



BUSADMIN K610
Digital Transformation: Thriving in a Changing
Landscape
Fall 2026 Course Outline

Information Systems Area
DeGroote School of Business
McMaster University

COURSE OBJECTIVE

This introductory course delves into the dynamic and evolving world of digital transformation. It provides students with a foundational understanding of how digital technologies are reshaping business and society. Covering essential topics like data-driven strategy, business intelligence, blockchain, and the emerging concept of AI, the course prepares students to grasp the opportunities and challenges of digital innovation. Using a systems thinking lens, students will explore how transformation emerges within broader organizational, social, and technological systems, and how thoughtful digital interventions can shape outcomes.

Anchored in an experiential learning approach, the course blends theoretical knowledge with real-world application, enabling students to actively engage with concepts, reflect on their learning, and develop the practical mindset needed to navigate and lead in the increasingly digital business landscape.

INSTRUCTOR AND CONTACT INFORMATION

Course Instructor	Section C01	Section C02
Dr. Keiwan Wind (windkei@mcmaster.ca)	Wednesday	Wednesday
Office: DSB-A202, RJC-232	08:30 – 11:20	14:30 – 17:20
Office hours by appointment		

The course website (<http://www.avenue.mcmaster.ca>) will be the primary mode of information dissemination. Please check it regularly for posts concerning the course.



Teaching Assistant(s)	
TBA	email:
	email:
	email:

COURSE ELEMENTS

Credit Value:	3	Leadership:	Yes	IT skills:	Yes	Global view:	Yes
Avenue:	Yes	Ethics:	Yes	Numeracy:	Yes	Written skills:	Yes
Participation:	Yes	Innovation:	Yes	Group work:	Yes	Oral skills:	Yes
Evidence-based:	Yes	Experiential:	Yes	Final Exam:	No	Guest speaker(s):	Yes

COURSE DESCRIPTION

This course on Digital Transformation equips students with a broad understanding of how to conceptualize, analyze, implement, and manage digital transformation within various organizational contexts. Spanning twelve weeks of critical conversations, the curriculum delves into the foundational concepts of digital transformation, explores the pivotal role of data, technology, and AI, and addresses strategic and practical approaches to integrating digital innovations. Using a systems thinking perspective, students will learn to make sense of how transformation unfolds across organizational and societal systems, and how deliberate digital interventions can shape outcomes.

Grounded in an experiential learning approach, the course emphasizes learning through doing, reflection, and application. Through interactive discussions, case studies, and hands-on projects, students will learn to navigate the complexities of digital technologies (such as AI, blockchain, and big data) and apply these insights to drive strategic decisions and manage change effectively in their organizations.

LEARNING OUTCOMES

Upon completion of this course, students will be able to complete the following key tasks:

- Understand the foundational concepts of digital transformation and its impact on businesses and society.
- Apply a systems thinking perspective to make sense of how transformation emerges within organizational and societal contexts and how digital interventions can influence outcomes.



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- Analyze the role of data and emerging technologies in shaping organizational strategies and operations.
- Develop skills in constructing visual narratives and using data analytics to inform decision-making processes.
- Evaluate the technical, strategic, and ethical implications of implementing new technologies like IoT, AI, and blockchain.
- Create comprehensive digital strategies that integrate technological innovations with business objectives to enhance competitive advantage.
- Design and execute digital transformation projects through an experiential learning approach that emphasizes application, reflection, and iteration, while considering the critical aspects of change management and stakeholder engagement.
- Critically assess the effectiveness of digital transformation initiatives, identifying areas for improvement and future innovation.

REQUIRED COURSE MATERIALS AND READINGS

Avenue registration for course content, readings and case materials	FREE
• http://avenue.mcmaster.ca	
Harvard Business School Publishing Course pack (link on A2L):	
• Porter, M. E., Gunther, R., Davenport, T. H., & Lansiti, M. (2021). HBR's 10 Must Reads on Leading Digital Transformation • Porter, M. E., Davenport, T. H., Daugherty, P., & Wilson, H. J. (2018). HBR's 10 Must Reads on AI, Analytics, and the New Machine Age • 11 Cases from Harvard Business School Publishing	Included in course pack
Top Hat	FREE
• The link will be provided within the course website on A2L	

OPTIONAL COURSE MATERIALS AND READINGS

Gupta, S. (2018). <i>Driving digital strategy: A guide to reimagining your business</i> . Harvard Business Press. ISBN-10: 163369268X	28.62 CAD on Amazon
Senge, P. M. (2006). <i>The fifth discipline: The art and practice of the learning organization</i> . Broadway Business. ISBN-10: 0385517254	36.39 CAD on Amazon.ca
Sterman, J. (2002). <i>System Dynamics: systems thinking and modeling for a complex world</i> . Mc Graw Hill. ISBN-10: 9780071068123	48.55 CAD on Amazon.ca
Warren, K. (2015). <i>Strategy dynamics essentials</i> . London, UK: Strategy Dynamics Limited. ISBN-10: 1505809053	24.00 CAD on Amazon.ca



EVALUATION

The learning experience in this course is multifaceted, emphasizing both theoretical and practical aspects of digital transformation. Students will engage in in-depth critical conversations and discussions during class sessions, which are essential for understanding and applying course concepts. A systems thinking perspective will help students make sense of digital transformation and consider opportunities for meaningful intervention.

The course is grounded in an experiential learning approach, where students learn through application and reflection. Participation in group activities, case analyses, and practical assignments further deepen this learning. The course also incorporates conceptual lectures and weekly readings that provide foundational knowledge and contemporary insights into digital transformation. Hands-on assignments are designed to apply this knowledge in real-world scenarios, enhancing problem-solving and strategic thinking skills.

Missed assignments/exams will receive a grade of zero unless the student has submitted and been approved for a Notification of Absence. Your final grade will be calculated as follows:

COMPONENTS AND WEIGHTS

Component		Weight
Assignments (<i>Individual</i>)	Database Management Systems (SQL): 7.5%	30%
	Social Network Analysis (Python): 10%	
	Digital Transformation Simulation (HBSP): 12.5%	
Class participation (<i>Individual</i>)		15%
Experiential Learning Reflection (<i>Individual</i>)		5%
Final assignment (<i>In-group</i>) In THREE Phases	Project Concept: 4% + Review and Reflection: 1%	40%
	Literature Review: 13.5% + Review and Reflection: 1.5%	
	Report/Presentation: 17.5% + Review and Reflection: 2.5%	
Group Case facilitation (<i>In-group</i>)		10%
Total		100%

Individual assignments = 50%, Group assignments = 50%

NOTE: The use of a McMaster standard calculator is allowed during examinations in this course. See McMaster calculator policy at the following URL:

www.mcmaster.ca/policy/Students-AcademicStudies/UndergraduateExaminationsPolicy.pdf



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GRADE CONVERSION

At the end of the course your overall percentage grade will be converted to your letter grade in accordance with the following conversion scheme (as per section 2.6.9 in the SGS Graduate Calendar):

Grade	Points	Equivalent Percentages	Pass/Fail
A+	12	90-100	P+
A	11	85-89 ^{.99}	P
A-	10	80-84 ^{.99}	
B+	9	77-79 ^{.99}	
B	8	73-76 ^{.99}	
B-	7	70-72 ^{.99}	
F	0	00-69 ^{.99}	F

Note: Grades in graduate courses are reported as letter grades. Averaging letter grades must be done using the McMaster 12-point scale.

COURSE DELIVERABLES

1) ASSIGNMENTS (INDIVIDUAL:30%)

Three assignments have been designed to provide students with hands-on experience in data analytics and digital transformation decision making. **These assignments constitute 30% of your final grade and will be evaluated individually.** You will receive scenarios for simulations and datasets and be tasked with developing and editing MySQL and Python codes. **Weekly course outlines will include essential tutorials and workshops.**

The first assignment (7.5% of the final grade) aims to give students practical experience with **database querying using SQL**. In the second assignment (10%), students will analyze a **social network dataset** to develop insights into network behaviour by investigating the subtle structures and patterns that emerge from social connections. The third assignment (12.5%) aims to give students practical experience with **data-driven decision-making in a digital transformation project** within a simulation environment.

All assignment submissions must be uploaded to your Avenue account following the instructions provided with each assignment. Only the most recent version submitted will be graded. **Late submissions will be accepted with a penalty of 10% deducted for each day past the due date.** It is the student's responsibility to ensure assignments are submitted before the deadline. Note that you can upload work-in-progress to Avenue – only the last version uploaded before the deadline will be graded.

3) CLASS PARTICIPATION AND DISCUSSIONS (15%)

Students are encouraged to engage actively in discussions related to the material being presented by the instructor, other students, and TAs. It is very important that you prepare for each class. Debate and challenge are important activities that help in the learning process, and the willingness of students to engage in such activities is appreciated. Discussions may emerge from assigned readings, lecture topics, or structured in-class activities such as debates and workshops. Name cards and class pictures are used to help give credit for your participation. **You must have a name card with your full first and last name clearly written and displayed in front of you for every class.**

4) CASE FACILITATION (GROUP-10%)

Students will be organized into teams to which cases will be assigned randomly. Each team will facilitate critical discussions focusing on the implications of issues presented in the cases, analyzing them through the lenses of critical thinking and systems thinking. This facilitation activity constitutes 8% of the final course grade, with grades awarded to team members as follows:

- **Quality of Presentation (5.0% of the final grade):**
 - Presentation Technology (2%): This includes the use of slides, interactive games, and other class activities designed to engage and inform.
 - Discussion Material (3%): Assessment of how well the team utilizes material from the case (2%), as well as articles and additional supporting sources (1%) to enhance the depth and breadth of the discussion.
- **Leading Critical Discussion (5.0% of the final grade):**
 - Critical Perspective by Students (2.5%): Evaluation based on the originality and depth of the critical thinking and systems thinking perspective presented by the students.
 - Active Engagement of Students (2.5%): Measured by the team's ability to actively involve the class in the discussion, encouraging diverse viewpoints and comprehensive understanding.

5) FINAL GROUP PROJECT: DIGITAL PULSE FOR WICKED PROBLEMS IN BUSINESS AND SOCIETY (40%)

Overview:

Teams choose a real problem, map causes, and propose one AI action to improve outcomes. Show evidence, risks, and impact. Optional bonus: build a simple simulation to test your idea. Project will take place in three phases each of which will contain a presentation component.

Phase 1) Problem Identification (5%). In a two-page brief (4%), your team will select a wicked economic, social, or environmental problem and define a tight scope (place, population, and time horizon). Clearly frame the problem in terms of its complexity, significance, relevance for business and society, observable trends, and the underlying economic, social, and cultural mechanisms that contribute to it. Describe solutions currently being attempted and propose possible alternative approaches based on your current understanding of the problem. No comprehensive research required.

As part of the experiential learning process, your team will provide constructive feedback on the submissions of one or two other teams (0.5%) and submit a short reply reflecting on the feedback you receive (0.5%).

Phase 2) Evidence Synthesis (15%). Teams will produce a ~5-page synthesis (13.5%) that triangulates:

- a focused literature review (at least 10 quality sources),
- one expert interview (append transcript), and
- your team's original mental map.

This phase deepens your understanding of the phenomenon by examining it through multiple forms of evidence. Your literature review will summarize what research and reports say about the problem, while the expert interview will capture real-world insights from practitioners, policymakers, or researchers. Your task is to compare these insights with your original mental model from Phase One and reflect on how your understanding has evolved. The focus is on explaining the behaviour of the phenomenon: what drives it, sustains it, or changes it.

This is not a traditional academic paper, but a synthesis of evidence to clarify understanding and update your mental model. Conclude by summarizing what you now know about the key questions raised in Phase One.

As part of the peer-learning process, your team will also provide feedback on the work of one or two other teams (1%) and submit a brief response reflecting on the feedback you receive (0.5%).

Phase 3) Descriptive Model, Causal Loop Diagram, Point of Intervention, and Digital Pulse (20%). Phase Three moves from understanding to modeling and action. Using the insights developed in Phase Two and in ~5 pages (17.5%), your team will construct a Causal Loop Diagram (CLD) and a Dynamic Hypothesis that explain how your system behaves over time. You will then identify a high-leverage point of intervention and design a Digital Pulse (a digital or AI-enabled initiative) that acts intentionally on that leverage point. The goal is to



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turn your evidence-based insights into a coherent systemic narrative and a set of thoughtful digital transformation actions.

As part of the peer-learning process, your team will also provide feedback on the work of one or two other teams (2%) and submit a brief response reflecting on the feedback you receive (0.5%).

Additional Notes:

- Use university resources and external interviews for comprehensive research.
- If you use Generative AI in your project, report the process: your prompts, AI generated outcomes, your approach to apply these outcomes in your project.
- Final presentations will be evaluated by other groups of students.
- **The final assignment will not be accepted after the due date.**

ACTIVITY	DELIVERY	DESCRIPTION	TOOL(S)
OPENING CONVERSATIONS	In-Person	~25 min	
LECTURE CORE CONTENT/ TUTORIALS	In-Person	~25 min	PPT / JUPYTER NOTEBOOKS
CLASS ACTIVITIES / CASE FACILITATION	In-Person	~25 min interactive activities or case facilitation	
READINGS	Asynch	Tied to weekly discussion prompts	Readings from course pack
DISCUSSIONS	In-Person	~25 min live discussion	
QUIZZES	Synch In-class	As a part of class discussion and based on required readings we will have unannounced quizzes in some session during class	Tophat
WORKSHOPS	Mixed	~ 25 min in-person, synchronous, Asynchronous session with Instructor or TA	VENSIM: Zoom or In-Person



COMMUNICATION AND FEEDBACK

Students that are uncomfortable in directly approaching an instructor regarding a course concern may send a confidential and anonymous email to the respective Area Chair or Associate Dean: <http://mbastudent.degroote.mcmaster.ca/contact/anonymous/>

Students who wish to correspond with instructors or TAs directly via email must send messages that originate from their official McMaster University email account. This protects the confidentiality and sensitivity of information as well as confirms the identity of the student. Emails regarding course issues should NOT be sent to the Administrative Assistant.

Instructors are encouraged to conduct an informal course review with students by Week #4 to allow time for modifications in curriculum delivery. Instructors should provide evaluation feedback for at least 10% of the final grade to students prior to Week #8 in the term.

ACADEMIC INTEGRITY

You are expected to exhibit honesty and use ethical behaviour in all aspects of the learning process. Academic credentials you earn are rooted in principles of honesty and academic integrity.

Academic dishonesty is to knowingly act or fail to act in a way that results or could result in unearned academic credit or advantage. This behaviour can result in serious consequences, e.g. the grade of zero on an assignment, loss of credit with a notation on the transcript (notation reads: “Grade of F assigned for academic dishonesty”), and/or suspension or expulsion from the university.

It is your responsibility to understand what constitutes academic dishonesty. For information on the various types of academic dishonesty please refer to the Academic Integrity Policy, located at: www.mcmaster.ca/academicintegrity

Students are responsible for being aware of and demonstrating behaviour that is honest and ethical in their academic work. Such behaviour includes:

- following the expectations articulated by instructors for referencing sources of information and for group work;
- asking for clarification of expectations as necessary;
- identifying testing situations that may allow copying;



- preventing their work from being used by others (e.g., protecting access to computer files); and
- adhering to the principles of academic integrity when conducting and reporting research.

AUTHENTICITY/PLAGIARISM DETECTION

Some courses may use a web-based service (Turnitin.com) to reveal authenticity and ownership of student submitted work. For courses using such software, students will be expected to submit their work electronically either directly to Turnitin.com or via an online learning platform (e.g. A2L, etc.) using plagiarism detection (a service supported by Turnitin.com) so it can be checked for academic dishonesty.

Students who do not wish their work to be submitted through the plagiarism detection software must inform the Instructor before the assignment is due. No penalty will be assigned to a student who does not submit work to the plagiarism detection software.

All submitted work is subject to normal verification that standards of academic integrity have been upheld (e.g., on-line search, other software, etc.). For more details about McMaster's use of Turnitin.com please go to www.mcmaster.ca/academicintegrity.

COURSES WITH AN ONLINE ELEMENT

All courses use some online elements (e.g. e-mail, Avenue to Learn (A2L), LearnLink, web pages, capa, Moodle, ThinkingCap, etc.). Students should be aware that, when they access the electronic components of a course using these elements, private information such as first and last names, user names for the McMaster e-mail accounts, and program affiliation may become apparent to all other students in the same course.

Students may be required to use the Respondus LockDown Browser and Respondus Monitor. The Respondus LockDown Browser is a downloadable program that allows a student to take an Avenue to Learn quiz in a secure environment. Quizzes can be set to use LockDown Browser or LockDown Browser.

For more details about McMaster's use of Respondus Lockdown Browser please go to <https://avenuehelp.mcmaster.ca/exec/respondus-lockdown-browser-and-respondus-monitor/>

The available information is dependent on the technology used. Continuation in a course that uses online elements will be deemed consent to this disclosure. If you have any



questions or concerns about such disclosure, please discuss this with the course instructor.

ONLINE PROCTORING

Some courses may use online proctoring software for tests and exams. This software may require students to turn on their video camera, present identification, monitor and record their computer activities, and/or lock/restrict their browser or other applications/software during tests or exams. This software may be required to be installed before the test/exam begins.

CONDUCT EXPECTATIONS

As a McMaster student, you have the right to experience, and the responsibility to demonstrate, respectful and dignified interactions within all of our living, learning and working communities. These expectations are described in the [Code of Student Rights & Responsibilities](#) (the “Code”). All students share the responsibility of maintaining a positive environment for the academic and personal growth of all McMaster community members, **whether in person or online**.

It is essential that students be mindful of their interactions online, as the Code remains in effect in virtual learning environments. The Code applies to any interactions that adversely affect, disrupt, or interfere with reasonable participation in University activities. Student disruptions or behaviours that interfere with university functions on online platforms (e.g. use of Avenue 2 Learn, WebEx, Teams, or Zoom for delivery), will be taken very seriously and will be investigated. Outcomes may include restriction or removal of the involved students’ access to these platforms.

ATTENDANCE

Arriving late or missing class disrupts the learning experience for both you and your peers. Punctuality and attendance are crucial to maintaining a respectful, professional and productive environment for everyone, including our faculty.

Instructors may use Top Hat in their course in a variety of ways, including to capture attendance in their classes. Attendance is recorded by submitting a unique 4-digit code displayed in your physical classroom using your personal device.



MISSED ACADEMIC WORK

MISSED MID-TERM EXAMINATIONS / TESTS / CLASS PARTICIPATION

Please do not use the online [McMaster Student Absence Form \(MSAF\)](#) as this is for Undergraduate students only. The MBA program will not accept an MSAF.

When students miss regularly scheduled term work which contributes 10% or more to the final grade, for legitimate reasons as determined by the Student Experience – Academic Office (SEAO (Student Experience Academic Office)), the activity necessary to compensate for the missed work will be determined by the course instructor. The compensatory activities assigned will vary with the nature of the course and the missed requirement. They include, but are not restricted to, an alternative assignment, a rescheduled midterm exam, or re-weighting the marks for the missed component to other mark components. Documentation explaining such missed work must be provided to the SEAO (Student Experience Academic Office) within five (5) working days of the scheduled date for completion of the work.

Acceptable reasons for missed work, along with the [Petition for Missed Term Work](#) and the [MBA Student McMaster University Student Health Certificate](#), can be found on the DeGroote MBA Student website (mbastudent.degroote.mcmaster.ca). Please direct any questions about acceptable documentation to the MBA Academic Advisors (askmba@mcmaster.ca).

University policy states that a student may submit a maximum of three (3) [Petition for Missed Term Work](#) per academic year, after which the student must meet with the Director of the program. If term work is missed without an approved reason, students will receive a grade of zero (0) for that component.

MISSED FINAL EXAMINATIONS

Students must be available for the duration of the posted exam period regardless of their personal exam schedule. This is to ensure student availability throughout the entire exam period in the event that an exam must be rescheduled due to unforeseen circumstances (university closure, power outage, storm policy, etc.). A student who misses a final examination without valid reason will receive a mark of 0 on the examination.

Students who have missed a final exam for a valid reason can apply to the SEAO (Student Experience Academic Office) to write a deferred examination by submitting an [Application for Deferring a Final Exam](#) with supporting documentation. The application must be made within five days of the scheduled exam.



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The [Application for Deferring a Final Exam](#) and the [MBA Student McMaster University Student Health Certificate](#) can be found on the DeGroote MBA Current Student website (mbastudent.degroote.mcmaster.ca)

Deferred examination privileges, if granted, are normally satisfied during the examination period at the end of the following semester. In select cases, the deferred examination may be written at a time facilitated by the SEAO (Student Experience Academic Office) (Student Experience Academic Office) and agreed to by the course instructor.

Requests for a second deferral or rescheduling of a deferred examination will not be considered.

ACADEMIC ACCOMMODATION FOR STUDENTS WITH DISABILITIES

Student Accessibility Services (SAS) offers various support services for students with disabilities. Students are required to inform SAS of accommodation needs for course work at the outset of term. Students must forward a copy of such SAS accommodation to the instructor normally, within the first three (3) weeks of classes by setting up an appointment with the instructor. If a student with a disability chooses NOT to take advantage of an SAS accommodation and chooses to sit for a regular exam, a petition for relief may not be filed after the examination is complete. The SAS website is: <http://sas.mcmaster.ca>

USE OF TEST ACCOMMODATIONS AT McMASTER UNIVERSITY BURLINGTON CAMPUS RON JOYCE CENTRE

Whereas Student Accessibility Services (SAS), on Main Campus, determines all MBA student accommodations, the MBA Faculty Office manages the coordination of accommodations for tests, midterms, and exams at the Ron Joyce Centre in Burlington.

PROCESS FOR STUDENTS

- Students must activate their accommodation(s) (e.g., extra-time, memory aid, etc.) for each upcoming test, midterm, or exam, at least two weeks in advance. Students can do this by emailing their Instructor and the DeGroote MBA SAS scheduling office at DSBSAS@mcmaster.ca. If a student cannot meet this deadline, they should contact DSBSAS@mcmaster.ca to discuss alternative arrangements. The program is committed to exploring flexibilities where possible to support students.
- All tests, midterms, and exams are booked synchronously with the class's start time. Any deviations from the start time (e.g. start earlier than the class to enable completion at the same end time) requires a discussion with their instructor on protocol at the time of accommodation activation.



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- Students will leverage the accommodation (e.g., extra-time, memory aid, etc.), in a designated testing room. Rooms will be booked according to the student's SAS accommodation. Unless the accommodation states otherwise, students should expect that they will be writing in a room with other students. One or more invigilators will always be in the room.
- Following the request to activate the accommodation(s), dsbsas@mcmaster.ca will reach out to the student with their test, midterm, or exam details, including the date, time, and room number. As there may be other students writing tests in the room, we ask that students enter the room quietly and leave all personal items at the front of the room.

All policies and procedures, including restroom access, how extra-time is allocated for assessments under Universal Design, and the submission of memory aids in advance, are consistent with those of SAS on Main Campus. The only variance in procedure is communication around, and physical location of, assessment. There is not a dedicated testing space at RJC. Existing classrooms and lecture halls will be used for most testing. All SAS-approved accommodations will be honoured by our staff; however, core testing elements are not eliminated in alternative testing formats. Students should expect and plan for invigilation, incidental noise, and other potential distractions.

ACADEMIC ACCOMMODATION FOR RELIGIOUS, INDIGENOUS OR SPIRITUAL OBSERVANCES (RISO)

Students requiring academic accommodation based on religious, indigenous or spiritual observances should follow the procedures set out in the [RISO](#) policy. Students should submit their request to the SEAO (Student Experience Academic Office) **normally within 10 working days** of the beginning of term in which they anticipate a need for accommodation. Students should also contact their instructors as soon as possible to make alternative arrangements for classes, assignments, and tests.

COPYRIGHT AND RECORDING

Students are advised that lectures, demonstrations, performances, and any other course material provided by an instructor include copyright protected works. The Copyright Act and copyright law protect every original literary, dramatic, musical and artistic work, **including lectures** by University instructors.



The recording of lectures, tutorials, or other methods of instruction may occur during a course. Recording may be done by either the instructor for the purpose of authorized distribution, or by a student for the purpose of personal study. Students should be aware that their voice and/or image may be recorded by others during the class. Please speak with the instructor if this is a concern for you.

POTENTIAL MODIFICATION TO THE COURSE

The instructor and university reserve the right to modify elements of the course during the term. The university may change the dates and deadlines for any or all courses in extreme circumstances. If either type of modification becomes necessary, reasonable notice and communication with the students will be given with explanation and the opportunity to comment on changes. It is the responsibility of the student to check their McMaster email and course websites weekly during the term and to note any changes.

RESEARCH USING HUMAN SUBJECTS

ONLY IF APPLICABLE

Research involving human participants is premised on a fundamental moral commitment to advancing human welfare, knowledge, and understanding. As a research intensive institution, McMaster University shares this commitment in its promotion of responsible research. The fundamental imperative of research involving human participation is respect for human dignity and well-being. To this end, the University endorses the ethical principles cited in the Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans:

<http://www.pre.ethics.gc.ca>

McMaster University has mandated its Research Ethics Boards to ensure that all research investigations involving human participants are in compliance with the Tri-Council Policy Statement. The University is committed, through its Research Ethics Boards, to assisting the research community in identifying and addressing ethical issues inherent in research, recognizing that all members of the University share a commitment to maintaining the highest possible standards in research involving humans.

If you are conducting original research, it is vital that you behave in an ethical manner. For example, everyone you speak to must be made aware of your reasons for eliciting their responses and consent to providing information. Furthermore, you must ensure everyone



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understands that participation is entirely voluntary. Please refer to the following website for more information about McMaster University's research ethics guidelines:

<http://reo.mcmaster.ca/>

Organizations that you are working with are likely to prefer that some information be treated as confidential. Ensure that you clarify the status of all information that you receive from your client. You **MUST** respect this request and cannot present this information in class or communicate it in any form, nor can you discuss it outside your group. Furthermore, you must continue to respect this confidentiality even after the course is over.

ACKNOWLEDGEMENT OF COURSE POLICIES

Your registration and continuous participation (e.g. on A2L, in the classroom, etc.) to the various learning activities of MBA K723 will be considered to be an implicit acknowledgement of the course policies outlined above, or of any other that may be announced during lecture and/or on A2L. **It is your responsibility to read this course outline, to familiarize yourself with the course policies and to act accordingly.**

Lack of awareness of the course policies **cannot be invoked** at any point during this course for failure to meet them. It is your responsibility to ask for clarification on any policies that you do not understand.

ARTIFICIAL INTELLIGENCE

Students may use generative AI in this course in accordance with the guidelines outlined for each assessment, and so long as the use of generative AI is referenced and cited following citation instructions given in the syllabus. Use of generative AI outside assessment guidelines or without citation will constitute academic dishonesty. It is the student's responsibility to be clear on the limitations for use for each assessment and to be clear on the expectations for citation and reference and to do so appropriately.



COURSE SCHEDULE

WEEK DATE	DESCRIPTION
WEEK 01 WED SEP 09	• Primary Topic. Digital Transformation: Thriving in a Changing Landscape • Class Discussion. ○ HBRLDT¹_12) Digital Transformation Comes Down to Talent in Four Key Areas. ○ Book Summary: Images of Organization. By: Gareth Morgan • Digital Twin Tutorial. What is a system? • Activity. Individual IKIGIA and Team selection FINALIZE LIST OF YOUR TEAM MEMBERS BEFORE THE CLASS ENDS
WEEK 02 WED SEP 16	• Primary Topic. Database Management Systems (DBMS) • Class Discussion. HBRLDT_04) What's Your Data Strategy. • Data Analytics Tutorial. MySQL (set up and database design) • Activity. Team IKIGIA and Problem Selection • Case. Digital Transformation in Latin America: Leapfrogging and Social Impact. RELEASE: ASSIGNMENT ONE
WEEK 03 WED SEP 23	• Primary Topic. Management Information Systems (MIS) • Class Discussion: HBRLDT_03) Digital Doesn't have to be Disruptive. • Data Analytics Tutorial. MySQL (Writing queries for report development) • Activity. Exploring literature for evidence-based decision making (Tuesday Sep 22 between 1-2 PM in Auditorium) • Case. KFC China: Building Competitive Advantages through Digitization DUE SEP 22 BEFORE MIDNIGHT: PROJECT CONCEPT
WEEK 04 WED SEP 30	• Primary Topic. Cloud, Big Data and IoT • Class Discussion. HBRLDT_08) The Age of Continuous Connection. • Case. Dell Technologies: Bringing the Cloud to the Ground • Data Analytics Tutorial. Python (Basic/Pandas/MySQL)

¹ Porter, M. E., Gunther, R., Davenport, T. H., & Lansiti, M. (2021). HBR's 10 Must Reads on Leading Digital Transformation



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WEEK 05 WED OCT 07	• Primary Topic. Introduction to Social Network Analysis (SNA) • Data Analytics Tutorial. Python (SNA – Visualization) • Secondary Topic. Additive Manufacturing and Cybersecurity • Class Discussion. HBRAI_08) The 3-D printing Playbook • Case. Cybersecurity at FireEye: Human+AI RELEASE: ASSIGNMENT TWO DUE OCT 06 BEFORE MIDNIGHT: ASSIGNMENT ONE
WEEK 06 WED OCT 14	• Primary Topic. Centrality and Structure in Networks • Data Analytics Tutorial. Python (SNA – Analysis) • Secondary Topic. Machine Learning • Class Discussion. HBRAI²_03) Algorithms Need Managers, Too. • Case. PropertyGuru: Driving AI Powered Real Estate
WEEK 07 WED OCT 21	• Primary Topic. Deep Learning and GenAI • Class Discussion: HBRLDT_02) The Transformative Business Model. • Case. Coursera's Foray into GenAI • Digital Twin Tutorial. What is a dynamic Hypothesis? • Activity. Developing dynamic hypothesis. DUE OCT 20 BEFORE MIDNIGHT: ASSIGNMENT TWO
WEEK 08 WED OCT 28	• Primary Topic. Implementation • Class Discussion: HBRLDT_09) The problem with Legacy Ecosystems. • Digital Twin Tutorial. Causal Loops • Activity. Drawing causal loops for a problem • Case. Digital Transformation at La Presse
WEEK 09 WED Nov 04	• Primary Topic. Blockchain • Class Discussion: HBRAI_07) The Truth about Blockchain. • Case. Ethereum: Navigating the Blockchain's Sustainability Versus Profit Dilemma • Digital Twin Tutorial. Archetypes • Activity. TBD RELEASE: ASSIGNMENT THREE DUE NOV 03 BEFORE MIDNIGHT: FINAL PROJECT EVIDENCE SYNTHESIS

² Porter, M. E., Davenport, T. H., Daugherty, P., & Wilson, H. J. (2018). HBR's 10 Must Reads on AI, Analytics, and the New Machine Age

WEEK 10 WED Nov 11	GRIT WEEK - NO CLASSES
WEEK 11 WED Nov 18	• Primary Topic. Strategy in digital era • Class Discussion. HBRLDT _01) Discovery-Driven Digital Transformation. • Digital Twin Tutorial. Stock and Flow • Activity. Simulation Debrief • Case. Amazon Vs Walmart: Clash of Business Models DUE NOV 17 BEFORE MIDNIGHT: ASSIGNMENT THREE
WEEK 12 WED Nov 25	• Primary Topic. Digital Transformation and social Disruption • Class Discussion. HBRAIAM_11) Managing Our Hub Economy. • Digital Twin Tutorial. A simple digital twin model • Activity. Guest Speaker (TBD) • Case. Innovation at Uber: The Launch of Express POOL
WEEK 13 WED DEC 02	DUE NOV 30 BEFORE MIDNIGHT: FINAL PROJECT REPORT/PRESENTATION