

**MBA K740**  
**Business Applications of Data Analytics and Artificial Intelligence (AI)**  
**Winter 2023 Course Outline**

**Information Systems Area**  
**DeGroote School of Business**  
**McMaster University**

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***COURSE OBJECTIVE***

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This course intends to equip students with in-depth insight into the application of data analytics and artificial intelligence (AI) in business management. It also provides several opportunities to explore and understand how to implement AI projects through several hands-on activities, the analysis of case examples, and discussions. The course also helps students better anticipate AI's current and future role in the business and humans' everyday lives.

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***INSTRUCTOR AND CONTACT INFORMATION***

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<b>Course Instructor</b>	<b>C01</b>
<b>Dr. Keiwan Wind</b>	Mondays
email: <a href="mailto:windkei@mcmaster.ca">windkei@mcmaster.ca</a>	19:00– 20:00
Office: TBD	<b>RJC 313</b>
Office Hours: by appointment	

**Course website:** <http://www.avenue.mcmaster.ca>

The course website will be the primary mode of information dissemination. Please check this website regularly for posts concerning the course.

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**Teaching Assistant**

**Mahdi Abouei**  
[aboueim@mcmaster.ca](mailto:aboueim@mcmaster.ca)

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### ***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***

AI is an emerging technology that is increasingly becoming an essential part of our everyday lives. It has already disruptively changed the way we do research and business. AI has given innovative and large organizations competitive advantages in product design, marketing, financial and risk management, operations management, and so on and so forth. New research methods have been introduced because of AI. This course provides students with a high-level overview of what AI is, how it works, and what it can and cannot do. The course addresses different AI technologies with an emphasis on Machine Learning through a variety of teaching and learning activities, including lectures, hands-on activities, case studies, and readings. The course explores the subject of AI from critical, managerial, technical, and statistical perspectives.

### ***LEARNING OUTCOMES***

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

- Identify problems that AI could or should address in an organization and select appropriate AI technologies to deal with them;
- Define critical success factors for an organization to implement an AI project successfully;
- Assess the performance of an AI solution for a specific problem;
- Formulate a detailed AI project plan while considering the organization's capabilities and various stakeholder's interests;
- Adapt generic Machine Learning algorithms for a wide range of business problems.
- Play the role of an informed decision-maker for the application of AI in organizations;
- Implement an AI project in an organization;
- Appraise potential risks, biases, and side effects of an AI project for the company, its stakeholders, and society;

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***REQUIRED COURSE MATERIALS AND READINGS***

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Avenue registration for course content, readings and case materials ➤ <a href="http://avenue.mcmaster.ca">http://avenue.mcmaster.ca</a>	FREE
Hull, J. (2021). Machine learning in business: An introduction to the world of data science. (ISBN-13: 979-8508489441) ➤ Purchase a copy at the bookstore or Amazon	29.00 CAD
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 (with bonus article "Why Every Company Needs an Augmented Reality Strategy" by Michael E. Porter and James E. Heppelmann) (ISBN-13: 978-1633696846) ➤ Purchase a copy at the bookstore or Amazon	17.49 CAD
Davenport, Thomas H., et al. Artificial Intelligence: The Insights You Need from Harvard Business Review. Harvard Business Press, 2019. (ISBN-13: 978-1633697898) ➤ Purchase a copy at the bookstore or Amazon	22.95 CAD

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***OPTIONAL COURSE MATERIALS AND READINGS***

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Tom, T. (2019). Artificial Intelligence Basics: A Non-Technical Introduction. Monrovia, CA, USA: Appres. (ISBN-13: 978-1484250273) ➤ Purchase a copy at the bookstore	29.00 CAD
Material that guest-speakers will recommend.	Free

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***EVALUATION***

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Learning in this course results primarily from in-class discussion and participation of comprehensive AI cases as well as out-of-class analysis. The balance of the learning results from the lectures on AI concepts, from related readings, and from researching your presentations, cases, assignments, and projects. All work will be evaluated on an individual basis except in certain cases where group work is expected. In these cases,

group members will share the same grade adjusted by peer evaluation. Missed assignments/exams will receive a grade of zero unless the student has submitted and been approved for a Notification of Absence or McMaster Student Absence Form (MSAF). Your final grade will be calculated as follows:

### Components and Weights

Component	Weight
<b>Four assignments: Developing generic data analytics and machine learning algorithms (Individual)</b>	a. Linear and Logistic Regression b. Clustering c. Association Rules d. Social Network Analysis (15% each) 60%
<b>Case presentation (In-group)</b>	10%
<b>Final assignment (In-group)</b>	AI proposal presentation: 5% AI proposal: 10% 15%
<b>Class participation (Individual)</b>	15%
<b>Total</b>	100%

### 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:

Letter Grade	Percent	Points
A+	90-100	12
A	85-89	11
A-	80-84	10
B+	75-79	9
B	70-74	8
B-	60-69	7
F	00-59	0

### Course Deliverables

#### **Assignments**

Four assignments have been devised to provide students with first-hand experience with data analytics and machine-learning algorithms. **These assignments are worth 60% of your final grade (15% each) and will be marked individually.** You will be given a few datasets and asked to complete R or Python codes for generic data analytics or machine-learning algorithms. Basic and required R/Python tutorials will be part of every week's course outline, and **there is no need for previous programming experience.**

The objective of the first assignment is to provide students with some hands-on experience with R/Python, in developing predictive models in organizations. In the second assignment, students will develop models to cluster an organization's customers. The third assignment intends to familiarize students with the application of association rules in the retail industry. In the last assignment, students will use social network analysis to analyze the effect of an intervention on the structure of relationships in a specific population. Details of each assignment will be described in class.

All answers to assignments must be uploaded to Avenue account, as per instructions provided on the assignments.

Assignments will be accepted after the due date, but **a late penalty will apply where 10% will be deducted from the assignment for each day late**. It is each student's responsibility to submit the assignment in advance of the deadline. Note that work-in-progress can be uploaded to AVENUE – the last version uploaded only will be marked.

### ***Case presentation (Group)***

Students will be assigned one or two chapters (articles) from two course textbooks (Artificial Intelligence: The Insights You Need from Harvard Business Review OR HBR's 10 Must Reads on AI, Analytics, and the New Machine Age) to present as a team. The presentation should cover the implication of the issues raised in the article in business management and society coupled with students' critical perspectives about the subject.

Each presentation will be followed by a discussion led by the presenting team around questions or concerns other students will raise. The activity is worth 10% of your final grade, and team members will share the same grade, which will be calculated as follows:

- The quality of presentation: 2.5%
- The material of the presentation: 2.5%
- Critical perspective by students: 2.5%
- Leading the discussion: 2.5%

### ***Final assignment***

This assignment is worth 15% of your final grade, and one report submitted by the group will be graded. For this assignment, your group will find **a manageable subject** in which a data analytics or an AI solution could be developed. Through this course, you will be introduced to the different aspects of AI project design and implementation. This assignment will allow you to put what you learn into practice. You can choose an existing problem from the organization in which you are working or a new idea for which an AI solution is applicable. In the report, you will describe the situation, the availability of data to use in your AI solution, the AI technology you find appropriate for the situation described, resources you will need, and estimated cost and benefit of your AI solution,

and operational, ethical, and legal considerations you should address to implement your solution. Your group will do a presentation to the class during one of the last two weeks of the class.

Your report should have the following sections:

- A title page with all group members' names
- An executive summary
- An introduction of the situation or the idea
- A description of available/required data, including data structure, availability, privacy/confidentiality restrictions, and strategies to obtain data.
- An analysis of which AI technology or ML algorithm is appropriate to address the situation.
- A Description of what metrics will be used to evaluate the effectiveness of the AI solution.
- A prediction about what impact implementing the AI solution will have on the organization's customers, operation, marketing, human resources, risk management, and so on.
- Any other information your group feels is important.

The report (10% of final grade) should be no more than 5 pages (excluding appendices), double spaced, in either Word or PDF format. You will have 15 min to present (5% of the final grade) your solution to the class plus 5 min for questions. The slides and report are to be emailed to the instructor a day before presentation session by midnight. **The final assignment will not be accepted after the due date.**

### ***In-Class Participation***

Students are encouraged to engage actively in discussions related to the material being presented by the instructor and TAs in the synchronous sessions. 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. Opportunities for in-class participation include taking part in discussions during the lecture part of class by:

- Sharing new concerns, issues, and advancements in the world of AI
- Engaging in class discussions
- Asking questions
- Responding to questions posed by the instructor or other students
- Making relevant comments on material covered
- Engaging in regular retrospective

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## ***COMMUNICATION AND FEEDBACK***

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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.

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## ***ACADEMIC INTEGRITY***

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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](http://www.mcmaster.ca/academicintegrity)

The following illustrates only three forms of academic dishonesty:

1. Plagiarism, e.g. the submission of work that is not one's own or for which other credit has been obtained.

2. Improper collaboration in group work.
3. Copying or using unauthorized aids in tests and examinations

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### ***AUTHENTICITY/PLAGIARISM DETECTION***

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**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](http://www.mcmaster.ca/academicintegrity).

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### ***COURSES WITH AN ON-LINE ELEMENT***

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**Some courses may** use on-line 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.

The available information is dependent on the technology used. Continuation in a course that uses on-line 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.

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### ***ON-LINE PROCTORING***

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**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.



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## ***CONDUCT EXPECTATIONS***

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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 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.

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## ***MISSED ACADEMIC WORK***

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### ***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), 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 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](http://mbastudent.degroote.mcmaster.ca)). Please direct any questions about acceptable documentation to the MBA Academic Advisors ([askmba@mcmaster.ca](mailto: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 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 date or the application may be denied.

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](http://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 and agreed to by the course instructor.

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

Failure to write an approved deferred examination at the pre-scheduled time will result in a zero (0) mark for that examination, except in the case of exceptional circumstances where documentation has been provided and approved. Upon approval, no credit will be given for the course, and the notation N.C. (no credit) will be placed on the student's transcript.

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## ***ACADEMIC ACCOMMODATION FOR STUDENTS WITH DISABILITIES***

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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>

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

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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 their Faculty Office **normally within 10 working days** of the beginning of term in which they anticipate a need for accommodation or to the Registrar's Office prior to their examinations. Students should also contact their instructors as soon as possible to make alternative arrangements for classes, assignments, and tests.

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### ***COPYRIGHT AND RECORDING***

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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.

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### ***POTENTIAL MODIFICATION TO THE COURSE***

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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.

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## ***RESEARCH USING HUMAN SUBJECTS***

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### 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 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.

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## ***ACKNOWLEDGEMENT OF COURSE POLICIES***

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Your enrolment in **MBA K740** 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.

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### ***PLACES TO GET HELP WITH YOUR WORK***

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- For help with course content, your instructor is the best source for help. Feel free to ask the professor for explanation of any topic covered in the course. Be sure to read the assigned materials before contacting the course instructor. The best way to interact with your instructor is e-mail.
- For help with assignments, it is best to first talk to the Teaching Assistants for the course (contact information can be found above).

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## COURSE SCHEDULE

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Week) Date Topic	Activities
01) Jan 09 <b>Welcome &amp; Overview</b>	<p><b>Discuss:</b> Class Outline, Schedule, Participation, Courseware</p> <p><b>Lecture:</b> A critical and philosophical discussion around science, knowledge, technology, and AI</p> <p><b>Activity:</b> Students' introduction and team selection</p>
02) Jan 16 <b>An introduction to AI, Machine Learning, and Data Analytics</b>	<p><b>Lecture:</b> What is AI, Machine Learning, and data?</p> <p><b>Read(s):</b></p> <ul style="list-style-type: none"> <li>• MLibintro<sup>1</sup>_Chapter 01) Introduction.</li> <li>• <i>Albasics</i><sup>2</sup>_Chapter 01) AI foundations.</li> <li>• <i>Albasics</i>_Chapter 02) Data.</li> </ul> <p><b>Case(s):</b></p> <ul style="list-style-type: none"> <li>• HBRinsight<sup>3</sup>_01) The Business of Artificial Intelligence</li> <li>• HBR10reads<sup>4</sup>_01) Artificial Intelligence for the Real World</li> </ul>
03) Jan 23 <b>Unsupervised Learning</b>	<p><b>Lecture:</b> Unsupervised Learning techniques and applications</p> <p><b>Read(s):</b></p> <ul style="list-style-type: none"> <li>• MLibintro_Chapter 02) Unsupervised Learning.</li> </ul> <p><b>Case(s):</b></p> <ul style="list-style-type: none"> <li>• HBRinsight_05) Is your company's data actually valuable in the AI era?</li> <li>• HBR10reads_04) Marketing in the Age of Alexa</li> </ul> <p><b>Assignment:</b></p> <ul style="list-style-type: none"> <li>• Assignment One will be released before midnight</li> </ul>

<sup>1</sup> Hull, J. (2021). Machine learning in business: An introduction to the world of data science.

<sup>2</sup> Tom, T. (2019). Artificial Intelligence Basics: A Non-Technical Introduction. (**optional**)

<sup>3</sup> Davenport, Thomas H., et al. Artificial Intelligence: The Insights You Need from Harvard Business Review

<sup>4</sup> 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

<p>04) Jan 30 <b>Supervised Learning, Linear and Logistic Regression</b></p>	<p><b>Lecture:</b> Linear and Logistic Regression techniques and applications</p> <p><b>Read(s):</b></p> <ul style="list-style-type: none"> <li>MLiBintro_Chapter 03) Supervised Learning: Linear and Logistic Regression.</li> </ul> <p><b>Cases (By Students):</b></p> <ul style="list-style-type: none"> <li>HBRinsight_04) Three questions about AI that nontechnical employees should be able to answer</li> <li>HBRinsight_07) What Will Happen When Your Company's Algorithms Go Wrong?</li> <li>HBR10reads_03) Algorithms Need Managers, Too.</li> </ul> <p><b>Assignment:</b></p> <ul style="list-style-type: none"> <li>Topic and aim for the final assignment should be submitted before noon.</li> </ul>
<p>05) Feb 06 <b>Other classification techniques</b></p>	<p><b>Lecture:</b> Classification techniques and applications</p> <p><b>Read(s):</b></p> <ul style="list-style-type: none"> <li>MLiBintro_Chapter 04) Supervised Learning: Decision Trees</li> <li>MLiBintro_Chapter 05) Supervised Learning: SVMs.</li> </ul> <p><b>Cases (By Students):</b></p> <ul style="list-style-type: none"> <li>HBRinsight_03) Why Companies That Wait to Adopt AI May Never Catch Up?</li> <li>HBRinsight_06) How to Choose Your First AI Project.</li> </ul> <p><b>Assignment:</b></p> <ul style="list-style-type: none"> <li>Assignment One should be submitted before noon.</li> </ul>
<p>06) Feb 13 <b>Deep Learning and Natural Language Processing (NLP)</b></p>	<p><b>Lecture:</b> Deep Learning and NLP techniques and applications</p> <p><b>Read(s):</b></p> <ul style="list-style-type: none"> <li>MLiBintro_Chapter 06) Supervised Learning: Neural Networks.</li> <li>MLiBintro_Chapter 09) Natural Language Processing.</li> </ul> <p><b>Cases (By Students):</b></p> <ul style="list-style-type: none"> <li>HBRinsight_10) Three Ways AI Is Getting More Emotional</li> <li>HBRinsight_12) The Future of AI Will Be About Less Data, Not More</li> </ul> <p><b>Assignment:</b></p> <ul style="list-style-type: none"> <li>Assignment Two will be released before midnight</li> </ul>
<p>07) Feb 20</p>	<p>Midterm Recesses (No Classes)</p>

<p>08) Feb 27 <b>Association Rules and Collaborative Filtering</b></p>	<p><b>Lecture:</b> Association Rules and Collaborative Filtering techniques and applications</p> <hr/> <p><b>Cases (By Students):</b></p> <ul style="list-style-type: none"> <li>• HBRinsight_11) How AI Will Change Strategy: A Thought Experiment.</li> <li>• HBR10reads_05) Why Every Organization Needs an Augmented Reality Strategy</li> <li>• HBR10reads_09) Collaborative Intelligence: Humans and AI Are Joining Forces</li> </ul> <hr/> <p><b>Assignment:</b></p> <ul style="list-style-type: none"> <li>• Assignment Two should be submitted before noon.</li> <li>• Assignment Three will be released before midnight</li> </ul>
<p>09) Mar 06 <b>Implementation of AI</b></p>	<p><b>Lecture:</b> Implementation of Machine Learning and AI projects</p> <hr/> <p><b>Read(s):</b></p> <ul style="list-style-type: none"> <li>• MLibintro_Chapter 10) Model Interpretability.</li> <li>• <i>Albasics_Chapter 08) Implementation of AI.</i></li> </ul> <hr/> <p><b>Case(s):</b></p> <ul style="list-style-type: none"> <li>• HBR10reads_02) Stitch Fix's CEO on Selling Personal Style to the Mass Market</li> </ul> <hr/> <p><b>Guest Speaker:</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Dr. Maryam Sadeghi</a>, Co-founder, and CEO of MetaOptima Technology</li> </ul>
<p>10) Mar 13 <b>The future of AI and the future of the work</b></p>	<p><b>Lecture:</b> AI in work and workplace: the past: the present, and the future</p> <hr/> <p><b>Read(s):</b></p> <ul style="list-style-type: none"> <li>• <i>Albasics_Chapter 09) The Future of AI.</i></li> </ul> <hr/> <p><b>Cases (By Students):</b></p> <ul style="list-style-type: none"> <li>• HBRinsight_08) How Will AI Change Work?</li> <li>• HBR10reads_06) Drones Go to Work</li> <li>• HBR10reads_10) When Your Boss Wears Metal Pants</li> </ul> <hr/> <p><b>Assignment:</b></p> <ul style="list-style-type: none"> <li>• Assignment Three should be submitted before noon.</li> </ul>



<p>11) Mar 20 <b>Social Network Analysis</b></p>	<p><b>Lecture:</b> Social network analysis techniques and applications <b>Case (By Students):</b></p> <ul style="list-style-type: none"> <li>• HBRinsight_02) Inside Facebook's AI Workshop</li> </ul> <p><b>Assignment:</b></p> <ul style="list-style-type: none"> <li>• Assignment Four will be released before midnight</li> </ul>
<p>12) Mar 27 <b>Social Network Analysis (cont.)</b></p>	<p><b>Lecture:</b> Social network analysis techniques and applications <b>Guest speaker:</b> <a href="#">Parisa Assar</a>, Responsible AI Program Manager at Meta</p>
<p>13) Apr 03</p>	<p><b>Activities:</b></p> <ul style="list-style-type: none"> <li>• Group Presentations (20 minutes for each team)</li> </ul> <p><b>Assignment:</b></p> <ul style="list-style-type: none"> <li>• The report and slides should be submitted before noon.</li> </ul>
<p>14) Apr 10 <b>Ethics of AI</b></p>	<p><b>Lecture:</b> Ethics of AI <b>Read(s):</b></p> <ul style="list-style-type: none"> <li>• MLibintro_Chapter 11) Issues for Society.</li> </ul> <p><b>Case:</b></p> <ul style="list-style-type: none"> <li>• HBR10reads_11) Managing Our Hub Economy <i>by Marco Iansiti and Karim R. Lakhani</i></li> </ul> <p><b>Guest speaker:</b> <a href="#">Dr. Parisa Moosavi</a>, Assistant Professor of Philosophy at York University</p> <p><b>Assignment:</b></p> <ul style="list-style-type: none"> <li>• Assignment Four should be submitted before noon.</li> </ul>