

Position: Content Provider (non-degree)
Location: Extended Education
Appointment Start Date: January 31, 2022
Appointment End Date: May 9, 2022
Full time: no
Permanent: no
Posting end date: October 25, 2021
Course Names: Special Topics in BIM (EEAS 0142); 36 contact hours
Remuneration: \$6,600 - \$8,800
Contact for this posting: Sarah.Chan@umanitoba.ca

Role:

Extended Education seeks an expert in **Building Information Modeling (BIM)** to work with our in-house curriculum design experts to develop curriculum for the course, **Special Topics in BIM (EEAS 0142)** in the program **Certificate in Building Information Modeling (BIM) Management**.

Responsibilities:

The Content Provider will work with the Design and Production team, which includes the instructional designer and production team. It is expected that the content provider is available for virtual meetings with the Design and Production team during the development.

During the design phase of development, the content provider will work with an instructional designer to develop course blueprints with unit-by-unit learning outcomes; course outlines and course schedules; assessment overviews, as well as individual assignments and rubrics. During the production phase of the development, the content provider will write the content, which is comprised of units and activities for online and face-to-face delivery. If media pieces are required, they will be developed during this phase. The content provider is also required to complete a mid-point review, as well as a final review of the courses.

Course information:

Special Topics in BIM (EEAS 0142); 36 contact hours

The topic(s) addressed in this course may vary according to factors such as current events, instructor expertise, and student need.

Topics may include, but will not be restricted to:

- Design for Manufacture: Practices that integrate off-site manufacturing of building components and on-site assembly in the BIM design process. Possibility of a field trip.
- BIM based analysis: The use of BIM data in constructing a model for simulation and analysis, and the automation of this process. Types of simulation could include building energy, daylighting, and assembly sequence (4D simulation). Applicable across multiple project types.
- Interoperability of BIM data formats: The exchange of building information between BIM authoring platforms, discipline-specific modeling tools and related software. This topic addresses specific interoperability challenges and methods for improving data interoperability in practice.
- IoT and the Smart City: This topic addresses the role of BIM in realizing the benefits of an 'Internet of Things' in the construction and operation of buildings, as well as the potential of BIM data to support the design and operation of smart cities.
- Computational Design: The use of computational methods including parametric design and generative algorithms to produce building forms that are efficient to construct and operate.
- Virtual, augmented reality and mixed reality: The use of BIM data to generate VR and AR content for communication and collaboration.

- BIM and 3D Printing: The use of BIM data to support the construction of buildings through a process large-scale 3D printing and/or small-scale 3D printing of building components.

The course content may be selected and tailored for a specific discipline (e.g., emphasizing discipline-specific process or software), depending on instructor expertise and participant interest for a given offering.

Qualifications:

Applicants must have a minimum of five years of experience working in the AECOO industry with direct BIM experience. Assets for this position include knowledge of the Canadian Practice Manual for BIM (buildingSMART Canada), the BuildingSMART Professional Certification Program and Learning Outcome Framework, ISO 19650, and an excellent understanding of the BIM landscape both nationally and globally. Applicants must have an undergraduate degree, or an equivalent combination of education and experience may be considered. Applicants must possess excellent writing skills, the ability to complete tasks on schedule, and have strong communication skills. Assets include experience in the development of courses and/or teaching, affiliation or involvement with a recognized professional body for BIM, and completion of a recognized BIM certification course.

Applications must include a **cover letter** and **resume**. Applicants must clearly identify their expertise in the BIM topics listed or propose other relevant topics essential to BIM. If selected for an interview, candidates will be asked to give a short (virtual) presentation on their top 3 topics for the course, including how the topic would be presented in terms of unit topics, learning outcomes, and assessments.

We thank all applicants for their interest; however only those advancing in the selection process will be contacted. Remuneration is subject to qualifications.

The University of Manitoba is strongly committed to equity and diversity within its community and especially welcomes applications from women, racialized persons, Indigenous peoples, persons with disabilities, persons of all sexual and gender identities, and others who may contribute to the further diversification of ideas. All qualified candidates are encouraged to apply; however, Canadian citizens and permanent residents will be given priority.

If you require accommodation supports during the recruitment process, please advise.

Application materials, including letters of reference, will be handled in accordance with the protection of privacy provisions of "The Freedom of Information and Protection of Privacy" (Manitoba). Please note that curriculum vitae will be provided to participating members of the search process.