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

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 knowledge of the human musculoskeletal system related to not only RT and aerobic exercise movements, but also myofascial release, joint distraction, and stretching techniques.
- ◁ 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.

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BPK 201 requires the TA to have a good understanding of Newtonian mechanics as it applies to the human body. The TA should understand biomechanical research methods and analyses. They will help students use formal problem solving and critical thinking skills to make observations and draw conclusions about human movement. The TA should have a good grasp of anatomy to be able to describe skeletal muscle mechanics and connective tissue mechanics.

BPK205 requires a TA with a solid understanding of the physiology and relevant anatomy of the body's major organ and nervous systems. The TA should have completed BPK205 or an equivalent course

BPK 207 requires the TA to have experience in motor learning, sensorimotor control and/or systems-level neuroscience.

BPK 208 – Applicants must have taken BPK 205 or equivalent, and have experience (relevant coursework or a degree) in the field of biomedical engineering (or engineering).

BPK 241 – The TA must have completed BPK 241 and 326, or equivalent courses. In addition, the TA requires a current CPR certificate and a current Sports First Responder Certification. Previous experience as a team trainer is highly desirable.

BPK 303 – The TA is required to have demonstrated experience with human anatomy and the assessment of human movement and function. Applicants must have taken



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BPK 446 requires the marker to have advanced knowledge of Neuroscience and Immunology and evidence of experience in those fields preferably with a graduate degree.

BPK 447 requires the TM to have coursework and/or experience in neuroscience, preferably systems neuroscience and neuroplasticity.

BPK 448 – In order to be qualified to mark 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 481 – The TA is required to have demonstrated experience with human anatomy and musculoskeletal conditions; applicants must have taken BPK 326 or equivalent anatomy course. The TA must have completed the revised BPK481 (Spring 2020 or later) or equivalent courses. Previous clinical experience in an orthopaedic setting is highly desirable.