



Master of Science in Data Science
School Year 2023-2024
Course Outline

| | |
|---------------------|--|
| School | Aboitiz School of Innovation, Technology, and Entrepreneurship (ASITE) |
| Course Code | GNAM GNW (MSc) |
| Course Title | Data Strategy and Governance for Business Leaders |
| Units | 1 unit |
| Term | Elective |

| | |
|---------------------------|--|
| Faculty Name | Legara, Erika Fille T. |
| Email Address | elegara@aaim.edu |
| Consultation Hours | |

| | |
|----------------------|--|
| Program Staff | Nikka Mae O. Bautista |
| Email Address | nbautista@aaim.edu |
| Extension No. | |

Resource Speaker/s:

- Monterola, Christopher
- Saw, Cindy
- Sison, Kevin Anthony

A. Course Description

In today's digital age, the strategic management and governance of data are critical for aligning technical capabilities with business objectives. This course is designed to empower participants with the foundational understanding and practical insights needed to navigate the convergence of data, technology, and business. This course will unravel the core principles of data strategy and governance. It will provide a realistic framework for how they can be harnessed to drive informed decision-making and sustainable business growth. Through a blend of theoretical discussions, case study analyses, and interactive exercises, participants will develop a pragmatic understanding of how to devise data strategies and governance frameworks aligned with organizational goals and compliant with regulatory standards.

B. Pre-requisites

Not applicable.

C. Course Learning Outcomes

- 1. Explain the fundamentals of Data Science and AI, and their role in enabling business innovation and growth.** This includes understanding key concepts, technologies, and applications of Data Science and AI in a business context, and how they drive innovation and contribute to business growth.
- 2. Develop a comprehensive understanding of the principles of data strategy and governance, delving into their critical role in synchronizing technical capabilities with overarching business objectives.** This

involves learning to align data strategy with business goals and understanding the importance of effective data governance in achieving these objectives.

3. Recognize and address the ethical challenges in AI, such as bias, fairness, transparency, and accountability, to ensure responsible AI implementation. This entails identifying potential ethical issues in AI systems, understanding their implications, and developing strategies to manage these challenges responsibly in a business setting.

E. Learning Methodology

- Case Study Analysis
- Interactive Class Discussions
- Guest Lectures

F. Grading Criteria

| | | | Weight |
|----------------------------|----------------------------|--------------|---------------|
| Class participation (sync) | Active class participation | (Individual) | 50% |
| Reflection Paper | | (Individual) | 20% |
| Presentation | All members must present | (Group) | 30% |
| | | TOTAL | 100% |

G. Sessions

| Session | Topic | Pre-session Activity | Faculty | Learning or Case Materials | Supplementary Readings |
|------------------------------------|---|-------------------------------------|------------------------------------|--|---|
| 1 Jun 10 8:30AM– 10:00AM | Class management; Introduction to Data Science and AI | Peruse supplementary readings | Erika Fille T. Legara, Ph.D. | | Analytics 3.0 By: Thomas H. Davenport |
| 2 Jun 10 10:30AM– 12:00PM | Asking the Right Analytics Questions | | Erika Fille T. Legara, Ph.D. | | |
| 3 Jun 10 1:30PM– 3:00PM | Maximizing ROI through AI | | Christopher P. Monterola, Ph.D. | | Artificial Intelligence for the Real- World By: Thomas H. Davenport and Rajeev Ronanki |
| 4 Jun 11 8:30AM– 10:00AM | Introduction to Data Strategy | Peruse required reading | Erika Fille T. Legara, Ph.D. | What's Your Data Strategy? By: Leandro DalleMule and Thomas H. Davenport | Reshaping Business With Artificial Intelligence: Closing the Gap Between Ambition and Action By: Sam Ransbotham, David Kiron, Philipp Gerbert, Martin Reeves |
| 5 Jun 11 10:30AM– 12:00PM | Data Strategy (cont'd) | Peruse supplementary readings | Erika Fille T. Legara, Ph.D. | | |
| 6 Jun 11 1:30PM– 3:00PM | Tooling-Up Enterprises (a case) | Read case | Erika Fille T. Legara, Ph.D. | Data Science at Target By: Srikant M. Datar and Caitlin N. Bowler | |
| 7 Jun 12 8:30AM– 10:00AM | Data Governance Frameworks and Models | | Kevin Anthony Sison, MSDS | | |

| | | | | | |
|------------------------------------|---|--|---------------------------------|---|---|
| 8 Jun 12 11:00AM- 12:30PM | Data Strategy and Governance in Insurance and Banking | | Cindy Saw, MSDS | | |
| 9 Jun 12 1:30PM- 3:00PM | Responsible AI | Peruse supplementary readings | Erika Fille T. Legara, Ph.D. | 13 Principles for Using AI Responsibly By: Brian Spisak, Louis B. Rosenberg, Max Beilby | Eliminating Algorithmic Bias Is Just the Beginning of Equitable AI By: Simon Friis and James Riley When Algorithms Rule, Values Can Wither By: Dirk Lindebaum, Vern Glaser, Christine Moser, and Mehreen Ashraf |
| Jun 13 7:00AM- 4:00PM | Local Immersion Tour | | | | |
| 10 Jun 14 9:00AM- 12:30PM | Capstone Presentation & Wrap-up | Meet with Learning Team and prepare for the capstone presentation | | | |