



Carleton
University

Sprett
School of Business



Technology Innovation
Management



AACSB
ACCREDITED

Institute of Technology Entrepreneurship and Commercialization

TIMG 5103 P, Prompt Engineering in Business [0.5 credits]

Fall 2024

Time and Place

Sep 05, 2024 - Dec 05, 2024, Thursdays, Nicol Building 5010

6:05 pm to 8:55 pm

The course is offered online at Brightspace (Prompt Engineering in Business – TIMG 5103 P – Fall 2024)

Updates to this outline (version 1.0) will be made as necessary.

Instructor

Daniel Cardenas

Course materials

Access to online course sessions, course materials and recorded videos will be provided through the new CU Brightspace system: <https://carleton.ca/brightspace/>. To access Brightspace, you should use your CU credentials and select the TIMG5103 P – Prompt Engineering in Business – Fall 2024.

Office hours

The instructor could be contacted via email. Email is the preferred mode of communication because there is a record of content exchanged. Depending on availability, the instructor will be available during class and for online meetings by appointment.

Target audience

This course best suits students in the Master of Advanced Business Analytics or the Master of Digital Transformation and Entrepreneurship. Students in other programs are welcome to attend this course, depending on space availability. However, all students must meet the high academic standards of the TIM program.

Calendar description

Prompt Engineering in Business – TIMG 5103 P

Generative AI applications. Natural Language Processing (NLP) and Large Language Models (LLMs) concepts. Prompt Engineering best practices and API usage. LLMs advanced methods, integration, and operationalization. Responsible use of LLMs.

Prerequisites: None.

Prompt Engineering in Business course description

The course examines the principles and applications of Generative Artificial Intelligence (AI) in the context of business enterprises, small and large, and how to use the activity system analysis framework to understand the business value of Large Language Models (LLMs). Participants will learn the concepts that support most LLMs and how to design clear and impactful prompts that guide LLMs to generate accurate and relevant responses. Topics covered include prompt customization, API integrations, custom models, model performance evaluation, and ethical considerations. The course emphasizes the importance of prompt engineering in enhancing user experiences, streamlining workflows, and making informed business decisions. Real-world case studies are examined to highlight the impact and risks of LLMs on customer engagement, data collection, and personalized interactions.

Objectives / Learning Outcomes

Students will be expected to:

- Understand the capabilities and potential business value of using Generative AI from exemplary real-life cases of LLM applications in specific business domains.
- Describe where Generative AI and Large Language Models fall within the large Artificial Intelligence domain.
- Acquire an understanding of the foundational models that power most of the current LLMs in use today.
- Learn how to create optimized prompts and use them with API integration mechanisms.
- Get familiarized with the complexities of creating custom LLMs.
- Propose an integrated business system solution that leverages the capabilities of Generative AI.
- Understand the need for basic principles to guide LLMs' responsible and risk-free usage.

Class sessions

This course will include interactive exercises using Google Colab or a similar coding platform that are best experienced in person. However, the course sessions will be broadcast live and recorded on Zoom. This is an alternative mode for attending the class in case you are travelling, sick, or otherwise unable to attend class. However, some of the course experiences may be difficult to replicate online.

Please see the detailed tutorials on participating in an online classroom using Zoom at <https://carleton.ca/online/online-learning-resources/zoom-guide-for-students/>.

Paul Menton Centre

Students with disabilities requiring academic accommodations in this course are encouraged to contact a coordinator at the Paul Menton Centre (PMC) for Students with Disabilities to complete the necessary letters of accommodation. After registering with PMC, make an appointment to meet and discuss your needs with your instructor at least two weeks prior to requiring accommodation for assignments or presentations. This is necessary in order to ensure sufficient time to make the necessary arrangements.

Course assignments

The course is divided into one individual assignment (week 4) and a group-based term project with three deliverables (weeks 7, 10 and 14). Each term project delivery product comprises a document (70%) and a presentation during class (30%). While the term project can be done individually, it is highly recommended to form groups of up to four members due to its potentially complex nature. What you submit on the term project must reflect your personal work, so the document must clearly indicate how each participant contributed to the whole. Assignments will be available on the learning platform until 11:59 p.m. of the corresponding indicated due date.

Case study of a Generative AI application (15%, Week 4: Sunday, Sep 29)

- Choose an existing, real solution that uses LLMs as a core component.
- Discuss how the selected tool could disrupt current solutions (5%).
- Analyze potential challenges for integrating this tool/model into the IT operation of a fictional organization (5%).
- Describe potential cases of misuse of this tool/model in the organization's context (5%).
- Individual assignment.
- Critical thinking skills: Synthesize.

Term Project Deliverable 1 (20%, Week 7: Sunday, Oct 20)

- Problem Definition (30 %)
 - Environment: Describe the context where the problem occurs.
 - Current process and data: Describe the workflow and data used at each stage.
 - Identification of pain points: Describe and quantify (measure) the main problems.
- Solution Proposal (40 %)
 - General description: LLMs can help overcome the main pain points.
 - Proposed process: Describe the new workflow, emphasizing the differences between the baseline and the new process.
 - Data requirements: Describe the data needed for the solution in quantity, frequency, and currency.
 - Component identification: A high-level description of the purpose and attributes of the modules.
 - Knowns/Unknowns: Identify what is known and what is not known about the proposed solution.
- Group assignment.
- Critical thinking skills: Synthesize.

Term Project Deliverable 2 (25%, Week 10: Sunday, Nov 10)

- Solution Design (40 %)
 - Description of the architecture: Static (decomposition) and dynamic (behavior) diagrams.
 - Process/components/data alignment: Describe which components and data are needed at each workflow stage.
 - Limitations: Describe the limitations regarding data acquisition, processing, accuracy, reliability, etc.

- Validation proposal: Describe how system outputs can be validated for precision, accuracy, reliability, etc.
- Risk assessment: Identify the principal risks of using LLMs for the proposed solution and mitigation measures.
- Proof of Concept (30 %)
 - Data cleaning and preparation: Describe the steps required to prepare the data.
 - LLMs: Platform, model, prompt definitions, expected, and actual outcomes.
- Group assignment.
- Critical thinking skills: Recommend.

Term Project Deliverable 3 (30%, Week 15: Friday, Dec 06)

- Solution Document (30 %)
 - Same items of Deliverable #2 (revisited and augmented)
 - Pain points: Describe how the problems defined in Assignment #1 were effectively addressed.
 - Conclusions and recommendations
- Proof of Concept (40 %)
 - Same items of Deliverable #2 (revisited)
 - Outcome assessment: Evaluate the quality, precision, accuracy, and reliability of the LLM outcome.
- Group assignment.
- Critical thinking skills: Generate and execute.

Quizzes (10%)

- Two quizzes (5% each) based on the material reviewed in class and selected lectures.
- You will have a time window to complete the quiz.
- Individual assignment.
- Critical thinking skills: Execute and Synthesize.

Plummer (2019). A short guide to building your team’s critical thinking skills. Harvard Business Review. <https://hbr.org/2019/10/a-short-guide-to-building-your-teams-critical-thinking-skills>.

- Synthesize: Students should be able to synthesize the information, drawing connections between Generative AI capabilities and business objectives. This will be done through discussions or written assignments requiring students to analyze and interpret the results of Generative AI systems.
- Recommend: Students should be able to recommend appropriate uses of LLMs. This could involve strategic decision-making where students must consider various factors, such as ethical implications, business goals, and technological constraints, to make informed proposals.
- Generate: Students should be able to generate new ideas or strategies based on their understanding of Generative AI’s potential. This will be part of the capstone project, where students design innovative AI applications or propose improvements to existing systems.
- Execute: Students should be able to execute real-world tasks using Generative AI tools. This will involve practical labs or simulations to interact with LLM models to understand their capabilities and limitations.

Student evaluation and assignment grading

The final grade will be assigned using the following mark allocation:

	Assignment	Description	Date	%
1	Case study of a Generative AI application.	<ul style="list-style-type: none">Analyze a Generative AI solution: how it can potentially disrupt a business model and the challenges of integrating it into an IT operation.1500 – 2500 words document.	Sunday, Sep 29 (Week #4)	15
2	Quiz #1.	<ul style="list-style-type: none">In-class exam, 40 minutes.	Thursday, Oct 10 (Week #6)	5
3	Term Project – Problem definition.	<ul style="list-style-type: none">Define the problem's contextHigh-level solution proposal1000 – 2000 words document.	Sunday, Oct 20 (Week #7)	20
4	Term Project – Solution design.	<ul style="list-style-type: none">Architecture design, requirements, and limitations.2000 – 3000 words document.	Sunday, Nov 10 (Week #10)	25
5	Quiz #2.	<ul style="list-style-type: none">In-class exam, 40 minutes.	Thursday, Nov 21 (Week #12)	5
6	Term Project.	<ul style="list-style-type: none">2500 – 3500 words solution document (week 14).Proof of Concept (presentation, weeks 13 & 14).	Friday, Dec 06 (Week #14)	30
Total				100

Plagiarism

Plagiarism, including copying and handing in someone else's work for credit, is a serious instructional offense that will not be tolerated. Please refer to the section on instructional offenses in the Graduate Calendar for additional information. A case of plagiarism will be referred to the Chair of the department and the Carleton University Ethics Committee. The instructor will not deal with the matter directly. The University has clear processes to deal with students who are suspected of plagiarism.

Group work and free loaders

Group work is an important component of this course. You may elect to work in the same group to prepare both assignments or work in two different groups. Group conflicts are to be dealt with by the group in a way that is fair, fast and without personal attacks. The instructor does not settle group disputes. The instructor will dissolve a group that is late submitting an assignment. Free loaders are not welcome anywhere and this course is no exception. The best way to deal with free loaders is to not include their names in the first page (or workbook's cell) of the group assignments. If a student's name does not appear in an assignment submitted by his or her group, the student must submit his or her own assignment. Failure to do so, the student will receive zero for the assignment. There is zero tolerance for free loaders.

Class Schedule

Week	Date	Topic	Assigned readings & details
1	Thursday, Sep 05	No classes	- Course outline Recommended reading: - Agrawal A., Gans J., & Goldfarb A. (2022). <i>Power and Prediction</i> . Harvard Business Review Press. Chapter 2.
2	Thursday, Sep 12	Presentation & Overview - Objectives, assignments, important dates - Course structure - Prompt engineering	- Lecture slides provided by the instructor. Recommended reading: - Ozdemir, S. (2023). <i>Quick start guide to large language models strategies and best practices for using CHATGPT and other LLMs</i> . Chapter 1
3	Thursday, Sep 19	Models: LLM Foundations - Artificial Intelligence, Machine Learning concepts - Natural Language Processing (NLP) and Large Language Models (LLM) landscape - Reinforcement learning from human feedback (RLHF)	- Lecture slides provided by the instructor. - Case study of a Generative AI application (Sunday, Sep 22) Recommended reading: - Mikolov, T., Sutskever, I., Chen, K., Corrado, G. S., & Dean, J. (2013). Distributed representations of words and phrases and their compositionality. <i>Advances in neural information processing systems</i> , 26. - Vaswani, A., Shazeer, N., Parmar, N., Uszkoreit, J., Jones, L., Gomez, A. N., ... & Polosukhin, I. (2017). Attention is all you need. <i>Advances in neural information processing systems</i> , 30.
4	Thursday, Sep 26	Models: LLM Usage - Types of prompts - Prompt optimization techniques - API calls using Google Colab/Python	- Lecture slides provided by the instructor. Recommended reading: - Ozdemir, S. (2023). <i>Quick start guide to large language models strategies and best practices for using CHATGPT and other LLMs</i> . Pearson Education (US). Chapter 3. - Wei, J., Wang, X., Schuurmans, D., Bosma, M., Xia, F., Chi, E., ... & Zhou, D. (2022). Chain-of-thought prompting elicits reasoning in large language models. <i>Advances in Neural Information Processing Systems</i> , 35, 24824-24837.
5	Thursday, Oct 03	Technology: LLM Usage - Embeddings - Vector databases - Transformers, encoders, decoders, autoencoders - Search using vectors	- Lecture slides provided by the instructor. - Quiz #1 Recommended reading: - Ozdemir, S. (2023). <i>Quick start guide to large language models strategies and best practices for using CHATGPT and other LLMs</i> . Pearson Education (US). Chapter 2.
6	Thursday, Oct 10	Technology: LLM Usage - Sparse, dense and hybrid searches - Custom models and datasets - Retrieval Augmented Generation (RAG) - LLMs Benchmarking	- Lecture slides provided by the instructor. Recommended reading: - Dalvi, F., Hasanain, M., Boughorbel, S., Mousi, B., Abdaljalil, S., Nazar, N., ... & Alam, F. (2023). LLMeBench: A Flexible Framework for Accelerating LLMs Benchmarking. <i>arXiv preprint arXiv:2308.04945</i> .
7	Thursday, Oct 17	Term Project evaluation	- Term Project Deliverable #1 presentation. - Document due date: Sunday, October 22
8	Thursday, Oct 24	Fall break	

Week	Date	Topic	Assigned readings & details
9	Thursday, Oct 31	Technology: LLMs Integration and operationalization - LLM project lifecycle - Costs and open-source libraries - Infrastructure - Processes	- Lecture slides provided by the instructor. Recommended reading: - Ozdemir, S. (2023). <i>Quick start guide to large language models strategies and best practices for using CHATGPT and other LLMs</i> . Pearson Education (US). Chapter 9. - Dohmke, T., Iansiti, M., & Richards, G. (2023). Sea Change in Software Development: Economic and Productivity Analysis of the AI-Powered Developer Lifecycle. <i>arXiv preprint arXiv:2306.15033</i> . - Cornago, S., Ramakrishna, S., & Low, J. (2023). How can Transformers and large language models like ChatGPT help LCA practitioners? <i>Available at SSRN 4402262</i> . - Agrawal A., Gans J., & Goldfarb A. (2022). <i>Power and Prediction</i> . Harvard Business Review Press. Chapter 2.
10	Thursday, Nov 07	Term Project evaluation	- Term Project Deliverable #2 presentation. - Document due date: Sunday, November 10
11	Thursday, Nov 14	Business: Alignment and evaluation - LLMs alignment - Evaluating LLMs	- Lecture slides provided by the instructor. Recommended reading: - Kenton, Z., Everitt, T., Weidinger, L., Gabriel, I., Mikulik, V., & Irving, G. (2021). Alignment of language agents. <i>arXiv preprint arXiv:2103.14659</i> . - Askell, A., Bai, Y., Chen, A., Drain, D., Ganguli, D., Henighan, T., ... & Kaplan, J. (2021). A general language assistant as a laboratory for alignment. <i>arXiv preprint arXiv:2112.00861</i> . - Liu, Y., Yao, Y., Ton, J. F., Zhang, X., Cheng, R. G. H., Klochkov, Y., ... & Li, H. (2023). Trustworthy LLMs: a Survey and Guideline for Evaluating Large Language Models' Alignment. <i>arXiv preprint arXiv:2308.05374</i> .
12	Thursday, Nov 21	Business: Use cases & Responsibility - Responsible use of AI/LLM, common principles - LLMs future and risks	- Lecture slides provided by the instructor. - Quiz #2 Recommended reading: - Ooi, K. B., Tan, G. W. H., Al-Emran, M., Al-Sharafi, M. A., Capatina, A., Chakraborty, A., ... & Wong, L. W. (2023). The potential of Generative Artificial Intelligence across disciplines: perspectives and future directions. <i>Journal of Computer Information Systems</i> , 1-32. - Kaddour, J., Harris, J., Mozes, M., Bradley, H., Raileanu, R., & McHardy, R. (2023). Challenges and applications of large language models. <i>arXiv preprint arXiv:2307.10169</i> .
13	Thursday, Nov 28	Term Project Presentations (groups 1-3)	- Term Project Deliverable #3 presentation
14	Thursday, Dec 5	Term Project Presentations (groups 4-6)	- Term Project Deliverable #3 presentation. - Document due date: Friday, December 06

Recommended books

Caelen, O. & Blete, M.A. (2023). *Developing apps with GPT-4 and ChatGPT: Build intelligent chatbots, content generators, and more*. O'Reilly Associates.

Ozdemir, S. (2023). *Quick start guide to large language models strategies and best practices for using CHATGPT and other LLMs*. Pearson Education (US).

Agrawal A., Gans J., & Goldfarb A. (2022). *Power and Prediction*. Harvard Business Review Press.

Recommended articles and book chapters

Askell, A., Bai, Y., Chen, A., Drain, D., Ganguli, D., Henighan, T., ... & Kaplan, J. (2021). A general language assistant as a laboratory for alignment. *arXiv preprint arXiv:2112.00861*.

Audhoe, R., Thompson, N., & Verduijn, K. (2018). Expanding entrepreneurial, innovative and sustainable (EIS) ecosystems: A cultural-historical activity theory perspective. *Entrepreneurial, innovative and sustainable ecosystems: Best practices and implications for quality of life*, 67-89.

Cornago, S., Ramakrishna, S., & Low, J. (2023). How can Transformers and large language models like ChatGPT help LCA practitioners? *Available at SSRN 4402262*.

Dalvi, F., Hasanain, M., Boughorbel, S., Mousi, B., Abdaljalil, S., Nazar, N., ... & Alam, F. (2023). LLMeBench: A Flexible Framework for Accelerating LLMs Benchmarking. *arXiv preprint arXiv:2308.04945*.

Dohmke, T., Iansiti, M., & Richards, G. (2023). Sea Change in Software Development: Economic and Productivity Analysis of the AI-Powered Developer Lifecycle. *arXiv preprint arXiv:2306.15033*.

Kaddour, J., Harris, J., Mozes, M., Bradley, H., Raileanu, R., & McHardy, R. (2023). Challenges and applications of large language models. *arXiv preprint arXiv:2307.10169*.

Kenton, Z., Everitt, T., Weidinger, L., Gabriel, I., Mikulik, V., & Irving, G. (2021). Alignment of language agents. *arXiv preprint arXiv:2103.14659*.

Liu, Y., Yao, Y., Ton, J. F., Zhang, X., Cheng, R. G. H., Klochkov, Y., ... & Li, H. (2023). Trustworthy LLMs: a Survey and Guideline for Evaluating Large Language Models' Alignment. *arXiv preprint arXiv:2308.05374*.

Mikolov, T., Sutskever, I., Chen, K., Corrado, G. S., & Dean, J. (2013). Distributed representations of words and phrases and their compositionality. *Advances in neural information processing systems*, 26.

Ooi, K. B., Tan, G. W. H., Al-Emran, M., Al-Sharafi, M. A., Capatina, A., Chakraborty, A., ... & Wong, L. W. (2023). The potential of Generative Artificial Intelligence across disciplines: perspectives and future directions. *Journal of Computer Information Systems*, 1-32.

Vaswani, A., Shazeer, N., Parmar, N., Uszkoreit, J., Jones, L., Gomez, A. N., ... & Polosukhin, I. (2017). Attention is all you need. *Advances in neural information processing systems*, 30.

Wei, J., Wang, X., Schuurmans, D., Bosma, M., Xia, F., Chi, E., ... & Zhou, D. (2022). Chain-of-thought prompting elicits reasoning in large language models. *Advances in Neural Information Processing Systems*, 35, 24824-24837.

Additional resources

- OpenAI
 - Documentation: <https://platform.openai.com/docs/introduction>
 - API Reference: <https://platform.openai.com/docs/api-reference>
- Hugging Face: <https://huggingface.co/docs>
- Meta Llama 2: <https://ai.meta.com/resources/models-and-libraries/llama/>
- Video: What are the risks of generative AI? - The Turing Lectures with Mhairi Aitken: <https://www.youtube.com/watch?v=si1jcl7UFqU>
- Google Colab Tutorial: <https://colab.research.google.com/drive/16pBJQePbqkz3QFV54L4NikOn1kwpuRrj>
- Video: What is generative AI and how does it work? – The Turing Lectures with Mirella Lapata: https://www.youtube.com/watch?v=6R7Ym6Vy_I
- The Microsoft Responsible AI Standard: <https://www.microsoft.com/en-us/ai/principles-and-approach>
- Patterns for Building LLM-based Systems & Products: <https://eugeneyan.com/writing/llm-patterns/>

Appendix: ADDITIONAL INFORMATION

Group work

The Spratt 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.

In accordance with the Carleton University Graduate Calendar, 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			

<https://calendar.carleton.ca/grad/gradregulations/administrationoftheregulations/#10>

A grade of B- or better must normally be obtained in each course credited towards the master's degree. A candidate may, with the support of the departmental graduate supervisor/associate chair (graduate affairs) and the approval of the Dean of the Faculty of Graduate and Postdoctoral Affairs, be allowed a grade of C+ in 1.0 credit. Some programs do not permit the C+ option and apply a B- minimum rule.

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:

<https://calendar.carleton.ca/grad/gradregulations/>

Requests for Academic Accommodation

You may need special arrangements to meet your academic obligations during the term. For an accommodation request, the processes are as follows:

Pregnancy 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, visit the Equity Services website: <https://carleton.ca/equity/>

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, visit the Equity Services website: <https://carleton.ca/equity/>

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. carleton.ca/pmc

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 its 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 carleton.ca/sexual-violence-support

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. <https://students.carleton.ca/course-outline/#accommodation-for-student-activities>

For more information on academic accommodation, please contact the departmental administrator or visit students.carleton.ca/course-outline

Academic Integrity

Violations of academic integrity are a serious academic offence. 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 – 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/>.

Sprott Student Services

The Sprott student services office, located at 710 Dunton Tower, offers academic advising, study skills advising, and overall academic success support. If you are having a difficult time with this course or others, or need some guidance on how to successfully complete your Sprott degree, please drop in any weekday between 8:30am and 4:30pm. Our advisors are happy to discuss grades, course selection,

tutoring, and concentrations and will ensure that you get connected with the resources you need to succeed! <https://sprott.carleton.ca/current-students/undergraduate-students/academic-advising/>

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/>.

Important Information:

- Students must always retain a hard copy of all submitted work.
 - All final grades are subject to the Dean's approval.
 - For us to respond to your emails, we need to see your full name and CU ID, and the email must be written from your valid CARLETON address. Therefore, 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 may wish to do so by visiting <https://carleton.ca/its/>.
-