POSITION SUMMARY
QUEEN’S UNIVERSITY - GENERAL STAFF

POSITION TITLE: Laboratory Curriculum Developer
DEPARTMENT: Biology
POSITION NUMBER: 00111218
GRADE: 7
EFFECTIVE DATE: February 18, 2021

JOB SUMMARY

Reporting to the Department Head and/or Associate Head, and receiving supervision from the Department Manager, the Laboratory Curriculum Developer is responsible for developing, testing, teaching, implementing and managing undergraduate student labs and/or tutorials in either lab-based courses or lecture-based courses. The incumbent is expected to collaborate with the course coordinator to support the overall learning outcomes, while maintaining the course structure.

The Laboratory Curriculum Developer will be responsible for managing laboratory inventories, specimens, reagents, consumables and equipment. The incumbent may also analyze, summarize and communicate results from lab and field exercises, and is expected to use Queen’s learning management system for tracking grades and delivering teaching material. In addition, the incumbent is responsible for modifying labs and/or tutorials to ensure accessibility for all students, including those that require accommodation based on disability.

Working with Teaching Assistants is a central part of the position, which includes directing, teaching and coordinating the graduate students that are working in a particular course. The incumbent must learn about and comply with the collective agreement that governs Teaching Assistants. Safety is a top priority in Biology and at Queen’s, and part of the responsibility of the Laboratory Curriculum Developer is to ensure compliance with safety standards and academic regulations. The Laboratory Curriculum Developer must learn about and comply with all aspects of the Off-Campus Activity Safety Policy (OCASP).

The incumbent will promote a professional and positive work environment that is free from harassment, including but not limited to: positive and supporting supervisory environment for teaching assistants, and professional dialogue with colleagues, faculty and staff in both oral and written communication.

The schedule for this position requires the incumbent to work occasional evenings and/or weekends, according to program needs.

KEY RESPONSIBILITIES

- Development of new lab and tutorial content on an ongoing basis, in consultation with the course co-ordinators, including all teaching material, presentations, assessments, and marking rubrics. For laboratories, this includes design and development of experiments from initial conception to full pilot prior to the start of regular classes.
• Coordinate all aspects of any assigned lab and field activities, which includes but is not limited to: collection of all botanical and zoological samples required for these courses at the appropriate season of the year, and storing them appropriately until needed; preparing and submitting all animal care protocols in compliance with the University Animal Care Committee requirements for the lab and field work; applying for and maintaining all required licenses or permits (e.g., to allow seine-netting fish, bird and mammal capture and handling); designing and setting up field work sites; collecting fees from students for field trips; making arrangements for trips to the Biological Station; complying with Queen’s Off-Campus Activity Safety Policy; ordering supplies; maintaining lab safety; managing course budgets; and potentially working with hazardous materials or equipment.

• Supervise Teaching Assistants including development of contracts, scheduling of workload, training, supervision, and constructive feedback. Leading some live tutorials/labs so that Teaching Assistants can ‘job shadow’. Coordinates and monitors workflow, provides coaching and feedback on work-quality issues, provides related day-to-day supervision. Escalates unresolved performance and/or disciplinary matters to management.

• Working with Queen’s learning management system. Assist with the course website design (e.g., grade book, content pages) as it relates to assessments, creating and uploading content, and maintaining the grade book.

• Administrative duties, including but not limited to: holding scheduled office hours; learn about administrative processes used in other courses; use resources in the department and wider university to implement transparent and efficient processes in Queen’s learning management system, for managing student accommodations and considerations.

• Attending course lectures, as necessary, so that the Laboratory Curriculum Developer is fully cognizant of the lecture content of courses. Adapt lab or tutorial activities as required to have them integrate with the lecture material.

• Continually develop teaching and related professional skills.

• Other duties as required in support of the Department of Biology.

REQUIRED QUALIFICATIONS

• Minimum of an MSc in a Biology discipline (e.g. Ecology, Animal Physiology or Cell Biology).

• Demonstrated experience working with spreadsheet, word processing, and statistical software at an intermediate level. Previous experience working with learning management systems.

• 5 years of relevant experience including some teaching experience and supervisory experience.

• Satisfactory Criminal Records Check and vulnerable Sector Screening required.

• Consideration may be given to an equivalent combination of education and experience.
SPECIAL SKILLS

- Ongoing commitment to professional development in essential skills that are core to the Biology undergraduate program. Ability to adapt quickly to changing circumstances and make accommodations on an independent basis, while keeping within the guidelines and goals of the course(s) for which the incumbent is responsible.

- Technical proficiency in the use of complex lab equipment, and skill in use of precision instruments. Appropriate handling of samples and specimens. Careful and critical observational skills. Care in handling and disposing of hazardous materials.

- Organizational, problem-solving, and analytical skills. Judgment in choosing best protocols or procedures to meet changing needs.

- Supervisory and leadership skills to provide direction and instruction to graduate student Teaching Assistants.

- Mathematical and statistical analysis skills at a level that the Department requires in the undergraduate programs.

- Interpersonal and communication skills (verbal and written) to correspond with students, staff, other labs and departments, and outside agencies.

- Time management skills, ability to cope with multiple demands, take initiative, manage competing priorities, and meet tight deadlines.

DECISION MAKING

In collaboration with the Senior Laboratory Curriculum Developer, course coordinator, you will make decisions regarding experimental approach, adapting protocols and procedures as required in developing curriculum content. Specifically, the Laboratory Curriculum Developer will:

- Assess progress and determine alternative methods and/or develop novel experimental approaches to teaching lab procedures.

- Allocate work to graduate-student Teaching Assistants, consistent with procedures established by PSAC 901, and meet with the Teaching Assistants on a regular basis to ensure lab sessions are coordinated and consistent across all groups.

- Determine which equipment needs to be repaired, replaced, or acquired, and research and make recommendations regarding supplier or manufacturer.

- Provide information about best methods to the course coordinator or to others such as the Chair of Undergraduate Studies.

- Determine the appropriate way to dispose of hazardous wastes following safety guidelines, and react appropriately in an emergency to minimize damage.

- Determine when a situation has the potential for causing a serious accident and consult with the course coordinator, Department Manager, and Department Safety Officer to proactively prevent such occurrences.
• Make recommendations regarding the course budget and consult with Senior Laboratory Curriculum Developer on an ongoing basis to manage the courses’ financial and infrastructure resources.

• Review performance of Teaching Assistants on the basis of student responses to a questionnaire at the end of the course, and provide the Teaching Assistants with constructive feedback, and consult the course coordinator and Chair of Undergraduate Studies should problems arise.

RESEARCH ASSESSMENT QUESTIONS:

1. Is this position technical in nature in a teaching or research lab or lab-related area?
   YES ☐ NO ☒

2. Does this position support a research project?
   YES ☐ NO ☒
   If yes, indicate name of the project:

3. Does this position report directly to a Principal Investigator (PI)?
   YES ☐ NO ☒
   If yes, indicate name of the PI:

SIGNATURES:

___________________________________________________________________________  ________________
Incumbent

___________________________________________________________________________  ________________
Manager

___________________________________________________________________________  ________________
Department Head/Director or Designate