# 2010/2011 Student Engagement Activities Inventory

STUDENT ENGAGEMENT SUBCOMMITTEE OF SENATE



#### ORIGINS AND PURPOSE OF ENGAGEMENT ACTIVITIES INVENTORY

Your area has volunteered to be a part of a one-year pilot cycle of the Student Feedback Response process, initiated by the Student Engagement Subcommittee of Senate (SESS). As a part of this process, this student engagement activities inventory is being requested by the SESS, on behalf of Senate, in response a Senate request on March 2<sup>nd</sup>, 2010, to:

"analyse the National Survey of Student Engagement (NSSE) results for TRU and recommend short- and long-term measures for the improvement of student engagement (taking into account all available student surveys and data)."

This inventory report is in alignment with the Strategic Plan directive that,

"Faculty Councils will report annual to Senate on activities associated with enhancing student engagement"

in order to meet the goal to,

"Engage students in a stimulating academic experience that provides a highly interactive environment between students, faculty and alumni as an integral part of an ongoing focus on improving and enhancing learning."

In response to these directives, the SESS has designed the Student Feedback Response process. The goals of the process are to share best practices for student engagement across the institution and to highlight efforts that are increasing engagement in the indentified priority areas. These priorities were identified through an extensive analysis of all available survey results, a student focus group led by the SESS, and consultation of the TRU Strategic Plan. The process will allow the SESS to facilitate a communication and accountability process throughout the institution to address these priorities.

In order to complete the compressed one-year pilot cycle, we request your completed inventories by April 29<sup>th</sup> 2011.

Sincerely,

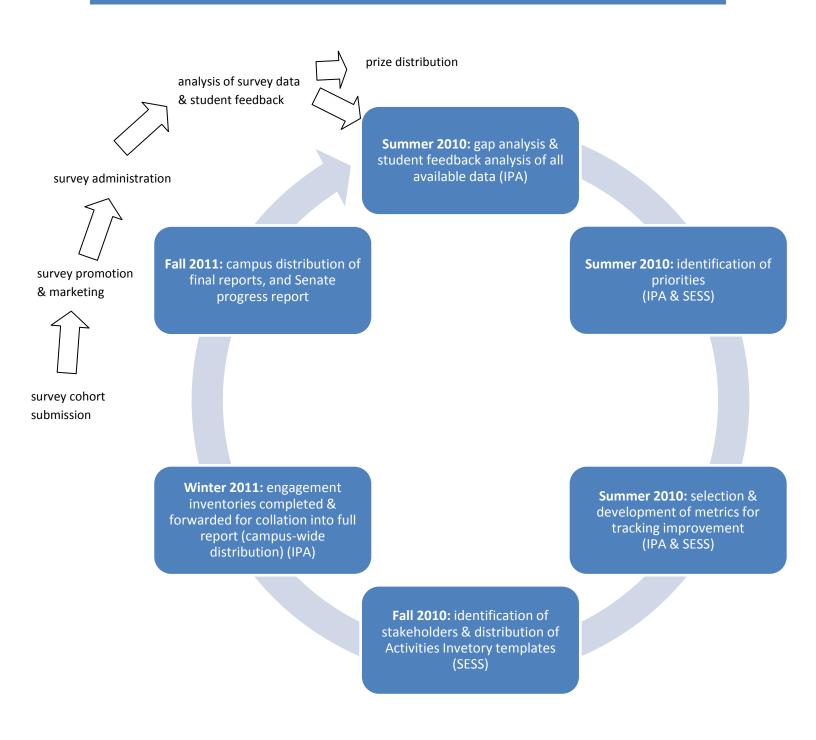
Chris Adam
Dean of Students, Faculty of Student Development
Chair, Student Engagement Subcommittee of Senate

Dorys Crespin-Mueller Director, Institutional Planning & Analysis Chair, Student Engagement Working Group

## TABLE OF CONTENTS

Student Feedback Response Process (Compressed cycle)	4
Analysis of Survey Data & Student Feedback	
Experience Improvement Target Areas, 2010-11	5
Student directives for improvement	6
Initiatives tracking & Metrics	7
Applied Learning In & Out of the Classroom	7
Community Involvement	14
Campus Social Activities (events, clubs, organizations, etc)	18

## STUDENT FEEDBACK RESPONSE PROCESS (COMPRESSED CYCLE)



## **ANALYSIS OF SURVEY DATA & STUDENT FEEDBACK**

Institutional Planning & Analysis led an assessment of priorities for the improvement of first-year student experiences. This analysis identified key areas for improving student experiences by using hundreds of NSSE records to match student responses and retention information. These results were then triangulated to student comments for the development of the improvement themes.

The improvement areas identified by the SESS are aligned with the university's Strategic Plan; specifically, both documents focus on goals such as: increased retention, departmental participation in student engagement initiatives, and increased student participation in non-academic events.

Metrics for measuring progress on the target areas were developed by IPA in consultation with the SESS. These measures may be updated each year.

#### **EXPERIENCE IMPROVEMENT TARGET AREAS, 2010-11**

Based on the analysis described above, the following three target areas were selected by the SESS for targeted improvement in 2010-11:

APPLIED LEARNING IN & OUT OF THE CLASSROOM

**COMMUNITY INVOLVEMENT** 

**CAMPUS SOCIAL ACTIVITIES** 

#### STUDENT DIRECTIVES FOR IMPROVEMENT

The following feedback themes were derived from an analysis of several hundred qualitative responses on the NSSE, as well as from a student focus group that was held by members of the Student Engagement Subcommittee of Senate on April 15<sup>th</sup> 2010. Emerging themes were matched to specific components of each target area.

#### APPLIED LEARNING IN & OUT OF THE CLASSROOM

- students should be made aware of service learning opportunities
- hands-on learning opportunities should be increased
- "there weren't very many opportunities for hands-on learning in either of my majors...it would have been nice to have more opportunities for practical applications for my education"
- the Co-op program should be made more visible and should be promoted more
- "clinical experience and job shadowing is where everything we learn comes together and makes sense"
- work experience should be incorporated into the curriculum

#### **COMMUNITY INVOLVEMENT**

- volunteering should be awarded with a note on transcript, certificates, credits, or other awards
- clubs should be required to volunteer in the community
- TRU should link students to volunteer opportunities in the community
- volunteerism and specific opportunities should be promoted
- opportunities for community involvement should be integrated into the curriculum

#### **CAMPUS SOCIAL ACTIVITIES**

- participation in events should be promoted, particularly for clubs
- attendance should be awarded (prize draws, a points system, etc.)
- events should be announced in class by faculty
- TRU should have more Aboriginal events, and these should be visible
- major events should be held throughout the year, not just at Orientation
- the availability and promotion of intramural sports should be increased
- the process for clubs to plan and book events, particularly fundraising, should be more streamlined

## **INITIATIVES TRACKING & METRICS**

The following engagement inventory will be distributed to stakeholders (to be identified by the SESS) who may be planning, or currently have under way, initiatives related to the target areas. Feedback collected via these forms will be collated into a campus document that will be updated yearly upon reports to the SESS by these stakeholders.

#### APPLIED LEARNING IN & OUT OF THE CLASSROOM

#### **METRICS:**

### **Enriching Educational Experiences Score on NSSE**

## **Varied Educational Experiences Score**

#### Possible Metric Components (non-exhaustive list):

- plans to participate in a practicum, internship, field experience, co-op experience, or clinical assignment
- plans to participate in a culminating senior experience (comprehensive exam, capstone course, thesis, project, etc.)
- coursework emphasis on applying theories or concepts to practical problems or in new situations
- institutional emphasis on providing the support students need to succeed academically
- institutional contribution to acquiring job or work-related knowledge and skills
- institutional contribution to solving complex real-world problems

## Applied Learning In & Out of the Classroom: ACTIVITIES INVENTORY

	Initiative	Start Date	Leading Party
	Biology students are eligible for the Co-op program, and make take this opportunity to gain work experience as well as learning valuable skills outside of the classroom.	On-going	Biology Dept.
	Biology 4490 Sleep Behaviour and Physiology 4 <sup>th</sup> year course – students participate in assessment of patient in the Sleep Clinic and present the case history to the class.	Winter 10	Val Collins, Les Matthews
	Biology 3540/3550 Routine use of case studies of human medical disorders to further student understanding of human physiology	2000	Val Collins
In Progress		2011	Dan Condon
	Biology 3550 – Lab component of course consists entirely of student generated and directed research projects in human physiology. Students must design and submit an experimental protocol, obtain human ethics approval, recruit research subjects, carry out the research and present their results to the class.	W 2011	Val Collins
	BIOL 4490 Industrial Microbiology: Students participate in scheduled field trips such as Beer Brewery, Cheese Factory, and winery.	2004	Cheeptham
	BIOL 3510, 3520 – Lab components include set labs for about half of the term, the students design and conduct their own experiments during the remainder of the term	~2000	Ron Smith
	BIOL 3130(CHEM 3730), 3510, 3520 – Students are given practice in interpreting and synthesizing experimental results by working on "worksheet" questions during lecture time	~2000	Ron Smith
	BIOL 3130 (CHEM 3730), 3510, 3520 – Students are assigned term papers that can be revised	1991	Ron Smith

and resubmitted to improve their writing skills and grade		
BIOL 3510, 3520 – Students give oral presentations based on their term papers and group lab	~2000	Ron Smith
projects.		
BIOL 3130 (CHEM 3730) – I have the students conduct automatic literature searches and	~2000	Ron Smith
updates using the Web of Science and have them email one of the authors they cited in their		
term paper for additional information		
BIOL 4150 – Students conduct 4 multi-week set labs and write a report for each. The reports	~2000	Ron Smith
can be revised and resubmitted to improve their writing skills and grade		
BIOL 2160 Introductory Microbiology students participate in scheduled field trips either at	2004	Cheeptham
Royal Inland Hospital Microbiology Lab or City of Kamloops Waste water treatment plant.		
BIOI 2170 Introduction to Ecology: Students participate in three mandatory fieldtrips, to the	2010	Debbie Gill
Lac du Bois grasslands, to Kenna Cartwright Park and to lakes in the Lac le Jeune area. At each		
area they apply terrestrial or aquatic sampling techniques to answer questions related to		
vegetation climatic zones, succession in burn circles and aquatic ecology, respectively.		
BIOL 2170 Introduction to Ecology: Students participate in a 4-day optional fieldtrip to	2010	Louis
Bamfield Marine Sciences Centre on Vancouver Island, where they are introduced to various		Gosselin
aspects of the ecology of marine environments.		
BIOL 1210 Principles of Biology II Labs: Students design, carry out and report on experiments	2009	Susan Purd
on various aspects of invertebrate behaviour.		
BIOL 2290 Evolution of Animal Body Plans: Students participate in an optional fieldtrip to the	2011	Susan Purc
Vancouver area, to visit the Vancouver Aquarium, UBC Biodiversity Museum, and Reifel Bird		
Sanctuary.		
BIOL 1040 - Biology of the Environment – students participate in two field trips over the	2010	Susan Purc
course. One field study is an ecological comparison of an urban pond (Gamble Pond in	-010	2434
McGowan park) with a natural Lake (Isobel lake), with suggestions for remediation for both		
sites. The 2 <sup>nd</sup> field trip is to the Kamloops Water Treatment plant where they learn about the		
technical and biological aspects of water treatment.		
BIOL448 and 499 and CHBI 499 – Students participate in annual Undergraduate Conference,	2000	Various
· · ·	2000	
giving poster presentations and some give talks at the conference. BIOL 499 students are also		faculty

expected to give a public research update at the Science seminar series in January. As well as a public defence of their research thesis. Of course the Directed Studies and Honours programs themselves are the epitome of applied learning, as students are required to undertake a self-directed laboratory based research project and write a formal report about their work.  BIOL 2130 – Labs have now been introduced in this course (2011) and for years students have had to make a presentation on the cell types of their choice using creative presentation techniques  BIOL 435 – Regulation of Gene Expression. Students work in groups to present a substantial portion of the course material- illustrating well known but interesting gene regulatory systems in eukaryotes and prokaryotes. They also have to write an essay on new research in the field that interests them and they have to present their findings to the class. Presentation and research skills are emphasized.  Biol 4110 – Advanced Microbiology Laboratory. Students are engaged in a wide range of hands on laboratories and are heavily involved in experimental design, setup, execution and interpretation. In 2010, the students brewed 1000 L of beer with a Brew Master at a local brew pub (the Noble Pig)  Biol 3210 – Microbial Ecology. Students work in groups to prepare a poster presentation based on an independent research topic. They also work in pairs to teach the class about a method used in modern microbial ecology  Biol 4210 – Microbial Physiology. Students work in groups to teach the class about the pathogenesis of a disease-causing organism of their choice. This topic is not otherwise covered during the lecture period. The students also individually prepare a literature review on a topic of their choice.  Biol 1050 – Human Biology  Students analyze a current popular press article by stating the article's claim, provide evidence from the article to support the claim, then determine if the evidence meets basic scientific standard of scientific acceptability.  Biol 1590			
themselves are the epitome of applied learning, as students are required to undertake a self-directed laboratory based research project and write a formal report about their work.  BIOL 2130 – Labs have now been introduced in this course (2011) and for years students have had to make a presentation on the cell types of their choice using creative presentation techniques  BIOL 435 – Regulation of Gene Expression. Students work in groups to present a substantial portion of the course material- illustrating well known but interesting gene regulatory systems in eukaryotes and prokaryotes. They also have to write an essay on new research in the field that interests them and they have to present their findings to the class. Presentation and research skills are emphasized.  Biol 4110 – Advanced Microbiology Laboratory. Students are engaged in a wide range of hands on laboratories and are heavily involved in experimental design, setup, execution and interpretation. In 2010, the students brewed 1000 L of beer with a Brew Master at a local brew pub (the Noble Pig)  Biol 3210 – Microbial Ecology. Students work in groups to prepare a poster presentation based on an independent research topic. They also work in pairs to teach the class about a method used in modern microbial ecology  Biol 4210 – Microbial Physiology. Students work in groups to teach the class about the pathogenesis of a disease-causing organism of their choice. This topic is not otherwise covered during the lecture period. The students also individually prepare a literature review on a topic of their choice.  Biol 1050 – Human Biology  Students analyze a current popular press article by stating the article's claim, provide evidence from the article to support the claim, then determine if the evidence meets basic scientific standard of scientific acceptability.  Biol 1590/1690 Anatomy and Physiology  Students answer questions in class by writing their answers on index cards, which they submit	,		
directed laboratory based research project and write a formal report about their work.  BIOL 2130 – Labs have now been introduced in this course (2011) and for years students have had to make a presentation on the cell types of their choice using creative presentation techniques  BIOL 435 – Regulation of Gene Expression. Students work in groups to present a substantial portion of the course material- illustrating well known but interesting gene regulatory systems in eukaryotes and prokaryotes. They also have to write an essay on new research in the field that interests them and they have to present their findings to the class. Presentation and research skills are emphasized.  Biol 4110 – Advanced Microbiology Laboratory. Students are engaged in a wide range of hands on laboratories and are heavily involved in experimental design, setup, execution and interpretation. In 2010, the students brewed 1000 L of beer with a Brew Master at a local brew pub (the Noble Pig)  Biol 3210 – Microbial Ecology. Students work in groups to prepare a poster presentation based on an independent research topic. They also work in pairs to teach the class about a method used in modern microbial ecology  Biol 4210 – Microbial Physiology. Students work in groups to teach the class about the pathogenesis of a disease-causing organism of their choice. This topic is not otherwise covered during the lecture period. The students also individually prepare a literature review on a topic of their choice.  Biol 1050 – Human Biology  Students analyze a current popular press article by stating the article's claim, provide evidence from the article to support the claim, then determine if the evidence meets basic scientific standard of scientific acceptability.  Biol 1590/1690 Anatomy and Physiology  Students answer questions in class by writing their answers on index cards, which they submit	•		
BIOL 2130 – Labs have now been introduced in this course (2011) and for years students have had to make a presentation on the cell types of their choice using creative presentation techniques  BIOL 435 – Regulation of Gene Expression. Students work in groups to present a substantial portion of the course material- illustrating well known but interesting gene regulatory systems in eukaryotes and prokaryotes. They also have to write an essay on new research in the field that interests them and they have to present their findings to the class. Presentation and research skills are emphasized.  Biol 4110 – Advanced Microbiology Laboratory. Students are engaged in a wide range of hands on laboratories and are heavily involved in experimental design, setup, execution and interpretation. In 2010, the students brewed 1000 L of beer with a Brew Master at a local brew pub (the Noble Pig)  Biol 3210 – Microbial Ecology. Students work in groups to prepare a poster presentation based on an independent research topic. They also work in pairs to teach the class about a method used in modern microbial ecology  Biol 4210 – Microbial Physiology. Students work in groups to teach the class about the pathogenesis of a disease-causing organism of their choice. This topic is not otherwise covered during the lecture period. The students also individually prepare a literature review on a topic of their choice.  Biol 1050 – Human Biology  Students analyze a current popular press article by stating the article's claim, provide evidence from the article to support the claim, then determine if the evidence meets basic scientific standard of scientific acceptability.  Biol 1590/1690 Anatomy and Physiology  Students answer questions in class by writing their answers on index cards, which they submit	themselves are the epitome of applied learning, as students are required to undertake a self-		
had to make a presentation on the cell types of their choice using creative presentation techniques  BIOL 435 – Regulation of Gene Expression. Students work in groups to present a substantial portion of the course material- illustrating well known but interesting gene regulatory systems in eukaryotes and prokaryotes. They also have to write an essay on new research in the field that interests them and they have to present their findings to the class. Presentation and research skills are emphasized.  Biol 4110 – Advanced Microbiology Laboratory. Students are engaged in a wide range of hands on laboratories and are heavily involved in experimental design, setup, execution and interpretation. In 2010, the students brewed 1000 L of beer with a Brew Master at a local brew pub (the Noble Pig)  Biol 3210 – Microbial Ecology. Students work in groups to prepare a poster presentation based on an independent research topic. They also work in pairs to teach the class about a method used in modern microbial ecology  Biol 4210 – Microbial Physiology. Students work in groups to teach the class about the pathogenesis of a disease-causing organism of their choice. This topic is not otherwise covered during the lecture period. The students also individually prepare a literature review on a topic of their choice.  Biol 1050 – Human Biology  Students analyze a current popular press article by stating the article's claim, provide evidence from the article to support the claim, then determine if the evidence meets basic scientific standard of scientific acceptability.  Biol 1590/1690 Anatomy and Physiology  Students answer questions in class by writing their answers on index cards, which they submit	directed laboratory based research project and write a formal report about their work.		
BIOL 435 – Regulation of Gene Expression. Students work in groups to present a substantial portion of the course material-illustrating well known but interesting gene regulatory systems in eukaryotes and prokaryotes. They also have to write an essay on new research in the field that interests them and they have to present their findings to the class. Presentation and research skills are emphasized.  Biol 4110 – Advanced Microbiology Laboratory. Students are engaged in a wide range of hands on laboratories and are heavily involved in experimental design, setup, execution and interpretation. In 2010, the students brewed 1000 L of beer with a Brew Master at a local brew pub (the Noble Pig)  Biol 3210 – Microbial Ecology. Students work in groups to prepare a poster presentation based on an independent research topic. They also work in pairs to teach the class about a method used in modern microbial ecology  Biol 4210 – Microbial Physiology. Students work in groups to teach the class about the pathogenesis of a disease-causing organism of their choice. This topic is not otherwise covered during the lecture period. The students also individually prepare a literature review on a topic of their choice.  Biol 1050 – Human Biology Students analyze a current popular press article by stating the article's claim, provide evidence from the article to support the claim, then determine if the evidence meets basic scientific standard of scientific acceptability.  Biol 1590/1690 Anatomy and Physiology Students answer questions in class by writing their answers on index cards, which they submit	BIOL 2130 – Labs have now been introduced in this course (2011) and for years students have	2000	Mairi
BIOL 435 – Regulation of Gene Expression. Students work in groups to present a substantial portion of the course material- illustrating well known but interesting gene regulatory systems in eukaryotes and prokaryotes. They also have to write an essay on new research in the field that interests them and they have to present their findings to the class. Presentation and research skills are emphasized.  Biol 4110 – Advanced Microbiology Laboratory. Students are engaged in a wide range of hands on laboratories and are heavily involved in experimental design, setup, execution and interpretation. In 2010, the students brewed 1000 L of beer with a Brew Master at a local brew pub (the Noble Pig)  Biol 3210 – Microbial Ecology. Students work in groups to prepare a poster presentation based on an independent research topic. They also work in pairs to teach the class about a method used in modern microbial ecology  Biol 4210 – Microbial Physiology. Students work in groups to teach the class about the pathogenesis of a disease-causing organism of their choice. This topic is not otherwise covered during the lecture period. The students also individually prepare a literature review on a topic of their choice.  Biol 1050 – Human Biology  Students analyze a current popular press article by stating the article's claim, provide evidence from the article to support the claim, then determine if the evidence meets basic scientific standard of scientific acceptability.  Biol 1590/1690 Anatomy and Physiology  Students answer questions in class by writing their answers on index cards, which they submit	had to make a presentation on the cell types of their choice using creative presentation		MacKay
portion of the course material- illustrating well known but interesting gene regulatory systems in eukaryotes and prokaryotes. They also have to write an essay on new research in the field that interests them and they have to present their findings to the class. Presentation and research skills are emphasized.  Biol 4110 – Advanced Microbiology Laboratory. Students are engaged in a wide range of hands on laboratories and are heavily involved in experimental design, setup, execution and interpretation. In 2010, the students brewed 1000 L of beer with a Brew Master at a local brew pub (the Noble Pig)  Biol 3210 – Microbial Ecology. Students work in groups to prepare a poster presentation based on an independent research topic. They also work in pairs to teach the class about a method used in modern microbial ecology  Biol 4210 – Microbial Physiology. Students work in groups to teach the class about the pathogenesis of a disease-causing organism of their choice. This topic is not otherwise covered during the lecture period. The students also individually prepare a literature review on a topic of their choice.  Biol 1050 – Human Biology  Students analyze a current popular press article by stating the article's claim, provide evidence from the article to support the claim, then determine if the evidence meets basic scientific standard of scientific acceptability.  Biol 1590/1690 Anatomy and Physiology  Students answer questions in class by writing their answers on index cards, which they submit	techniques		
in eukaryotes and prokaryotes. They also have to write an essay on new research in the field that interests them and they have to present their findings to the class. Presentation and research skills are emphasized.  Biol 4110 – Advanced Microbiology Laboratory. Students are engaged in a wide range of hands on laboratories and are heavily involved in experimental design, setup, execution and interpretation. In 2010, the students brewed 1000 L of beer with a Brew Master at a local brew pub (the Noble Pig)  Biol 3210 – Microbial Ecology. Students work in groups to prepare a poster presentation based on an independent research topic. They also work in pairs to teach the class about a method used in modern microbial ecology  Biol 4210 – Microbial Physiology. Students work in groups to teach the class about the pathogenesis of a disease-causing organism of their choice. This topic is not otherwise covered during the lecture period. The students also individually prepare a literature review on a topic of their choice.  Biol 1050 – Human Biology  Students analyze a current popular press article by stating the article's claim, provide evidence from the article to support the claim, then determine if the evidence meets basic scientific standard of scientific acceptability.  Biol 1590/1690 Anatomy and Physiology  Students answer questions in class by writing their answers on index cards, which they submit	BIOL 435 – Regulation of Gene Expression. Students work in groups to present a substantial	2000	Mairi
that interests them and they have to present their findings to the class. Presentation and research skills are emphasized.  Biol 4110 – Advanced Microbiology Laboratory. Students are engaged in a wide range of hands on laboratories and are heavily involved in experimental design, setup, execution and interpretation. In 2010, the students brewed 1000 L of beer with a Brew Master at a local brew pub (the Noble Pig)  Biol 3210 – Microbial Ecology. Students work in groups to prepare a poster presentation based on an independent research topic. They also work in pairs to teach the class about a method used in modern microbial ecology  Biol 4210 – Microbial Physiology. Students work in groups to teach the class about the pathogenesis of a disease-causing organism of their choice. This topic is not otherwise covered during the lecture period. The students also individually prepare a literature review on a topic of their choice.  Biol 1050 – Human Biology  Students analyze a current popular press article by stating the article's claim, provide evidence from the article to support the claim, then determine if the evidence meets basic scientific standard of scientific acceptability.  Biol 1590/1690 Anatomy and Physiology  Students answer questions in class by writing their answers on index cards, which they submit	portion of the course material- illustrating well known but interesting gene regulatory systems		MacKay
research skills are emphasized.  Biol 4110 – Advanced Microbiology Laboratory. Students are engaged in a wide range of hands on laboratories and are heavily involved in experimental design, setup, execution and interpretation. In 2010, the students brewed 1000 L of beer with a Brew Master at a local brew pub (the Noble Pig)  Biol 3210 – Microbial Ecology. Students work in groups to prepare a poster presentation based on an independent research topic. They also work in pairs to teach the class about a method used in modern microbial ecology  Biol 4210 – Microbial Physiology. Students work in groups to teach the class about the pathogenesis of a disease-causing organism of their choice. This topic is not otherwise covered during the lecture period. The students also individually prepare a literature review on a topic of their choice.  Biol 1050 – Human Biology  Students analyze a current popular press article by stating the article's claim, provide evidence from the article to support the claim, then determine if the evidence meets basic scientific standard of scientific acceptability.  Biol 1590/1690 Anatomy and Physiology  Students answer questions in class by writing their answers on index cards, which they submit	in eukaryotes and prokaryotes. They also have to write an essay on new research in the field		
Biol 4110 – Advanced Microbiology Laboratory. Students are engaged in a wide range of hands on laboratories and are heavily involved in experimental design, setup, execution and interpretation. In 2010, the students brewed 1000 L of beer with a Brew Master at a local brew pub (the Noble Pig)  Biol 3210 – Microbial Ecology. Students work in groups to prepare a poster presentation based on an independent research topic. They also work in pairs to teach the class about a method used in modern microbial ecology  Biol 4210 – Microbial Physiology. Students work in groups to teach the class about the pathogenesis of a disease-causing organism of their choice. This topic is not otherwise covered during the lecture period. The students also individually prepare a literature review on a topic of their choice.  Biol 1050 – Human Biology Students analyze a current popular press article by stating the article's claim, provide evidence from the article to support the claim, then determine if the evidence meets basic scientific standard of scientific acceptability.  Biol 1590/1690 Anatomy and Physiology Students answer questions in class by writing their answers on index cards, which they submit	that interests them and they have to present their findings to the class. Presentation and		
on laboratories and are heavily involved in experimental design, setup, execution and interpretation. In 2010, the students brewed 1000 L of beer with a Brew Master at a local brew pub (the Noble Pig)  Biol 3210 – Microbial Ecology. Students work in groups to prepare a poster presentation based on an independent research topic. They also work in pairs to teach the class about a method used in modern microbial ecology  Biol 4210 – Microbial Physiology. Students work in groups to teach the class about the pathogenesis of a disease-causing organism of their choice. This topic is not otherwise covered during the lecture period. The students also individually prepare a literature review on a topic of their choice.  Biol 1050 – Human Biology Students analyze a current popular press article by stating the article's claim, provide evidence from the article to support the claim, then determine if the evidence meets basic scientific standard of scientific acceptability.  Biol 1590/1690 Anatomy and Physiology Students answer questions in class by writing their answers on index cards, which they submit  Hamme/Che eptham  Hamme/Che eptham  Each Chamber of the poster at a local path and constant a local path and cards and cards are presentation based on an independent research topic.  Van Hamme  2003  Van Hamme  2011  Karen Ross	research skills are emphasized.		
interpretation. In 2010, the students brewed 1000 L of beer with a Brew Master at a local brew pub (the Noble Pig)  Biol 3210 – Microbial Ecology. Students work in groups to prepare a poster presentation based on an independent research topic. They also work in pairs to teach the class about a method used in modern microbial ecology  Biol 4210 – Microbial Physiology. Students work in groups to teach the class about the pathogenesis of a disease-causing organism of their choice. This topic is not otherwise covered during the lecture period. The students also individually prepare a literature review on a topic of their choice.  Biol 1050 – Human Biology Students analyze a current popular press article by stating the article's claim, provide evidence from the article to support the claim, then determine if the evidence meets basic scientific standard of scientific acceptability.  Biol 1590/1690 Anatomy and Physiology Students answer questions in class by writing their answers on index cards, which they submit	Biol 4110 – Advanced Microbiology Laboratory. Students are engaged in a wide range of hands	2003	Van
brew pub (the Noble Pig)  Biol 3210 – Microbial Ecology. Students work in groups to prepare a poster presentation based on an independent research topic. They also work in pairs to teach the class about a method used in modern microbial ecology  Biol 4210 – Microbial Physiology. Students work in groups to teach the class about the pathogenesis of a disease-causing organism of their choice. This topic is not otherwise covered during the lecture period. The students also individually prepare a literature review on a topic of their choice.  Biol 1050 – Human Biology Students analyze a current popular press article by stating the article's claim, provide evidence from the article to support the claim, then determine if the evidence meets basic scientific standard of scientific acceptability.  Biol 1590/1690 Anatomy and Physiology Students answer questions in class by writing their answers on index cards, which they submit	on laboratories and are heavily involved in experimental design, setup, execution and		Hamme/Che
Biol 3210 – Microbial Ecology. Students work in groups to prepare a poster presentation based on an independent research topic. They also work in pairs to teach the class about a method used in modern microbial ecology  Biol 4210 – Microbial Physiology. Students work in groups to teach the class about the pathogenesis of a disease-causing organism of their choice. This topic is not otherwise covered during the lecture period. The students also individually prepare a literature review on a topic of their choice.  Biol 1050 – Human Biology Students analyze a current popular press article by stating the article's claim, provide evidence from the article to support the claim, then determine if the evidence meets basic scientific standard of scientific acceptability.  Biol 1590/1690 Anatomy and Physiology Students answer questions in class by writing their answers on index cards, which they submit	interpretation. In 2010, the students brewed 1000 L of beer with a Brew Master at a local		eptham
on an independent research topic. They also work in pairs to teach the class about a method used in modern microbial ecology  Biol 4210 – Microbial Physiology. Students work in groups to teach the class about the pathogenesis of a disease-causing organism of their choice. This topic is not otherwise covered during the lecture period. The students also individually prepare a literature review on a topic of their choice.  Biol 1050 – Human Biology Students analyze a current popular press article by stating the article's claim, provide evidence from the article to support the claim, then determine if the evidence meets basic scientific standard of scientific acceptability.  Biol 1590/1690 Anatomy and Physiology Students answer questions in class by writing their answers on index cards, which they submit	brew pub (the Noble Pig)		
used in modern microbial ecology  Biol 4210 – Microbial Physiology. Students work in groups to teach the class about the pathogenesis of a disease-causing organism of their choice. This topic is not otherwise covered during the lecture period. The students also individually prepare a literature review on a topic of their choice.  Biol 1050 – Human Biology Students analyze a current popular press article by stating the article's claim, provide evidence from the article to support the claim, then determine if the evidence meets basic scientific standard of scientific acceptability.  Biol 1590/1690 Anatomy and Physiology Students answer questions in class by writing their answers on index cards, which they submit	Biol 3210 – Microbial Ecology. Students work in groups to prepare a poster presentation based	2003	Van Hamme
Biol 4210 – Microbial Physiology. Students work in groups to teach the class about the pathogenesis of a disease-causing organism of their choice. This topic is not otherwise covered during the lecture period. The students also individually prepare a literature review on a topic of their choice.  Biol 1050 – Human Biology Students analyze a current popular press article by stating the article's claim, provide evidence from the article to support the claim, then determine if the evidence meets basic scientific standard of scientific acceptability.  Biol 1590/1690 Anatomy and Physiology Students answer questions in class by writing their answers on index cards, which they submit	on an independent research topic. They also work in pairs to teach the class about a method		
pathogenesis of a disease-causing organism of their choice. This topic is not otherwise covered during the lecture period. The students also individually prepare a literature review on a topic of their choice.  Biol 1050 – Human Biology Students analyze a current popular press article by stating the article's claim, provide evidence from the article to support the claim, then determine if the evidence meets basic scientific standard of scientific acceptability.  Biol 1590/1690 Anatomy and Physiology Students answer questions in class by writing their answers on index cards, which they submit	used in modern microbial ecology		
during the lecture period. The students also individually prepare a literature review on a topic of their choice.  Biol 1050 – Human Biology Students analyze a current popular press article by stating the article's claim, provide evidence from the article to support the claim, then determine if the evidence meets basic scientific standard of scientific acceptability.  Biol 1590/1690 Anatomy and Physiology Students answer questions in class by writing their answers on index cards, which they submit	Biol 4210 – Microbial Physiology. Students work in groups to teach the class about the	2003	Van Hamme
of their choice.  Biol 1050 – Human Biology Students analyze a current popular press article by stating the article's claim, provide evidence from the article to support the claim, then determine if the evidence meets basic scientific standard of scientific acceptability.  Biol 1590/1690 Anatomy and Physiology Students answer questions in class by writing their answers on index cards, which they submit	pathogenesis of a disease-causing organism of their choice. This topic is not otherwise covered		
Biol 1050 – Human Biology Students analyze a current popular press article by stating the article's claim, provide evidence from the article to support the claim, then determine if the evidence meets basic scientific standard of scientific acceptability.  Biol 1590/1690 Anatomy and Physiology Students answer questions in class by writing their answers on index cards, which they submit  Karen Ross  Karen Ross	during the lecture period. The students also individually prepare a literature review on a topic		
Students analyze a current popular press article by stating the article's claim, provide evidence from the article to support the claim, then determine if the evidence meets basic scientific standard of scientific acceptability.  Biol 1590/1690 Anatomy and Physiology Students answer questions in class by writing their answers on index cards, which they submit	of their choice.		
from the article to support the claim, then determine if the evidence meets basic scientific standard of scientific acceptability.  Biol 1590/1690 Anatomy and Physiology Students answer questions in class by writing their answers on index cards, which they submit  Karen Ross	Biol 1050 – Human Biology	2011	Karen Ross
standard of scientific acceptability.  Biol 1590/1690 Anatomy and Physiology Students answer questions in class by writing their answers on index cards, which they submit  Karen Ross	Students analyze a current popular press article by stating the article's claim, provide evidence		
Biol 1590/1690 Anatomy and Physiology Students answer questions in class by writing their answers on index cards, which they submit  Karen Ross	from the article to support the claim, then determine if the evidence meets basic scientific		
Students answer questions in class by writing their answers on index cards, which they submit	standard of scientific acceptability.		
Students answer questions in class by writing their answers on index cards, which they submit			
	, , , , , , , , , , , , , , , , , , , ,	2010	Karen Ross
for marking. They are allowed to use their notes and each other to actively engage in the			
	for marking. They are allowed to use their notes and each other to actively engage in the		

topic. I use the time to drift around answering questions and interacting with the students. Once submitted I pull out a few random cards and we discuss the answer.		
Biol 3350 – Molecular Genetics Students participate in the dissection of papers selected from the current literature. If appropriate, the announcement of the Nobel Prizes in Chemistry and/or Physiology serves to focus the papers discussed in seminar. Fridays lectures begin with a 15 minute review of papers published 'this week in science and nature'.	2000	Nelson
Physics Students are eligible for the Co-op program.	Each year	Physics
Students are involved in directed studies (Phys4480) and CUEF projects that involve doing research in the Physics dep't over the summer. Research results are published and presented at conferences and undergrad conferences / poster sessions.	Each Year	Physics
Students in many of the upper level labs are encouraged and trained to use mechanical shop tools and equipment (lathe, drill press, milling machine, hand tools and more) to help design and fabricate specialized parts and setups for their experiments.	Each year	Upper leve
Guest speakers from industry often attend some 1 <sup>st</sup> year lectures to discuss application of physics in a variety of fields (ie Crime Marketing and using physics in forensics)	Each year	Paetkau
PHYS1100 (and PHYS1200 next year) have introduced lab simulations as prelab component exercises to all experiments. Students get practical experience (in a simulated environment) and familiarization with the procedure, measurement and analysis before attending the actual laboratory.	2008 and ongoing	Paetkau, Bissonnett Taylor
In Mechanics, Optics courses, students submit a paper on their research work which is reviewed by the instructor and their student colleagues. After revision, the finished paper is published in a student journal.	Ongoing each yr	Paetkau
Phys1100 – Biweekly assignments are geared around the physics in movies – students are given movie clips to view (YouTube or Blackboard) and then are asked questions that must be answered using properly applied fundamental principles of physics and calculations, the	2009 and ongoing	Bissonnett

students can conclude for themselves if the scene upholds the laws of physics (besides, it's		
entertaining).		
Phys1100, Phys1200, Phys1010 – Technique of just-in-time teaching is used whereby some	2007 and	Paetkau
student submitted answers to reading assignments are discussed immediately after hand-in	ongoing	
deadline. Also, there is strong emphasis on incorporating current events into the lecture		
material and discussion (such as the Earthquakes in Japan, Nuclear crisis in Japan, etc)		
Upper level students given opportunity to apply as Undergraduate Teaching Assistants (UTA's)	2011	Physics
for 1 <sup>st</sup> year labs starting Fall 2011 (gain instructional experience, etc)		-
Field exercises included in courses:	Each Year	NRSC
NRSC 1120 (Coquihalla field trip; McArthur Island), NRSC 3000 (BC Wildlife Park), NRSC 1110		
(forestry, mine reclamation, stream ecology), NRSC 4040 (small mammal trapping exercise-		
provides hands on experience for students), NRSC 3260 Limnology (2) (sampling of a lake,		
sampling of a river), NRSC 4100 Fisheries management (sampling of fish in a lake over two		
days, using various techniques-student use of real data they collected and analysed, and which		
provides management information for the Ministry of Environment/Natural Resource		
Operations)		
- Field course NRSC 4250 (Tropical Field studies in Belize- two week field course)		
-Other learning activities: use of guest speakers in many classes, applied projects such as	Each Year	NRSC
group management reports, role play assignments, hands-on activities in lab setting		
-Grad Essay/project as a capstone course, often using real data	Each year	NRSC
-Involvement in undergraduate research projects through Honours program		
Co-op program many of our students do coop terms	Each year	NRSC
Work study positions (2 in the dept)		
-Hiring of undergrads during summer as research assistants (approximate number 8 within		NRSC
department in any one summer) .		
-Undergrads always invited to meet with seminar speakers visiting TRU.		
Design Challenge – students from all three years of the program are put in teams to solve a	2006	ARET
design problem		
Field Trips to the Y-Dream home	Each year	ARET
Designing a sustainable building as a term project eg. Y-Dream Home; Faculty of Science Field	2008	ARET
House		

	3 <sup>rd</sup> Field Trip – Students visit Vancouver or other cities in BC or AB touring various buildings under construction and showing sustainable construction	2006	ARET
	Chemistry students are regular participants in the Co-op program, and many use this opportunity to gain valuable work experience and learn valuable skills outside of the classroom.	On-going	Chemistry department
	Chemistry 4 <sup>th</sup> year labs – A variety of laboratory courses involve individual directed projects where students design their own experimental protocol or methods, perform the experiments and present their results as laboratory reports and/or lab meetings/interviews.	On-going	Chemistry department
	Chemistry 3 <sup>rd</sup> and 4 <sup>th</sup> year courses – Students give oral presentations based on their selected topics and/or projects.	On-going	Chemistry department
	Chemistry Directed Studies and U-REAP awards – Students participate in the annual Undergraduate Conference, including poster and oral presentations after undertaking a self-directed laboratory based research project. The final projects are written up as final formal reports and/or scholarly papers.	On-going	Chemistry department
	Chemistry 1 <sup>st</sup> year - Students are assigned a current newspaper article and write an additional paragraph expanding on some aspect of the related chemistry.	On-going	Chemistry department
	Chemistry 3 <sup>rd</sup> and 4 <sup>th</sup> years - Students participate in discussion and analysis of papers selected from the current literature. If appropriate, the awarding of the Nobel Prizes in Chemistry are discussed.	On-going	Chemistry department
	Upper level students were given the opportunity to apply as Laboratory Safety Assistants for our lower and upper level laboratories.	On-going	Chemistry department
	Upper level students are given the opportunity to apply as Undergraduate Teaching Assistants (UTA's) for 1 <sup>st</sup> year labs starting Fall 2011.	Fall 2011	Chemistry department
	Undergraduate students hired as summer research assistants conducting independent research under the supervision of faculty.	On-going	Chemistry department
Planned	Students will be part of the infrastructure development of a Field School in Hawaii	Future	ARET

#### COMMUNITY INVOLVEMENT

#### **METRICS:**

## **Enriching Educational Experiences Score on NSSE**

## **Varied Educational Experiences Score**

## Possible Metric Components (non-exhaustive list):

- participation in a community-based project (e.g. service learning) as part of a regular course
- plans to participate in community service or volunteer work
- attendance of an art exhibit, play, music, theatre, or other performance
- institutional contribution to student's ability to contribute to the welfare of their community

## **Community Involvement: ACTIVITIES INVENTORY**

	Initiative	Start Date	Leading Party
		Mar. 2010	Les Mathews,
	Biology 4490 Sleep Behaviour and Physiology		Val Collins
	4 <sup>th</sup> year course – students attend the Sleep Conference at TRU, a 2.5 day gathering of		
	Health professionals aimed at improving understanding and treatment of sleep issues.		
rogress	Students also present posters at the Sleep Conference on sleep related topics of their choice, and discuss them with attendees.		
ㅁ	Biology 4490 Sleep Behaviour and Physiology	Mar. 2010	Les Mathews,
	4 <sup>th</sup> year course – students attend the Sleep Conference at TRU, a 2.5 day gathering of		Val Collins
	Health professionals aimed at improving understanding and treatment of sleep issues.		
	Students also present posters at the Sleep Conference on sleep related topics of their		
	choice, and discuss them with attendees.		

TRU Career Workshop (in Science and Health Science) for Aboriginal Youth: Third and	2009	Cheeptham and Mahara
Forth year science students are volunteering as camp chaperons		Wallara
A fundraising event for "Chang Noi Foundation: to enhance HIV infected children of	July 2011	Cheeptham and
Thailand through arts". Students volunteer their time to help with selling cotton candy at July 1 Canada Day event at Riverside Park (Cotton Candy machine is from Kamloops Multicultural Society).		Thai Students Club
"Books for Thailand": Science textbooks donated to Thai Universities.	2009	Cheeptham
BIOL 4480/4990 and CHEM 4480 students attend national and international conferences (presentation of their research projects) They also present their work at the annual TRU Undergraduate Conference, which is open to the public.	Ongoing for many years	Science Faculty
Students participate in TRU "Science Open House" activities, and act as judges and tour guides for Elementary Students participating in the School District Science Fair	Ongoing for many years	Faculty of Science and School District 73
Many students from science volunteer for the Regional Science Fair as either judges or tour guides, or help faculty give workshops to the science fair participants	On-going	Faculty of Science
Many students have been involved in operating the Eukeka Science Program- Science summer camps and school outreach programs in Kamloops and the surrounding area	Ongoing for many years	Faculty of Science
Ongoing support of activities like GenesKool during the summer and Days of Arts and Science to engage current students and outreach to high school students	Several years	Faculty of Science
-Opportunity for students to volunteer with salmon stock assessment with Fisheries and Oceans Canada	On-going	NRSC

-As part of the NRSC 321 (Range Management Course) Wendy Gardner was able to build a partnership between the Ministry of Forests and Range (Phil Youwe) and Ray		NRSC
Frolek, a rancher in the local area, which allowed the students to conduct a range		
management plan for cattle on the Dewdrop grasslands. This project allowed for the		
students to apply their skill set to a field situation and for all the partners involved to		
benefit from the data collected. It also was an important networking opportunity for		
the students. This type of partnership allows students to learn in real world situations		
and builds TRU's involvement with the community.		
,		
-As part of the AGSC 220 (Food Systems at a Local Level and Beyond Course) a		
community service aspect was included as part of the student projects. Wendy		
Gardner was able to make connections in the community that related to food security		
and help students to partner with these different groups to complete their food		
security term projects. Some examples of groups that students worked with: the		
Kamloops Food Action Center, the local slaughter facility, the Interior Health Program		
(dieticians), the Kamloops Community Atlas Group and various local producers.		
	2012.2	
Have astronomy or physics students conduct tours of TRU's observatory for the general public	2012 ?	Joanne Rosvic
Try to get students on board with our P@SS (Physics at Secondary School) program or	2012 ?	Physics
a version of this possibly aimed at elementary level.		
The Physics department would like to plan and organize a Physics Show that can	2012 ?	Physics
complement activities during public open houses (and such) in the Fac. Of Science.		
This show would also be a collaborative effort between current students and faculty		
This show would also be a comborative errort between carrent stadents and racaity		
for presentations through the community.		

Physics students give input and help arrange a list of public speakers.	Ongoing	Physics
Students involved in Science Orientation Day (or campus wide) events and activities as group guides or leaders.	Ongoing	Faculty of Science
Design competitions – Students develop design concepts throughout our area	2009	ARET

## CAMPUS SOCIAL ACTIVITIES (EVENTS, CLUBS, ORGANIZATIONS, ETC)

#### **METRICS**

## **Supportive Campus Environment Score**

**Interpersonal Environment Score** 

**Support for Student Success Score** 

## Possible Metric Components (non-exhaustive list):

- time spent participating in co-curricular activities (organizations, campus publications, student government, social fraternity or sorority, intercollegiate or intramural sports, etc.)
- quality of student's relationships with other students
- institutional emphasis on attending campus events and activities (special speakers, cultural performances, athletic events, etc.)
- institutional emphasis on providing students with the support they need to thrive socially

## **Campus Social Activities: ACTIVITIES INVENTORY**

	Initiative	Start Date	Leading Party
	Annual Erlenmeyer Cup softball Tournament involving science student and faculty teams	1993	Science Faculty
			and Chemistry
S			Biochemistry Club
rogress	Annual Science Brew off and Roast of Graduating Students and Faculty	1993	Science Faculty
rog			and Chemistry
n P			Biochemistry Club
-	Convocation Parties for graduating students	1992	Science Faculty
	The Faculty of Science supports Eureka	Ongoing	Science Faculty

BUGS – "Biology Undergraduate Society" - and CBC – "Chemistry Biochemistry Club" student clubs are very active throughout the school year.	On-going	Students
Orientation Week Activities involving scavenger hunts, chicken cannons, etc.	Ongoing	Faculty of Science
BUGS Annual Hot Springs Field Trip	Ongoing	BUGS & 2 Faculty
Chemistry Biochemistry Club tours to the water treatment plant, local brewery.	Ongoing	CBC
Chemistry Biochemistry Club local fundraising events supporting Strykes for Tykes, RIH.	Ongoing	СВС
Chemistry Biochemistry Club annual Chemistry Week Mall displays at local malls	Ongoing	СВС
Students have been given access to some lab areas in the physics department (when free) for group / indiv. studying, gathering, etc Students have somewhere they can go.	Ongoing	Physcis
NRSC Club Range Club Curling Bonspiel Fishing Derby Erlenmeyer Cup team from NRSC Environmental Speaker seminars NRSC club clothing sales		NRSC
Faculty involved in Campus Orientation event, Science Fair, Family Science Night, Welcome Back BBQ for students hosted by NRS dept each year Graduation BBQ hosted by NRS Faculty each year		NRSC

	Potential future events: -increased volunteer activities by the NRS and Range Clubs (e.g., Adopt-A-Stream) -NRS teams in intramural sports leagues (perhaps already exists?)		NRSC
	Science Seminar Series every Thursday featuring featuring alumni speakers		Science Faculty
	Quiet study space, honours student study room, expenditures to update hall tables/chairs/furniture		Science Faculty
nned	TRU Survivors - volunteers needed to run event.	April 15	
Pla	Resurrect the Physics and Astronomy Club – the PAC (or Math-Physics club)	2011?	Physics
	Renovations to provide Internet Café style student study space	2011	Science Faculty
	Fundraising for 3 <sup>rd</sup> Year field trips – t-shirt Design challenge, bake sale, pub nights	2010	ARET

## **Additional: ACTIVITIES INVENTORY**

Please include any additional engagement-related activities that are being directed by your area. These activities need not align to the identified priority areas.

	Initiative	Start Date	Leading Party
	Biology 1590/1690 Use of "clickers" in large first year class to allow students to respond to questions in class and encourage an interactive environment in the class.	F 2008	
Progress	Supplementary Learning Program in large first year classes (Biology 1590/1690, Biology 1110/1210, Chemistry 1500/1510/2120/2220) Upper year students facilitate study sessions with first year students.	Ongoing	Elizabeth Templeman and Science faculty
In Pr	Biology 2200 Communicating Biology – Faculty meet with small groups of students to discuss and practice methods of communicating about science.	F 2010	Biology Faculty
	Workstudy positions, lab safety assistants		
	-good faculty contacts with outside agencies (source of guest speakers and job contacts for students)		NRSC
	Problem identification:  Campus life at TRU is very poor – there are few meeting places, and students can't easily get a meal on weekends and evenings  Perhaps a more active intramural sports program, with competition amongst academic units on campus, would help morale.		NRSC
Plann	Biology 3200, 4300 Communicating Biology – Faculty to meet with small groups of students to discuss t and practice methods of communicating about science.	F2011	Biology Faculty