# BSN3715 (2022-23) Digital Strategy

## **Course Instructor:**

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#### 1. INTRODUCTION

This course introduces students to digital technologies such as platforms, big data and predictive analytics, machine learning, block chain, and internet of things. Understanding the mechanisms by which these developments disrupt industries enables organizations to develop strategies to address disruption to their activities. Even though companies have been subject to successive shocks such as the industrial and computing revolutions, technology and innovation management has remained critical for their product strategy, differentiation, and competitiveness. Today digital corporations (such as Google, Amazon, Facebook, Alibaba, Uber, Netflix, Bitcoin...) have changed the status quo and revolutionized business. They have few products but many services, and they connect people to one another. This module introduces students to digital technologies and strategies and prepares them to think of strategy and innovation in a digital context, and export this to their organizations to engage in disruptive transformation.

### 2. OBJECTIVES

By the end of this course, students are expected to:

- Identify, evaluate, and analyze challenges a business faces with respect to digitization
- Identify potential opportunities that may result from the above-mentioned challenges
- Based on the threats and opportunities identified above, be able to chart out strategies and responses their companies may follow. In addition, based on their analyses, envision entrepreneurial opportunities that arise.

### 3. COURSE CONTENT

The course will be a combination of lectures, case discussion, guest lectures, student presentations. The content of the module on a session basis is as follows (subject to change):

| Session | Topic                                |
|---------|--------------------------------------|
| 1       | Introduction                         |
| 2       | Richness and Reach                   |
| 3       | Deconstruction and Disintermediation |
| 4       | Platforms                            |
| 5       | Platform II. Sharing Economy         |
| 6       | Mid-term test (15 marks)             |
| 7       | Big data and predictive analytics    |
| 8       | Cloud Computing                      |
| 9       | Machine Learning I                   |
| 10      | Machine Learning II                  |
| 11      | Block chain                          |
| 12      | Internet of Things                   |
| 13      | Final test                           |

## 4. READING MATERIALS

There is no textbook for the course. Readings are taken as per their merit from a number of sources available from Library eReserves, and will be provided in Canvas.

### 5. INDIVIDUAL AND GROUP WORK

The course involves individual (45%) and group (55%) work. Individual work includes readings, case analysis, participation in the class discussion, and a final test.

The group work includes one group project presentation and one group project. By the end of **session 2**, i.e. by Tuesday, 17<sup>th</sup> January 2023, all students are expected to form a group of 4-6 people depending on the number of students enrolled.

### 6. GRADING AND ASSESSMENT

The course grade will be calculated in the following way:

| Individual Class Participation | (30 %) |
|--------------------------------|--------|
| Assignments                    | (15 %) |
| Tests                          | (15 %) |
| Group Project and Presentation | (40 %) |

## 1. Class Participation (30 %)

This is NOT limited to class attendance. You are expected to analyze the readings and cases and contribute to class discussions. You are graded on both <u>quality</u> and <u>quantity</u>. As a rule of thumb, you will earn 0/30 if you're absent, 15/30 for being present but with minimal contribution, and 30/30 for exceptional contribution to class discussion.

### 2. Group case presentation (15%)

Group presentations will be on a topic from class assigned by me, alternatively you can propose a topic to speak on. I will typically give a reading of a case/article to present. You must 1) effectively pitch the main idea in the case; 2) introduce the company; 3) the main course topic(s) it relates to; and 4) your analysis. The aim of this assessment is to further classroom learning by testing your understanding of the concepts. This should be done in 15-20 minutes + 10 min Q&A.

Make sure you communicate to me your selected topic by session 2 of the course. Since there will be only one group case presentation per class, your presentation may take place any time from session 2 to session 12. Grading is based on:

- 1. 1 page executive summary (single spaced, times new roman, 1" margins)
- 2. Presentation slides

### **Deadline**:

- Beginning of session in which you present, upload your executive summary and slides on Canvas.
- These materials will be made available to other course participants.
- Upload files named for e.g.: **Group\_5\_Case\_slides** and **Group\_5\_Summary** *without* any individual names in the file name.

## 3. Assignment (15%)

There will be two to three individual assignments to submit. This may be a case study analysis or something else. Deadline for each assignment will be indicated in the class.

## 4. Group Project (40%)

The objective of the group application project is to apply the concepts and frameworks learnt in the course to a company potentially faced with digital disruption, or to a company that disrupts other firms, in an industry. You may work on any of the topics to be covered in the course. The project should be worked on in a team of four (preferred) or five students depending on student enrollment in the course. In keeping with the spirit of the class, the project will examine a specific problem faced by a firm, how it chose to tackle it, and how it could do so better.

**Project Proposal** (5%). You can discuss your project ideas with me from week 2 to 6. By week 7 after the mid-term break (March 1, 2023), I expect you to submit a one-

<sup>\*</sup> Insert individual names within each document.

page project proposal. This proposal is meant to define the boundaries within which your team would work on the application project.

I will provide feedback during discussions or after reception of your proposal so as to align our expectations going forward. It will also be helpful if you can mention how you plan to collect data for the project (e.g., archival sources, interviews etc.)

Useful things to discuss in the proposal may include:

- Digital disruption
- Creating new digital businesses
- Changing the value chain
- Refreshing the value proposition
- Enhancing the customer experience
- Changing operations
- Redesigning organization structure
- Repositioning of people skills/competencies

Grading is as follows: you get 5% of the grade if you do submit your project proposal, 0% if you do not.

*Final Project Paper and Presentation (35%)*. The final paper is due by **week 13 on 12**<sup>th</sup> **April, 2023** and counts for 25%, the remainder of 10% will be for your presentation (session 13). The paper should include a 1-page executive summary, and should be about 5000 words excluding executive summary, references, and exhibits, and should be double-spaced in font times new roman size 12. Please bring a **hardcopy to class** and submit a **softcopy on Canvas**.

The paper will be evaluated on four dimensions:

- The **insight** offered by the analysis—does it go beyond describing what happened to shed light on the fundamental causes.
- The quality of the analysis and how well it integrates the concepts developed in the
- How **relevant**, **useful**, **and well supported** are the lessons and recommendations presented.
- The **readability** of the paper and readers' access to the ideas presented.

While you are probably aware of the conventions of properly citing material and ideas, I believe a short note on the subject is worthwhile. Material reproduced verbatim should be enclosed in quotation marks, with proper attribution made to the source. Ideas and concepts even if not quoted verbatim should be attributed to the author/ source, also via proper citation. All tables and figures drawn from external sources should have appropriate citations/ acknowledgements.

*360 degree evaluation.* You will be asked to evaluate your group members, and you will be evaluated by them as well. This is to ensure everyone has contributed to the project.

**Important note:** The files of all materials you submit as a part of this course should contain the group member names in a header and follow the following convention. E.g. for group 6, project proposal on the firm Alibaba: **G6-ProjectProposal-Alibaba** 

#### 7. OTHER ADMINISTRATIVE DETAILS

Please feel free to come and talk to me regarding any aspect of the course including your individual performance or issues discussed in class. Suggestions for improving the quality of class discussion are always welcome.

Some additional points worth note are:

- 1. I plan to be prepared for every class and I expect you to do the same.
- 2. Group work is strongly encouraged for purposes of case preparation for classroom discussion unless specified otherwise (e.g. case write-ups are individual).

#### 8. ACADEMIC HONESTY AND PLAGIARISM

Academic integrity and honesty is essential for the pursuit and acquisition of knowledge. The University and School expect every student to uphold academic integrity & honesty at all times. Academic dishonesty is any misrepresentation with the intent to deceive, or failure to acknowledge the source, or falsification of information, or inaccuracy of statements, or cheating at examinations/tests, or inappropriate use of resources.

Plagiarism is 'the practice of taking someone else's work or ideas and passing them off as one's own' (The New Oxford Dictionary of English). The University and School will not condone plagiarism. Students should adopt this rule - You have the obligation to make clear to the assessor which is your own work, and which is the work of others. Otherwise, your assessor is entitled to assume that everything being presented for assessment is being presented as entirely your own work. This is a minimum standard. In case of any doubts, you should consult your instructor.

Additional guidance is available at:

- a. <a href="http://www.nus.edu.sg/registrar/adminpolicy/acceptance.html#NUSCodeofStudent">http://www.nus.edu.sg/registrar/adminpolicy/acceptance.html#NUSCodeofStudent</a> <a href="Conduct">Conduct</a>
- b. Online Module on Plagiarism: http://emodule.nus.edu.sg/ac/