

View Syllabus Information

Course Information			
Year	2021	School	School of Commerce
Course Title	Management and Complexity 1		
Instructor	MALEN, Joel Baker		
Term/Day/Period	spring semester Thur.1		
Category		Eligible Year	3rd year and above
Classroom		Campus	waseda
Course Key	1600004AF5	Course Class Code	01
Main Language	English		
Class Modality Categories	Realtime Streaming		
Course Code	MANX481L		
First Academic disciplines	Management		
Second Academic disciplines	Management		
Third Academic disciplines	Others		
Level	Final stage advanced-level undergraduate	Types of lesson	Lecture

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Course Outline	<p>Course Overview</p> <p>Managers today operate in a very challenging business environment. Rapid technological change in areas from AI to digitization, environmental factors like climate change and health issues such as pandemics, to name but a few important challenges, make developing effective business strategy difficult. Much of the challenge stems from the complexity of the world in which we live. It is composed of many different elements—including people, machines, natural ecosystems, governments to name but a few. These elements are interconnected, interacting with each other over time, changing both the environments in which they interact as well as themselves. Businesses are also complex—they are self-organizing, nonlinear, feedback systems. Limitations in our ability to understand how implications of decisions can emerge and unfold over time can complicate our ability to understand how effectively current business designs and decisions are producing intended results. The reality of a complex world means there can be no “best” strategy or decision for a business under all circumstances. Unfortunately, many of the tools we learn in studying management do not sufficiently account for the complexity of the world, substantially reducing their effectiveness in helping promote desired business outcomes. The purpose of this course is therefore to familiarize students with the complexity characterizing the modern world and with management frameworks and research for addressing those challenges in order to position them to make more effective business management and strategy decisions in the contemporary global business environment.</p> <p>The course begins by introducing the concept of complexity and its relevance to natural and social systems. We then apply this understanding to several prominent management and business strategy challenges that result from complexity. Because standard tools and frameworks are often insufficient in complex contexts, we will also study modified and contemporary management and strategy frameworks for managing under uncertainty.</p> <p>Complexity is inherently a difficult concept for the human mind to understand. To facilitate student learning, we therefore make extensive use of computational simulation modeling techniques to explore important concepts and derive management strategy implications from the models. Students will also participate in group simulation exercises to experience how individual and business decision making can produce aggregate business and social outcomes. These experiences will enable students to better understand important dimensions of complexity and how to use that knowledge toward development of business strategy.</p>
Objectives	<p>Learning Objectives</p> <p>Students will become familiar with the general concept of complexity and understand its relevance in natural and social systems</p> <p>Students will understand important ways in which complexity influences management and business strategy design, decisions and outcomes</p> <p>Students will develop skills applying computational simulation modeling to understand complexity in domains relevant to management and business strategy</p> <p>Students will become familiar with management frameworks and research for addressing the challenges posed by complexity to business</p>
Course Schedule	<p>This course will be delivered live online (via Zoom) in Spring 2021</p> <p>Course Schedule (tentative)</p> <p>Understanding Complexity</p> <p>Week 1. Course Introduction</p> <p>Week 2. Complexity in nature</p> <p>Week 3. Understanding complexity</p> <p>Week 4. History of complexity thinking</p> <p>Simulation and Management Applications</p> <p>Week 5. Introduction to computational simulation modeling</p> <p>Week 6. Social interaction and markets</p> <p>Week 7. Organizational complexity</p> <p>Week 8. Competition and strategy evolution</p> <p>Week 9. Complexity, networks and business</p> <p>Week 10. Innovation and diffusion</p> <p>Week 11. Natural ecosystems and business strategy I</p> <p>Week 12. Natural ecosystems and business strategy II</p> <p>Developing strategy in a complex world</p> <p>Week 13. Business strategy in a complex world I</p> <p>Week 14. Business strategy in a complex world II</p>

Week 15. Final Exam (in class)

*schedule and topics subject to change

Textbooks

Boulton, J. G., Allen, P. M., & Bowman, C. (2015). Embracing complexity: Strategic perspectives for an age of turbulence. OUP Oxford.

Janssen, M. (2020) Introduction to Agent-Based Modeling with applications to social, ecological, and social-ecological systems

Evaluation

Grade components (tentative)

- Quizzes (20%)
- Written Assignments (40%)
- Final Exam (40%)