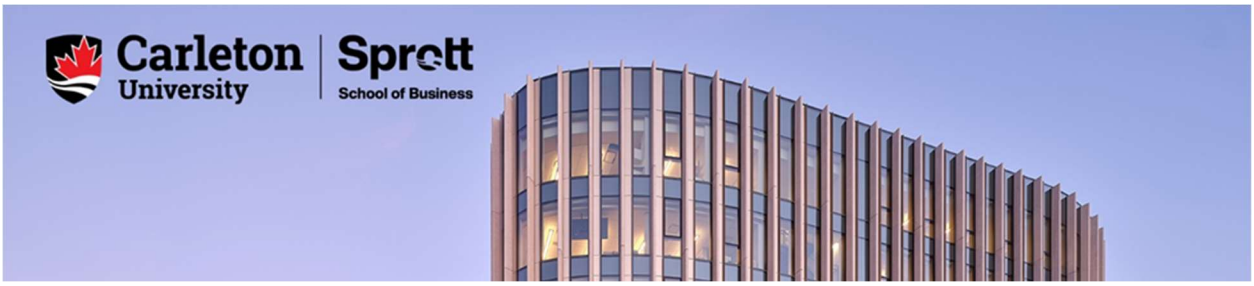

ITIS 5405K: AI for Managers

MBA/PMBA Fall 2026

Instructor	Dr. Qi Deng
Email Address	qi.deng@carleton.ca
Class Times	Oct 16 and 17, 2026 8:35 am - 5:25 pm
Modality	In-person
Office Hours	By appointment
Office Location	*Nicol 6031*
TA Name/Email	*TBD*

Pre-Requisites & Preclusions:

Prerequisites: None

Preclusions: None

Course Description/Instructor's Statement

Carleton Calendar Description

Critical factors to successfully enable and leverage AI within organizations. Introduction to AI concepts, AI strategy, economics of AI, organizational AI Readiness, legal and regulatory issues in managing AI, AI risk management, responsible AI adoption and integration.

Instructor's Course Description:

As artificial intelligence becomes increasingly central to organizational decision-making and transformation, managers need more than technical awareness—they need the ability to assess opportunities, recognize risks, and lead adoption responsibly. This course introduces core concepts in AI and generative AI, explores their applications in managerial work and organizational functions, and examines the strategic, economic, organizational, governance, and leadership issues they raise. Designed for MBA students, the course emphasizes practical managerial judgment over technical model development and considers emerging developments, including agentic AI, and the related implications for the future of organizations and managerial work.

Course Learning Objectives:

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

1. Explain key concepts in AI and generative AI for managerial audiences.

2. Evaluate how generative AI can be applied effectively in managerial work and organizational functions.
3. Assess the strategic, economic, and workforce implications of AI adoption.
4. Analyze organizational readiness for AI adoption, scaling, and transformation.
5. Identify major governance, risk, ethical, legal, and regulatory issues in organizational AI use.
6. Recommend responsible approaches to AI adoption and integration.
7. Discuss emerging AI developments and their implications for organizations and managers.

Required/Optional Materials & Prices

Textbook & Readings

- HBR Guide to AI Basics for Managers. (2023). Harvard Business Review: https://store.hbr.org/product/hbr-guide-to-ai-basics-for-managers/10586
- Davenport, T. H., & Mittal, N. (2023). All in on AI: how smart companies win big with artificial intelligence. Harvard Business Review Press.
- Textbooks and additional readings will be available via the Course Reserves (Ares).

Device & Software

NOTE: All the required software must be set up properly before class.

- Students need to bring their own laptops (and power cable if needed) for lab activities.
- This course includes hands-on activities that demonstrate the applications of Generative AI (i.e., Google Gemini). To access the full functionality and participate fully in certain activities, students will need to subscribe to Google AI Pro (https://one.google.com/about/). The cost associated with the subscription is the responsibility of the student.

Case

- AI and Strategy - Lessons from Real-World Cases
- DBS Bank - A Tech Company Going All in on AI
- What's the Cure When AI Has a Medical Bias?
- Ethical Programming of Algorithms: How to Deal with Ethical Risks of AI Tools for Hiring Decisions? (A & B)
- Who's the Expert? Your Consultants or AI?
- *Students need to pay for the cases needed. A HBR course pack (with purchase link) will be created and shared by the instructor.*

Grading Scheme

Activity	Weight
Pre-class preparation / quiz	10%
Individual class participation	10%
In-class quiz and AI applications	20%
Group case analysis and discussion	20%
Take home individual assignment	40%
Total	**100%**

Each component of your grade will be assigned a percentage score. Your final course grade will be a weighted average of each of these components.

Pre-class preparation / quiz (10%)
Before the intensive sessions, you will complete assigned readings and/or learning materials and a short quiz covering foundational AI and GenAI concepts. This preparation is intended to establish a common foundation and allow class time to focus on application, discussion, and managerial decision-making.

Individual class participation (10%)
Active participation is an important part of the in-person learning experience. You are expected to come prepared and contribute meaningfully to class discussions, case conversations, and peer learning. This grade goes beyond simple attendance and will reflect the quality and relevance of your contributions, engagement with others' perspectives, and connections between course concepts and professional experience.

In-class AI applications (20%)
During the course, you will complete short, hands-on activities that apply AI tools to realistic managerial tasks and business problems. Activities will emphasize effective AI use, critical evaluation of AI outputs, and managerial judgment. Specific activities and assessment criteria will be provided in class.

Group case analysis and discussion (20%)
You will work in teams during selected case-based sessions to analyze real-world business cases, consider alternative perspectives, and develop and defend managerial recommendations. Each team will receive a group score based on the quality of its analysis, application of course concepts, and contribution to the case discussion. Specific case activities and weighting will be provided in class.

Take-home individual assignment (40%)
The capstone of this course is a comprehensive individual assignment that requires you to synthesize various GenAI perspectives. You will be tasked with applying the frameworks and tools learned in this course directly to your current professional context. The primary objective is to demonstrate your ability to connect AI literacy with real-world business needs.

Policies & Accommodations

https://students.carleton.ca/course-outline/
https://carleton.ca/pmc/current-students/academic-accommodations/

Stay updated with important notifications and announcements from Carleton University, by downloading the Carleton University App!

Preparation and Participation:

This course is highly interactive and application oriented. You are expected to:

- Come prepared by completing assigned readings and cases.
- Contribute thoughtfully to class discussions and activities.
- Connect course concepts to your professional experience when appropriate.
- Listen to and engage respectfully with others' perspectives.
- Participate actively in hands-on AI activities and group case discussions.

Late Assignments:

To ensure fairness for all students, penalties will be applied to late assignments: Late submission will be penalized 10% of the deliverable grade per day (e.g., an assignment graded 8 marks will be penalized 0.8 marks per day). No late deliverables will be accepted after one week past the stated deadline. Missing deliverable will receive a mark of zero. Requests for extension will be considered in cases of illness, family emergency, or other exceptional circumstances. You must discuss these circumstances with your instructor at least 24 hours before the assignment due date (Note: Discussing the situation is not the same as merely informing your instructor).

Note: Please keep an electronic copy for every exercise and assignment you submit.

Midterm and Final Exam

There is no final examination for this course.

e-Proctoring

If e-Proctoring is implemented for digital exams, please note that tests and examinations in this course will use a mandatory remote proctoring service provided by Scheduling and Examination Services. You can find more information at https://carleton.ca/ses/e-proctoring/ .

Students are responsible for ensuring that the application is working properly on your computer during the exam. Failure to ensure proper functioning of CoMaS will constitute a violation of the exam rules and may be grounds for an allegation that you have violated the Academic Integrity Policy.

The minimum computing requirements for this service are as follows:

Hardware: Desktop, or Laptop

OS: Windows 10 or higher, Mac OS 10.14 or higher

Internet Browser: Google Chrome, Mozilla Firefox, Apple Safari, or Microsoft Edge

Internet Connection (High-Speed Internet Connection Recommended)

Webcam (HD resolution recommended)

Note: Tablets, Chromebooks, Smartphones and Windows-based tablets are not supported at this time.

Deferred In-Class Tests:

In the event that you are unable to write a midterm, test, or other scheduled assessments due to extenuating circumstances (such as a death in the family, illness, etc.), you must provide appropriate supporting documentation to your professor. Upon review, a deferred test may be offered. Please

note that students who do not provide valid documentation or fail to offer a reasonable explanation for missing an assessment will receive a grade of 0% for that test.

Deferred final exams:

If you wish to defer a **Formal Final Exam**, you – the student – must reach out to the registrar's office with the proper documentation prior to the deadline (please refer to https://carleton.ca/registrar/deferral/ for dates). Once the request has been put through, your instructor will be notified for their approval.

Use of Generative Artificial Intelligence

This is an AI-forward course. Students are expected to use generative-AI tools (e.g., ChatGPT, Claude, Copilot) as thought partners and assistants to enhance the quality of their work. Assignments will be graded assuming students had full access to AI support. Use these tools responsibly. That is, verify outputs, apply your own judgment, and cite AI use when relevant. The goal is not to outwit AI but to elevate your learning through it. You can access resources related to citing Generative AI on the MacOdrum Library website. Additional resources are also available on Carleton's Artificial Intelligence Hub.

Contribution to Program Learning Goals (MBA):

MBA Learning Goal	Not Covered	Introduced	Taught but Not Assessed	Taught and Assessed
MB1 Leadership and Collaboration *Graduates will be equipped for leadership and collaboration.*		✓		
MB2 Communication *Graduates will be effective communicators*	✓			
MB3 Critical Thinking and Problem Solving *Graduates will be skilled in critical thinking and problem solving.*	✓			
MB4 Functional Knowledge *Graduates will have functional knowledge of all areas of business.*				✓
MB5 Global Business *Graduates will have an appreciation of the global environment of business.*	✓			

MB6 Ethical Reasoning *Graduates will be skilled in ethical reasoning and decision-making.*			✓	

COURSE SCHEDULE

NOTE: While every attempt will be made to keep to the schedule listed below, unforeseen circumstances may necessitate modifications throughout the semester.

Date	Topic/Agenda	Reading
Pre-Class	Module 1: AI and Generative AI Foundations *Quiz*	• Watch instructor-recorded video • Chui, M., Kamalnath, V., McCarthy, B. An executive's guide to AI. McKinsey. 2020. • What is AI (artificial intelligence)? McKinsey. 2024. • What is machine learning? McKinsey. 2024. • What is deep learning? McKinsey. 2024. • What is generative AI? McKinsey. 2024. • Stackpole, B. Agentic AI, explained. MIT Sloan. 2026.
Day 1 AM	Module 2: GenAI for Individual Work and Productivity	• Zao-Sanders, M. How People Are Really Using Gen AI in 2025. *Harvard Business Review*. 2025. • Anthropic. What 81,000 people want from AI. AI Interviewer. • Google Workspace. Prompting guide 101: A quick-start handbook for effective prompts.
Day 1 PM	Module 3: GenAI for Business Functions	• Wu, Anand and Andy. The GenAI Playbook for Organizations. *Harvard Business Review*, 2025. • How Is Your Team Spending the Time Saved by Gen AI? (2025). *Harvard Business Review*, *103*(2), 23–27. **Optional Readings** • Korst, J., Puntoni, S., & Toubia, O. (2025). How Gen AI Is Transforming Market Research. *Harvard Business Review*, *103*(3), 90–99. • Wirtz, J. (2026). How Gen AI Robots Are Reshaping Services. *Harvard Business Review*, *104*(3), 116–125. • Fandrich, B. (2024). How GenAI Helped Blue Cross Blue Shield of Michigan Transform. *MIS Quarterly Executive*, *23*(3), 345–349.
Day 2 AM	Module 4: AI Strategy, Value Creation, and the Economics of AI Case: *AI and Strategy - Lessons from Real-World Cases*	• Bouquet, C., Wright, C. J., & Nolan, J. (2026). Match Your AI Strategy to Your Organization's Reality. *Harvard Business Review, 104*(1), 106–115. • Edmondson, A. C., & Chamorro-Premuzic, T. (2026). The Perils of Using AI to Replace Entry-Level Jobs. *Harvard Business Review, 104*(2), 30–33. **Optional Readings**

		• McKinsey - Agents, robots, and us: Skill partnerships in the age of AI. • BCG - AI Will Reshape More Jobs Than It Replaces. • Anthropic - Labor market impacts of AI: A new measure and early evidence. • Future Skills Centre - Right Brain, Left Brain, AI Brain: Implications of AI on Jobs and Skills Demand in Canada. • LinkedIn - Work Change Report: AI is Coming to Work. • PWC - The Fearless Future: 2025 Global AI Jobs Barometer. • PWC - 2025 Global AI Jobs Barometer (Canada Analysis).
Day 2 Midday	Module 5: Organizational AI Readiness, Adoption, and Transformation Case: *DBS Bank - A Tech Company Going All in on AI*	• McKinsey. The state of AI in 2025: Agents, innovation, and transformation. 2025. • Wilson, H. J., & Daugherty, P. R. (2025). The Secret to Successful AI-Driven Process Redesign. *Harvard Business Review*, *103*(1), 45–51. **Optional Readings** • van Giffen, B., & Ludwig, H. (2023). How Siemens Democratized Artificial Intelligence. *MIS Quarterly Executive*, *22*(1), 1–21. • Sagodi, A., van Giffen, B., Schniertshauer, J., Niehues, K., & vom Brocke, J. (2024). How Audi Scales Artificial Intelligence in Manufacturing. *MIS Quarterly Executive*, *23*(2), 167–186.
DAY 2 PM	Module 6: AI Governance, Risk, Regulation, and Responsible Adoption Debate & Selected Quick Cases: 1. *What's the Cure When AI Has a Medical Bias?* 2. *Ethical Programming of Algorithms: How to Deal with Ethical Risks of AI Tools for Hiring Decisions? (A & B)* 3. *Who's the Expert? Your Consultants or AI?*	• Stanford HAI. The 2026 AI Index Report - Chapter 3: Responsible AI. • Blackman, R. (2022). Why You Need an AI Ethics Committee. *Harvard Business Review*, *100*(4), 118–125. • Abernethy, J., Candelon, F., Evgeniou, T., Gupta, A., & Lostanlen, Y. (2024). Bring Human Values to AI. *Harvard Business Review*, *102*, 74–80. • Yampolskiy, R. V. (2021). What Will Happen When Your Company's Algorithms Go Wrong? *Harvard Business Review*, 140–141. • Chang, G. and Grant, H. (2026) When AI Amplifies the Biases of Its Users. *Harvard Business Review*. **Optional Readings** • Tarafdar, M., Zuloaga, L., Rets, I., & Mondragon, N. (2025). How HireVue Created "Glass Box" Transparency for its AI Application. *MIS Quarterly Executive*, *24*(1), 47–65. • Schulte-Derne, D., & Gnewuch, U. (2024). Translating AI Ethics Principles into Practice to Support Robotic Process Automation Implementation. *MIS Quarterly Executive*, *23*(2), 187–203.
Nov 8, 2026 11:59 pm: Individual Assignment Due		

*** Refer to Academic Calendar for dates University Closed Dates and Holidays**
https://calendar.carleton.ca/academicyear/

ADDITIONAL INFORMATION

Course Sharing Websites:

Materials created for this course (including presentations and posted notes, labs, case studies, assignments and exams) remain the intellectual property of the author(s). They are intended for personal use and may not be reproduced or redistributed without prior written consent of the author(s).

Recommended Calculator for Examinations:

If you are purchasing a calculator, we recommend any one of the following options: Texas Instruments BA II Plus (including Pro Model), Hewlett Packard HP 12C (including Platinum model), Staples Financial Calculator, Sharp EL-738C & Hewlett Packard HP 10bII

Group work

The Sprott School of Business encourages group assignments in the school for several reasons. They provide you with opportunities to develop and enhance interpersonal, communication, leadership, followership, and other group skills. Group assignments are also good for learning integrative skills for putting together a complex task. Your professor may assign one or more group tasks/assignments/projects in this course. Before embarking on a specific problem as a group, it is your responsibility to ensure that the problem is meant to be a group assignment and not an individual one.

Grading

In accordance with the Carleton University Undergraduate Calendar (p 34), the letter grades assigned in this course will have the following percentage equivalents:

A+ = 90-100	B+ = 77-79	C+ = 67-69	D+ = 57-59
A = 85-89	B = 73-76	C = 63-66	D = 53-56
A - = 80-84	B - = 70-72	C - = 60-62	D - = 50-52

F = Below 50

Grades entered by Registrar:
WDN = Withdrawn from the course
DEF = Deferred

Academic Regulations

University rules regarding registration, withdrawal, appealing marks, and most anything else you might need to know can be found on the university's website, here:

http://calendar.carleton.ca/undergrad/regulations/academicregulationsoftheuniversity/

Requests for Academic Accommodation

Carleton is committed to providing academic accessibility for all individuals. You may need special arrangements to meet your academic obligations during the term. The accommodation request processes, including information about the *Academic Consideration Policy for Students in Medical*

and Other Extenuating Circumstances, are outlined on the Academic Accommodations website (students.carleton.ca/course-outline).

Pregnancy Accommodation

Please contact your instructor with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. For more details, please review the pregnancy academic accommodation process.

Religious obligation

Please contact your instructor with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. For more details, please review the religious academic accommodation process.

Academic Accommodations for Students with Disabilities

If you have a documented disability requiring academic accommodations in this course, please contact the Paul Menton Centre for Students with Disabilities (PMC) at 613-520-6608 or pmc@carleton.ca for a formal evaluation or contact your PMC coordinator to send your instructor your Letter of Accommodation at the beginning of the term. You must also contact the PMC no later than two weeks before the first in-class scheduled test or exam requiring accommodation (if applicable). After requesting accommodation from PMC, meet with your instructor as soon as possible to ensure accommodation arrangements are made. For more details, visit the Paul Menton Centre website.

Survivors of Sexual Violence

As a community, Carleton University is committed to maintaining a positive learning, working and living environment where sexual violence will not be tolerated, and where survivors are supported through academic accommodations as per Carleton's Sexual Violence Policy. For more information about the services available at the university and to obtain information about sexual violence and/or support, visit the Equity and Inclusive Communities website.

Accommodation for Student Activities

Carleton University recognizes the substantial benefits, both to the individual student and for the university, that result from a student participating in activities beyond the classroom experience. Reasonable accommodation must be provided to students who compete or perform at the national or international level. Please contact your instructor with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. For more details, see the Senate Policy on Accommodation for Student Activities (PDF, 25 KB).

Academic Consideration for Medical and Other Extenuating Circumstances

Due to medical and other extenuating circumstances, students may occasionally be unable to fulfil the academic requirements of their course(s) in a timely manner. The university supports the academic development of students and aims to provide a fair environment for students to succeed academically. Medical and/or other extenuating circumstances are circumstances that are beyond a

student's control, have a significant impact on the student's capacity to meet their academic obligations, and could not have reasonably been prevented. Students may request Academic Consideration for Coursework or Other Academic Deliverable. For further information please review the Procedure for Academic Consideration and the FAQ page.

Scheduling and Examination Support

Scheduling and Examination Services provides various supports for both in-term and end-of-term tests and exams. Details can be found on the Exam Support website.

Academic Integrity:

Violations of academic integrity—presenting another's ideas, arguments, words or images as your own, using unauthorized material, misrepresentation, fabricating or misrepresenting research data, unauthorized co-operation or collaboration or completing work for another student—are a serious academic offence, weaken the quality of the degree, and will not be tolerated. Penalties may include; a grade of Failure on the submitted work and/or course; academic probation; a refusal of permission to continue or to register in a specific degree program; suspension from full-time studies; suspension from all studies at Carleton; expulsion from Carleton, amongst others. Students are expected to familiarize themselves with and follow the Carleton University Student Academic Integrity Policy which is available, along with resources for compliance at: https://carleton.ca/registrar/academic-integrity/

Centre for Student Academic Support:

The Centre for Student Academic Support (CSAS) is a centralized collection of learning support services designed to help students achieve their goals and improve their learning both inside and outside the classroom. CSAS offers academic assistance with course content, academic writing and skills development. Visit CSAS on the 4th floor of MacOdrum Library or online at: https://carleton.ca/csas/

Other Important Information:

- Students must always retain a copy of all work that is submitted.
- All final grades are subject to the Dean's approval.
- For us to respond to your emails, we need to see your full name, CU ID, and the email must be written from your valid CARLETON address. Therefore, in order to respond to your inquiries, please send all email from your Carleton cmail account. If you do not have or have yet to activate this account, you can do so by visiting https://carleton.ca/its/get-started/new-students-2/