

## Job Description



---

|                        |                               |
|------------------------|-------------------------------|
| <b>Job Title:</b>      | Plant Growth Facility Manager |
| <b>Department:</b>     | Biology                       |
| <b>Reports To:</b>     | Administrative Officer        |
| <b>Jobs Reporting:</b> | None                          |
| <b>Salary Grade:</b>   | USG 8                         |
| <b>Effective Date:</b> | April 1, 2017                 |

---

### **Primary Purpose**

The Plant Growth Facility Manager is responsible for the efficient operation, oversight and maintenance of the Biology greenhouse and growth chambers. The Plant Growth Facility Manager is responsible for supplying quality biological material for undergraduate courses and faculty research programs by means of proper planning, co-ordination, technical expertise and facility management.

### **Key Accountabilities**

*List the major responsibilities of the job, divided into 3 to 5 broad categories. These should reflect 80 - 90% of "what" the job does not the "how". Insert a category heading and in bullet form below, state specific responsibilities.*

|  |
|--|
| <b>Planning and Propagation of Plant Material for Teaching and Research</b> <ul style="list-style-type: none"><li>• Plant identification and taxonomy</li><li>• Prepare soil. Monitor and manage soil nutrient properties to correct for any deficiencies</li><li>• Procure and propagate a wide range of species</li><li>• Maintain an accurate supply of high quality plant material for undergraduate courses according to lab schedules</li><li>• Assists faculty in the development of new or existing research projects and teaching labs</li><li>• Allocate space within facility including the greenhouse and Biology 1 rooms 168, 176, 290</li><li>• Management of resource use during major renovations; care and management of plants during this phase</li></ul> |
| <b>Controlled Environment Chambers</b> <ul style="list-style-type: none"><li>• Integration of control and refrigeration units including humidify/dehumidify</li><li>• Monitor individual unit parameters including temperature, lighting, using tools such as a LiCor meter and other measurement techniques</li><li>• Program a variety of control systems using schematics and manuals to program up to 8 different computer interfaces</li><li>• Allocate use of chambers to maximize efficiency while maintaining equity and fairness</li><li>• Train and supervise all student users</li></ul>  |
| <b>Integrated Pest Management</b> <ul style="list-style-type: none"><li>• Pesticide procurement, storage, handling and application as governed by Ministry of Environment</li><li>• Pest identification including insects, fungi, viruses</li><li>• Sanitation of chambers and greenhouse to control pest</li><li>• Biological and/or cultural controls appropriate to target species</li><li>• Chemical control through pesticide application when necessary – target pesticides to specific problem</li></ul>  |
| <b>Maintenance of Facility and Custodial Duties</b> <ul style="list-style-type: none"><li>• Repair and schedule maintenance of greenhouse and growth chambers</li><li>• Administer security system including allocation of keys and alarm codes</li><li>• Monitor, initiate and co-ordinate minor and major repairs and upgrades to structures including glass, floors, shading systems, venting, plumbing, electrical and refrigeration infrastructure</li><li>• Design, build and/or install equipment such as benching, HID lighting, evaporative cooling and mist systems, and insect containment</li></ul>  |

## Job Description



|  |
|--|
| <ul style="list-style-type: none"><li>• Clean and disinfect entire facility including floors, walls, garbage disposal for the potting shed, greenhouse and growth chambers</li></ul>   |
| <b>Supervision and Training</b> <ul style="list-style-type: none"><li>• Responsible for all greenhouse and growth chamber users. At present this includes 8-10 faculty, staff and approximately 30 graduate students and research associates. Provide training, support, allocation of space and conflict management and resolution.</li><li>• Supervision of two casual weekend staff which includes: hiring, training, performance management, preparing casual payment and termination</li></ul>  |
| <b>Financial and Administrative Responsibilities</b> <ul style="list-style-type: none"><li>• Assess, purchase, and organize consumables for research and course work such as containers, fertilizers, soil, amendments and labels</li><li>• Inventory and purchase lamps for chambers and supplemental greenhouse lighting; includes a knowledge of lighting theory for HPS, MH, fluorescent and LED bulbs of different spectral distribution</li><li>• Responsible for greenhouse, growth chambers and lighting budgets and internal charge-backs</li><li>• Responsible for record keeping and assessment of charge-backs for greenhouse bench space and growth chamber space; including daily monitoring of chambers and monthly reports to faculty</li><li>• Maintain up-to-date knowledge of other university systems (across Canada and USA) to ensure our systems remain current</li></ul> |
| <b>Liaison with on-campus and off-campus personnel</b> <ul style="list-style-type: none"><li>• Maintain good communication with plant operations, faculty and other staff concerning usage and repair of greenhouse and growth chambers</li><li>• Co-ordinate with HVAC contractors and chamber repair companies</li><li>• Diagnose problems and complete minor repairs and restarts to avoid calling repair personnel for simple fixes. Refer major repairs to Plant Operations or external contractor</li><li>• Obtain quotes from suppliers, analyze research needs and recommend companies</li><li>• Provide greenhouse tours to the community to support university outreach initiatives</li></ul>  |
| <b>Installation and Decommissioning of Equipment and Facilities</b> <ul style="list-style-type: none"><li>• Co-ordinate removal and/or installation of equipment with Central Stores, Plant Operations and external companies</li><li>• Ensure correct electrical and cooling loop for each chamber including deionized water for units with humidification</li><li>• Work with the department, faculty, university personnel and outside contractors on the facilitation of demolition, design and commissioning of facilities</li></ul>  |

### **Required Qualifications**

*If hiring today, what would be the required education, experience, knowledge, skills and abilities?*

|  |
|--|
| <b>Education</b> <ul style="list-style-type: none"><li>• BSc in Biology required with specialization or significant expertise in Plant Science or Horticulture. MSc preferred. Structural exterminator's license is required. Membership in Associate of Education and Research Curators (AERGC) recommended and attendance at AERGC yearly conference is encouraged.</li></ul>          |
| <b>Experience</b> <ul style="list-style-type: none"><li>• Experience working in an academic setting is required. Previous experience in a greenhouse environment is preferred. Ability to work independently with strong problem solving and conflict management skills is essential. Strong communication skills as well as tact, judgement and diplomacy are also essential.</li></ul> |
| <b>Knowledge/Skills/Abilities</b> <ul style="list-style-type: none"><li>• Experience programming and operating controlled environment chambers. Oversight of facility including experience integrating greenhouse computer control systems (ventilation, evaporative cooling, exhaust fans, thermal shade curtains) and manual controls such as venting internal fans.</li></ul>         |

### **Nature and Scope**

- **Contacts:** Significant internal relationships include faculty, staff and students. Significant external relationships includes suppliers, vendors and members of the general public.
- **Level of Responsibility:** Supervision of two weekend staff members. Functional supervision of all users of greenhouse and growth chambers. Uses technical expertise in Plant Biology to supply high quality biological material for courses and faculty research programs. On-call for equipment failures and trouble shooting.
- **Decision-Making Authority:** Ability to problem solve and recognize when a problem needs to be triaged is essential. Ability to work independently and make decisions (e.g., initiation of repairs and maintenance).
- **Physical and Sensory Demands:** Requires exertion of physical or sensory effort resulting in moderate fatigue, strain or risk of injury. Heavy lifting is required from time-to-time and the incumbent must be able to routinely lift approximately 50lbs.
- **Working Environment:** The working environment at times will be dusty and dirty. Exposure to various chemicals and noxious smells. Working hours may fall outside of University business hours from time to time depending on the usage of equipment, potential emergencies such as malfunctions of essential equipment, power outages, etc.