

School of Administrative Studies
Faculty of Liberal and Professional Studies

AP/ADMS 2310 3.00
BUSINESS STATISTICS THROUGH APPLICATIONS

THE FREE MARKET IS NOT FREE

WINTER 2025

Live Zoom Classes in 2:30-5:20 PM EST Friday Only

Thaddeus Hwong

[live links are underlined in this outline like the one above]

“The central fact for me is, I think, that the intellectual is an individual endowed with a faculty for representing, embodying, articulating a message, a view, an attitude, philosophy or opinion to, as well as for, a public, in public. And this role has an edge to it, and cannot be played without a sense of being someone whose place it is publicly to raise embarrassing questions, to confront orthodoxy and dogma (rather than to produce them), to be someone who cannot easily be co-opted by governments or corporations, and whose raison d’etre is to represent all those people and issues who are routinely forgotten or swept under the rug.”

~ Edward Said

**** Adapted Standardized Information from York University ****

York University recognizes that many Indigenous Nations have longstanding relationships with the territories upon which York University campuses are located that precede the establishment of York University. York University acknowledges its presence on the traditional territory of many Indigenous Nations. The area known as Tkaronto has been care taken by the Anishinabek Nation, the Haudenosaunee Confederacy, and the Huron-Wendat. It is now home to many First Nation, Inuit, and Métis communities. We acknowledge the current treaty holders, the Mississaugas of the Credit First Nation. This territory is subject of the Dish with One Spoon Wampum Belt Covenant, an agreement to peaceably share and care for the Great Lakes region ([LA&PS Land Acknowledgement](#)). For video, see [Understanding the Land Acknowledgement](#).

1. Overview: Develop a problem-solving mindset

The course is different from what you might think.

This course is not mainly about programming Stata [www.stata.com] even students are expected to learn to use Stata. No prerequisite in computer programming is required as I teach students everything they need in class.

The course is not mainly about splashing technical statistical stuff everywhere even students are required to learn to compile a little Stata program called a do-file to run some data analyses using

real data. No prerequisite in mathematics is required as I teach Stata like a language given that all students can function in at least one language.

The course is mainly about developing a mindset in solving seemingly unsolvable problems, in this case, by learning how to use data analysis generated by very simple Stata codes to help make sense of the world. The very simple approach to use Stata that the students are required to follow in real time in class in developing their problem-solving mindset is unique.

2. Learning Outcomes: Learn to work with evidence

The course is an introductory course about applied statistics – the use of data as evidence to help make sense of the world.

At university you learn to become not only a productive employee but also an informed and responsible citizen.

Like university studies in general, the course is designed to develop your capabilities in critical thinking, information literacy, effective communication as well as your sense of your responsibility.

Critical thinking. A big challenge in your daily experience is to live with ambiguity. The world is not neatly organized, and it won't organize itself for you. But you can make sense of what you initially see as disorganization if you want to. Hopefully this course will give you plenty of opportunities to learn to face the messy world.

Information literacy. In our society another big challenge is to live with information overload. The information flow does not come with navigation manuals or handouts or PowerPoint slides. But you can separate the useful information from the noise if you want to. Hopefully this course will give you plenty of opportunities to learn to separate the good information from the bad information.

Effective communication. Whether some ideas become entrenched often rests on how they are argued. At times unfortunately the most compelling arguments beat the most sensible ideas. But you can be precise and concise in making your arguments if you want to. Hopefully the course will give you plenty of opportunities to learn to cut to the chase.

A sense of your responsibility. University education is to enlighten, not to indoctrinate to conform. It incurs opportunity costs for not just you but also our society. Sadly, nowadays our society allows university education to become just a big broken promise that mutates into a gigantic opportunity loss. But if you want to you can help make things right by learning to be responsible. As responsible students, you would solve the problems you are asked to solve on your own rather than just giving up and asking others to solve them for you. Hopefully the course will give you plenty of opportunities to learn to nurture your identity of responsibility.

On how to learn in this course, here are three actionable suggestions:

- **Pay attention.** Once you start paying attention many seemingly unanswerable questions will end up as information that you can simply look up.

- **Prepare relentlessly.** Students are expected to do most of their work outside the classroom, and they are expected to demonstrate their outside work with their level of engagements inside the classroom.
- **Own it.** When you think you have run into a problem, look for the solution yourself. Whenever something does not go your way, ask the following series of questions: “What have I done wrong and how can I do better?”

At university you learn to become not only a productive employee but also an informed and responsible citizen.

Your course grade is just a reflection of your performance in the course, but you are the only one who really knows whether you are making any progress in learning to become a lifelong learner.

A grade is just a grade. In five years no one will care what you get as a student in this course. But people do care who you are as a human being – whether you care not only about your own self-interests but also about others’ well-being.

3. Course Materials: Start by setting up Stata in your computer

Students would work with datasets of real data. Students are provided with the course dataset.

In addition, for each class students are provided with a Stata program file called a do-file, which can be seen as a transcript of everything done in class.

Students are required to make use of the do-file to perform data analyses. The do-file for each class as well as other content for the class would be available on the course eClass page by the start of each class.

Students should have Stata/BE purchased and installed before the start of the first class. Students are advised to choose the six-month student license. If you follow the link in the first sentence of this paragraph, you will find that the six-month student Stata/BE license would cost US\$48 before tax [last accessed on Nov. 24, 2024].

4. Teaching Approach: Use What It Is to Find Out What It Could Be

*** Adapted Standardized Information from York University ***

Students shall note the following:

- *Zoom is hosted on servers in the United States and Canada. For more information, please refer to the notes on Zoom Privacy and Security provided by Information Security at York.*
- *If you have privacy concerns about your data, provide only your first name or a nickname when you join a session.*
- *The system is configured in a way that all participants are automatically notified when a session is being recorded. In other words, a session cannot be recorded without you knowing about it.*

In Winter 2025, the design of the course is to encourage students to learn how to make use of Stata basics specifically developed for this course through the preparation of country market studies.

The teaching approach anchors on learning in real time using real data through trial and error. Students are required to try out the codes, debug what they have coded after crashes and repeat that process again and again in real time in class.

If the problems are not solved right then and there in real time in class, the problems will fester and derail the learning progress.

Each step will build on prior steps in real time, and each class will build on prior classes in real time.

No class is designed to be missed. Given the course design as well as the protection of privacy of all involved, the course will not be recorded. Not attending any class defeats the academic purpose of the course.

I am eager to talk shop all the time. If needed, please use your York University email account to send your questions along with your phone number to taxlaw@yorku.ca so we could have a conversation.

5. Evaluation: Compile your Stata do-files

Students would prepare Stata do-files and sit for an oral exam.

The evaluation focuses on what would help develop students into lifelong learners – information literacy, critical thinking and effective communication as well as responsibility.

A letter grade for the course will be given to each student at the end of the academic year based on the following components. On grading schemes, see <https://calendars.students.yorku.ca/2023-2024/grades-and-grading-schemes>.

All students will be graded and ranked in comparison to their peers in totality at the end of the term. That is, for example, at the end of the term students who have attended more classes than others will likely have advantages over those who attended fewer classes. The reason is not about attendance. The reason is that the former students have likely learnt more than the latter, and their learning outcomes would likely show up in their work done for the course.

Please consider everything said in class as feedback that is relevant to your work. A projected letter grade based on everything the students has submitted by the drop date will be shared with the students by the drop date.

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** Adapted Standardized Information from York University **

Students are not permitted to use generative artificial intelligence (AI) in this course. Submitting any work created through the use of generative AI tools will be considered a violation of York University's Senate Policy on Academic Honesty. If you do not know whether an online resource or tool can be used in this course, please contact your instructor for guidance. For more information, please review AI Technology & Academic Integrity: Information for Students.

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Course Evaluation Components

Assessment	Due date	Weight %	Learning Outcomes
5.1 Contributions to the data dictionary	7 am EST Tuesday following the discussion of the contribution required in the previous class	10%	Developing a problem-solving mindset
5.2 At least three Stata do-files to answer research questions discussed in three different modules	7 am EST Wednesday following the discussion of the research question in the previous class	35%	Using Stata to perform data analysis
5.3 Self-evaluation of each of the accepted do-files	7 am EST Monday following the discussion of the sample response to the do-file question in the previous class	25%	Debugging & debriefing
5.4 Capstone Project Stata do-file plus an oral exam of the do-file	7 am EST April 11; oral exam to be scheduled by March 28 and to be held after April 11	30%	Demonstrating everything learnt in the course
		100%	

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Addendum as per university policy: When a student applies for a job that requires a background check, they are typically required to sign a release for the University to share their records with the employer. This will entail any academic misconduct violations, and therefore, any academic honesty cases to be revealed through the background check, even if the penalty does not include a transcript notation.

5.1. Contributions to the data dictionary [10%]

Each student would make contributions to the compilation of the dictionary of the dataset used in this version of the course. Students would make a submission to taxlaw@yorku.ca using their York University email account with the email subject "2310: [your last name]-[your student number]-[class number for the relevant question]-5.1" by the deadline. We'll go over the submission protocol in the first class.

5.2. At least three Stata do-files to answer research questions discussed in three different modules [35%]

Students would use Stata to produce Stata do-files. A research question would be discussed at the end of each class. Students would make a submission to taxlaw@yorku.ca using their York University email account with the email subject "2310: [your last name]-[your student number]-[class number for the relevant question]-5.2" following the submission protocol by the deadline. Please make sure that your full name appears at the top of your do-file. Please also make sure that your student number is NOT included in the do-file. We'll go over the submission protocol in the first class.

5.3. Self-evaluation of each of the accepted maps [25%]

Students would grade their do-files based on the in-class review of do-files submitted for the same research question. Students would make each submission to taxlaw@yorku.ca using their York University email account with the email subject "2310: [your last name]-[your student number]-[class number for the relevant question]-5.3" by the deadline. We'll go over the submission protocol in the first class.

5.4. Capstone Project Stata do-file plus an oral exam of the do-file [30%]

Students would produce a do-file based on a Capstone Project research question to be discussed in class after the drop date. Students would make the submission to taxlaw@yorku.ca using their York University email account with the email subject "2310: [your last name]-[your student number]-5.4" following the submission protocol by 7 am April 11. Students would sit for an oral exam of the do-file, and the oral exam would be scheduled by March 28 and would be held after April 11. Please make sure that your full name appears at the top of your do-file. Please also make sure that your student number is NOT included in the do-file. We'll go over the submission and oral exam protocol when the Capstone Project question is discussed in class.

6. Tentative Schedule: Learning by doing

Module	Theme	Selected links to data sources	Class
<i>I</i>	<i>Global adaptation, tax & economic inequality</i>	▪ https://gain.nd.edu/our-work/country-index/rankings/ ▪ https://www.oecd.org/en/data/datasets/global-revenue-statistics-database.html ▪ https://wid.world ▪ https://greengrowthindex.gggi.org ▪ https://v-dem.net ▪ https://www.worldbank.org/en/publication/worldwide-governance-indicators ▪ https://www.transparency.org/en/ ▪ https://hdr.undp.org/data-center/human-development-index#/indicies/HDI	<i>1 & 2</i>
<i>II</i>	<i>Global adaptation, tax, economic inequality & green growth</i>		<i>3 & 4</i>
<i>III</i>	<i>Global adaptation, tax, economic inequality, green growth, civil liberties & political equality</i>		<i>5 & 6</i>
<i>IV</i>	<i>Global adaptation, tax, economic inequality, green growth, civil liberties, political equality, judiciary & media</i>		<i>7 & 8</i>
<i>V</i>	<i>Global adaptation, tax, economic inequality, green growth, civil liberties, political equality, judiciary, media, governance & corruption</i>		<i>9 & 10</i>
<i>VI</i>	<i>Global adaptation, tax, economic inequality, green growth, civil liberties, political equality, judiciary, media, governance, corruption & human development</i>		<i>11 & 12</i>

[THE FOLLOWING PAGES ARE INFORMATION SUPPLIED BY LA & PS]]

Course Policies

All students are expected to familiarize themselves with the following information:

- [Student Rights & Responsibilities](#)
- [Academic Accommodation for Students with Disabilities](#)

Please also review the following course policies:

Academic Integrity

As a student at York University, you have a responsibility to both understand and uphold the integrity of the academic experience. The Faculty of Liberal Arts & Professional Studies supports the International Center for Academic Integrity's [definition of academic integrity](#). That is, you will be committed to acting in all academic matters, even in the face of adversity, with honesty, trust, fairness, courage, respect and responsibility. Here is how you can demonstrate academic integrity in the completion of this course:

- **Respect the ideas of others:** Your course work should represent your own knowledge and ideas. [You should not falsely claim credit for ideas that are not your own, by presenting another's work as yours.](#) If you are quoting, paraphrasing, or summarizing another person's work in order to support your own ideas, identify the work and the author through proper citation practices. For more information about how to cite properly, use the [Student Papers and Academic Research Kit](#) (SPARK). You can improve your writing, research, and personal learning abilities through the [Learning Commons](#), or by visiting the [Writing Centre](#) or [ESL Open Learning Centre](#).
- **Respect your peers:** [Know when you are allowed to collaborate.](#) Ask your instructor about what group work entails when it comes to the [sharing of work](#). In test situations and assignments, don't steal or give answers to your peers, whether in-person or online (e.g., in group chats and/or on [third-party content-sharing websites](#), such as Chegg, Course Hero, etc.). Both cheating and aiding in a breach of academic honesty are violations of York University's academic honesty policy.
- **Respect your course instructor(s):** Understand what your instructors are asking of you in class, as well as on assignments, tests and/or exams. If you are unsure, ask your professor or teaching assistant. They are committed to making you feel supported and want to assess you fairly and with integrity. Please do not submit the same piece of work for more than one course without your instructor's permission. That can be considered an act of cheating.
- **Respect yourself:** When you act with integrity, you know that your work is yours and yours alone. You do not allow others to take tests for you. [You do not buy or otherwise obtain term papers or assignments.](#) You do the work. As a result, you know that you *earned* the grades that you receive, so you can be proud of your York degree. By acting with integrity in your course work, you are also practising a valuable professional skill that is important in all workplaces.
- **Take responsibility:** If you have acted in an academically dishonest way, you can demonstrate courage and take responsibility for your mistake. You can admit your mistake to your course instructor as soon as possible.

Students who engage in academic dishonesty can be subject to disciplinary action under the [Senate Policy on Academic Honesty](#). Your lack of familiarity with the Senate Policy does not constitute a defense

against its application. Some academic offences can also constitute offences under the Criminal Code of Canada, which means that you may also be subject to criminal charges.

Accessibility

While all individuals are expected to satisfy the requirements of their program of study and to aspire to achieve excellence, the University recognizes that persons with disabilities may require reasonable accommodation to enable them to perform at their best. The University encourages students with disabilities to register with Student Accessibility Services to discuss their accommodation needs as early as possible in the term to establish the recommended academic accommodations that will be communicated to Course Directors through their Letter of Accommodation (LOA).

Please let your instructor know as early as possible in the term if you anticipate requiring academic accommodation so that we can discuss how to consider your accommodation needs within the context of this course. Sufficient notice is needed so that reasonable steps for accommodation can be discussed. Accommodations for tests/exams normally require three (3) weeks (or 21 days) before the scheduled test/exam to arrange.

Religious Observance Accommodation

York University is committed to respecting the religious beliefs and practices of all members of the community, and making reasonable and appropriate accommodations to adherents for observances of special significance. Should any of the dates specified in this syllabus for course examinations, tests, or deadlines conflict with a date of religious significance, please contact the instructor within the first three (3) weeks of class. If the date falls within the formal examination periods, you must complete and submit a Religious Accommodation for Examination Form at least three (3) weeks before the start of the exam period.

Intellectual Property

Course materials are designed for use as part of this particular course at York University and are the intellectual property of the instructor unless otherwise stated. Third-party copyrighted materials (such as book chapters, journal articles, music, videos, etc.) have either been licensed for use in this course or fall under an exception or limitation in Canadian copyright law. Students may not publish, post on an Internet site, sell, or otherwise distribute any course materials or work without the instructor's express permission. Course materials should only be used by students enrolled in this course.

Copying this material for distribution (e.g., uploading material to a commercial third-party website) may lead to a charge of misconduct according to York's Code of Student Rights and Responsibilities, the Senate Policy on Academic Honesty, and/or legal consequences for copyright violations.

Student Conduct in the Learning Environment

York University is committed to fostering teaching and learning environments that are free of disruptive and/or harassing behaviour, are physically safe, and conducive to effective teaching and learning. Students and instructors are expected to maintain a professional relationship characterized by courtesy, civility, and mutual respect and to refrain from actions disruptive to such a relationship.

Individuals who fail to adhere to such standards and who violate University or public law may be subject to disciplinary action by the University.

For more information, see the policies on [Disruptive and/or Harassing Behaviour in Academic Situations](#) and [Student Conduct and Responsibilities](#), as well as the [Code of Student Rights & Responsibilities](#).

Netiquette for eClass and Online Learning

Students and instructors have a joint responsibility to create and maintain a welcoming and inclusive learning environment. All students are expected to conduct themselves in accordance with the [Code of Student Rights and Responsibilities](#). Please review and familiarize yourself with behaviours that support “netiquette” in virtual classrooms by consulting the [Student Guide to eLearning](#).

Student Support and Resources

To help you succeed academically, York University offers a wide range of resources and services. Everything from writing workshops and peer mentorship to wellness support and career guidance is available to fulfill our LA&PS students’ needs. Explore the links below to access these on-campus resources:

- [Academic Advising](#) is available to provide students support and guidance in making academic decisions and goals.
- [Student Accessibility Services](#) are available for support and accessibility accommodation when required.
- [Student Counselling, Health & Wellbeing](#) offers workshops, resources, and counselling to support your academic success.
- [Peer-Assisted Study Sessions \(PASS\) Program](#) provides student study sessions for students to collaborate and enhance their understanding of course content in certain courses.
- [Student Numeracy Assistance Centre at Keele \(SNACK\)](#) supports students in courses involving math, stats, and Excel.
- [The Writing Centre](#) provides multiple avenues of writing-based support including drop-in sessions, one-to-one appointments, a Multilingual Studio, and an Accessibility Specialist.
- [ESL Open Learning Centre \(OLC\)](#) supports students with building proficiency in reading, writing, and speaking English.
- [Learning Skills Services](#) provides tips for time management, effective study and learning habits, keeping up with coursework, and other learning-related supports.
- [Learning Commons](#) provides links to supports for time management, writing, study skills, preparing for exams, and other learning-related resources.
- [Roadmap to Student Success](#) provides students with timely and targeted resources to help them achieve academic, personal, and professional success.
- [Office of Student Community Relations \(OSCR\)](#) is responsible for administering the [Code of Student Rights & Responsibilities](#) and provides critical incident support.
- [goSAFE](#) is staffed by York students and can accompany York community members to and from any on-campus location, such as the Village Shuttle pick-up hub, parking lots, bus stops, or residences.

For a full list of academic, wellness, and campus resources visit [Student Support & Resources](#).