

Knowledge & Skills Gained in York U Biology Graduate Programs

The purpose of the checklist below is to outline the knowledge and skills you can develop during your graduate studies that can better prepare for scholarship applications, future degrees, and your science career. A graduate degree is far more than the thesis that you write!

You can also track **how** you developed these skills (course work, thesis research, volunteering, workshops, conferences, etc) so you can craft a stronger evidence-based CV and be better prepared for job interviews (with specific examples).

Graduate students (and postdocs) currently registered at a Canadian University can enroll in the Mitacs Training Program for professional skills development free of charge: (<https://www.mitacs.ca/en/programs/training/about-training>).

Knowledge	How can I acquire this?	Tracking (Be sure to write down how you developed these skills)
<input type="checkbox"/> Ethics in science and research	<input type="checkbox"/> Animal Care and Biohazards certification <input type="checkbox"/> York U Faculty of Graduate Studies-Research Ethics information page: http://gradstudies.yorku.ca/current-students/thesis-dissertation/research-ethics/ <input type="checkbox"/> Government of Canada-The TCPS 2 Tutorial <ul style="list-style-type: none"> ○ Course on Research Ethics (Government of Canada): http://www.pre.ethics.gc.ca/eng/education/tutorial-didacticiel/ 	
<input type="checkbox"/> Understanding the role of biology in societal issues (e.g. gene editing, climate change)	<input type="checkbox"/> Biology graduate courses	
<input type="checkbox"/> Proper lab book recording	<input type="checkbox"/> Thesis Supervisor <input type="checkbox"/> Laboratory team	
<input type="checkbox"/> Statistical data analysis methods	<input type="checkbox"/> Biology graduate courses <input type="checkbox"/> Statistical Consulting Services Short Courses on statistics and statistical computing <input type="checkbox"/> R workshops	
<input type="checkbox"/> Biology – emerging literature, methodology, history of science, etc.	<input type="checkbox"/> Biology graduate courses <input type="checkbox"/> Lab meetings <input type="checkbox"/> Departmental Seminars	

Skill	How can I acquire this?	Tracking (Be sure to write down how you developed these skills)
<input type="checkbox"/> Design, conduct and interpret experimental designs and research	<input type="checkbox"/> Research proposal, Progress Reports, Thesis <input type="checkbox"/> Laboratory/field work with supervisor <input type="checkbox"/> Biology graduate courses	
<input type="checkbox"/> Conduct literature review	<input type="checkbox"/> Research Progress Report and Thesis <input type="checkbox"/> Biology graduate courses	
<input type="checkbox"/> Apply scientific approach to problems	<input type="checkbox"/> Research proposal <input type="checkbox"/> Laboratory/field work with supervisor <input type="checkbox"/> Biology graduate courses	
<input type="checkbox"/> Experimental hands-on skills (i.e. sample collection, specimen observation...)	<input type="checkbox"/> Laboratory/field work	
<input type="checkbox"/> Communicate scientific knowledge effectively to varied audiences in written and oral forms	<input type="checkbox"/> Research proposal and committee meetings <input type="checkbox"/> Graduate courses <input type="checkbox"/> 3 Minute Thesis Competition (FGS)	
<input type="checkbox"/> Communicate scientific research using engaging and effective models, charts and graphs	<input type="checkbox"/> Research proposal and committee meetings <input type="checkbox"/> Thesis <input type="checkbox"/> 3 Minute Thesis Competition (FGS)	
<input type="checkbox"/> Public speaking to a variety of audiences (i.e. seminars, conferences...)	<input type="checkbox"/> Departmental Seminars (as audience) <input type="checkbox"/> Committee meetings, Oral examination of thesis <input type="checkbox"/> TA Certificate in Teaching (TACT) from Teaching Commons <input type="checkbox"/> STAY Symposium presenter	
<input type="checkbox"/> Business and consulting knowledge	<input type="checkbox"/> York Graduate Management Consulting Association Certificate in Business and Consulting (mini MBA)	

Leadership	How can I acquire this?	Tracking (Be sure to write down how you developed these skills)
<input type="checkbox"/> Mentoring research undergraduates (does not include normal TA duties)	<input type="checkbox"/> Undergraduate Mentor with Biology Society at York U <input type="checkbox"/> Learning Skills Peers <input type="checkbox"/> Club Peer Mentoring <input type="checkbox"/> Diversity Peer Education Team <input type="checkbox"/> Peer Health Education Team	
<input type="checkbox"/> Science outreach to public	<input type="checkbox"/> Student Ambassadors <input type="checkbox"/> Let's Talk Science	
<input type="checkbox"/> Organizing scientific events on campus or at conferences	<input type="checkbox"/> Undergraduate Summer Research Conference <input type="checkbox"/> Annual Graduate Biology Symposium	
<input type="checkbox"/> Executive committee of graduate student or other societies	<input type="checkbox"/> York U Graduate Students Association <input type="checkbox"/> Assoc. of Graduate Students in Biol. Sciences <input type="checkbox"/> Science and Technology Student's Association	
<input type="checkbox"/> Service on department or university committees	<input type="checkbox"/> Bethune College Council Member <input type="checkbox"/> Student Caucus on Science Faculty Council <input type="checkbox"/> Student Voice on Faculty Science Committee <input type="checkbox"/> Student representative on York University Senate <input type="checkbox"/> Student rep. on Biology committees	
<input type="checkbox"/> Community leadership (non-academic)	<input type="checkbox"/> Student Ambassadors <input type="checkbox"/> Let's Talk Science <input type="checkbox"/> Advocates for Physically Disabled Individuals <input type="checkbox"/> Frontier College <input type="checkbox"/> Global Youth Volunteer Network <input type="checkbox"/> GoEco <input type="checkbox"/> Habitat for Humanity <input type="checkbox"/> Start2Finish Reading & Running Clubs <input type="checkbox"/> Volunteer Toronto <input type="checkbox"/> Volunteer Note Taker <input type="checkbox"/> World Vision at YorkU	