Struggling first-year science students – who’s gonna fix them?

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Session outline

- Explore the skills students need to succeed in first year
- Highlight two University of Guelph initiatives that address the skills gap
- Discuss current ways universities support the academic skills transition
- Brainstorm support models
Identifying key skills

- What key skills do first-year science students need to develop in order to be successful?
Activities are designed to develop:

- Information literacy
- Critical reading
- Paraphrasing and citing
- Data analysis
- Self-management and learning behaviours
How we address these skills

1. SPOT (Science Portal for Ontario Teachers)
2. Academic Skills Triathlon event within campus wide Science Olympics
Outreach to upper-year science teachers

Two components:
1. Grade 12 science lesson plans
2. Academic skills resources

http://www.lib.uoguelph.ca/first/resources_for_teachers/spot
Customized to Ontario Science Curriculum
- Grade 12 university preparation courses
- Specific curriculum expectations met

Lesson plans require students to:
- Find, critically read and analyze scientific journal articles, and summarize their understanding
- Guided by questions posed in student worksheet
Academic skills resources

- Downloadable modules
  - Searching for scientific journal articles using Open Access Journals
  - Paraphrasing

- Links to related resources
  - Academic Integrity
  - Guide for University Learning
  - Guide for Time Management
Have you ever been:

- confused about how to cite your sources properly?
- worried you might be unfairly accused of academic misconduct?
- tempted to borrow from someone else's work?

If you answered "yes" to any of these questions, or if you have other questions about the academic code of ethics, then this site is meant for you.

What you can expect to find in this tutorial is:

- Definitions of Academic Integrity and Plagiarism
- A Video vignette depicting an issue of academic misconduct involving U of G students
- Rules, Regulations, and Penalties for Academic Misconduct at the University of Guelph
- Illustrations of how to avoid unintentional academic misconduct and plagiarism
- Short quizzes and exercises to test your understanding of the rules governing academic work

By the time you've completed this tutorial, you should have a better understanding of how to avoid academic misconduct and why academic integrity is so important. We hope that this will make you feel more secure when you complete your assignments.

There are two sections to the tutorial. The first discusses the more general topic of academic integrity; the second focuses on plagiarism. We suggest that you follow the tutorial in this order, but you can do them independently.

http://www.academicintegrity.uoguelph.ca/
Welcome First Year Students!

- This guide introduces you to many facets of university learning such as course outlines, textbooks, lectures, studying & exams.
- Numerous learning tips & strategies are presented, while you interact with content from a simulated Psychology Course.
- To use the guide, follow the arrows in the navigation above starting with the button "Learning from Course Outlines."
- For additional resources & support please visit Learning Services.

http://www.learningcommons.uoguelph.ca/guides/university_learning/
A Guide for **Time Management**

**Before You Begin**
- Can You Relate to these Issues?
- Time Management Introduction
- Coping with a 12 Week Semester
- Analyzing your Need for Structure
- Is Change Possible?

**Planning Your Time**
- Goal Setting
- Getting the Big Picture
- Creating a Master Plan
- Making a Task List
- Finding your Best Time of Day
- Break It Up & Spread It Out
- Flexible Time
- Coping with Info-Heavy Courses
- Coping with Multiple Deadlines

**Staying On Track**
- Having Fun Effectively
- Managing Distractions
- Breaks and Rewards
- Issues with Concentration
- Using Weekday Time Effectively
- Using Weekend Time Effectively
- 20 Ways for Playing Catch-Up
- Coping with Burnout
- Time-Effective Writing Strategies

**Controlling Procrastination**
- Understanding Procrastination
- Band-Aid Solutions
- Getting Started: Just Do It
- Death by Deadline
- Effective Procrastination

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**The Time is Now.**

A Guide for Time Management has been designed to resolve the persistent time management issues commonly faced by undergraduate and graduate students. It is a vast resource for information, ideas, strategies, and advice about time management and related topics like procrastination and concentration.

Science Olympics

- Academic Skills Triathlon:
  1. Memorizing and Recalling Content
  2. Critical Reading
  3. Data Analysis and Writing
Who’s gonna fix them?

- How is your institution currently introducing university level academic skills into the high school setting?
What would you like to see in a support model that would help high school students develop the academic skills needed in first year?