# SEEDS KNOWLEDGE EXCHANGE: Green Careers

**Toolkit Guide** 

Disclaimer: The UBC SEEDS Sustainability Program provides students with the opportunity to share the findings of their research, as well as their opinions, conclusions and recommendations with the UBC community. The reader should bear in mind that this report is a compilation of student research conducted on the topic of urban biodiversity and should not be construed as an official position of the University. 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 Sustainability Program representative about the current status of the subject matter of a project/report.

## Acknowledgements

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1. \*The UBC SEEDS Sustainability Program is an internationally recognized Campus as Living Laboratory initiative, that advances UBC's sustainability and wellbeing commitments through applied student-led research and interdisciplinary partnerships between students, faculty, staff and community partners.

2. \*\*\*Climate Crisis in Urban Biodiversity (CCUB) is an initiative aimed towards co-creating interdisciplinary, demand-driven, diverse, and inclusive student-led research that informs urban solutions to the climate and biodiversity crises simultaneously. CCUB was launched as a PURE (Program for Undergraduate Research Experiences) funded pilot as part of the SEEDS Sustainability Program in partnership with the Faculties of Arts, Forestry, Science, and others.

3 The UBC Botanical Garden is a\_\_\_\_\_

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## **Purpose & Audience**

## TOOLKIT PURPOSE

Each Toolkit in the **Urban Biodiversity in a Changing Climate ToolTree** aims to support applied student-led research projects in partnership with UBC faculty and staff in ways that can help advance UBC's sustainability and wellbeing commitments. This Toolkit is designed to share information and resources for UBC Students that are interested in pursuing an environmental or "Green" career path. Within this toolkit, you will be able to find information on potential career opportunities, labour market information, on campus opportunities for experience and connections, and job application resources.

## WHO IS THIS TOOLKIT FOR?

Are you a UBC student who is passionate about the environmental issues facing the planet? Do you want to be an agent for positive change? Are you wondering about how you could contribute while at UBC, and how you might develop your passions into a career? If yes, then this resource is for you!

As part of the <u>Climate Crisis in Urban Biodiversity (CCUB)</u> interdisciplinary research initiative, an opportunity to create a resource that can help support students in building professional skills for "green" careers was identified as an objective. In partnership between CCUB, the <u>SEEDS Sustainability Program</u>, the <u>UBC Faculty of Arts</u> and the <u>Centre for Student Involvement</u> and <u>Careers</u>, we have developed this Green Jobs Toolkit to help support students in building experience and knowledge relevant to green careers, including applied research and other skills relevant to climate action and biodiversity conservation.

Here you can explore career possibilities, access labour market information about Green Jobs, and find opportunities to help build experience to be competitive for these kinds of positions — with links to job posting sites to find opportunities and resources to help you create strong applications that foreground your experience gained inside and outside the classroom at UBC. To learn more about the UBC career supports and book an appointment with a Career Strategist, <u>visit the Centre for Student Involvement & Careers</u>.



## What will you Learn?

This toolkit covers a number of topics related to ecological connectivity. Learning outcomes include:

Help students from across UBC **visualise** "green careers" related to interconnected issues of urban biodiversity and climate change, so that they can see ways to mobilise their research and experiences.



Share curated resources to provide students with examples of how to share their stories about curricular and co-curricular experiences in a job search. This includes sharing resources such as annotated UBC student resumes to use as models



Provide resources to help students **leverage research skills** gained through UBC experience — pertaining to biodiversity and climate issues, including topics spanning climate crisis, climate justice, urban biodiversity, biodiversity loss, and their interrelationships — to transition with confidence into meaningful work after graduation.



**Provide links to job boards** or other ways for students to find paid work in these fields, to gain experience during their degree and after graduation.

# **About Green Careers**



## What is a Green Career?

The United Nations Environment Programme (UNEP) describes green jobs as "positions in agriculture, industry, manufacturing, Research & Development (R&D), administrative, and service activities aimed at substantially preserving or restoring environmental quality while also meeting the sustainable commitments and criteria for decent work".

## Why are Green Jobs Important?

<u>Climate change</u> is one of the most pressing global environmental issues facing the world today. Rising temperatures are affecting natural, social and economic systems resulting in devastating impacts on biodiversity, food and water security, and human health. The effects of the changes in climate have also impacted how we work, what we produce and where we produce. Key issues emerging include pollination, soil health, food access and security, edible landscaping, and wellbeing.

Over the last few decades, there has been a significant move towards a greener future. Regionally, an increasing number of countries have adopted bold climate action and biodiversity conservation plans and practices. Cities are designing greener economies by expanding the number of green jobs to mitigate the environmental impacts.

Climate change and biodiversity conservation work are incredibly broad fields that draw on interdisciplinary knowledge, skills and collaboration from many different specialities (eg. biology, chemistry, ecology, agriculture, public policy, etc.). Government agencies, advocacy groups, private and nonprofit sectors, corporations, think tanks and start-ups tackling the climate crisis, are looking for graduates with diverse academic backgrounds, knowledge, expertise and skill sets. From working on forest and habitat restoration projects to developing clean energy technologies to helping communities adopt environmentally and socially responsible practices, there are many different entry points into this expansive field.

## Looking for a green job?



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# **Resources for Green Careers**



In this section, you'll find resources and information that can help direct your exploration as you learn more about green jobs.

## **Explore Career Possibilities**

Career opportunities pertaining to climate and biodiversity issues vary widely across a range of fields including sustainability, clean technology, fisheries & wildlife, remediation & waste management, policy development, environmental health & safety, natural resource management, air & water quality, communications & public awareness, research & education, and others.

There are many career paths that can combine your academics, skills, and experience with your different interests. Searching for jobs can be daunting, but there are several ways to help you explore your options. One approach is to review different job titles and job descriptions. Visit the <u>National Occupational Classification</u> website to research the basic requirements and responsibilities of jobs in your area of interest. See the job titles below for climate-related or other green (environmental and sustainable) career ideas, but note that some career options may require further education or training.

Agricultural food scientist Agrologist Atmospheric physicist Biochemist Biofuels expert City planner Climate action and energy manager Climate change advisor Climate consultant Climate finance professional Climate health data scientist Climate justice policy advisor Climate research analyst **Climate scientist Climatologist Community bike ambassador Community** engagement officer Construction and building inspector Corporate social responsibility advisor Ecologist Electrical design engineer Energy consultant **Energy efficient builder Environmental accountant Environmental engineer** Environmental journalist Environmental lawyer Environmental lobbyist Environmental protection scientist Environmental risk assessor Estimator Farmer Financial analyst, renewable development Food security specialist Forest range officer Forester Fundraiser Geoscientist Green building professional Green consulting program manager Green entrepreneur Hazardous waste specialist Hydrologist Land surveyor LEED-accredited design professional Marketing specialist Media or current affairs reporter Meteorologist Natural hazard consultant Natural resource conservationist Nature photographer Organic farmer Outreach educator Program manager, sustainability initiatives Public school facilities manager Reclamation and remediation project specialist Renewable energy engineer Research analyst, climate risk management Researcher Restoration biologist Settlements analyst, asset management Solar energy technician Sustainability officer **Transportation manager** Urban or regional planner Water quality inspector Wildlife biologist Wind resource assessor Zoo education program instructor

Another way to explore is by looking at careers in different sectors. Careers in the non-profit, public and private sectors may have different types of careers available and may also have different career characteristics that may be of interest to you. See some additional details by section below.

### NON-GOVERNMENTAL ORGANISATIONS COMMITTED TO CONSERVATION

There are many non-governmental organisations, such as charities and nonprofits, that are committed to conservation both in Canada and globally. They are usually dedicated to social or political issues in Canada and around the world including but not limited to human rights, development, environment and humanitarian aid. Below are just a few examples of large organisations that focus on conservation. Be sure to search for other organisations that may be operating in your local area to expand your search. To find more nonprofit and charity organisations, you can use a Job search engine like <u>Charity Village</u>.

- Defenders of Wildlife
- EarthJustice
- EcoHealth Alliance
- Environmental Defense Fund
- Greenpeace
- Humane Society Canada
- International Marine Mammal Project
- National Audubon Society
- National Wildlife Federation
- National Resources Defense Council

- <u>The Nature Conservancy</u>
- Ocean Conservancy
- Ocean Futures Society
- <u>Student Energy</u>
- Sierra Club
- World Wildlife Fund
- <u>The Wilderness Society</u>
- Wildlife Conservation Society
- Wild Oceans

## WORK IN THE PUBLIC SECTOR

The public sector includes all government-controlled entities such as ministries, departments, funds, organisations, and business enterprises which political authorities use to implement their social and economic policies. In Canada there are three main levels of government: Federal (Government of Canada), Provincial, and Municipal. In some jurisdictions there are also regional districts, such as Metro Vancouver, that represent shared municipal services. You can often search for public sector jobs directly on their websites

Various Federal Departments and Agencies in Canada focus on the environment, biodiversity, and climate change:

- Environment and Climate Change Canada
- Fisheries and Oceans Canada
- Natural Resources Canada
- Parks Canada

Impact Assessment Agency of Canada

Various Provincial Ministries in BC also have opportunities in these areas and positions are posted on their website. <u>BC Ministries</u> include:

- Ministry of Agriculture, Food and Fisheries
- Ministry of Environment & Climate Change Strategy
- Ministry of Forests, Lands, Natural Resource Operations & Rural Development

Municipal governments and Regional Districts have staff who work in these areas as well. In Canada, you can search for these opportunities at <u>Civic Jobs</u>, a website that hosts jobs at the municipal and regional district levels across Canada.

### **PRIVATE SECTOR**

This sector is usually composed of organisations run by individuals and groups who seek to generate and return a profit back to their owners. This sector boasts a rich diversity of individuals, partnerships, and groups — from small businesses to multinational conglomerates. These companies cover the full range of services related to the environment, biodiversity and climate change. Here are a few examples as well as several Green Economy Job Boards:

- <u>Canada's Greenest Employers 2020</u>
- <u>9 Canadian startups tackling the climate crisis</u>
- 11 of the Fastest Growing Green Jobs
- <u>Canada's Leading Companies Commit to Meaningful Action on Climate Change</u>
- <u>Twelve Canadian Firms Named to 2019 Global Cleantech 100 List</u>
- Green Economy Job boards (<u>Climatebase</u>, <u>Eco-Canada</u>, <u>GoodWork</u>, <u>Work Cabin</u>, <u>Renewable</u> <u>Energy Jobs</u>, <u>Net Impact</u>)



## Labour Market Information (LMI)

The Labour Market is the term used to describe the supply and demand for labour or jobs. Labour Market Information (LMI) then refers to any information that helps us understand and make decisions about the labour market and possibly careers. Here are links to help you access LMI to know what industries are growing, what skills are in demand, and to learn about different roles you could play toward building a sustainable and just future. Labour market information is continuously changing, so it can be important to look back on these resources at various points in your career search and progression to check in about changes.

Information Source	Description
Work BC Green Economy	A web resource provided by the Province of BC — read about $\underline{CleanBC}$ and explore industries and $\underline{careers}$ within the green sector.
Eco Canada	Learn about LMI related to Canada's green economy, including in- demand roles, <u>skills</u> , trends and opportunities.
Brookfield Institute for Innovation + Entrepreneurship	Explore emerging environmental trends that may have an impact on the future of work in Canada.
International Labour Organization (ILO)	Get labour statistics on global industries and sectors.
Vancouver Economic Commission: Green Economy	Read the <u>2018 Green Economy Report</u> to learn about leading green businesses

## **Build your experience:**

The skills developed in and out of the classroom can combine to prepare you for a green career.

The research skills related to climate change and green opportunities need to be integrated into holistic soft and technical skills, developing critical thinking, project management, leadership, interdisciplinary collaboration and effective communication. These skills are required to build a successful career in the environmental sector.

Most post-secondary environmental programs focus on equipping students with the foundational technical knowledge they will need to enter the workforce. Soft skills that students gain at university are also an important component of success. Think about how you're developing soft skills through classroom and research experiences, and in things you do outside the classroom. Being able to articulate these skills for prospective employers will help you stand out:



### GAIN EXPERIENCE WHILE YOU STUDY:

Table 1 below outlines a few different initiatives and opportunities on campus that can help you to connect with others in your field.

# Table 1. List of some of the many different opportunities to gain career experience available to UBC students.

Organisation:	Description
<u>AMS student clubs</u> (UBC Climate Hub, Common Energy UBC, UBC Student Environment Centre)	Join a club to explore your interests and meet new friends
AMS Sustainability Projects Fund	Access resources and funding of up to \$15,000 to support your sustainability-related initiative or project
Pacific Institute for Climate Solutions internships	Apply your classroom knowledge to real-world settings through climate change mitigation or adaptation projects
UBC Co-op Programs ( <u>Arts, Science, Forestry</u> )	Gain paid work experience in your area of study as part of your degree
UBC research opportunities	Explore student research opportunities, including conferences and awards
UBC Sustainability programs and clubs	Browse on-campus paid and volunteer opportunities related to sustainability
Work Learn Program	Build work experience through a part-time, on campus job
Women for Nature Young Leader Grant	Apply for a \$1,000 grant to develop and implement a community- based nature project
Science & Technology Internship Program - Green Jobs	

### PREPARING FOR YOUR CAREER

Some green careers may require you to have specific credentials to enter the field of work - think of engineers as an example. If you would like to work as an Environmental Engineer in British Columbia, you must be registered with the Engineers and Geoscientists of BC. This means meeting all of their requirements for admission as well as ongoing professional development.

It is also important to know that these specific credentials may be related to the geographic area where you plan to work. In Canada, many of these professional associations are provincially regulated, like the engineering example mentioned above. Other designations or credentials, like the Professional Project Manager administered by the <u>Project Management Institute (PMI)</u>, that may be desirable for an employer, but are not necessarily required. We have listed some of the professional organisations relevant to green careers that are found in British Columbia and which are required to undertake specific kinds of work. Take a look at the areas of practice covered by these organisations and review their application procedures to see if pursuing a professional designation might be right for you:

- <u>Applied Science Technologists and</u> <u>Technicians of BC</u>
- Association of BC Forest Professionals
- <u>Association of BC Land Surveyors</u>
- <u>Association of Professional Biology</u>

- British Columbia Institute of Agrologists
- Engineers & Geoscientists BC
- Planning Institute of British Columbia

### MAKE CONNECTIONS

Employers often hire people they know, so help them get to know you! You can <u>build your network</u> through clubs, classes, <u>informational interviews</u>, volunteering, and more. There are so many ways to make connections and find mentors.

Find <u>UBC Alumni on LinkedIn</u>, see where they're working, and explore their career and academic paths, or connect with members within the UBC community through <u>UBC Hub of Ten Thousand</u> <u>Coffees</u>.

The professional associations, networks, advocacy groups and grassroots organisations below are also great resources for meeting people, learning about specific industries, identifying important social and political issues in the field, getting inspired, and exploring job and volunteer opportunities. Most associations have reduced membership rates for students and new graduates.

<u>350.org</u>	<u>Canadian Youth Climate</u> Coalition	<u>GoodWork</u>
BC Water and Waste		<u>GreenBiz</u>
Association	<u>Charity Village</u>	Green Peace Canada
<u>BC Sustainable Energy</u> Association	<u>Clean Energy BC</u>	Idle No More
	Climate Action Network	Indigenous Climate Action
British Columbia Conservation Foundation	Climate Careers job board	Nature Canada
British Columbia Council for	Connecting Environmental	
International Cooperation	Professionals	Planetfriendly
British Columbia Environment	David Suzuki Foundation	Sierra Club BC
Industry Association	Ecoforestry Institute Society	<u>Urban Biodiversity Hub</u>
Canada Green Building Council	<u>Ecojustice</u>	
<u>– BC Chapter</u>	Ecology Society of America	
Canadian Directory for Environmental Groups	Environmental Careers	
Canadian Environmental	Organization (ECO) Canada	
<u>Network</u>	Food Secure Canada	
	<u>FoodWork</u>	

### **TELL YOUR STORY!**

Storytelling is how we engage, relate and connect with others. Clearly and confidently articulating who you are, the value you have to offer, and the problem you want to solve or work you want to do takes some practice.

Get clear on your <u>values</u> as you consider your career options. To help you identify the values, ask yourself:

### What's important to you about this work?

What contributions (direct or indirect) do you want to make in the fight against the climate crisis? Are there other sustainability issues & opportunities that you are passionate about?

# What disciplinary and/or interdisciplinary knowledge, skills and experiences do you bring and think are necessary to co-create the better world you envision?

Write a <u>resume</u> and <u>cover letter</u> (you can find annotated examples in these links) that strategically describes your skills, strengths and experiences and connects them to the value provided to the employer. Leverage knowledge and skills developed throughout your degree (<u>Arts</u>, <u>Engineering</u>, <u>Land & Food Systems</u>, <u>Science</u>) that can be applied to different aspects of the job. Watch this video on how to write accomplishment statements.

Visit <u>this link</u> to get tips on how to translate your unique experiences and key learning moments into stories to share in an interview with an employer. Watch <u>this video</u> on how to answer behavioural-based interview questions.



## **Build Your Resume:**

Below are two sample resumes, annotated for more details about how you can best display your information to potential employers.

#### **RESUME 1 — JANE DO**

Jane is a senior undergraduate student in her last term at UBC. Her resume shows how she was able to build a range of experience, through coursework, jobs, and internships, during her UBC experience. She is using her resume now to apply for jobs with environmental focused non-governmental organisations after graduation.



## Jane Doe - Resume (Page 2)

#### INTERNSHIPS

#### Assistant Policy Analyst

September 2020 - ongoing

British Columbia Council for International Cooperation

Institute for Oceans and Fisheries, Vancouver, Canada

• Research and conduct analyses on existing literature to produce a briefing paper for BC municipalities that introduces the concept and steps they can pursue to incorporate climate justice and equity into their climate change response plans

• Conducted 13 different interviews with city councilors, non-profit organizations, youth activists and indigenous spokespeople to gather information

· Leading a consultation and engagement plan and hosted webinars and outreach and report dissemination events

#### **Research Intern at Sea Around Us**

May 2019 - September 2019

•Assisted the global fisheries catch reconstruction project that aims to provide a more accurate compendium of fisheries statistics that includes both reported and unreported data

•Performed data mining and literature searches for additional data on different fisheries sectors

•Worked independently and efficiently on assigned country profiles and produced comprehensive guides to current, existing literature and identified knowledge gaps

#### World Resources Institute Intern - May 2018 - June 2018

World Resource Institute, Beijing, China

• Conducted literature review on the water-energy-food nexus and water scarcity crisis in Ningxia and collected and processed data in an efficient and punctual manner.

Assisted WRI with hosting an international workshop on distributed energy and microgrid development in China and
creating transcription documents for dissemination

Conducted peer review of knowledge products created by WRI researchers

#### ADDITIONAL VOLUNTEER EXPERIENCE

## Trail Six Undergraduate Journal Editor-in-Chief - September 2020 - ongoing UBC Geography

- · Producing and reviewing article submissions for a nationally recognized academic journal
- Organizing peer review process with academics and authors and facilitating publication logistics z`

#### Vice President Administration - September 2018 - September 2020 UBC Geography Students' Association

- · Led student events and performed administrative duties to organize and engage the membership base
- · Liaised with faculty staff and professors to ensure communication and inclusion of student voices within the department

Research and Administrative Specialist - May 2019 - January 2020 Vancouver Aquarium

• Undertook thorough literature reviews of scientific publications to identify novel research as well as areas of data gaps to produce supporting material on public tour programming

#### SKILLS

ESRI ArcGIS software | Web mapping Javascript | R code | Github | QGIS | Oral fluency in Mandarin

Another option for a neader for this section would be "Leadership Experience." Customize your section headers to respond to key skills/experiences outlined in the specific job description you're apolving for.

Because Jane has some unique technical skills and language abilities, she's decided to have a separate

Jane. If she was applying for a job that specifically asked for these skills, she would move this section earlier in

## Want more Information or Individual support? Check out these resources:

- <u>Centre for Student Involvement & Careers workshops and events</u>
- <u>Career Peer Coaching to get specific feedback about your resume and/or cover letter</u>
- Career Advising to further explore your personal career questions and create a plan of action
- Career Resources for Students with Disabilities, Students of Colour, LGBTQ+ Students
- What can I do with my degree? Resources for <u>Arts</u>, <u>Science</u>, <u>Engineering</u>, <u>Land & Food Systems</u>
- <u>Career Activation Video Series</u> to get information and tips on how to activate your career





Thank you for reading! We hope you found the research summarized in this Toolkit useful.

Please email seeds.info@ubc.ca for any questions.