Grad Student Position: Advanced Surface Characterization of Biomaterials

Description
We are seeking an individual for a MASc or PhD position to work on an exciting project involving advanced surface characterization of biomaterials at McMaster University. The ideal applicants should be interested in advancing their knowledge in a variety of state-of-the-art techniques while contributing to cutting-edge research in the interdisciplinary field of biomaterials. A range of facilities with sophisticated instruments are available at McMaster including the Canadian Centre for Electron Microscopy, the Brockhouse Institute for Materials Research, and the Biointerfaces Institute, among others. The position will be through the Department of Materials Science and Engineering or the School of Biomedical Engineering under the supervision of Dr. Kyla Sask and Dr. Kathryn Grandfield. The project will involve an industry partnership with potential for additional support through Mitacs.

Responsibilities
- Complete literature reviews of relevant research areas
- Establish project plans, milestones, timelines
- Design and perform experiments with troubleshooting as necessary
- Collect data, analyze and summarize appropriately
- Interact with others in lab groups and within other labs
- Prepare presentations and deliver research findings at meetings and conferences

Requirements
- Bachelor’s or Master’s degree in engineering (biomedical, materials, chemical, mechanical or similar) or science/health science (biochemistry or similar)
- Exceptional organizational skills with ability to prioritize effectively
- Hands-on lab skills combined with analytical and critical thinking abilities
- Excellent documentation skills with attention to detail
- Strong interpersonal skills including verbal and written communication
- Ability to work independently as well as in a multidisciplinary team environment

Assets
Experience with the following will be considered strengths:
- Polymer and other material preparation and analysis
- Electron microscopy experience (SEM, TEM, FIB-SEM)
- Surface characterization techniques (AFM, XPS, QCM, SPR and/or others)
- Biological / protein assays (immunoblotting, ELISAs, proteomics and/or others)
- Cell culture techniques (mammalian or microbial)

Apply
Interested candidates should submit a cover letter and CV to Kyla Sask by email: ksask@mcmaster.ca with the subject line: “Surface Characterization Position”. Please apply as soon as possible. Interviews with potential candidates will begin immediately but applications will be accepted until the position is finalized. Thank you to all applicants, but only those selected for an interview will be contacted.
**Additional Details about Engineering at McMaster**

McMaster University has a large, attractive campus, the interior of which is open only to pedestrians and cyclists, and is at the western end of Lake Ontario. The University is minutes from downtown Hamilton, a city rich in history and culture with a vibrant arts community. Nearby recreational and conservation attractions include Cootes Paradise, the Bruce Trail, the Niagara Escarpment, the Waterfront Trail, and the Royal Botanical Gardens. Surrounded by spectacular nature and unique neighbourhoods, Hamilton is ideally located halfway between Toronto and Niagara Falls.

The Faculty of Engineering at McMaster University has a reputation for innovative programs, cutting-edge research, leading faculty, and aspiring students. It has approximately 180 faculty members, along with close to 4,500 undergraduate and 1,000 graduate students. The Faculty of Engineering promotes a nurturing and inclusive environment where opportunities are made available for personal growth and professional development.