Qualifications for TA/TM positions in the
Department of Biomedical Physiology and Kinesiology:

The Department of Biomedical Physiology and Kinesiology includes a wide range of specializations and, in order to be appointed, a person must have sufficient knowledge in the discipline of the course to interpret the course material, as demonstrated by either having a strong performance in the course or an equivalent, or thorough knowledge of the discipline and registration in a graduate degree in the discipline or applicable equivalent.

Appointments for the Fall 2018 semester run August 30, 2018 to December 20, 2018. All applicants for TA/TM positions for the Fall 2018 semester are required to be present and available for all assigned work for the course(s) for which they are applying (i.e., scheduled exams and assignments, marking/grading, scheduled labs/tutorials, etc). This includes assignments for distance courses offered through CODE. All TAs and TMs (for Courses for Online Education) must be available to invigilate exams. TMs must be able to collect exams and course work for marking from, and return (once marked) to, the SFU Burnaby campus. By submitting an application for assignment(s) in the Fall 2018 semester, you acknowledge these requirements and responsibilities.

Please note: Positions are not guaranteed. Appointments are conditional upon enrollment. We thank all applicants for their interest; however, only successful applicants will be contacted. Incomplete applications will not be considered.

The following is a list of additional qualifications:

**BPK 141C** requires the TM to have a current CPR certificate and demonstrable knowledge of fitness conditioning programming. Typically the TM would usually have previously taken a strength and conditioning course and ideally a basic exercise physiology course. In addition, the TM must be physically fit enough to demonstrate functional movements and participate in exercise sessions.

**BPK 142** requires the TA to have a current CPR certificate. Please note that as this is a first year survey course, a broad range of subject matter is taught - anatomy, biomechanics, anthropometry, exercise physiology, environmental physiology, neural control of movement, and motor learning. The TA will need to have knowledge in all of these areas.

**BPK 143** requires the TA to have a current CPR certificate and demonstrable knowledge of fitness conditioning programming. They must have sufficient knowledge in the discipline of the course to interpret the course material and the ability to teach/coach practical components of the course. Typically the TA would usually have previously taken a strength and conditioning course and ideally a basic exercise physiology course. In addition, the TA must be physically fit enough to demonstrate functional movements and participate in exercise sessions.
Specifically the TA should:

- understand fundamental movement patterns and resistance training exercises.
- be able to demonstrate and describe proper squat and deadlift technique, discuss common movement errors and the corrections (coaching cues) for those movements.
- understand the design of basic resistance training (RT) program design and also more advanced split routine and block periodized RT programs.
- understand cardiovascular physiology and the effect aerobic training programs has on this system and human health.
- understand the design of aerobic conditioning programs.
- understand human energy systems and the design of high intensity interval training programs.
- have extensive knowledge of the human musculoskeletal system related to not only RT and aerobic exercise movements, but also myofascial release, joint distraction, and stretching techniques. Certification or other experience with mobility assessment systems (like FMS) would be an asset.
- ideally understand sports nutrition and ergogenic aids.

**BPK 180W** – The TA must have, at minimum, an introductory knowledge of ergonomic principles and demonstrated ability to conduct an ergonomic evaluation in the workplace.

**BPK 180W** – The W marker must have excellent writing skills and will be required to attend a W workshop or equivalent.

**BPK 241** requires the TA to be a physiotherapist or chiropractor or massage therapist with experience working as a therapist for a sports team. In addition, the TA requires a current CPR certificate and a current Sports First Responder Certification.

**BPK 301** – The TA for BPK301 must have excellent research experience in both experimental and computational biomechanics.

**BPK 304W** – This course is a Writing course. The W marker must have excellent writing skills and will be required to attend a W workshop or equivalent.

**BPK 304W** – The TA position requires excellent statistical analysis skills and expertise in SPSS and Excel.

**BPK 326** – The TA is required to have extensive experience with human anatomy, comparative anatomy, and vertebrate dissection. An excellent grade in an equivalent anatomy course (with a laboratory component) is an essential prerequisite. Previous experience teaching in an anatomy lab is highly desirable.

**BPK 340** requires that the marker must attend one hour of lecture on four separate occasions during the semester.
BPK 407 requires the TA to have a current CPR certificate. The TA should have reasonable experience with most of the testing protocols used in the course. This includes extensive experience using the iWorx Human Physiology Testing kit. Successful completion of BPK 407 is preferred.

BPK 408W – This is an upper-level cell biology/molecular physiology lab course, and the TA will be working closely with the instructor to support the students. Techniques we would need the TA have practical experience with include (most or all of): PCR, fluorescence microscopy, cell culture, basic molecular biology techniques. To give effective feedback on lab reports and student independent projects, the TA should have a general understanding of cell biology and regulation of gene expression; and strong writing/communication skills. Theoretical or practical knowledge of electrophysiology (e.g. BPK306 or BISC307 or similar) would be an asset.

BPK 422 (Aging Physiology), applicants must have extensive research experience in human physiology related to at least one of, and ideally two or more of, the following aspects of aging: theories of aging, cellular aging, systemic aging, reproduction, sarcopenia, bone and joint health, the cardiovascular system, cognition, cancer, and inflammation. The applicant must also have experience leading virtual academic discussions.

BPK 426 is an upper-level functional neuroanatomy course. The TA will help students interpret and evaluate recent research in neuroscience, and will facilitate discussion of research articles in a journal-club format. In addition, the TA will work with the instructors to evaluate students' ability to distill and present research findings effectively, in both a one-page written scientific summary and a 10-minute conference-style presentation. In order to support and evaluate students effectively, the TA needs to have knowledge of Neuroanatomy and Neuroscience at the Master’s level, and evidence of research experience in those fields, preferably with an advanced degree.

BPK 448 – In order to be qualified to TM BPK 448, candidates must be familiar with current and emerging approaches that can restore or replace key functions of affected muscles or organs, including advanced neuroprosthetic therapies that use targeted electrical stimulation to protect, restore or enhance voluntary control of basic functions and/or support independence in activities of daily living, and their relative risks, ethics, costs, & benefits.

BPK 458C – Completion of terminal degree in medicine, physiology, pathology or pharmacology. Demonstrated experience teaching online and face-to-face courses at the undergraduate and graduate levels. Expertise in cardiovascular disease. Demonstrated experience teaching interdisciplinary topics in medicine, pathology, pharmacology and clinical biochemistry. Demonstrated experience creating and revising board style examination questions in topics related to health sciences. Ability to facilitate discussion online. Familiarity with current research literature in medicine, physiology, pathology and pharmacology in order to foster critical thinking in these fields. Ability to work independently and as part of a multi-departmental collaboration. Ability to assess competencies related to multi-disciplinary topics in health sciences and assist the department in credit transfer and PLAR applications.