McGill University Course Evaluation



MATH 223: Linear Algebra - Lecture Section: 1 CRN: 445

Term: Fall 2007

Instructor(s): Dr Bryden Cais; Dr James G Loveys

These results are for: Dr Bryden Cais

Comments for question 7: Printed materials and handouts other than textbook or assignments. If there was no such material, choose the "Not Applicable" option.

- 1. sufficient material was covered in class- and after class asking questions. I didn't buy the book, didn't find it necessary
- 2. maybe in addition to emails, put the notes on webct.
- 3. All of the assignments were very fair and never overly difficult, while being quite helpful for midterm and final preparation. The textbook, however, occasionally deviated quite a bit from the notes in terms of notation, which sometimes became a bit confusing and as such, my use of the textbook decreased more and more during the course of the term.
- 4. While a good, cheap reference book, Shaum's Outlines aren't detailed enough to serve as a good textbook to learn new material from. I happened to have an older Linear Algebra book from another student at another school, and it was much more useful (It was Anton-Rorres's book). The assignments were only useful study aides after we had them and the answer key back; too often, the material needed to understand the assignments wasn't even taught until the day they were due, or even after the due date! It is pointless and somewhat unfair to students to make them do assignments on material that has never been presented yet. We don't pay to teach the subject to ourselves!
- 5. Once or twice (as of november) the assignments covered material not yet seen in class.
- 6. Bryden's effort to keep everyone up to date via class wide emails whenever changes occurred to either the assignment or some of the supplementary notes is something that I have appreciated extensively throughout the semester, as it leads to any sort of discrepancies being fixed outside of class time and occasionally with detailed explanations.
- 7. the assignment are extremely helpful, the book is not bad but could be better
- 8. good overall
- 9. Type your notes, it makes it a way easier to follow in class if you do not need to write down every material, then you can fully concentrate on the given material instead of writting it down.
- 10. Textbook used in 133, Linear Algebra, Poole, MUCH more useful for this course.
- 11. I felt that the textbook was indeed helpful, however for certain topics covered the explanations and examples covered in the book were sometimes trivial or too basic for the problems being done in the assignments. One often would have to use the Internet or other textbooks as secondary sources. On the other hand, the assignments were more difficult, but they definitely prepared us for the midterm and final exam.
- 12. The textbook is very complete, you should use it for the next classes.

- 13. The course notes were very comprehensive, making the textbook somewhat unneccesary. However, as a source of extra problems and exercises, the textbook was invaluable.
- 14. needs to make avail. just the basics of whats needed to understand why basis exist. a basic handout on partial ordering and elements.
- 15. Old midterms, and finals were a good way to practise before our exams.
 - 22 blank comments were skipped.

Comments for question 8: Rate the lecture room in which this class was held (blackboard, seating, visibility, acoustics, lighting, temperature etc.)

- 1. The room is small and sometimes it is hard to see what's written on the blackboard, since every seat is on the same level.
- 2. Ever since we switched class rooms, there's this annoying beeping coming from somewhere that I and the students around me haven't been able to locate. Perhaps it's just in our little section of the room, but it's rather distracting.
- 3. well the room is not that great but i doubt that anyone will do anything about it. not much chalk board space and the teacher can't even use the left side because something blocks the view for the people in the back
- 4. Everything was fine, with the exception of the temperature and ventilation. On colder days, the room would correspondingly get much colder and on hotter days, the room would get rather warm. Also, there may have been some sort of issue with the ventilation because I occasionaly found myself sneezing and getting a runny nose during numerous classes; I also noticed a few other students often having similar symptoms.
- 5. The room was often very, very cold, and there is an incredibly annoying "beep" that goes off intermittently from somewhere, every day. Other students from previous lectures consistently leave the room very messy, leaving food containers and crumbs all over the place. There is also a ridiculous amount of chalk on the walls, floors and in the air, which isn't a very healthy school environment! Is the school planning on switching to whiteboards eventually?
- 6. Comfortable chairs.
- 7. We were moved once and the previous classroom was better, as it offered better visibility from any position in the room, however the second classroom was not bad for visibility except for a section on the left hand side of the board, which was blocked from view by anyone in the first 2 seats in front the wall on that side by a box that protruded from the wall. This was not that much of an issue as Bryden noticed this problem quickly and stopped using about 2 feet of blackboard from the left hand wall. While it was not a major inconvenience, it meant that the blackboard would be erased more and at a faster rate, which was disappointing when compared to our previous room which was perfect.
- 8. Burnside basement rooms are depressing. Blast a tunnel through or something, but for the love of god get me some sunlight! The chalk buildup is miserable as well. Every time the prof puts down the eraser, the poor students in the front row get showered with a mist of dinosaur remains. And the room is TOO COLD. I usually have to wear my jacket during class. I say launch the current Burnside building into outer space, because thats what it looks like from the outside, an ancient spaceship, and start over with something involving more natural light, white boards, and proper heating. Whoever decided the Burnside interior should be made completely of exposed concrete and dirty chalk encrusted bricks

must have been a freaking caveman.

- 9. good
- 10. The room was always very cold, even in summer. I always keep my coat on.
- 11. The only negative comment would be that the temperature of classroom is too cold.
- 12. A little bit too cold (cold air from vent during winter..)
- 13. bad seating Cold tempature
- 14. The visibility was good, the seating just okay (the desk are too small), but the temperature is clearly too cold.
- 15. The first classroom (Burnside 1b24) we had had terrible seats with tiny desks. The second classroom was much better.
 - 22 blank comments were skipped.

Comments for question 14: Rate the instructor's overall performance.

Instructor: Dr Bryden Cais

- 1. Truly a wonderful instructor, clear, helpful, doing everything for his students... McGill should really consider keeping him at any cost! I don't know how an instructor could be better than him.
- 2. Very approachable outside of classroom, especially through email if you can't make office hours. Clear lectures with a very clear purpose.
- 3. engaging.
- 4. well he went beyond the call of duty and made everyone feel comfortable. he always says good question when sometimes i am sure he doesn't think its a good question but makes you feel good regardless.
- 5. Professor Bryden Cais was respectful to all students and did his best to help everyone in class. He was also very social during lectures and did his best to keep things interesting by giving concrete, real-life examples with some occasional humour attachted to them. This led to a relaxed but professional class environment. He was also extremely helpful during office hours whenever I needed to see him. The only issue was that sometimes, the more abstract material in the course was jumped into a little too quickly and often tricky to understand, however, this was more of a course issue rather than an instructor issue. Overall, he was a great teacher and I would recommend him to other students.
- 6. Fantastic instructor! I wish he taught all of my math classes! Very logical and engaging. I for one appreciate the time he spends proving the theorems stated. Very helpful outside of class. One of the few math courses I've taken where I've found lecture valuable and enjoyable.
- 7. Very enthusiastic, which makes a difficult abstract subject more interesting! He was always well prepared and willing to answer questions, and his notes were very clear. The examples given in class were good, however the difficulty of similar examples on assignments was much higher, so it might be nice to occasionally do a few more complex examples in class to increase understanding.
- 8. Prof. Cais is indisputably one of the best math teachers I've had. He is always dynamic, enthusiastic and passionate about what he teaches. He is more then willing to go out of his

way to answer any question, even if it is unrelated to the course content (during office hours). He would also often come back to a student during a subsequent lecture, to reformulate an answer to a question about which he was not satisfied of the answer given.

- 9. By far the best instructor I have had in my 6 semesters at McGill (potentially with the exception of Syd Trudeau). He was always agreeable and energetic for our morning class. He not only covered the material but also liked to point out multiple methods for problem solving that could be applied, allowing for great developments in thinking about the problem and the best route to the answer. He also went to the trouble of emailing the entire class any time small errors were noticed in either online supplemental notes, class notes about theorems or changes to the assignments, which saved a lot of hassles, especially when there were typos in the assignments.
- 10. very helpful and approachable outside of class
- 11. Bryden Cais is a very passionate lecturer, which makes topics more relevant and interesting. Usually I think, if the prof doesn't seem to care about this topic, why should I? That is certainly not the case in this course. Bryden is always very passionate and gives very interesting anecdotes and examples of application about any given topic we discuss. Any question asked is answered concisely and completely until the student has no more confusion, and even if the question seems silly, Bryden is exquisitely good at justifying the importance of every question raised in class.
- 12. excellent
- 13. He is a great teacher, he always makes himself available if we need help and makes sure that we understand.
- 14. Great teacher. Comprehensive both in and out of class.
- 15. Use more concrete example, present an example to further go on with the theory otherwise we dont also see the use of such teaching. Make the class participate a little more. Make answered problem available on webct, examples taught a lot give you hint how to proceed in certain circumstances. allow notes in exam... compensated if you want in making the exam a little harder but memorizing theorem or formula is a pain in the ass and does not show what you have trully learn. In review session after class, present problem that you solve with students, do not wait for questions, reserve office hours for question not reviex session...very good teacher, great interaction with the class it makes it fun to go in class though material is a little hard to follow because of a too much theorical approach... make it concrete...give hint or presentation what these things are used to what can you do with linear algebra.. what field use it... what further research are looking for...
- 16. Always available for help outside of class time. Always responded to e-mail questions about assignments and course material very quickly. Very easy to understand and presented the material very well!
- 17. Overall, Professor Cais definitely demonstrated his great knowledge of mathematics, obviously especially of linear algebra which was reflected in his lectures and explanations. However, sometimes he tends to skip certain steps in his explanations, which one misses.
- 18. This Instructor is probably one of the best I had. He's nice, clear, explains well and knows how to get the attention of the class. Wish I could have him as a teacher again soon.
- 19. Prof. Cais gave a very comprehensive course, with a good balance of theory and examples. Giving proofs for some of the easier theorems we studied was very helpful (as a mnemonic and to satisfy interest). I enjoyed the class very much, and learned a lot.
- 20. The only negative comment that I can say is that sometimes, he skips a step in his intructions, thinking that we know how to do it, and most of the time, it's not the case.

However, if we ask him more explanation, he will take the time to give us an answer.

17 blank comments were skipped.

Comments for question 18: In comparison with other Mathematics/Statistics courses you have taken or are taking at approximately the same level, rate the interest in this course.

- 1. It's an easy course, with sometimes some tricky questions. But with some work, the course is not so hard.
- 2. I feel like having taken 133 basically over-prepared me for this course. Some things are harder/different, but I think most things are more or less the same as last semester.
- 3. I like linear algebra, what would be really cool is if more of its practical applications were covered.
- 4. The course was fairly well-structured and there were generally no problems with the course overall. My only small issue was that the course was a bit too abstract and theoretical for my liking, however, I'm assuming this is supposed to be the nature of the course and therefore, I have no major issues or problems.
- 5. Linear Algebra rocks.
- 6. There wasn't enough time given for the midterm which I believe led to lower grades overall as students were unable to review their work and correct simple mistakes they may have made. While well taught, the subject matter remains incredibly abstract, with no relation to "the real world" being made, which can be frustrating when trying to grasp the concepts.
- 7. Linear algebra is often times overshadowed by other calculus-intensive courses, even though it has much broader applications.
- 8. The structure of the material is spanned fairly well across the semester, however a lot of stuff near the end is very new and comes at us rather quickly, where as the start of the course (mostly the month of september) felt very much like a review session of 133, with a tiny bit more detail. I feel like this earlier section could be condensed a bit more to allow for the difficulties of the tail end of the course to be approached sooner and maybe a bit slower.
- 9. The course is usually criticized for the large overlap with Math 133, but I disagree. The more abstract and generalized approach to the concepts in this course are giving me a much deeper understanding, and requires a much more in depth comprehension of the crucial components of linear algebra. I am very glad certain topics were gone over again, as I was not very confident with them after last year's Math 133.
- 10. quite interesting
- 11. I personally found there was a huge overlap in course material from my previous linear algebra course (in CEGEP).
- 12. select revelant exercises in the textbook, yes they are all revelant and important and if we had infinite hours to spend on it we would do them all but since or time is not infinite there must be some that it would be more useful to focus on...
- 13. The course was a logical continuation of MATH 133, which I too last semester; I was well prepared, but there was a sufficient amount of new material to hold my interest.
- 14. I'm just not a big "fan" of matrices, and linear algebra in general. But, the course was well

constructed, so my interest was a little higher than I could expect.

23 blank comments were skipped.

Comments for question 21: Comments with respect to the INSTRUCTOR:

Instructor: Dr Bryden Cais

- 1. He's really a good instructor, and should do more lectures, because his classes are really well-made and useful for everyone. He's always keeping us interested in what he's teaching. A great career awaits him.
- 2. He does a very good job getting us interested in the subject. I would like to see my problems done in class since it is usually mostly theory, which wasn't entirely useful for the assignments and midterm.
- 3. I think Bryden is a great instructor. I didn't ask many questions in the course, but the one that I did ask I got a thorough response via email. It's pretty easy to tell that he likes the material that he's teaching us, and he cares about helping us understand and learn the material. I also think it's great that he set up a 1.5 hr tutorial every monday evening in addition to his office hours. That's rather convenient because I always have a lab during office hours, so if I have questions I can go to tutorial.
- 4. A great teacher inasmuch as a teacher's role is to keep the class interested in the material. He provides sufficient examples and managed to mix theory(theorems) with actual application(examples). Gave good answers to questions posed by the class, and mixes it up decently with esoteric anecdotes pertaining to maths/linear algebra/life in general. He always made himself available after class and was interested in having the students learn. I had occasion to email him once or twice and his responses were always excellent, even too suffused with information. Not too sure what else to say I was very happy to have Bryden Cais as my teacher and I'm sure the rest of the class was too.
- 5. i find he makes it really clear. he dumbs it down while showing the material in a rigorus manner, something i did not think possible. really works for me. he'll say a bunch of complicated stuff but then ask us if we all know how to do row operations. i love it.
- 6. As already previously stated, Professor Bryden Cais did a solid job teaching this course, giving his best effort to be an approchable and professional teacher. He always made a solid effort in ensuring that he could help all students, in class and in his office and as such, I would recommend him to other students.
- 7. Very motivated, incredible athmosphere in the class. One of the few (only?) classes at McGill I woke up a 9 AM to attend. Sometimes do stuff which will not in the exam, but is still interesting and tells us before.
- 8. Fantastic instructor! I wish he taught all of my math classes! Very logical and engaging. I for one appreciate the time he spends proving the theorems stated. Very helpful outside of class. One of the few math courses I've taken where I've found lecture valuable and enjoyable.
- 9. Very fun, very enthusiastic; great professor!
- 10. Excellent teacher!
- 11. An excellent instructor, easily approachable, energetic in a morning class environment and he corrected any errors in notes/assignments in an impressively quick manner.
- 12. Very good. Always concerned about whether or not the students we understanding his

class.

- 13. He was the best professor I've had this semester. His lectures are very clear and easy to understand.
- 14. very well prepared, presents the material in a stimulating and interesting manner, encourages students to think and ask questions, gives satisfactory answers from different perspectives, available most of time even outside his ofice hours-, holds additional QA sessions, a very smart and hardworking person in general..
- 15. I really enjoy the high energy levels of your lectures, and the transparency as well. If you make a mistake or forget something, you say so, which makes for a more comfortable atmosphere, where I am not afraid to say when I have no idea what is going on. Your answers to other people's questions regularly help me understand the concepts more clearly and are usually enjoyable to hear since you go into so much detail. Your class is early in the morning, inside a dusty, windowless room in the basement of Burnside, and yet I still look forward to it. As far as constructive criticism: work on not breaking chalk all the time, and keep up the good work.
- 16. a very good teacher. very clear, very helpful and very understanding! fun to be in his class!!!
- 17. good teacher
- 18. I liked your course veru much.
- 19. Enjoyable class, for something that is rather theoretically based. Keep up the good work.
- 20. Very interesting, keep your personality in the course it is appreciated from all. you may consider meeting with student after the midterm to evaluate how things are going... what was wrong in the midterm... what the student should review... it can give the little extra to some to put the effort needed in the course. very easy to approach whinch is appreciated. a lot of disponibilities(keep that !),
- 21. Good sense of humor. However, needs to stop assuming that everything is "easy/obvious" to see/do
- 22. Great prof!
- 23. As it was previously mentionned his knowledge of mathematics was definitely portrayed during class. His availability to us whenever we had questions was also very much appreciated, whether it was during tutorials, office hours, class or emails. Also, it was welcomed that he took the time during class to discuss other subjects of mathematics that were not being necessarily covered in the course or other general topics that might be of interest to us.
- 24. Best teacher I had yet! Keep up the good work!
- 25. Professor Cais was a very good instructor. He gave clear, straightforward lectures, has no problems with clarity of speech, volume, bad chalkboard writing etc. He made himself amply available outside of class time to answer questions, both course related and extracurricular. I can think of no suggestions for improvement.
- 26. good job, show us more slick methods, and just give quick verbal "recipes" to things we skip.
- 27. Great clarity, and helfulness. Definitely, I recommend him, and if I can in a further course, I will take him again.
 - 10 blank comments were skipped.

Comments for question 22: General comments:

- 1. MATH 223 was a good course but not particularly strenuous. After attending class I was comfortably situated so as not to have excessive difficulty on the assignments, which would usually take an afternoon. As an introductory course it was well structured, and gave enough time to reinforce ideas without having to frantically struggle to keep up.
- 2. YA. bryden cais. what a wonderful guy. giving up his mondays to make us learn (very generous office hours and does tutorials just because he cares)
- 3. None
- 4. Fewer assignments, or spread out differently in order to ensure that the subject matter was thoroughly presented before having to submit our work would make this class much, much better!
- 5. Same as 21.
- 6. The first 4 weeks of the course could be covered much faster to allow for more time with the more difficult concepts being dealt with near the end of the term, as almost all of the first 4 weeks felt more like review of the second half of 133.
- 7. the weight of the final exam is too high, it is scary.. if you give so many assignments during the semester, you better increase their weight or the weight of the midterm or put an additional midterm for that matter..
- 8. excellent
- 9. Good class atmosphere
- 10. Students from the other section always came to this classs, they much preffered Cais as a teacher.
- 11. The course was really interesting and it gave a better insight as to what specific field of study I might want to pursue in the future.
- 12. I really like to learn by examples, and Bryden Cais teaches exactly with this method, which is awesome.
- 13. None
- 14. The classroom is really cold.
 - 23 blank comments were skipped.

Comments for question 23: Suggestion(s) for the Leo Yaffe Award:

- 1. Useless award... Teachers don't need money, nor recognition. If they are good, they'll make good students, and those will remember them.
- 2. I'm not too sure what this is.
- 3. again i have no idea what this award is but sure, he can have it if he want's it.
- 4. I nominate Professor Bryden Cais for this award.
- 5. I absolutely nominate Prof. Cais for this award!
- 6. I would recommend Bryden Cais for this award.
- 7. Give it to Bryden Cais!

- 8. Bryden Cais.
- 9. I am pretty sure Bryden Cais once moon-walked from one end of the board to the other while transcribing a matrix. Enough said.
- 10. no comment
- 11. Charles Roth
- 12. I feel that Professor Cais would be a good candidate for this award. Not only does he take the time to genuinely help us, but also he encourages and makes sure that we understand the material, in order for us to succeed.
- 13. This Instructor should really be considered: he is very competent, close to his students and he's a very nice guy. He tries to help everyone and answer every question, even if he has other important stuff to do.
- 14. None
 - 23 blank comments were skipped.