Question 1: This particular course (Research Methods in Environmental Science) was taught from a different perspective, using a First Nations derived “experiential learning method”, followed by a “problem-based approach” to teaching and learning. Basically, students were first asked to walk and experience the sights, sounds, and smells of a new environment first hand, and then work on a problem of your own choosing.

Can you please comment on your reaction and experience to the experiential learning and problem-based approaches in this course? Were they an effective way of approaching research methods compared to a traditional “stand and deliver” lecture-based course?

- I believe that the experiential learning and problem-based approaches to education were incredibly beneficial to the learning process. In order to learn research methods, you have to understand and practice them. This course allowed us to do this in an environment that was completely hands-on and unlike any lecture based course. It is important to offer courses like this because students are learning real research methods, dealing with real research limitations, and develop an appreciation for the complexity that doing scientific research entails.

- At least in Environmental Science, I found the problem-based, experiential learning setting much more effective than lectures. Granted, some intro courses have no choice but to use lectures to quickly build the required foundation of basic information related to the field, but Research Methods in Env Sci could not have been a better candidate for an experiential-learning setting. It allowed for hands on integration of knowledge as you acquired it, making it more efficient and memorable. The subject, which could have been very dry, became much more interesting and engaging. Not only did the hands-on nature force you to learn, it also promoted a higher, more in-depth level of learning. Skills and knowledge were acquired, used, and received in a form that was easily and immediately transferrable to other disciplines.

- My reaction started with being a little overwhelmed due to the new environment and all of the new things to learn even if I wasn’t interested in it. However, I became interested in it even if I didn’t care because I was actually able to physically see what we were talking about. It’s important to come prepared to be overwhelmed but still knowledgeable on various things (like geomorph) as it allows the student to understand and focus better when you actually began to look at project options. I liked this experience a lot – especially for an undergrad where this type of experience is limited. I learned a lot in a short amount of time but I’ve actually retained most of it because of firsthand experience. If we had done this in a lecture I wouldn’t have remembered a thing. A+ to you!
- There is no contest between a problem-based and lecture-based course – the problem-based course is superior in every way. To really get material I must be wholeheartedly interested and immersed within it. Jasper was an unbelievable course, and I think that the amount that was learned was much greater in one week, than what is normally covered in a full-semester course.

I think that so much was learned for a number of reasons. The first is that many of the students were in third and fourth year; we have a very wide knowledge base of the geomorphological processes that we were witnessing in the flesh in Jasper. That being said, I think that if a course of this stature would benefit any level. Second, being completely immersed within the projects that were being researched was fantastic. Because the course was run outside of the normal semester timeframe, it allowed us to come home after a long day of hiking and talk about what we learned and how we wanted to structure our projects. This is something that I do not believe would have happened if it were run during the semester.

- I found the methods used for this course to be extremely effective at teaching and allowed students to learning their own way while still staying ‘on track’ in an academic sense. Having the opportunity to experience the environment before choosing a project allowed me to really explore options and take advantage of the instructor’s knowledge. In a traditional environment, I would have only been focused on my project and that mindset would have detracted from the experience and reduced the amount of material I took away from the course.

- This course was my first experience with an “experiential learning” course at the university level and I found it to be as enriching an experience as I had anticipated. Having spoken to previous students in this course, I knew many considered it the highlight of their undergraduate experience and it did not disappoint. The problem-based approach used in this course was particularly effective for developing research skills, since the most basic tenet of research is often finding problem and trying to solve it.

- I very much enjoyed the experiential learning style of the course, and think there should be more courses of this nature taught at universities across Canada, especially at the undergraduate level. It gives students the chance to experience what they are learning and by doing so, engage in the course material at a much deeper level. In the discipline of geography, especially physical geography and environmental science, it should be much more emphasized that students must conduct research in the field in order to gain a realistic, well-rounded view of what they are studying.

    One of the extremely valuable characteristics of this field course, and others of this nature is the ability to work and learn in a group setting. Traditional courses, with lectures, papers, and tests, require the student to absorb vast amounts of information and reflect this knowledge in a very independent fashion. While there is value in independent learning, there too are many benefits of learning in a group setting, especially when the classroom is in the field. For example, being in Jasper for a week, it was easier and
more enjoyable to understand and absorb the concepts we were learning, because we were living the “Jasper experience”. During the day, while hiking, and at night around the campfire, we were able to discuss the sights and ideas that we had generated— the new information we learned was injected directly into our daily discourse, instead of being stored away only to come out again during the midterm or final exam evaluation. The power of discussion and everyday-applicability is an extremely valuable method of teaching, in my opinion.

- I found the experiential learning to be the most powerful kind of learning experience. I couldn’t learn enough, always asking questions that I wouldn’t normally ask in class because I wouldn’t know what or how to ask it, but seeing and connecting what I know made me think in a whole different way. I had never been offered an experiential learning opportunity before so I didn’t know what to expect, all I knew was the traditional stand and deliver lecture-based courses. I know for sure that after the week in the field I know more than I would have sitting in a classroom. I experienced more and was able to grasp the concept from looking at it, climbing it, and using all of our senses.

- I have never been exposed to the experiential learning like the course work in GENS 3401. When we were first exploring the park and experiencing what it had to offer, I found that myself and my classmates were all paying a lot of attention to our surrounding and constantly searching for questions to ask about our new environment. Since we were not given a specific subject to work on, we were forced to be creative and innovative and really pay attention to our surrounding to see what kind of projects we could derive from our environment. The experimental learning was a refreshing change to traditional teaching methods. An outdoor field course was a perfect setting in which to deliver this experimental learning experience.

- Overall I enjoyed the teaching methods applied to this course. The first-hand experiences I had helped a lot in reinforcing topics introduced from previous years/classes. If I could change anything about my week in Jasper, I would pick a topic a day sooner and switch one day of touring into a period of data collection for my project. I felt as though my first day of sampling was a warm-up period; I was still attempting to grasp my topic and understand the importance/use of what I was sampling. With another day of sampling, my group probably would have had gathered more pertinent information for our study, a larger sample set, and a collectively better understanding of what project we were approaching.

**Question 2:** This particular course was set to be delivered over a different time schedule than the traditional fall session course periods at MTA. I deliberately created an intensive, delivery schedule (Tuesday to Sunday with travel days on either end) requiring your entire day to attend and live within the classes, for the “lecture” portion of the schedule, followed by a long period of time to finish your projects once back at MTA.

**Can you please comment on this course delivery style, in terms of the intensive, one-week period, with the remaining period to complete course assignments?**
The deliver style was great. It was informative and information was readily acquired and available both in Jasper and when we got back to Sackville. During the one week period, Dr. Laroque acted as our “textbook” answering questions as we crawled over landforms and delivering mini lectures as we hiked around the park. Delivery was consistent and the students were always learning something. This was a breath of fresh air (literally) as the topics were not monotonous or hard to understand, since we were right their living it. Upon our return, the structure of our own syllabus allowed us to structure the class around our own schedules which allowed for better work to be produced in the end.

A one week intensive period would have been insufficient by itself in my opinion, but the remaining regular-term period to complete course assignments perfects this course style. The immersive nature of the 1-week period is great for being engaging, awakening curiosity and deep thought about the problems, while the remaining time is perfect to let everything sink in, and cement what was learned through completing assignments (guided, as needed).

This is one of the few courses that can be taught intensively. I would have loved to stay longer and learn more. If you live in/near this environment it’s important to utilize it as much as possible. This type of learning is how people should learn. There was a very long time to finish our project but learning also took place during this time. I think having more regular check-ins with the class/different groups would have been a very good addition to keep us on track much better and allow for better group collaboration.

As stated above, I believe that the amount of knowledge obtained was greater in that week than in the normal semester style lecture. Being able to explain a process with YouTube videos is one thing, but being able to explain how moulins form while your professor stabilizes you to look into the moulin is on a whole other level. This will not only explain the process, but you will have witnessed it in the flesh which will stick with you for the rest of your life. Having a story such as that will allow you to teach friends and family about moulins and their formation, all while telling such a cool story.

The intensive aspect of the course keep students focused while in the field and formed bonds within the research groups. These bonds became extremely important to finishing the project once back in Sackville as everyone has made a commitment to each other about finishing the projects. The single large project really helps students get a grasp for what research is and how difficult it can be. It also adds connectivity in everything we did as it was the same project from start to finish; this is often absent from other courses and takes away for the experience.

The intensive week is essential for students to be immersed in the fieldwork and the style of the course allows students to gain practical skills as well as information without feeling overwhelmed. I feel this works particularly well with upper-year students because they are already familiar with major landforms, geological processes etc. and then have the chance to physically visit these areas.
The rest of the semester is left to complete projects and gather feedback which is important and gives the groups enough time to coordinate workloads.

- I think the one-week intensive style was very effective for the course material. As I previously mentioned, in physical geography is it much easier to grasp the material when you are able to physically experience it. I also think it is easier to concentrate on a subject when it is condensed into a one-week format, as you do not have to focus on completing/working on 4 other courses at the same time.

- I personally loved this idea, it allowed us to focus on one thing and one thing only the entire week. From my perspective there was no intensive part of the class. The days were long but never felt that way because we were always on the move and learning along the way. I never felt like I was having course material shoved down my throat, because it came naturally as we were interacting with nature. Once back at school there was plenty of time to work on our projects along with the other courses. There was lots of guidance and help learning how to work and use new machines and programs that we would have never been exposed to had we not taken this course.

- I think I would have appreciated a day of introductory classes before actually going out into the park. Just a class to give some background knowledge on what the park’s environment is made up of, connecting it to geomorph or weather & climate classes, that sort of thing. The intense, one week field course still provided an apt amount of time for us to discuss our ideas with each other and learn a lot about the environment.

- I loved the intensive week of travelling/sampling. It gave me a good understanding/appreciation for the logistics of sampling and researching distant places and it forced me to learn fast. I liked the remaining period of the course a bit less. This might be a personal issue, but I had some difficulty with time-management and related group-work issues. I think if we were given deadlines for data processing, as well as some kind of handbook/notes for the methods we would use (COFECHA), this part of the course would have gone more smoothly.

Question 3: Some might argue that introducing the entire range of research methods in one week (36–48 hours) is too much to grasp for students. Included in the course were a number of different methods of delivery: pre-reading lists, lectures, field experiences, mentor guidance, meetings with individuals in the field who talked or worked with the class, fireside chats, etc.

Can you please comment on the range of methods used in the course? Did it meet the objectives of teaching you research methods? Can you comment on the timing and the subject matter presented in the course?

- Having a range of methodology for teaching was amazing and I believe everyone thought it was one of the great benefits of the class. Although it was a short time scale, I believe we all understood research methods. The timing was condensed but offered a
learning style that suited people who signed up for the course, advantaging all those involved.

- As with any other subject, “introducing the entire range” of anything is too much to grasp for anyone, regardless of time frame. It takes many lifetimes to truly become a master of a topic. The first intensive week is merely a sample, a demonstration of what the field has to offer and what tools one has at their disposal. Then, the rest of time exists allows you to delve deeper into a problem, and select and learn about the tools and methods you can use to approach and solve it. For me, this method and order of teaching suited me admirably. The pre-reading, lectures, previous courses, field experiences and instructor guidance fit in nicely in the overall course delivery to guide me through the course, and achieve course objectives.

- The range of methods were all brought to our attention and most learnt, the less significant ones (pre-readings, other peoples projects) were not remembered as much. This is to be expected though since we didn’t focused on it entirely – maybe if we had a night where the class got together and explain EVERYTHING (and I mean the tiniest of details to) they did I would have a better understanding for other research methods which can be used that I didn’t learn from my own project. Regardless I did learn Environmental Science research methods that were presented to us.

   I don’t have a problem with the timing of this course and the material present, I was prepared for it to be the way it turned out to be. However, I would have liked to learn other research methods that weren’t studied by the students because I see undergrad as a broad overview of everything under the sun that you have decided to learn about.

- Since there was only a handful of course to collect the data for the group projects, we made sure that we had a (nearly) foolproof way in which to obtain our data. Most of the sites were 1.5 hour drives away, with at least an hour’s hike into the sampling sites so we had to make sure that our methods were thought through very carefully. Since Colin and Jay were staying with us, they were available 24 hours a day to answer any of our questions, and to help us refine the methodologies. When it came time to obtain our data, we had probably spent as much time thinking about sampling than what would normally be covered in an entire semester’s lab component of a similar class.

   As stated above, most sites were quite far away from our home bases. With that being said, we could not depend on the elements to decide if we would sample or not. This is something that happens a lot in lecture-lab classes; if it’s drizzling or if it’s too cold the data will be altered in some way so that you don’t have to face the storm. This was not possible in Jasper, and I am wholeheartedly happy that this was the case. Being required to do the work regardless of the weather is how it is in real life – many of us will go on to be field scientists, and so this was invaluable preparation for the real world.

- The prior readings allowed us to understand that a multitude of methods exists for research, so many that even in a conventional class they could never all be covered. This initial exposure acts to get students thinking about what ‘research’ is and what they may like to do. Once in the field students get to see the environment the read about, while they
are not explicitly discussed during the field component, students still get an idea of how each paper would have been conducted.

Between my own project and assisting in other projects, I feel I have a good idea of how research needs to be conducted and what components need to be focused on to make a successful project. Overall, I found this course to be extremely successful in showing and allowing exploration of various research methods.

Subject matter had a great flow, starting with seeing introductory “physical environment” content in the real world allows students to refocus and get their head back into academics. Moving from this into the actual research component keeps students focused, engaged and more importantly eager to increase their knowledge basis.

- I think that the range of methods used in the course were broad enough to be educational without becoming overwhelming for students. This course was the first occasion many students were able to complete field work and the course was an effective means of not only introducing various research methods, but also allowing students to implement them.

- I found it somewhat difficult to grasp how to do firsthand scientific research, but Colin was more than available to assist us in any way possible while we did this, both in Jasper and post-trip. It might have been useful for us to have some background info on various research methods before embarking on the trip - that being said, any previous methods would have had to be altered and tailored to the unique circumstances of each group. Because of the extremely small class size, there was lots of opportunity for one-on-one learning time with the instructor, and through his guidance and that of the other mentors on the trip it was easy for us to gain more understanding how to conduct our research.

- The range of methods was simple, not everyone learns the same way so why teach in the same way. The different methods allowed the people who excel in each method to learn primary from that then have additional information from the other ranges. The timing was great and it was great to start classes up in a positive, stress-free environment and summer jobs had terminated so you weren’t struggling to get time off work to attend the class. The subject matter presented in the class was awesome it was based around our interests and what we wanted to learn. Everyday was fun new adventure.

- I did not feel like the pre-reading lists really prepared me. I was very nervous going into the course that I would not be prepared so I read a lot of the material that was on the list and in the end, don’t think I really benefitted from it. Instead, I think it would be more valuable to have one day in a classroom to brief students on the park, what it has to offer, the environments we will be visiting, and different project ideas to get us thinking. Talking about this stuff and showing videos and pictures in a class would be more beneficial than giving us a pre-reading list. The other methods of delivery were really useful though.

- This part was excellently done. Especially the beer/fireside chats.
Question 4: You were provided a range of readings before the class even started, and related course material during the field week.

Can you please comment on the course materials presented? Did this approach work well, given the problem-based approach? When did you actually complete the readings (before the course/during/after/never?) Would there have been a more effective way of transmitting the knowledge contained within these materials?

- This pre-reading was a great way to ease myself into the course, and allowed for an introduction into the kinds of methods that we were going to focus on in the course. I read the majority of the readings before the trip and this was a good way to convey this message. Perhaps if a couple reminder emails accompanied the readings more students would have taken part.

- Pre-course readings were nice given the selected approach as it gave a glimpse of what was to come. Reading them before the intensive week meant that I knew what to expect, and had ideas and questions to explore in the field. In all, they were a good prep to the course. While there might be more effective ways of presenting the course materials, I think that scientific papers, an established, efficient way of presented research was fine, especially as this is an upper-level course.

- Readings were great but until you come back home you don’t understand how important they were. I completed the readings before leaving but I did not read them well enough to apply it in the field. The approach you took did work well as we are supposed to know everything in them before beginning the class. There is probably a better way to transmit the readings but I have no idea what other way other than to make sure we actually read them well and perhaps twice or 10 times. Maybe get us to write an assignment/reflection on them before beginning the course??

- I did some of the readings, mostly on the airplane going to Jasper and on layovers. I think that it would be more beneficial to assign students 1-2 different readings each and then make us discuss them over airport lunches. Since many people were new to each other, this could be a good way to get to know people.

- I felt the materials were useful and helped expose students to the environment in which they would study. They worked well with the problem based approach as they got the student thinking about what they would like to do before starting the course. I completed approx. 75% prior to the course, mainly those of interest to me, however I think this is the most effective way to transmit the knowledge as its important to understand how to read primary research. Moving forward, I would recommend having students provide a brief summary of each reading before leaving on the trip.

- The course materials presented gave a good background of some major studies conducted in the region and were often essential primary literature for the student projects.
I completed the readings before the class began and I found it helpful after the field portion to relate the relevant readings to the project I worked on. I don’t know if there is a more effective way of transmitting these materials because it places the onus on the individual students to complete the readings in their own time. Ideally the students participating in this type of course are motivated or interested enough in the material to want to complete the readings without any additional prompts or deadlines.

- I did the readings before the trip, but I found they weren’t really useful until we were writing the final paper later on. During the trip, a few of the readings came to mind but generally, I found reading them before the trip to be a waste of time. Throughout the week I was able to make many more references to previous physical geography courses-the intro course and geomorphology- than the readings, and I wish I had looked over the course materials before going. A refresher of the info I learned in these courses (info on glaciers, etc.) would have been helpful prior to the trip, whether this was through a “course pack”/slideshow, or a few hours of casual lecture. It was helpful, however, to have a bank of articles to draw from when and if we needed them, especially after the trip when we were completing our own projects.

- The course material presented was great, I thought the approach worked well for me. I learnt what I could from the reading, was able to ask the questions and then experience it. It doesn’t get much better than that. I completed the readings before the course began. I don’t think there could have been a better way of transmitting the knowledge any better.

- I did complete the readings before the course, and I remember that they didn’t really help me all that much as far as what work I completed in Jasper. The readings I did that were suggested to me regarding my group’s specific project were really, really helpful though. Maybe make sure there is a bit of time set aside to read a few academic papers directly related to student’s projects once they figure out exactly what their project is (after the first few days).

- Yeah, I never read the papers until we began writing our report. It was difficult to read primary literature like that without a directly-related assignment – they were clearly relevant, but it was hard to complete the readings before knowing our personal projects. I think a simple power point about the basics of dendrochronology, lichenology and other disciplines approached in this class would have been better for first learning about what skills we could be using.

**Question 5:** Can you please comment on the course instructor.

**Were classes and related materials well organized? Was the teaching style and various formats (discussion, field based instruction, powerpoint, individual attention and assistance, aggressive e-mails the day before the final presentation day, etc.) effective for your needs?** Feel free to make any comments you would like on the style and delivery of the course materials and the teaching and learning environment created in the class. Make sure to think through the entire course,
from March consultations, to April applications, through summer briefings, to the end of the course in December.

- Dr. Laroque was the most supportive, honest, and helpful professor and was the best person to complete this class under. He was sincere and understanding while also being firm which provide a great balance that motivated me to work on my project through the semester. The only thing I would change is to have weekly meetings set up from the start so that all groups are kept up to date throughout the semester.

- Yes and yes. Pre-course consultations and materials helped in drumming up interest, and preparation for the intensive week. Within the intensive week, it was just an immersive experience where you lived, breathed, and slept with the subject. The flexibility and expertise of the instructor was very useful in the field. And the continuous guidance post-intensive-week was valuable to the continued learning of additional course material.

- Everything was well organized although I suggest making applicants take a fitness test/beep test some point before leaving, this course is very different and if someone has a lot of trouble with physical activity the jasper part would just be really shitty/they might feel really shitty. I honestly had the greatest experience with this class and very few negative comments but here is the short list:
  - Wait for everyone to be around before you began to talk/teach about things
  - Actually e-mail us on the day you said you would when you are picking the applicants.
  - More regular meetings with you (like once a month to keep us on track and see what groups are doing)
  - These questions are kinda long...

- Colin is absolutely fantastic – he is the most patient person and will either grill on your surpassed deadline or be tolerant towards the many mistakes in said late paper. Although a busy guy, he would always be available to meet and relieve any pre-conference anxiety no matter if it was late at night or during his only free half-hour of the day. Jay doesn’t get enough credit, but he was the exact same way and an integral part of the functionality of the class!

  Colin provided the students with numerous materials prior to the course, and once our projects were chosen he provided even more.

  During the initial consultations, Colin initiated the notion that this class was able to have the format of a mini-Master’s program which would introduce the students to what it was like, in a very condensed format, to do a Master’s program. Since many of us will be graduating this coming May and thinking of applying to such programs it was great experience to have. Colin took it as seriously as we wanted him to – if during one of our meetings we expressed an interest in doing a mini-Master’s program, he treated us as such and went that extra mile. If we wanted to have this as a regular fifth class and not do as much work, he was fine with that too.
I have nothing negative to say, Colin was an amazing instructor and advisor thought. He made every effort to answer questions and if he didn’t know he made sure to find out.

The course materials were clearly organized and, even more importantly the layout and expectations for the course were explicitly stated in the spring before the course began. Every student was aware what the basic outline of the course would be and what work would be expected of them. During the week it was easy for students to direct the class and learn more about subjects that were of interest to them. The class environment was casual and helped students feel at ease when seeking assistance. Feedback during the semester of the written report and presentations provided necessary constructive criticism. While the teaching style and entire class format was very different typical university courses, it gave students an invaluable experience, not only with experiential learning but also working closely with other students and professors.

As I mentioned before, I would have liked to have some review of previous related material previous to the Jasper hikes, but this is the only recommendation I can think of. Colin’s teaching style and delivery was great in the classroom setting - but in the field it was vamped up to a new level of excellence.

The classes and materials were well organized easy to access and understandable. I found the teaching style to be very effective for my learning style. Learning from a hands on perspective and being able to do each step of the process from choosing a topic of study, collecting data, bring it back analyzing it, coming up with different ways to analyze it when things don’t work out (like in the real world), presenting our research at a conference, and then tying it all together with a paper with the possibility that it could be published. NO other class comes close to providing all these lessons and experiences. The environment of the class was awesome, because people in a class wanted to be there and learn not because they had to complete the course for the grade or the credit. We all had a common reason, a desire and a will to learn in a way that hasn’t been offered to us either than the previous years that this course was offered. If all of my classes could be on a glacier or a mountainside I would think I was living the dream but till then im sitting in a class in front of a projector screen learning the “traditional way”.

I did really appreciate the various formats of teaching, more facilitation of discussion in Jasper would have been nice. I guess I would have liked to learn about other people’s projects as they were completely their field work… I know it wouldn’t be possible for everyone but it would be cool if we could all contribute to the field work of each project and everyone help out (like maybe have one day devoted to each group…learn about what their project is in the morning and do field work with them in the afternoon….

I have no complaints.

Question 6: Can you please reflect on the course evaluation structure (problem-based cases, user defined course outline, conference work, targeted efforts to eliminate the worry about marks, and final written assignment and presentation).
In particular, did you find the in-depth study of an individual problem to be a useful, informative, and reasonable amount of work to achieve your learning goals? Did you find that the instructor was available to answer any questions or issues you encountered after the one-week field period had finished?

- In depth study of a specific problem was the most interesting aspect of this course. Never before had I focused on one single topic as much as this course, and it really gave me an idea what research is like. It was a very reasonable amount of work and without the worry of marks throughout the class I was able to focus on my specific issue and work through it out of my own interest rather than being told to learn something and receive a grade for it. Overall, a great experience. Dr. Laroque was always available after the class for assistance.

- Yes it was very useful, informative and getting to present it at a conference was simply awesome! The work load is fair if you have all group members putting in a fair effort. Yes the instructor was available after the one-week field course to answer questions and e-mail is always available – It’s up to us to begin asking if we need it. Most times it was easier to talk to Jay about issues but that’s just because he was always in the lab.

- The in-depth study was fantastic! Prior to going to Jasper, I had no idea that lichens could be used to gain historical data. Doing literature reviews for our paper introduced me to things far beyond lichenometry and rock glaciers; I learned about climate change and its influence on many different ecosystems, vegetation types, and the implications on these areas that I had never before thought about.

This was my first time presenting at a conference, and as an undergraduate student it was really neat. Although the ACAG was small, it was very intimate. After presenting, professors from other universities across Atlantic Canada wanted to know more about the field course, and that led to networking for potential Master’s positions, or jobs that may come up. I also really enjoyed presenting to my peers at the end of the semester and think that’s something that should continue to happen when this course continues.

The majority of the members in my group wished to have this as a mini-Master’s program, and so it carried a heavier load of work than a typical class. However, the load was not one that you want to procrastinate; because you got to know your professor so well, you didn’t want to disappoint them with late papers and you also were very interested in your topic so the papers were much more fun to write.

- The approach could not have been better; I took way more away from this course then any prior. Colin was always available, more so than other professors offering traditional courses.

- I found the study of an individual problem was useful and a reasonable amount of work to achieve my learning goals. I believe that the real benefit of this course was the opportunity to apply research methods by focusing on a particular problem. While
everyone in the course was familiar with all the projects I think it was very important for everyone to have a specific subject to immerse themselves in. The instructor was able to resolve all the issues we encountered after the field period or was able to direct to the appropriate resource so we could solve the problem ourselves. Field work is never flawless and we learned how to attempt to solve these issues.

- The instructor was more than available to answer any questions we had after the field week portion of the course. Moreover, he encouraged our groups to go to him for consultation at various points throughout our research and writing time, which was good because it kept us on track during independent work time. Studying one topic in-depth over the course of several months was difficult but interesting and very useful. The conference was very useful because it broke up the semester and forced us to get our ideas together relatively early on, so we didn’t leave everything to the very last minute. I appreciate that we were able to construct our own personal syllabi, and I wish more professors did this. It showed that the instructor respected our individual preferences and trusted us enough to give us the reigns on our course. Though we had a lot of independence, he was a great backbone throughout the course of five months.

- I found the work load to be reasonable as I was able to achieve my learning goals and beyond what I thought I could learn in a week. Colin and Jay were available to answer questions all the time. They were was easy to get a hold of when something wasn’t working or when we needed to refocus and needed further guidance, if one was busy the other was able to help us out. You never had to worry about getting help.

- Yes, I did find that studying one problem really deeply was cool. Usually in classes we do a rough evaluation of a bunch of stuff, so it was nice to kind of gain some expertise in one specific area. That being said, it would be nice to have a bit more peer learning, and help out classmates when they are doing their field work. Colin was always readily available to help out if we had questions after the one-week field course. Also, encouraging us to go to the conference to present was a really great experience. It made us get our work done in the middle of the term instead of leaving it until the end. As well, it was helpful for us to understand the material we were studying when we were forced to explain it to other people.

- Colin was very approachable and available, and the evaluation structure was more than fair. Again, no complaints.

**Question 7:** Finally, can you please think about this course, in terms of scheduling and style of instruction, and comment on your overall evaluation, in comparison to your other course experiences at Mount Allison. In particular, I am interested in knowing if this is an effective method for instruction and learning, rather than the traditional 3 hour-per-week lecture-based courses, where students take five courses at a time. There are some people considering blocks as alternative styles of teaching in the future, including such things as block schedules, where students take a full week course in September or January or the March break or the Spring. Other methods may include a series of 3 week-ends, 2-week field courses to other locations, etc.
If you have no further comments on this, please feel free to make any comments, suggestions or improvements that you care to add about the course in this section…

- I believe that this type of course requires attention from university administrations. It is a great way to learn about research methods and should not be disregarded since it does not fit into the “norm” of typical university classes. I have taken more out of this class than any other before it and I believe I will continue to benefit from this throughout my academic career.

- For this course in particular I think this format should be the only way of going about it. Data Analysis was done as a lecture, which is good, but for research methods, now it is no longer about setting a foundation of basic knowledge and tools. Now it is about application, and the experiential, intensive, problem-based approach is unequaled for this.

Block courses are good too, but care needs to be taken so that adequate time exists for further in-depth exploration of the subject matter, and time for the student to let new knowledge “settle” in their minds, and apply them to the course in question, as well as other courses.

- There is no other way to do this course than the way it was done (for MTA). Compared to other classes at Mount Allison I definitely learned a lot from it and gained valuable work/field work experience. However, when considering doing block classes you must consider if that class can be taught in a block, this one can but many cannot or they aren’t fixed to be taught in a block style. Example: You should not teach this class and only give a few weeks to finish the actual project or teach math in a block style. If you wanted to spend multiple weekends at another nearby park in NB/NS than that would be cool to but the experience gained from the course would be very different and I personally don’t see a point to going back multiple times unless you need more samples or to gain more experience. Really, a week was probably enough.

Compared to Mount Allison there is times I felt that I have learned less in this class but that is because this course was project focused and as an undergrad it’s just something you aren’t use to at MTA. But by doing this I get a sneak peak of what doing my masters might be like or the rest of my work life, it provides much more life/actual work experience than any other course I’ve taken at mount Allison.

- I think that it would be best to be taught in blocks (I, myself, would really benefit from something as such). A semester comprising of 3-ish classes of this style would be unbelievable! However, if blocks are not an option I would recommend it being offered prior to a semester (ie. August or January), or following the end of a semester (ie. December or April/May). I think that students will get caught up with other work if it were offered during a Spring Break and not be able to devote the necessary time to get everything out of the class that was possible.

It would be really neat to have access to a laboratory/Palisades type place and
analyze the data in the attached lab. This could be a 2-3 week course, with only the final paper to be completed once the course was finished.

I don’t think that it could have been better if you tried!

- This course is far superior to the traditional course style. It allows students to conduct original research and present their findings. Having experienced a ‘block style’ semester prior to this course, I can say that this style and type of course would mend perfectly with an intensive block style education. I feel courses such as this should be the direction education moves. My personal experiences have proven to me that course styles such as this are a more effective way to learn.

- I think this type of course is effective for experiential learning courses and research-based topics. However I’m not certain how effective an entire block course schedule would be for student retention with subjects that do not have an active field component. I think a full week provides a more immersive experience for students that a series of separate weekends.

- I think block courses and field courses should be available at every university. It is an alternative style of learning but it is effective for many students, and so it should be offered as a template for one’s university experience. Smaller field trips to closer locations, for a week or a weekend, could be easily introduced to a more traditional class structure, or a longer field trip of 2 weeks could also be useful for a learning tool. Four years of approximately 10 traditional, lecture-style courses results in an over-saturation of information. Being in the field, doing hands-on experiments and learning is a style of learning that should be widely incorporated into the Canadian university system, especially in the field of geography and applied sciences.

- This course has been by far the best learning experience I have received through all my education. No other course offered at Mount Allison in the geography department comes close to this course. Yes this is an effective method for instructing and learning. I have never been enrolled in a class and wish that it wouldn’t end, until I took this course. Before taking Research Methods in Environmental Science I was still wondering if I was studying the right thing for me. After returning from the week out west and being able to see results from something we studied, collected data on, analyzed and presented. I am now certain that I am studying something that I enjoy and am passionate about. I hope that this course can be continued with the expertise of Colin and grasshopper Jay. Allowing other students to see the sexy features and experience what a geography classroom should look like. Thanks for everything guys.

- For a field course like this, one week intensive method is a much better schedule than regular, 3 hour per week classes. I would have appreciated a day of introductory prep stuff though (which wouldn’t have to be done in Jasper…could be done at the university, even months before we leave, just to get students prepared and thinking so they can get the most out of the course once they arrive in Jasper).
I thought this course compared really well to traditional learning experiences. Of course, the first week blew traditional courses out of the water – it was amazing to experience first-hand natural phenomena we have only read about. I think a tiny bit more structure in the latter part of the course would help; it was easy to put our projects on the back-burner with no classes and assignments. Maybe a scheduled group/professor meeting every week or something like that would mitigate such issues and force us to keep thinking ahead.

Thank you so much, Colin.