



Job ID: 26649

Business Title: Science Education Specialist (SES)

Employment Group: Management & Professional (AAPS)

Faculty/Department: Faculty of Science, Department of Mathematics

Salary: \$59,632/year

Full/Part Time: Full-Time

Desired Start Date: August 1, 2017

Position End Date: July 31, 2020, with possibility of extension

Available Openings: 1

Closing Date: June 23, 2017

Job Summary

The position is a Faculty of Science-funded education specialist embedded in the Mathematics Department. The person will have disciplinary expertise in Mathematics (preferably a graduate degree in Mathematics or closely related discipline), and will bring expertise in pedagogy and evidence-based practices from their own background and bolstered with Skylight-coordinated professional development workshops and ongoing mentoring from Skylight leadership and peers. They will mentor faculty instructors using the developed teaching methods and materials. From time to time, the incumbent will need to participate in the instruction to undergraduates to advance the pedagogy of the way a course is delivered.

The SES will be a resource, guide and support within the department. S/he will lead scholarship of teaching and learning projects, advise the faculty on teaching and learning practices, and work with them on course and curriculum revisions, evaluations and pedagogical improvement projects.

Organizational Status

Appointed in the Mathematics Department in the Faculty of Science. Reports jointly to a faculty supervisor in the Mathematics department and to the Director of Skylight or designate. Works closely with faculty members and other members of instructional teams (e.g., teaching assistants) and students who may be hired to help with projects.

Interacts with peer members of Skylight in other departments and the central unit. May supervise teaching assistants and/or research assistants.

Work Performed

Instructional guidance:

- Advise and support faculty in developing and implementing new courses and course materials (including WeBWork content), transforming and improving existing courses (including integrating and implementing new learning technologies), and revising and coordinating revision of curriculum at a course and/or program level

- Advise and support faculty teaching activities and teaching and learning development projects
 - Collect and analyze data to support curriculum development, delivery, and assessment (e.g., longitudinal student tracking, diagnostic tests, concept questions, surveys, focus group questions, etc.)
 - Advise/collaborate with faculty on teaching and learning project proposal development (e.g., large and small TLEFs, development grants)
 - Liaise with Skylight and CTLT to coordinate relevant educational technology support and administrative assistance
 - Prepare departmental reports on pedagogical projects and/or initiatives, including maintaining and updating the departmental teaching resources website
 - Coordinate departmental activities in articulating the departmental vision around teaching and learning
- **Faculty and Teaching Assistant development:**
- Coach and consult with faculty on evidence-based practices, possibly as part of a paired instructing arrangement
 - Serve as a resource for evidence-based practice
 - Provide formative, informal expert feedback to instructors on their teaching
 - Develop and deliver professional development workshops (including training on new learning technologies) for faculty and teaching assistants
 - Facilitate the professional development of faculty in the area of teaching and learning through workshops and one-on-one consultations, providing expertise and support in the planning, designing and implementing of evidence-based teaching practices and resources, and by measuring the effectiveness of such interventions.
- **Discipline-based education research (DBER):**
- Design educational research experiments and collect relevant data for course projects and publish newly developed instruments or implementation of novel methods
 - Consult and collaborate on scholarship of teaching and learning (SoTL) and DBER efforts undertaken by faculty
 - Disseminate scholarly work in collaboration with faculty through presenting at national and international conferences and publishing in peer-reviewed journals
- **Community building:**
- Facilitate faculty members' communication and consensus building around teaching and learning in their department
 - Liaise across Science departments and with colleagues at other institutions in the same discipline
 - Serve on committees related to departmental teaching and learning activities
 - Organize and participate in department activities related to instructional practice such as discussion series, science education seminars, reading groups, etc.
- **Participate in centrally-organized work and activities:**
- Collaborating on FoS-wide projects, actively participating in the community of their across departments, attending/contributing to Skylight meetings, Supper Series and the Science Education Open House each April, serving on committees as needed.

As part of the larger teaching improvement mission, may be asked occasionally to instruct in courses that are under development/study and have been identified as in need of pedagogical advancement (this would be at most one (three credit) course per year, with at most six credits in any three year time span, and would be done under an Honorary Lecturer appointment)

Consequence of Error

Participates in the assessment of program offerings and evaluations of teaching that will impact the success of the teaching programs and improve the teaching ability of faculty members.

Supervision Received

The role reports jointly to both Skylight Director and Department Head, or their designates. The incumbent will work under general guidelines. Work is reviewed in terms of achievement and effectiveness in advancing the department's educational goals.

Supervision Given

This role provides guidance and advice to faculty members and other instructors on pedagogical skills, teaching practices and curriculum. May supervise TAs, UTAs, GRAs, URAs who may be hired to support DBER and SoTL projects.

Qualifications

A graduate degree in mathematics or related discipline is preferred so that the incumbent will have sufficient knowledge of the subject to provide relevant pedagogical guidance in the courses taught. Must have knowledge of current pedagogical research and best practices in teaching. Experience working in an instructional capacity (instructor or teaching assistant) with undergraduates. Experience in curriculum development. Experience in evaluation. Experience with learning management systems (e.g., WeBWork, Blackboard) and other educational technologies would be an asset. Ability to lead change by helping to implement a vision and taking appropriate action to ensure acceptance and support. Ability to instruct and provide training in pedagogical best practices. Ability to initiate and conduct research projects. Ability to analyze and interpret data, determine implications, and provide recommendations. Good assessment and evaluation skills. Ability to give effective presentations. Excellent written and oral communication skills. Good management and organization skills. Ability to work effectively with minimal supervision. Ability to deal with a diversity of people in a calm, courteous, and effective manner. Experience and facility with word processing, spreadsheet, and presentation software.

Application Process:

A detailed resume and cover letter quoting the Job ID number **#26649** must be received by June 23, 2017, addressed to the attention of Theresa Lee, Human Resources Manager.

Please follow the application instructions at:

<https://www.hr.ubc.ca/careers-postings/staff.php>

UBC hires on the basis of merit and is strongly committed to equity and diversity within its community. We especially welcome applications from visible minority group members, women, Aboriginal persons, persons with disabilities, persons of minority sexual orientations and gender identities, and others with the skills and knowledge to productively engage with diverse communities. All qualified candidates are encouraged to apply; however Canadians and permanent residents will be given priority.