

UBC Social, Ecological Economic Development Studies (SEEDS) Student Reports

**Sauder School of Business:**

**Concentration in Sustainability Survey**

Denea Campbell

Morgan Pulkinen

Rosie Pidcock

Parveen Chatha

Judy Liu

Celia He

Lindsay Oliner

University of British Columbia

COMM 365

April 2010

*Disclaimer: "UBC SEEDS provides students with the opportunity to share the findings of their studies, as well as their opinions, conclusions and recommendations with the UBC community. The reader should bear in mind that this is a student project/report and is not an official document of UBC. Furthermore readers should bear in mind that these reports may not reflect the current status of activities at UBC. We urge you to contact the research persons mentioned in a report or the SEEDS Coordinator about the current status of the subject matter of a project/report."*



# **Sauder School of Business: Concentration in Sustainability Survey**

**COMM 365 – Group Project II  
April 16, 2010**

**Presented By:**  
Denea Campbell  
Morgan Pulkinen  
Rosie Pidcock  
Parveen Chatha  
Judy Liu  
Celia He  
Lindsay Oliner

## TABLE OF CONTENTS

Executive Summary .....	Page 1
Background .....	Page 2
Objectives .....	Page 2
Method .....	Page 3
Detailed Findings .....	Page 4
Descriptive Statistic: Means of Communication .....	Page 4
H1: Willingness to Enroll .....	Page 5
H2: Attitudes Towards Sustainability .....	Page 6
Interest in the Courses Offered by the Concentration .....	Page 8
H3: Balance of Courses .....	Page 8
H4: Willingness to Enroll in Courses Specific to a Student's Own Option .....	Page 9
H5: Comparison between specific sustainability courses offered .....	Page 10
Limitations .....	Page 11
Recommendations/Overall Findings .....	Page 12
Descriptive Statistic: Means of Communication .....	Page 12
H1: Willingness to Enroll .....	Page 13
H2: Attitudes Towards Sustainability .....	Page 13
H3: Balance of Courses .....	Page 14
H4: Willingness to Enroll in Courses Specific to a Student's Own Option .....	Page 14
H5: Comparison between specific sustainability courses offered .....	Page 15
Conclusion .....	Page 15
Appendix A .....	Page 16
Appendix B .....	Page 21
Appendix C .....	Page 22

## **EXECUTIVE SUMMARY**

As going 'green' has become an emerging trend, the Sauder School of Business decided to introduce a new 12-credit academic concentration in sustainability this past November. On behalf of the Undergraduate Office of Sauder, we wanted to determine how popular the Concentration is and how its success can be maximized. We conducted a survey online and in person addressing four main topics: awareness of the Concentration, intent to enrol, attitudes towards the course offerings, and attitudes towards the topic of sustainability in general. To analyze these issues we developed one descriptive statistic as well as five hypothesis tests pertaining to specific sections of the survey. Our results both proved some of our predictions and also provided interesting findings that are important to improving the Concentration. In general, students are aware of the Concentration, however unclear of its long-term benefits and believe the courses could be altered to better fit students' needs. To accommodate students' requests we recommend that the UGO hold a "town hall" consultation meeting to discuss students' interest about the Concentration and any suggestions they may have. Additionally, we believe it is important that Sauder engages its professors to promote the Concentration and its value beyond the classroom. Our final suggestion is that the UGO educate its Student Advising team to emphasize how the Concentration fits into a student's BCom degree and as peer channel of communication. While our survey and research was very informative, there are some limitations to our results. Primarily, our respondents are skewed towards females, fourth year students and those in the marketing option. Ideally, we would have liked our sample to be more representative of the Sauder population as a whole.

## BACKGROUND

In November 2009 the Sauder School of Business introduced a 12-credit academic Concentration in sustainability. The Concentration was created in response to a movement from students wanting Sauder to educate them on sustainability in the business world. It is designed to be taken along alongside a main option (e.g. Marketing, Finance) and the courses take the place of elective credits to allow for graduation on time. The Concentration is structured as follows:

<b>Take THREE of the following (Commerce)</b>	<b>Take ONE from either Natural Sciences or Social Sciences (Non-Commerce)</b>	
	<b>Natural Sciences</b>	<b>Social Sciences</b>
COMM 495 – Business and Sustainable Development	EOSC 312 – Planet, People	POLI 351 - Environmental Politics and Policy
COMM 486C – Corporate Social Responsibility and Ethics	CONS 200 – Foundation of Conservation	ECON 370 - Benefit-Cost Analysis and the Economics of Project Evaluation
COMM 486E – Environmental Management	GEOG 204 – Forest and Agricultural Climatology	ECON 371 - Economics of the Environment
COMM 486F – Sustainability Marketing	APBI 361 – Key Indicators of Agroecosystem Sustainability	HIST 396 - Environmental History of North America
		CONS 425 - Sustainable Energy: Policy and Governance

Our client is the Undergraduate Office of Sauder who is interested in how popularity and general success of the Concentration can be maximized. In order to justifying offering these courses, they must have a sufficient number of students enrolled. By gauging early responses to the introduction of the Concentration, the UGO will be able to anticipate what changes will have to be made in order to assure sufficient enrolment.

## OBJECTIVES

The UGO is primarily interested in the following concerning the new sustainability option:

- Awareness of the Concentration
- Intent to enrol

- Attitudes towards the course offerings
- Attitudes towards the topic of sustainability in general

Our objective is to gather data on these four points of interest in order to draw conclusions about the percentage of students that are aware, as well as how they became aware. We are also interested in understanding the profile of a student who is more interested and more likely to enrol in the Concentration. Finally, we would like to take the data on course attitudes to formulate recommendations on how courses can be changed or better marketed to students to meet their needs.

## **METHOD**

Our research design is descriptive given that the UGO has already identified what their general question/problem is and are looking to gather data and characteristics about students and their awareness of the recently-introduced Concentration. We found it difficult to identify specific causal relationships between variables because of the types of questions we were interested in asking students.

We created a survey that was divided into four sections of interest. First, we surveyed to understand the general knowledge of sustainability and attitude towards the topic. Second, we focused on awareness of the Concentration as well as intent to enrol. Third we surveyed opinions of the sustainability courses offered, both commerce as well as non-commerce courses. Finally, we asked students how valuable they thought enrolling in the Concentration was in terms of future job prospects, legitimacy with employers, etc (see appendix A for the full survey)

We utilized convenience sampling to gather responses. A survey was created using Google Spreadsheets and was administered online through Facebook and over email. Paper copies of the survey were also handed out at the Sauder Exchange Café. We received 70 responses to our survey.

## **DETAILED FINDINGS**

As outlined in our objectives, the aim of the survey was to address four main issues in relation to the sustainability Concentration. The first was addressing general awareness, and as a sub-objective of this, how information on the Concentration was communicated and which medium was the most effective. Second, in relation to awareness and communication of the Concentration, we wanted to examine students' willingness to enrol after having heard about it. Third, an in depth examination of the students' interest in the sustainability courses offered through the Concentration was an important and easily adaptable feature. Finally, we looked at overall attitudes towards sustainability and whether or not students' attitudes have any effect on whether they had heard about the Concentration, were interested in enrolling or had any opinions on the specific courses offered. To further analyze these issues, we developed one descriptive statistic as well as five hypothesis tests pertaining to specific sections of the survey.

### *Descriptive Statistic: Means of Communication*

One of the main findings from the survey addresses the issue of how the introduction of the option was communicated to students. Since the option has only been available for a few months, we expected students to have primarily heard about it from the email that the UGO had sent this past November announcing the introduction of the Concentration. This was the only means of communication that **all** students received about the Concentration. However, the survey question "How did you hear about the Concentration?" provided different results than expected. While 37%

of the sample had first heard about the Concentration through the UGO email, 51% had found out about the Concentration through a friend or a classmate, the most frequent response. Even though the email was sent to all students and the UGO expected that the majority of students to have read the email, this was not the case. This means of communication from the UGO, while somewhat effective, does not appear to be the most successful or frequent way students find out information about new academic offerings.

### *H1: Willingness to Enrol*

The survey results indicated that 83% of respondents were aware the Concentration was offered at Sauder. We also wanted to address how many of the students who are aware would be likely to enrol in the Concentration. To determine this, we conducted several tests of proportion based on the survey questions about awareness and willingness to enrol.

The first test of proportion was to determine how many students were aware of the Concentration. Our null hypothesis was that the proportion of students who had heard about the Concentration was 65% ( $H_0$ : proportion = 0.65). This hypothesis is rejected because the p-value of 0.001 is less than alpha of 0.05, indicating that the proportion of students who had heard about the Concentration was not 65%. In fact, the observed proportion from the sample of 70 students was that 83% had heard about the Concentration, a significantly higher proportion than expected.

The second test of proportion was to determine how many of the 58 respondents who were aware of the Concentration would also plan on enrolling in it. The null hypothesis was  $H_0$ : proportion = 0.15, meaning that we expected 15% of students who were aware of the Concentration would also plan on enrolling in it. This hypothesis was also rejected because the p-value of 0.016 is less than alpha of 0.05, indicating that the proportion of students who are aware of the Concentration and plan on enrolling in it is not 15%. The observed sample proportion was

actually higher than expected, with 26% of students who were aware of the Concentration indicating that they plan on enrolling in it. When examining this response more closely, a large number of respondents (54%) indicated that the reason they do not plan on enrolling in the Concentration is because they do not have room for additional courses before graduation. As the vast majority of fourth years indicated they would not enrol because they did not have space before graduation, we conducted another test of proportions excluding the responses of fourth years to see if their responses had an effect on the response of willingness to enrol in the Concentration. The null hypothesis for this test was  $H_0: \text{proportion} = 0.3$ , meaning that we expected 30% of the first, second and third year students who are aware of the Concentration to enrol in it. This hypothesis was also rejected with the p-value of 0.000 less than alpha of 0.05, indicating that the proportion of first, second and third years that are aware of the Concentration and would enrol in it is not 30%. However, the observed proportion is only slightly higher than this at 36%.

The interesting conclusion from this hypothesis is that overall, students who are aware of the Concentration are not necessarily more likely to enrol in it. In fact, the percentage of students interested in enrolling in the Concentration seems relatively low at 26% for the entire sample of 70 students. Even when fourth year students were removed from the sample, the interest only rose 10% to 36% of first, second and third years willing to enrol in the Concentration. While the interest did rise slightly, the willingness to enrol in the Concentration seems relatively low compared to the large percentage of the sample that are aware of the Concentration.

### *H2: Attitudes towards Sustainability*

The second hypothesis focuses on individual's attitudes towards sustainability and whether or not the mainstreaming of sustainability is having an effect on students' interest in the Concentration. In assessing attitudes of students in the survey, respondents were asked on a five

point scale whether they agree or disagree that sustainability is both an individual responsibility and a collective responsibility. The survey described 'collective responsibility' to mean that sustainability today is an important topic that needs to be addressed by all of society, whereas individual responsibility meant that those who agreed with that response consider sustainability an issue that they need to address themselves. From these questions we created a hypothesis stating that "First and second year students consider sustainability an individual responsibility as much as third and fourth year students." The conclusion we expected from this hypothesis was that as sustainability has become a more prominent issue in recent years, first and second year students would consider it more of an individual responsibility than third and fourth year students. We can speculate from this that if first and second year students do consider it more of a individual responsibility, they would be more likely to enrol in the Concentration to learn more about sustainability and create more of an impact on the issue.

An independent sample t-test was conducted to test this hypothesis with  $H_0: \mu_{\text{lower\_responsibility}} = \mu_{\text{upper\_responsibility}}$ , where 'lower' indicates first and second year students, and 'upper' indicates third and fourth year students. Since the independent sample t-test implies that the variances can also be different, we first examined the "Levene's Test for Equality of Variances" to determine which row of results is the most appropriate to use for the equality of means test. The p-value where equal variances are assumed is 0.804 which is greater than alpha of 0.05, meaning we do not reject and use the "equal variances assumed" row when calculating the equality of means test for the null hypothesis. The p-value from the independent sample t-test using equal variances assumed is 0.028, meaning the hypothesis is rejected at a 95% confidence interval. The results of this test indicate that the perception of sustainability as an individual responsibility varies between first and second year and third and fourth year students. With 95% confidence, we can also state that the difference of perception of individual responsibility between the two groups varies between 0.147 and 1.157. Moreover, when looking at the descriptive

statistics, the mean perception of individual responsibility for first and second year students was 4.55 on a 5 point scale, indicating that they agree that sustainability is an individual responsibility. The mean response of third and fourth year students on the other hand was 3.89, indicating that they do not believe sustainability is as much of an individual responsibility as the lower year students do.

### *Interest in the Courses offered by the Concentration*

The third, fourth and fifth main hypothesis and main findings from the survey the survey address the interest students have in the courses that are offered through the Concentration. This was an important aspect of the Concentration to address because it is something that can easily be adapted to meet the interests and needs of students. Three hypothesis tests were conducted to determine detailed information about respondents' interests in the courses offered.

### *H3: Balance of Courses*

The first hypothesis test addressing courses stated that "*Students who have a high knowledge of sustainability also agree that the courses offered by the Concentration provide a good balance of what a BCom student needs to know about sustainability.*" Respondents were first asked to rate what they believed their knowledge of sustainability was on a scale of one to ten. We speculated that the students who believed they had a high knowledge of sustainability would be able to best assess whether the courses offered through the Concentration provide a good balance of what a BCom student needs to know about sustainability. We conducted a one-sample t-test using the responses of students who had a high knowledge of sustainability; those who answered 7 or above when rating their individual knowledge of sustainability. The null hypothesis of  $\mu=4$  was accepted at a 95% confidence interval with the p-value of 0.059 slightly higher than alpha of 0.05.

This indicates that the respondents who considered that they have a high knowledge of sustainability 'agree' that the courses offered by the Concentration provide a good balance of what BCom students need to know about sustainability. However, the confidence interval states that with 95% confidence  $\mu$  is between 3.46 and 4.01. This indicates that while the test was accepted, we only barely accept that  $\mu=4$ , questioning the validity of whether the courses offered by the Concentration do provide a good balance of what BCom students need to know about sustainability.

#### *H4: Willingness to enrol in courses specific to a student's own option*

The second hypothesis we wished to test in relation to the courses offered was whether there is an association between willingness to enrol in a sustainability course specific to an option and the option a student is currently enrolled in. In particular, we thought that students in options such as Marketing and Real Estate would be more willing to enrol in option-specific sustainability courses than students in Finance and Accounting. This was based on the growing trend in 'green' consumer products as well as sustainable building practices which students are reminded of on a more frequent basis than the sustainability trends within Finance and Accounting. We conducted a chi-square test of goodness of fit with the null hypothesis that there is no association between the option a student is registered in and their willingness to enrol in a sustainability course related to that option.

The crosstabulation and bar graph in Appendix B depicts the distribution of student's responses based on their options. Both these and the chi-square test indicate that there is no association between willingness to enrol in an option-specific sustainability course and the option a student is currently registered in. The p-value of 0.967 from the chi-square test is much greater than alpha of 0.05, confirming that the hypothesis is not rejected. To test this hypothesis further, we conducted four one-sample t-tests to determine the willingness to enrol in an option-specific

sustainability course based on an all four options. The null hypothesis  $H_0: \mu=4$  was used for all options and all four of the hypotheses were not rejected because the p-value was greater than alpha of 0.01 for each test and the 99% confidence interval included zero. The specific outputs from each one-sample t-tests are included in Appendix C.

While our hypothesis that there is an association between willingness to enrol in a sustainability course specific to one's option and the option a student is enrolled in is rejected, we believe this is a result of the small sample size. If we were able to conduct more surveys and thus have a larger sample size for each option, we believe that there would be an association between a student's option and their willingness to enrol in an option-specific sustainability course.

#### *H5: Comparison between specific sustainability courses offered*

The final hypothesis related to the courses offered by the Concentration suggests that students would be just as likely to enrol in a course specific to their option as a natural sciences course. We used a paired sample t-test to compare the averages across two variables using the following two likert scale survey questions: "If the Concentration offered a course specific to my option, I would enrol for elective credit" and "The natural sciences elective courses offer by the Concentration appeal to me." Using these two questions, we developed a null hypothesis  $H_0: \mu_D = 0$  where  $\mu_D = \mu_{(\text{option-specific course})} - \mu_{(\text{natural sciences course})}$ . Based on a p-value of 0.000, we reject the null hypothesis since the p-value is less than an alpha of 0.05 and the confidence interval does not include 0. Our test results imply that students are not as likely to enrol in a course specific to their option as a natural sciences course. When looking at the confidence interval, we can say that with 95% confidence the difference between the willingness to enrol in a course specific to a student's option compared to a natural science course is between 0.708 and 1.199. Since these questions were based on a scale of 1-5, we can see that there is a significant difference in the sense that there

is almost a one- scale item difference in the willingness to enrol. Further analysis of this hypothesis revealed that the mean willingness to enrol in an option-specific course was 4.0 (“agree”) which implies that students would enrol. In contrast, the mean for enrolling in a natural sciences course was 3.045 (“neutral”). Since the mean for the willingness to enrol in a natural sciences course is lower and closer to the “disagree” side (in comparison to the option-specific courses), we can see that students do not seem to have any positive interest in the natural science courses currently being offered as a part of the sustainability track.

## **LIMITATIONS**

The overarching limitation of our project was the short timeframe from which the Concentration was opened in November 2009. Due to this recent addition in Sauder’s course offerings many of the students have not had a large window of opportunity to hear or learn about this addition to the BCom program. In regards to our respondent demographics, being a group of seven, fourth year, female marketing students unfortunately hindered the diversification of our sample. There were more female respondents than male and a significantly higher proportion of third and fourth year students to first and second years. The number of students in different options was also skewed to marketing. Given more time, we would have liked to review our respondent demographics on a daily basis to ensure we had a well diversified sample of Sauder students. Also, our results could have been more meaningful and beneficial with a larger sample size. Another limitation of our survey was the possibility of two types of respondent error: social desirability and friend bias. As sustainability has evolved to such a current, pressing issue, it might have been difficult for respondents to disagree with many of our survey questions. Students might feel impacted by these societal norms of urgency and awareness towards sustainability and agreed with the majority of our questions. Additionally, friend bias could have occurred by those respondents who completed our survey, specifically at Rosie’s request. Rosie is very passionate

about sustainability and many students associate her with the various sustainable initiatives in Sauder. Therefore, they might know more about the new Concentration than the average commerce student through casual conversations with Rosie. These respondents might have skewed our results with respect to awareness and communication results.

## **RECOMMENDATIONS/OVERALL FINDINGS**

In light of the conclusions drawn from our data analysis, we have formulated a number of specific recommendations for the UGO in terms of improving enrolment in the Concentration.

### *Descriptive: Means of Communication*

Contrary to our initial belief, our research uncovered that only 37% of students had learned about the Concentration through the UGO email. We speculate that the large number of emails that are sent “en masse” to students is causing a dilution of effectiveness. On the other hand, 51% of students had learned about the Concentration through word-of-mouth, and thus we recommend that the UGO make better use of this communication channel.

More specifically, we recommend that the UGO collaborate with CUS Sustainability, a student group that is dedicated to educating students on the importance of sustainability in their personal and professional lives. Given that a number of CUS Sustainability’s members have enrolled in some of the Concentration’s courses, they are able to provide other students with first-hand information about the value of what they have been learning.

### *H1: Willingness to Enrol*

Despite 83% awareness of the Concentration, only 26% of the “aware” students were planning on enrolling in the Concentration. Even when 4<sup>th</sup> year students with no space left before graduation were dropped from the sample, the willingness to enrol was still relatively low at 36%. Although a high number of students identify sustainability as both an individual and collective challenge of their generation, they have still yet to make the connection with how their business education would potentially play a role in taking on this challenge. We recommend that the UGO more clearly communicate the benefits of a sustainability and business education by showcasing examples of the evolving trends in industry. This could include collaborating with the Business Career Centre to grow the number of companies with good sustainability practices who are hiring students and graduates. We also recommend that the UGO continue to distribute the basic details of the Concentration whenever possible because although 83% of respondents in the survey were “aware”, this does not necessarily mean they are familiar enough with the Concentration to make a decision of whether to enrol or not.

### *H2: Attitudes towards sustainability*

Our findings indicated that first and second year students do consider sustainability more of an individual responsibility than third and fourth years. Therefore we recommend targeting these first and second year students with material that outlines how to take action on this individual responsibility. It is important to reinforce this attitude with younger students while they are still forming their core business values and deciding what they want their career to be focused on. Events such as FROSH orientation and option open houses need to be avenues through which students can gain an impression of how the Concentration will benefit them in the future.

### *H3: Balance of Courses*

Although it was confirmed with 95% confidence that those students who believe they have high knowledge of sustainability agree that the courses offered by the Concentration provide a good balance of what a BCom student needs to know about sustainability, the confidence interval barely includes 'agree' to this hypothesis between 3.46 and 4.01. Based on this slight acceptance of our prediction we recommend the UGO conduct further studies to determine what students want to learn about sustainability and cater the Concentration to these preferences. This information could be gathered with short surveys administered at the end of lectures, preferably in courses specific to the Concentration. As well, the UGO could help the CUS Sustainability student organization to conduct a student survey outside DLAM library or the Sauder Café. It is important to note that when conducting further research about the Concentration and whether it offers balanced courses, the survey should ask the respondents their level of knowledge about sustainability. Therefore, the answers by those students with high sustainability knowledge should be more heavily weighted and considered when determining if the Concentration provides a good balance of what a BCom student needs to know about sustainability.

### *H4: Willingness to enrol in courses specific to a student's own option*

Contradicting our prediction that there would be a correlation between students enrolled in a specific option wanting to enrol in sustainability courses particular to that option, it is recommended that the UGO promote the Concentration courses as a whole, not option specific. Based on our results, there appears to be no additional value in targeting the option specific courses to students enrolled in the corresponding option. Therefore it is recommended that the UGO highlight the various commerce courses offered in the Concentration to all Sauder students

independent of their option. The UGO could market these Concentration option specific courses across options as a valuable elective to diversify a student's knowledge and enrolment.

However, as previously mentioned we believe these results could be a product of our small sample size. Prior to implementing marketing strategies that are relate to option specific courses, it is suggested the UGO conduct more surveys with a larger sample size equally representative of all options to better confirm or alter our results.

#### *H5: Comparison between specific sustainability courses offered*

Our final hypothesis was once again rejected, determining that students are not just as likely to enrol in a course specific to their option as a natural sciences course. We also concluded that students essentially disagree when asked if they would enrol in a natural sciences course, while they agreed their willingness to enrol in an option-specific course. With a higher interest in commerce related sustainability courses and the average student not willing to enrol in natural science courses, it is suggested that the UGO focus on the overall value of the Concentration. Not only is it beneficial for students to have a strong background about sustainable business practices, it is just as valuable to understand the fundamental science behind this growing 'green' trend. The UGO should highlight the information learned in the natural sciences courses and its positive link within the Concentration.

## **CONCLUSION**

The overall picture of the Concentration at Sauder shows that there is high awareness, which is a positive thing, and lots of room for growth in informing students of its benefits and for altering the courses to better fit student need. We recommend that Sauder hold a "town hall" consultation meeting to gauge what specific areas of sustainability students are interested in

learning about. The UGO can stimulate discussion on this topic by sending out materials (current publications on sustainability, links to websites, etc) so students can see for themselves what the current trends are and give them a better idea of what it will be important to learn. We also suggest that Sauder engage its professors in a discussion on sustainability and how they can transfer this thinking and value to students in regular classes. Because students who highly respect their professor's authority and expertise on a subject are influenced by their opinion, professors are an excellent source of information to students.

Finally, we recommend that the UGO educate its Student Advising team on how exactly the Concentration fits into a student's BCom degree. This ensures that all students who seek help in making decisions about their option and planning their degree will have their questions on sustainability answered.

These recommended actions require commitments of time and resources, but are an excellent opportunity to engage with students and to allow student ownership of education. This program may even serve as a recruitment tool in the future because it a unique offering that not all business school have. By proactively making these changes while the Concentration, the UGO will be well on its way to offering a quality business education that incorporates the current trends of sustainability.

## Appendix A: Survey

### Sauder School of Business - Concentration in Sustainability Awareness Survey

This survey is being conducted to develop an understanding Sauder undergraduate students' overall awareness of the newly implemented Concentration in Sustainability. Responses will be kept anonymous and will be used solely for the purpose of research. Approximate time to complete survey is ten (10) minutes. Thank you for your participation.

#### General Knowledge and Attitudes

How would you rank your knowledge of sustainability\*? (1 being no knowledge and 10 being expert)

1   2   3   4   5   6   7   8   9   10

\*Sustainability, for the purposes of this survey, is defined as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs".

I consider sustainability to be one of the biggest challenges facing the world today:

Strongly disagree	Disagree	Neutral	Agree	Strongly agree

I consider meeting the challenge of sustainability a collective responsibility of our generation:

Strongly disagree	Disagree	Neutral	Agree	Strongly agree

I consider meeting the challenge of sustainability an individual responsibility:

Strongly disagree	Disagree	Neutral	Agree	Strongly agree

In my future career I will always take a principled position on sustainability, even if it involves significant cost to myself and/or for my firm:

Strongly disagree	Disagree	Neutral	Agree	Strongly agree

#### Concentration in Sustainability

In November 2009, the Sauder School of Business introduced a 12-credit Concentration in sustainability. This new Concentration aims to expose students to the challenges that today's business leaders are facing with regards to environmental, economic and social sustainability by complementing BCOM courses with sustainability studies. Students must complete a total of twelve credits of sustainability studies selected from a variety of both commerce and non-commerce courses. The twelve credits also count towards fulfillment of the BCom elective requirements.

1. Were you aware of the new Concentration?

Answer (please circle): Yes    No

*If yes, how did you hear about the Concentration? (please circle all that apply)*

UGO Email      Friend/Classmate      CUS Sustainability      Sauder School of Business Website

Other (please indicate) \_\_\_\_\_

**2. If you were aware of the new Concentration, do you plan enrolling?**

*Answer (please circle):* Yes      No

*If yes, please indicate why (circle all that apply):*

General Interest                  Perceived advantage for employment                  Friends/peers were enrolling

Staying up to date on current market trends                  Other (please indicate) \_\_\_\_\_

Please elaborate on why you plan on enrolling in the Concentration:

---

---

---

---

*If no, please indicate why (circle all that apply)*

Lack of interest                          No perceived value in enrolling

No room for courses before graduation                  Other (please indicate) \_\_\_\_\_

*If you indicated that you do not have room for the courses before graduation, would you have enrolled if the Concentration became available earlier?*

*Answer (please circle):* Yes      No

**Courses**

The Concentration in Sustainability current requires 9 credits of Commerce sustainability courses and 3 credits of elective sustainability courses:

**At least 9 credits from:**

- COMM 495 Business and Sustainable Development (3 credits)
- COMM 486C Corporate Social Responsibility and Business Ethics (3 credits)
- COMM 486E Environmental Management (3 credits)
- COMM 486F Sustainability Marketing (3 credits)

**AND**

**3 credits from either list of electives**

**Social Sciences Focus**

**Natural Sciences Focus**

POLI 351 – Environmental Politics & Policy  
 ECON 370 – Benefit-Cost Analysis  
 ECON 371 – Economics of the Environment  
 HIST 396 – Environmental History of North America  
 CONS 425 – Sustainable Energy: Policy and Governance

EOSC 312 – Planet, People & Sustainability  
 CONS 200 – Foundation of Conservation  
 GEOG 204 – Forest & Agricultural Climatology  
 APBI 361 – Key Indicators of Agroecosystem Sustainability

*The COMM courses offered by the Concentration appeal to me:*

Strongly disagree	Disagree	Neutral	Agree	Strongly agree

*The COMM courses offered by the Concentration provide a good balance of what a BCom student needs to know about sustainability:*

Strongly disagree	Disagree	Neutral	Agree	Strongly agree

*The Concentration should provide more courses that are option-specific (e.g. Environmental Auditing, Socially-Responsible Investment, etc)*

Strongly disagree	Disagree	Neutral	Agree	Strongly agree

*If the Concentration offered a course specific to my option, I would enroll in the Concentration:*

Strongly disagree	Disagree	Neutral	Agree	Strongly agree

*If the Concentration offered a course specific to my option, I would enroll for elective credit:*

Strongly disagree	Disagree	Neutral	Agree	Strongly agree

*The Concentration should provide more courses that are topic-specific (e.g. Doing Business in a Carbon-Constrained Economy, Emerging Markets for Renewable Energy, etc)*

Strongly disagree	Disagree	Neutral	Agree	Strongly agree

*Please list any topics you think would be appropriate for a new course:*

---



---

*The elective courses offered by the Concentration appeal to me*

Strongly disagree	Disagree	Neutral	Agree	Strongly agree

*(Please indicate which set by circling; if both appeal, circle both; if none appeal, circle neither)*

Social Sciences

Natural Sciences

Neither

*The number of elective courses needs to be expanded:*

Strongly disagree	Disagree	Neutral	Agree	Strongly agree

*If there were more electives to choose from, I would consider enrolling in the Concentration:*

Strongly disagree	Disagree	Neutral	Agree	Strongly agree

**Attitudes**

Students that enroll in the Concentration in sustainability, are giving themselves a better understanding of the business world today:

Strongly disagree	Disagree	Neutral	Agree	Strongly agree

Students that enroll in the Concentration in sustainability will gain knowledge and skills that will give them an employment advantage over someone who is not enrolled:

Strongly disagree	Disagree	Neutral	Agree	Strongly agree

Students that enroll in the Concentration in sustainability are better equipped for the leadership challenges of the next twenty years:

Strongly disagree	Disagree	Neutral	Agree	Strongly agree

*Did UBC's sustainability initiatives influence your decision to attend the Sauder School of Business?*

Yes    No

*How did you learn about UBC's leadership in sustainability?*

UBC Website

Recruitment Presentation

Friends/Family

Other (please specify): \_\_\_\_\_

**F. DEMOGRAPHIC INFORMATION**

Age: \_\_\_\_\_

Gender (Please circle):    Male    Female

*Option (Please circle, and in case of double major please circle more than once):*

Accounting / Finance / OBHR / MIS / Marketing / Real Estate / TLog /General Business/ IB Option / Undeclared

Year: \_\_\_\_\_

*Student Type (please circle all that apply)*

Please circle one:          Domestic                  International

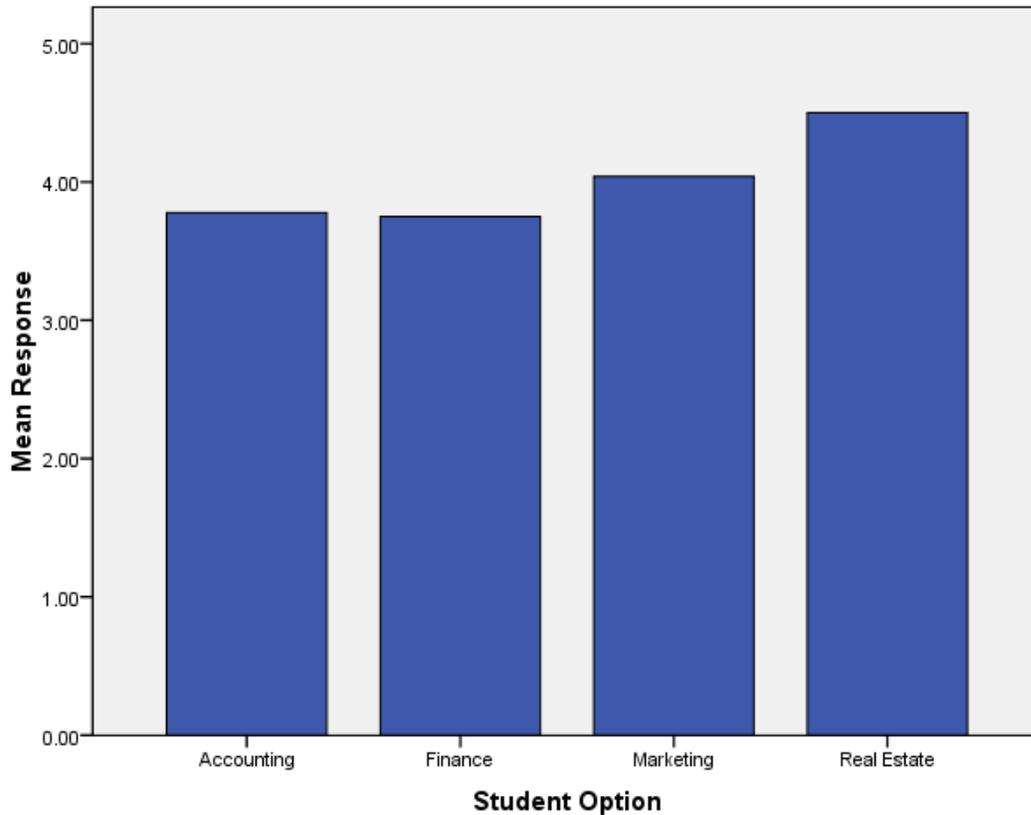
Transfer Student **(Please indicate which institution you transferred from)** \_\_\_\_\_

Do you live on campus?                  Yes                  No

**APPENDIX B: Crosstabulation**

<b>Willingness to Enrol in an Option-Specific Sustainability Course * Option Crosstabulation</b>						
		Option				Total
		Marketing	Real Estate	Finance	Accounting	
Willingness to Enrol	Strongly Disagree	0	0	0	1	1
	Disagree	2	0	1	0	3
	Neutral	3	0	1	5	9
	Agree	12	2	5	8	27
	Strongly Agree	8	2	1	4	15
<b>Total</b>		<b>25</b>	<b>4</b>	<b>8</b>	<b>18</b>	<b>55</b>

**Student Mean Responses to Willingness to Enrol in a Sustainability Course Specific to their Option**



## APPENDIX C: One-Sample T-Test Outputs for Hypothesis 4

Marketing Option -  $H_0: \mu=4$

### One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
CR_1e	27	4.0000	.87706	.16879

### One-Sample Test

	Test Value = 4					
	t	df	Sig. (2-tailed)	Mean Difference	99% Confidence Interval of the Difference	
					Lower	Upper
CR_1e	.000	26	1.000	.00000	-.4690	.4690

Real Estate Option -  $H_0: \mu=4$

### One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
CR_1d	6	4.3333	.81650	.33333

### One-Sample Test

	Test Value = 4					
	t	df	Sig. (2-tailed)	Mean Difference	99% Confidence Interval of the Difference	
					Lower	Upper
CR_1d	1.000	5	.363	.33333	-1.0107	1.6774

**Finance Option -  $H_0: \mu=4$**

**One-Sample Statistics**

	N	Mean	Std. Deviation	Std. Error Mean
CR_1e	8	3.7500	.88641	.31339

**One-Sample Test**

	Test Value = 4					
	t	df	Sig. (2-tailed)	Mean Difference	99% Confidence Interval of the Difference	
					Lower	Upper
CR_1e	-.798	7	.451	-.25000	-1.3467	.8467

**Accounting Option -  $H_0: \mu=4$**

**One-Sample Statistics**

	N	Mean	Std. Deviation	Std. Error Mean
CR_1e	18	3.7778	1.00326	.23647

**One-Sample Test**

	Test Value = 4					
	t	df	Sig. (2-tailed)	Mean Difference	99% Confidence Interval of the Difference	
					Lower	Upper
CR_1e	-.940	17	.361	-.22222	-.9076	.4631