

HMB491: Projects in Biotechnology Industry

Course Information Session (Fall 2023/ Winter 2024)

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UNIVERSITY OF TORONTO
FACULTY OF ARTS & SCIENCE

DEFY
GRAVITY

A few logistical considerations before we get started...



Please mute your microphone to limit background noise



If you have a question or comment, please type it in the chat window

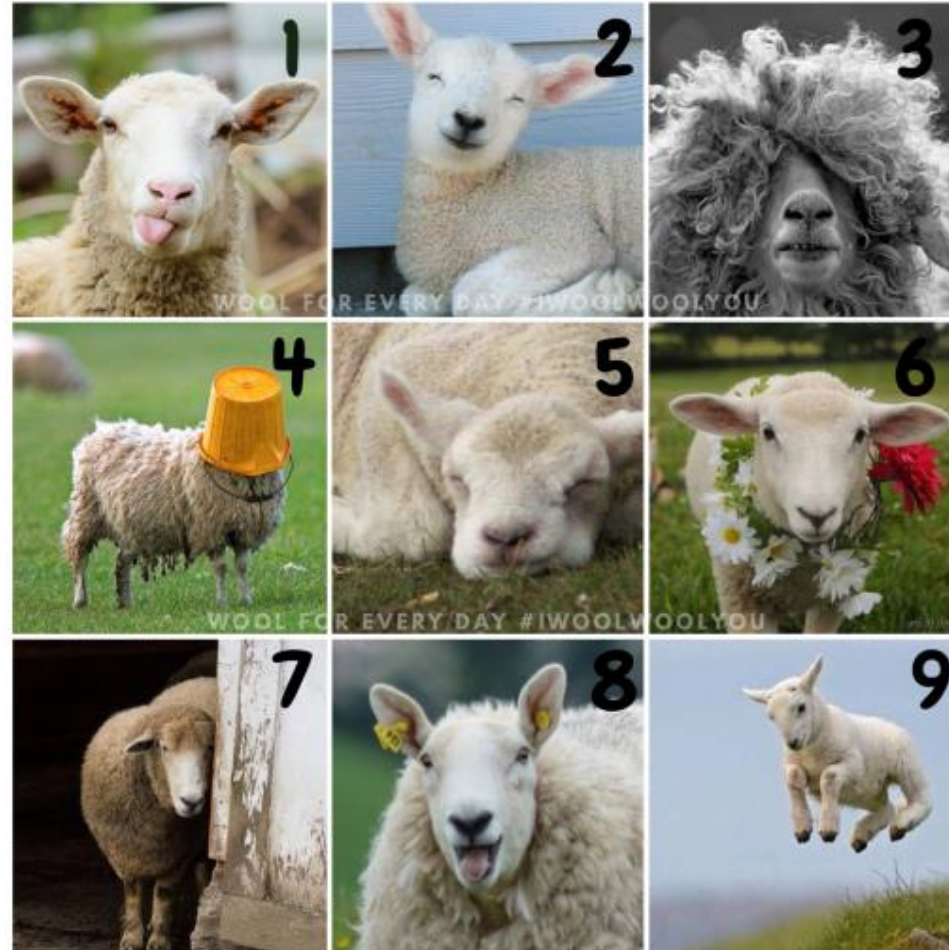


If you wish to speak, please use the raise hand function



Join at **slido.com**
#4368684 to participate in the polls!

On this sheep-scale,
how do you feel today?



WOOL FOR EVERY DAY #IWOOLWOOLYOU

① Start presenting to display the poll results on this slide.

What are our objectives for today?

- **Course Overview:** Describe the HMB491 course and internships, the course expectations, including pre-course tasks, as well as benefits of participating
- **Course Application:** Outline the HMB491 course application, including eligibility and selection criteria, submission requirements, and instructions
- **Internship Opportunities:** Exemplify the types of internship opportunities available
- **Student Insights:** Gain insights from current HMB491 students on their HMB491 internship experience
- **Q&A:** Offer space to openly ask questions and clarify uncertainties



How familiar are you with work-integrated learning (WIL)?

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HMB491 Course Overview

What is HMB491?

Key Components

- Academic internship
- 200 hours (8-10 hours/week over 8 months)
- In-class component

Important Notes

- **Pre-requisite:** 14 credits
- **Recommended Preparation:** HMB201H1, HMB301H1 and/or HMB360H1
- **Restrictions:** Restricted to 4th year students (some exceptions apply on case-by-case basis)



Why participate in HMB491?



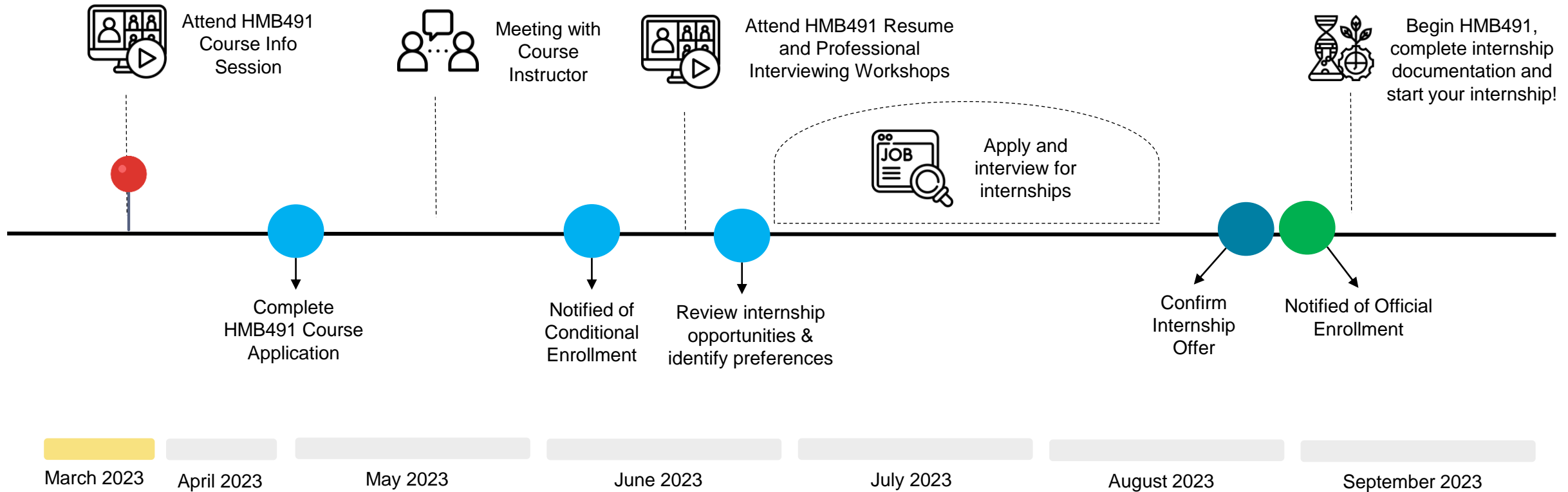
- Earn one full (1.0) academic credit toward your transcript
- Expand your CV/resume
- Bridge academics to industry through structured work experience
- Inspire entrepreneurship
- Develop and promote acknowledgement of transferable and industry-specific skills
- Engage in self-discovery, explore career options and increase confidence in choosing a career path

What would be expected of me as an HMB491 student?

- Complete the minimum 200 internship hours with a partner organization
- Develop individual learning goals and a learning plan for their internship experience
- Check-in periodically with Dr. Naomi Levy-Strumpf about their ongoing internship experience
- Complete critical reflection activities
- Conduct in-class presentations on their internship experience and workplace tasks
- Respect partner organization practices and behave in a professional manner (i.e., be prompt, prepared, and perform all tasks as reasonably expected)

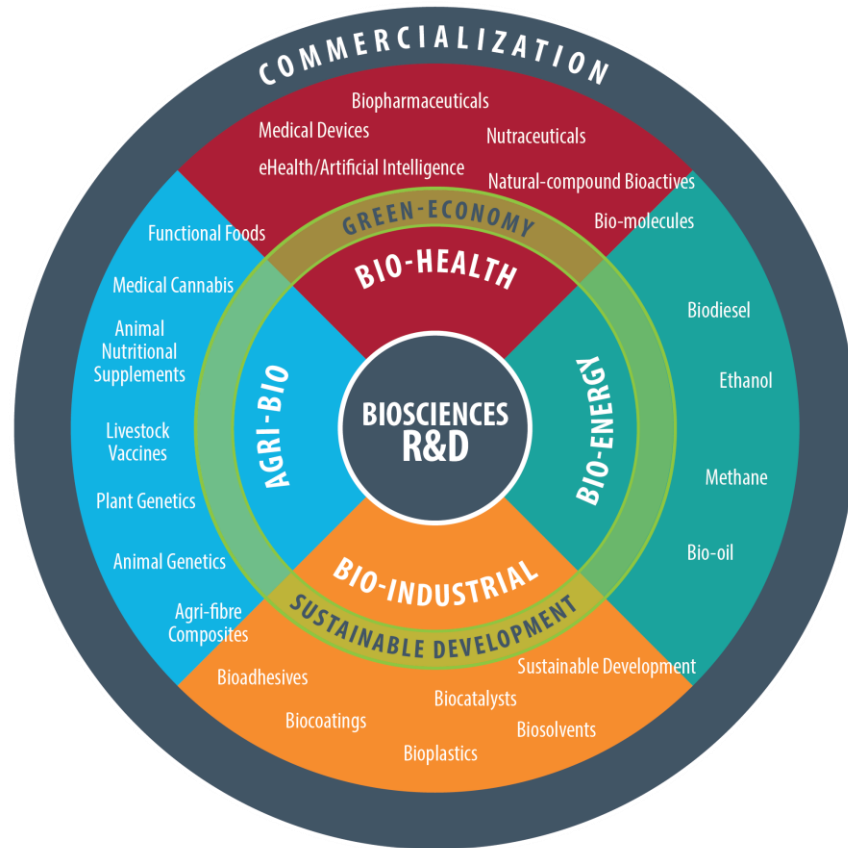
Is there anything I need to do pre-course?

Pre-Course Tasks and Timeline



HMB491 Internship Opportunities

What types of internship opportunities are available?



Canadian Biotechnology Sub-Sectors

Sample Role & Organization Types

Role Types

- R&D (Research & Development)
- Market Research
- Clinical Development
- Regulatory Affairs & Compliance

Organization Types

- Early age start-ups
- Established biotech companies
- Research networks
- Investments

Product Development Intern – Red Rock Regeneration



Roles/Responsibilities

- Conduct a literature review to identify potential candidate ions and amino acids that may be combined with an inorganic scaffold to enhance bone repair; based on this review several candidate additives will be selected
- Prepare a report summarizing the results of the literature review
- Help prepare, scaffolds containing the additive and conduct various bench and cell-based testing of the scaffolds
- Produce test articles for laboratory testing
- Conduct various tests to evaluate the potential of the additives for enhancing bone formation and prepare a report summarizing testing results

Skills/Qualifications

- Strong written and oral communication skills
- Experience conducting literature reviews
- Experience working in a laboratory, preferably including experience running protein and enzyme activity assays
- Cell culture experience a benefit (Asset)
- Knowledge of statistical analysis methods including ANOVA (Asset)

Intern, Start-up Insights - MaRS Discovery District



Roles/Responsibilities

- Develop a deep understanding of MaRS portfolio companies, with emphasis on regional biotechnology trends
- Support the development of a database and determine appropriate metrics to better understand health ventures in the portfolio
- In collaboration with teams across MaRS, develop strategies to fill venture data gaps and develop venture data gathering techniques
- Deliver a presentation about the current state of the MaRS venture portfolio based on currently available data
- Deliver a report on using MaRS' venture database, including recommendations for how it could be improved based on industry best practices

Skills/Qualifications

- Excellent secondary research and data analysis skills
- Results-driven, self-directed work style
- Good communication skills (written and oral)

Student Insight Panel

Panel Questions

- What prompted you to join the course?
- Which organization did you work with?
- What did your internship project entail?
- What did you gain from your experience?

HMB491 Student Application

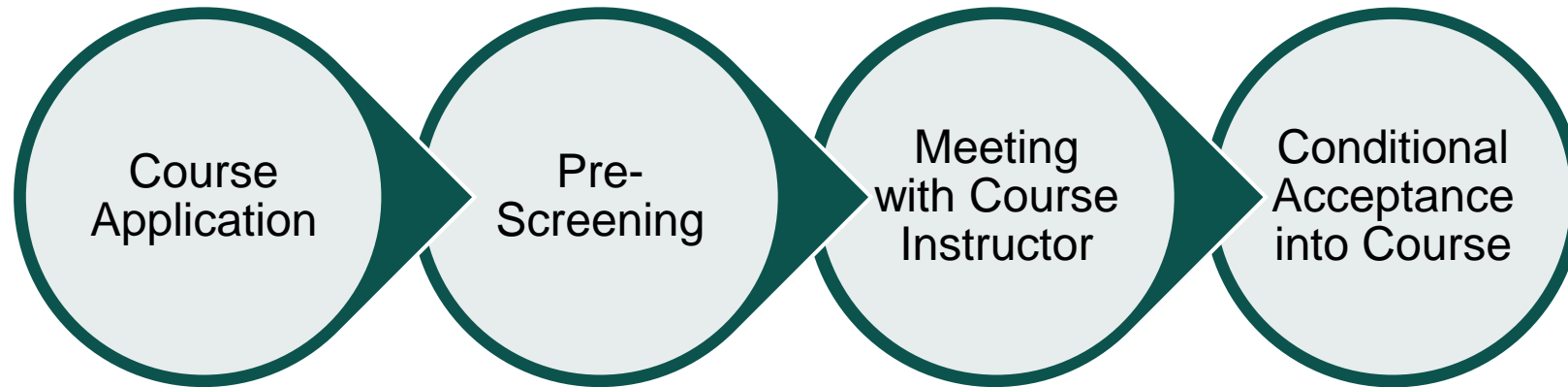
Am I eligible for HMB491?

- **Status:** Be registered as a degree student at UofT for the duration of the Fall 2023/Winter 2024 academic year.
- **Number of Credits:** Have completed 14.0 or more credits by August 31, 2023.
- **Availability:** Available to commit 8-10 hours of internship work per week for the duration of the internship (approx. September 7, 2023 – April 30, 2024).



International students who are interested in applying for HMB491 are encouraged to connect with an [International Student Immigration Advisor](#) (ISIA) at the International Student Centre to discuss their eligibility for participating in academic internship courses.

What is the selection process for HMB491?



Not all students who apply will be accepted into HMB491 due to space limitations. **Preliminary acceptance** into the course is based on a successful application and an meeting with the Course Instructor.

How will applications to HMB491 be assessed?

Item	Purpose
Unofficial Transcript	To validate students' number of credits and performance in relevant courses, where appropriate
Insight Resume (Short-Answer Question Set)	To better understand students' contributions, perspectives, experience, and competencies relating to Motivation, Accountability, Time Management/Prioritization, Problem Solving/Critical Thinking, Collaboration, Communication, and Interest in Biotechnology.



The Unofficial Transcript must show your full academic history and be uploaded as a PDF. Screenshots or photos will not be accepted. .

Insight Resume

Motivation/
Goals

Time
Management/
Prioritization

Accountability

Problem
Solving/ Critical
Thinking

Collaboration

Communication

Interest in
Biotechnology



Application Instructions

1. Obtain a copy of your [Unofficial Transcript](#) from ACORN and prepare responses to the Insight Resume.
2. Complete and submit the HMB491 Student Application Form through [MS Forms](#) or by scanning the QR code below by **May 2, 2023, at 11:59pm EST** (Eastern Standard Time).



Question & Answer Period

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