Dr. Jijun Gao
Department: Business Administration
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Description of research:
Dr. Gao’s research has been focused on the theories of organizations and strategy that involve issues of social expectations and ecological concerns. In particular, he examines the issues of corporate social responsibility (CSR) and business sustainability, trying to help business manage social/environmental issues better and understand the implications of these issues on strategy formulation, firm performance, and public policy-making. With support of a federal research grant, Dr. Gao recently investigates innovations and associated controversies in the global food industry.

Dr. Sara Hajmohammad and Dr. Bruno Silvestre
Department: Supply Chain Management
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Description of research:
Firms’ produced goods/services and their internal and supply chain operations may impose benefits and costs on unrelated parties who did not choose to incur those costs/benefits and had no direct relevance to the production/service delivery processes. These costs/benefits can arise either during the production or the consumption of a good/service. For example, manufacturing activities that cause air pollution impose health and clean-up costs on the whole society, whereas a company providing first aid classes for employees to increase their on-the-job safety, may actually help saving lives outside the factory.

This research project aims to measure and compare the social and ecological externalities associated with a typical product(s) (e.g., a smartphone, a Big Mac, an automobile, etc.) and a similar product(s) offered by a sustainable organization. The student will collaborate with our research team in the following activities: 1- Identify which product(s) to be analyzed. 2- Review the related literatures (e.g., product life cycle, social and environmental audits, sustainability, etc.) to develop a plan regarding how to measure the externalities. 3- Map the supply chain(s) of the selected product(s) using the SCM Module of the Bloomberg Professional. 4- Develop a data base for the measured externalities; ensuring transparency of the assumptions used for the various measures. 5- Identify a business using sustainable practices to offer similar product(s) and repeat steps 3 and 4. 6- Compare the results for sustainable vs. unsustainable products. 7- Participate in writing a scholarly paper, research report, or teaching case based on the findings.
Dr. Bruno Dyck
Department: Business Administration
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Description of research:
This position will be of interest to students interested in helping to create a list of sustainable businesses in Winnipeg, and in collecting data to develop a richer understanding of the sustainable business practices of these firms. In particular, the student could be involved in one or more of the following:

1. Help to identify local organizations that operate according to management practices and principles consistent with Social and Ecological Thought (SET) management. SET firms place social and/or ecological well-being ahead of maximizing financial well-being. It is expected that most of these organizations would be operating in Manitoba, and the research could focus on Indigenous organizations if the student/situation is amenable to that;
2. Arrange, undertake, record, and transcribe interviews with managers in a subset of the organizations identified on the list;
3. Help to develop and distribute survey questionnaires to organizations on the list;
4. Help to analyse survey and/or interview data;
5. Participate in writing reports and/or papers.

The student would work with Bruno Dyck (and possibly other faculty members).

Dr. Yuvraj Gajpal
Department: Supply Chain Management
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Description of research: The proposed research will be based on the problem from Management Science. There are different quantitative models taught in “MSCI 2150: Introduction to Management Science”. The proposed research will consider the similar model taught in MSCI 2150. The proposed research work will develop a solution methods for such models. My research involves mainly two mathematical models called Vehicle Routing Problem and Machine Scheduling Problem. The example of one such model can be seen in the household garbage collection in the city. The vehicle from municipality is assigned to collect the garbage from different household. We would like to design the route of vehicles to minimize the total distances travelled by vehicle.

Students working in this project need to either work on hypothetical situations arising in the Winnipeg for collected household garbage in the city. Students will work on developing algorithms to find the best route for garbage collection system. The proposed algorithm will be implemented in either MATLAB program or in programming language C or C++. Thus the knowledge of MATLAB or C or C++ is a required skill for the proposed research. You can contact me if you need more information about the proposed research.
Description of the Research: Board of directors and executive officers are responsible for overseeing corporate operations and governance. Due to the public exposure, corporate directors and officers (D&Os) face a variety of risks that can often result in lawsuits, some of which may lead to financial losses for D&Os. In practice, therefore, many corporations purchase D&Os liability insurance in order to protect them from personal liability and financial losses incurred by business decisions. In the U.S., the total corporate D&Os liability insurance premiums written amounted to about $2.91 billion dollars per year (SNL Financial, 2014). However, insuring D&Os against allegations of “misbehaviors” is controversial due to its effect on accountability. In other words, it can cause unintended moral hazard problems, as purchasing corporate D&Os liability insurance reduces the disciplining effect of shareholder litigation and decreases corporate reporting transparency, which in turn encourages corporate risk-taking behaviors. My main objective of this project is to investigate the consequences of purchasing corporate D&Os liability insurance on various corporate risk-taking behaviors (e.g., aggressive financial reporting). Under my guidance, the Undergraduate Research Award recipient is expected to collect information about corporate D&Os liability insurance coverage for Canadian public companies in the S&P/TSX Composite Index (e.g., the coverage and the premium) from a publicly available source: the System for Electronic Document Analysis and Retrieval (SEDAR).\(^1\)

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\(^1\) www.sedar.com is the official site that provides access to most public securities documents and information filed by issuers with the Canadian Securities Administrators.