in the course will have its key recommendations presented in executive summary form after the case discussion by a 2-3 person team. Maximum time is 20 minutes and will include key recommendations and reasons why (rather than entire case analysis). Team assignment rules and case sign-up will be provided. The team performance will be judged as to how succinctly they select key recommendations and reasons behind it.

**[3] WRITTEN CASE ASSIGNMENTS (Individual work)**

Written analysis is required for 2 of these 7 cases as follows:

Write-up #1: Case 1, 2, 3, 4, or 5

Write-up #2: Case 6, 7, 8, 9, or 10

**Note:** *The 2 written cases cannot be the same as the one you picked for presentation with a team.*

You need not tell us your choices but you are responsible for keeping track of them. Written analyses are due *at the beginning of the session in which the case will be discussed.* Case questions will be provided for each case to guide your write-up. The case write-ups should be the equivalent of about 2-3 single-spaced pages including any appendices. Please provide your case in hard copy printed form unless you have a special circumstance.

The written analysis is an individual assignment.

These are not “standard” case analyses. *Just answer the questions.* There is no need for a lengthy introduction in your write-up but rather please directly address the key issues suggested by the case questions. Try to avoid lengthy repetition of case facts (you can reference page numbers, exhibits, tables) -- but by all means justify your logic through case specifics. Please be careful to distinguish between case facts and stereotyped sweeping generalizations. Recommendations should be substantiated by clear logic and case specifics. Diagrams and schematics are very helpful in both sharpening your thinking and your exposition. Incorporation of learning from assigned readings and class material into analysis is a plus and is expected.

**[4] MID-TERM EXAM and FINAL EXAM**

There are two exams. Mid-Term Exam is In-Class and based on lecture notes and case discussions. The Final Exam is comprehensive. The dates are on the schedule. The final exam is meant to make sure that you can diagnose and probe the issues of managing digital transformation in the global enterprise through informed judgment and systematic thinking in a situation you are likely to encounter in a corporate environment around digital innovation and technology strategy. It is also very time-consuming if you have not been doing the readings thoughtfully.