For the physical geography student, field courses provide a valuable and often all too infrequent opportunity to apply the theoretical concepts learned in a static classroom to the dynamic natural environment, where observations often do not fit neatly into defined theoretical categories. They also facilitate the development and utilization of problem-solving skills to quickly address unexpected situations which are bound to occur in the field.

This year, thirty physical geography students, ranging from minors to specialists, spent one of their final weeks of summer engaged in the GGR 390 Field Methods course, designed to introduce undergraduate students to methods of field research and surveying through a direct hands-on approach: after learning basic instrumentation, students were able to conduct research themselves on a topic of their choice, and also made daily measurements of local weather conditions, water quality and stream discharge. The course this year was run by Prof. Jing Chen, Prof. Jane Liu, and teaching assistants Anna Megens and Pamela Telford, and supervised by Prof. Joe Desloges, who took time off from his sabbatical to attend.

The course began with an early start and seven-hour drive to the site, most of it spent sleeping and observing the changing terrain, shifting from the flat plains of southeast Ontario to the rolling Monteregian hills of southeastern Quebec, many of which are actually volcanic intrusions which never broke the surface. Our location this year (and for many years prior), was Sutton, Quebec, a small town with a commanding view of the Green Mountains, a local chain of the Appalachians. Our host, Le Montagnard Hotel and Condos, welcomed us with a delicious dinner, a trend continued throughout the rest of our stay. Our luxurious base camp also included a pool, jacuzzi, and badminton and volleyball nets for relaxing after a tough day of hiking and field work (yes, some intense matches between students and instructors took place). After introductions it was time for bed; we had a busy day ahead of us.

Our grogginess was quickly dispelled the next morning by a delicious breakfast and plenty of coffee before heading out to learn how to use a large variety of monitoring equipment, ranging from the automatic “HOBO” weather station to the acoustic doppler velocimeter, which measures water velocity. The afternoon was spent on a short road trip around the Sutton region, exploring the underlying geology of the Appalachian region, learning about the cultural significance of the area as well as how to estimate the stream discharge of a river (specifically the Missisquoi River), without any equipment.

On the second day we finally headed up Mont Sutton, to a summit called Mount Roundtop, above 900 metres in elevation. The hike, though strenuous at times, rewarded us with a breathtaking view (once the ever present fog finally cleared). After stopping at picturesque Lac Spruce for lunch, we spent the afternoon learning instrument use and techniques for surveying, soil sampling and analysis, as well as vegetation and biomass sampling, techniques which would be incorporated into many of our chosen projects. That evening, students formed groups and selected their topics. Many chose to examine how variables such as vegetation diversity and biomass shifted along an elevational gradient, while others examined paleo-flood reconstruction, step-pool reaches along a local branch of the Sutton River, and soil changes along a topographic sequence. Students spent the next three days conducting research on their chosen site, some hiking most of the way up the mountain to reach their site each day. It was fascinating to see the concepts learned in class being confirmed right before our eyes, and, in some instances, needing to come up with our own theories as to why something was being observed by synthesizing many different concepts. The trip concluded with a last, incredible meal at Le Montagnard, followed by an evening at Sutton’s local brewery enjoying local craft beers.

The experience and knowledge we gained in a single week was remarkable, and evidence that hands-on learning truly helps solidify the concepts learned in class. Being immersed in the situations one normally only reads about allowed us to synthesize our past knowledge with newly acquired skills in order to tackle a huge task such as the research projects we conducted at Sutton.

A huge thank you goes out to the team of professors and teaching assistants, who taught us (and continue to teach as we write our project reports) invaluable research skills we will be able to use throughout our careers, patiently answered our endless supply of questions, and helped us create memories we will hold for a lifetime.