

Course Outline

Course Code	RSM 384 H1 F
Course Name	Sports Analytics
Term, Year	Fall 2025
Course Meets	Thursdays, 3:10-5pm in CR 403
Web page URL	https://q.utoronto.ca/courses/401238

Instructor Details

Name	Email	Office Hours	Virtual Office Link
Laura Turner	lmf.turner@utoronto.ca	Online: M 2-3pm Live: R 5-6pm in CR403)	https://utoronto.zoom.us/j/81839317381 Passcode: 656963

The TA for RSM 384 is **Cameron Chahal**:

Course Description

This course applies concepts of analytic management and data analysis to the sports world. The class is intended to deepen the students' ability to apply econometric skills from ECO220Y1. We will look at sports decision making from both the team and player side of the "market", rooting professional sports in classical economic concepts and giving the students the opportunity to do their own analysis of team profitability and player value while learning frontier techniques. The class will introduce students to some basics of coding and econometric analysis in R. No prior coding experience is required, but basic coding will be necessary and the course provides students with new or deepened skills in that area.

Learning Outcomes

By the end of this course, students will be able to:

- *Understand how economists think about the business of sports*
- *Understand the incentives and structures of professional sports teams both as profit-maximizing firms and as organizations devoted to achieving on-field success*
- *Understand how sports managers and analysts evaluate the in-game and economic value of players and how player compensation is determined*
- *Collect, organize, and analyze data from online sports data repositories*
- *Propose and conduct empirical analyses of economic and management questions in professional sports using the data that you collect*

Course Prerequisites

ECO220Y1/ ECO227Y1/(STA220H1, STA255H1)/(STA237H1, STA238H1)/(STA257H1, STA261H1)

Course Materials

Recommended Readings:

David Berri: *Sports Economics*. New York: Worth, 2018. This textbook can be purchased as an online rental for \$90 through VitalSource [here](#). This is a lively and readable textbook, and the course follows its general approach to thinking about questions in sports. However, it is not strictly required as the main emphasis of this class will be empirical rather than theoretical. The theoretical topics can be mastered by reading the class slides and following the in-class discussions.

Electronic Course Materials:

Weekly lecture slides will be posted each week on Quercus the evening before class (i.e. each Wednesday of term). The posted slides are reasonably detailed.

The empirical component of this course will be carried out in both Excel (or a comparable spreadsheet program) and R. Students are not strictly required to use R and R studio to conduct their empirical analyses, but it is strongly recommended since many of the the empirical demonstrations in the class will be R-based. The R language and R Studio can be downloaded for free and installed on your personal laptops from [Post here](#). Sample R scripts and spreadsheets will be provided as templates and examples throughout the class.

Other optional course readings, that are referred to repeatedly or covered in any detail in the lectures, will be made available through the library on Quercus. Note that additional optional / recommended readings may be added to the course outline on page 8 as we move through the semester. Again, these readings are useful for deepening your understanding of how economists and managers think about problems in professional team sports, but they are not required and will not be directly tested (outside of what is provided in the lecture notes and/or directly discussed in class) on the exam.

Two problem sets will also be posted throughout the semester for exam preparation. Note that while the exam will be focused on empirical questions in sports, it will be somewhat more theoretical in nature than the data projects, requiring you to be able to solve basic economic optimization problems like monopoly profit maximization and relate the predictions of the models to the empirical evidence we observe in the class.

Evaluation and Grades

Grades are a measure of the knowledge and skills developed by a student within individual courses. Each student will receive a grade on the basis of how well they have command of the course materials, skills and learning objectives of the course.

Work	Percentage of grade	Due Dates
Data Project 1: Determinants of Team Financial Success	0% or 30%	Online: Oct 5 th , 11:59pm
Data Project 2: Computing Player In-Game and Economic Value	0% or 30%	Online: Nov 2nd, 11:59pm
Data Project 3 : Open Project on a Topic of Interest	0% or 30%	Online: Dec 2nd, 11:59pm
Exam	10-40%	TBA

Course Format and Expectations

RSM 384 is an applied empirical course focusing on sports analytics and data treated from an economics perspective. There are three data projects available throughout the term that students may choose among. There is also a final exam testing students' ability to work with course-related theory and applications covered in lecture. Students can choose the work load distribution and grade allocation that best fits their interests and schedule, as described below.

Please read the following explanation of the grading scheme carefully.

Data Projects

Because 384 is an empirically-based course, much of the evaluation will be project-based. All students must complete **at least two** of the three assigned projects, each by its associated due date, but can also choose to complete all three. If all three projects are completed, the final exam will count for only 10% of the final grade. If two projects are completed, the final exam will count for 40% of the final grade.

The three projects will relate to the course material from different parts of the class:

1. **The first project** asks students to use publicly available financial and performance data for teams in a sports league of their choice to assess determinants of team revenues, asset values, or profits within the league. Students will be required to come up with their own topic or “angle” on drivers of team success.
2. **The second project** asks students to construct measures of player in-game and economic value using player statistics and some commonly used player metrics such as those available at Sports Reference.
3. **The third project** is an open project allowing students to explore an empirical question in sports of their choosing from any part of the course content, or revisit a question or theme addressed in one of the first two projects.

Details on the projects, including recommended data sources to draw on, will be made available on Quercus **three weeks** before each due date.

Please keep in mind that, once graded, submitted projects will count toward your final grade no matter how you did. If you submit an assignment and immediately regret it, let the instructor know by email asap and we will simply not grade it! **Once graded, the project counts toward your final grade, with no exceptions.**

Team or Group Assignments

For Data Projects 1-3, students are encouraged to work alone or in groups of 2. Groups of more than 2 are also allowed but will be subject to **a 3 point off the top penalty out of 100** for each additional group member beyond 2.

One member of each group (including solo groups) must let the instructor know the group members and the topic of the project by email **at least 48 hours** before the submission date. Failure to do so will result in a 5 point penalty off the top of the completed project. More details will be provided on the instructions sheet for each data project. (If you plan to skip a particular project, no email is necessary.) Only one member of each group needs to submit the project.

Students in 384 are advised (but not required) to work in a group of two for at least one of the projects. Group work can potentially reduce workload, particularly for tedious activities like data collection and coding which are substantial for some of the projects. More importantly, learning to work together in teams is a crucial transferrable skill you will use in your future careers. Support is available if you encounter common teamwork challenges such as:

- Team members feeling left out of the team.
- Team members not responding in a timely manner to communication.
- Division or quality of work among team members being unequal or unfair.

Consult the [Centre for Professional Skills Teamwork Resources page](#) for tips, strategies, and best practices. You can also [book an appointment with a teamwork mentor](#) through the RC Centre for Professional Skills Writing Centre or by emailing rotmancommerce.teamworkhelp@utoronto.ca. Teamwork mentors can help you resolve or mitigate conflict, strategize on planning, or improve team communication.

If you are a student registered with Accessibility Services, and extensions are one of your academic accommodations, consult with your Accessibility Advisor about the teamwork in this course.

Final Exam

The final exam will test students' familiarity with and understanding of the course content, both theoretical and empirical. If you prefer to skip one of the empirical projects, it's strongly advised that you keep up with the lectures and make notes on what is discussed and emphasized in class, as this material will form the basis for the exams. Anything discussed in class is fair game for the exam, and topics emphasized in class are more likely to be represented on the exam. The lecture slides, while fairly detailed, are not a complete representation of the course coverage.

Two problem sets, with solutions, will be provided throughout the semester as examples of the sorts of problems you are likely to encounter on the exam. The two-hour exam will be a combination of multiple choice, fill in the blank, and short-form written answers.

Missed or Late Assignments

Data Projects: In general, since one of the assignments can be skipped and the marks reallocated to the exam, **no formal extensions will be granted for missing any of the assignment deadlines for any reason.** Late marks will accrue at a rate of 0.5 point out of 100 off the top per hour late. (Note that this means that submitting slightly late, by a couple of hours, will barely affect your grade. In that case, there is no need to let us know, we will simply apply the penalty when we mark it.) After seven days late, all remaining marks will be forfeit. If you find you are sick or have an emergency or are simply overwhelmed the week before the due date, **simply skip the project and reallocate the marks to your exam.** If you are part of a group and find you can't complete your part of the project, make sure to let your group members know in advance so they can cover for you. It's up to individual groups to coordinate to make the assignment deadlines collectively.

The only exception to the late assignment policy above applies to students with accommodations through Accessibility. Accessibility accommodations for any group member will apply to the entire group. However, these accommodations **must be cleared and agreed to with the instructor near the start of semester (i.e. within the first few weeks of class)** and an alternative timeline agreed to, which is then binding. Accommodation requests made the night before an assignment is due will be rejected for the current assignment.

The marks from any skipped assignment will be reallocated to the exam as described above.

Final Exams: If you miss the final exam in this course for a legitimate reason (illness, etc) you will need to contact your College Registrar to file a petition for a deferred exam. This deferred exam will be written at a later date as established by the Faculty of Arts & Science. Instructions can be found here: <https://www.artsci.utoronto.ca/current/faculty-registrar/petitions-appeals/preparing-petition>

Plagiarism Detection

Students will be required to submit their projects to the University's plagiarism detection tool for a review of textual similarity and detection of possible plagiarism. This is done automatically by Quercus and doesn't require any additional effort on the students' part. In doing so, students will allow their projects to be included as source documents in the tool's reference database, where they will be used solely for the purpose of detecting plagiarism. The terms that apply to the University's use of this tool are described on the [University's Plagiarism Detection Tool FAQ](#) page from Centre for Teaching Support & Innovation.

Note that data files and code submitted with the projects return high similarity scores. This is not a problem! Only your written reports should return reasonably low (<25% typically) similarity scores with other submitted work.

Generative AI / ChatGPT

Students are extremely welcome to use AI / ChatGPT for coding help in the empirical part of the course, especially if you are new to R or applied data work in general. Open AI, ChatGPT, and similar programs are extremely useful for generating simple and intuitive R code using recent techniques and the best available R packages. This is a resource you should feel free to make use of (as your instructor does), although it is important that you learn from the AI and know how your code works. “Blind coding” will always lead to errors.

Students are also free to ask ChatGPT or a similar program for information on what has previously been published on their topic of interest, but any such searches should be cited in the project bibliography. Students, however, should not use AI / ChatGPT extensively for the writing component of their projects. If you do use an AI prompt for writing, even for something as simple as a grammar check (this includes Grammarly), this should be cited and the prompts used included as footnotes. The AI consulted needs to be included as a reference in the project bibliography. AI-written projects tend to be vapid and unoriginal and produce bad grades. Interesting writing, reflecting students' own style and viewpoints, is very valuable as a skill and will be rewarded.

For a useful primer on citing AI using MLA-standard citation, see <https://style.mla.org/citing-generative-ai/>. If you prefer a different citation format, you can find similar primers for proper citation online.

Statement on Equity, Diversity and Inclusion

The University of Toronto is committed to equity, human rights and respect for diversity. All members of the learning environment in this course should strive to create an atmosphere of mutual respect where all members of our community can express themselves, engage with each other, and respect one another's differences. U of T does not condone discrimination or harassment against any persons or communities.

Commitment to Accessibility

The University is committed to inclusivity and accessibility, and strives to provide support for, and facilitate the accommodation of, individuals with disabilities so that all may share the same level of access to opportunities and activities offered at the University.

If you require accommodations for a temporary or ongoing disability or health concern, or have any accessibility concerns about the course, the classroom or course materials, please [email Accessibility Services](#) or visit the [Accessibility Services website](#) for more information as soon as possible. Obtaining your accommodation letter may take up to several weeks, so get in touch with them as soon as possible. If you have general questions or concerns about the accessibility

of this course, you are encouraged to reach out to your instructor, course coordinator, or Accessibility Services.

Academic Integrity

Academic Integrity is a fundamental value essential to the pursuit of learning and scholarship at the University of Toronto. Participating honestly, respectfully, responsibly, and fairly in this academic community ensures that the U of T degree that you earn will continue to be valued and respected as a true signifier of a student's individual work and academic achievement. As a result, the University treats cases of academic misconduct very seriously.

[The University of Toronto's Code of Behaviour on Academic Matters](#) outlines the behaviours that constitute academic misconduct, the process for addressing academic offences and the penalties that may be imposed. You are expected to be familiar with the contents of this document. Potential offences include, but are not limited to:

In assignments:

- Using someone else's ideas or words without appropriate acknowledgement.
- Submitting your own work in more than one course without the permission of the instructor.
- Making up sources or facts.
- Obtaining or providing unauthorized assistance on any assignment (this includes collaborating with others on assignments that are supposed to be completed individually or in an acknowledged group).

On the exam:

- Using or possessing any unauthorized aid, including a cell phone.
- Looking at someone else's answers.
- Misrepresenting your identity.

Misrepresentation

- Falsifying institutional documents or grades.
- Falsifying or altering any documentation required by the University, including (but not limited to) medical notes.

All suspected cases of academic dishonesty will be investigated by the procedures outlined in the [Code of Behaviour on Academic Matters](#). If you have any questions about what is or is not permitted in the course, please do not hesitate to contact the course instructor. If you have any questions about appropriate research and citation methods, you are expected to seek out additional information from the instructor or other U of T or RC resources such as the RC Centre for Professional Skills, the College Writing Centres or the Academic Success Centre.

Email

At times, the course instructor may decide to communicate important course information by email. As such, all U of T students are required to have a valid UTMail+ email address. You are

responsible for ensuring that your UTmail+ email address is set up and properly entered on ACORN. For more information visit the [Information Commons Help Desk](#).

Forwarding your utoronto.ca email to a Gmail or other type of email account is not advisable. In some cases, messages from utoronto.ca addresses sent to Gmail accounts are filtered as junk mail, which means that important messages from your course instructor may end up in your spam or junk mail folder.

Recording Lectures

Lectures and course materials prepared by the instructor are considered by the University to be an instructor's intellectual property covered by the Canadian Copyright Act. Students wishing to record a lecture or other course material in any way are required to ask the instructor's explicit permission and may not do so unless permission is granted. Students who have been previously granted permission to record lectures as an accommodation for a disability are excepted. This includes tape recording, filming, photographing PowerPoint slides, Quercus materials, etc.

If permission for recording is granted by the instructor (or via Accessibility Services), it is intended for the individual student's own study purposes and does not include permission to "publish" them in any way. It is forbidden for a student to publish an instructor's notes to a website or sell them in any other form without formal permission.



Weekly Schedule

Session	Class Date	Topic	Recommended Readings
Week 1	Thursday, September 4th	Course introduction Demand for Sports: Professional Sports as a Consumer Good	Berri: Chapter 1 Coates and Harrison (2005)
Week 2	Thursday, September 11th	Sports Teams as Firms: The Profit Maximization Problem for Ticket Sales	Berri, Chapter 2
Week 3	Thursday, September 18th	Empirical Analysis 1: Does Market Size Matter for Team Success?	Berri Chapter 2 Appendix
Week 4	Thursday, September 25th	Empirical Analysis 2: Revenue and Market Size in the NHL	tba
Week 5	Thursday, October 2nd	Profitability, Competitive Balance, and the Hulbert Model in Sports	Berri Chapters 3 and 4
Week 6	Thursday, October 9th	“Competitive Supply” and Club-Based Model of Sports	Ramchandani, Plumley, Davis, & Wilson (2023).
Week 7	Thursday, October 16th	Assessing a Player’s In-Game and Economic Value	Berri Chapter 6
Week 8	Thursday, October 23rd	Empirical Analysis 3: The Marginal Revenue Product of an NBA Player	Berri, Leeds, and von Allmen (2015)
Week 9	Thursday, November 6th	Salary Determination in Sports and the Role of Unions	Berri Chapter 5
Week 10	Thursday, November 13th	Discrimination and Irrational Behavior in Sports Markets	Berri Chapter 7
Week 11	Thursday, November 20th	Empirical Analysis 4: Does Race Matter in the NFL?	tba
Week 12	Thursday, November 27th	The Economic Return to Star Power	Berri Chapter 13 Appendix Humphreys and Johnson (2020)

Additional optional readings will be added to this timetable throughout the semester, with links to the relevant texts provided through Quercus.

Please note that the last day you can drop this course without academic penalty is Nov 11, 2025



Other Useful Links

- [Become a volunteer note taker](#)
- [Accessibility Services Note Taking Support](#)
- [Credit / No-Credit in RSM courses](#)
- [Rotman Commerce Academic Support](#)
- [Where to find teaching assistant opportunities](#)

URL links for print

- ACORN: <http://www.acorn.utoronto.ca/>
- Email Accessibility Services: accessibility.services@utoronto.ca
- Accessibility Services website: <http://studentlife.utoronto.ca/as>
- University's Plagiarism Detection Tool FAQ: <https://uoft.me/pdt-faq>
- The University of Toronto's Code of Behaviour on Academic Matters: <http://www.governingcouncil.utoronto.ca/policies/behaveac.htm>
- Information Commons Help Desk: <http://help.ic.utoronto.ca/category/3/utmail.html>
- Become a volunteer note taker: <https://studentlife.utoronto.ca/program/volunteer-note-taking/>
- Accessibility Services Note Taking Support: <https://studentlife.utoronto.ca/service/note-taking-support/>
- Credit / No-Credit in RSM courses: <https://rotmancommerce.utoronto.ca/current-students/degree-requirements/credit-no-credit-option/>
- Rotman Commerce Academic Support: <https://rotmancommerce.utoronto.ca/current-students/academic-support/>
- Book an appointment with a writing or presentation coach: <http://uoft.me/writingcentres>
- Writing and Presentation Coaching academic support page: <https://rotmancommerce.utoronto.ca/current-students/academic-support/writing-and-presentation-coaching/>
- Centre for Professional Skills Teamwork Resources page: <https://rotmancommerce.utoronto.ca/teamwork-resources>
- Book an appointment with a Teamwork Mentor: <http://uoft.me/writingcentres>