ANAT30007 Human Locomotor Systems

Credit Points:	12.5
Level:	3 (Undergraduate)
Dates & Locations:	2016, Parkville This subject commences in the following study period/s: Semester 1, Parkville - Taught on campus. An enrolment quota of 495 students per semester will apply to this subject on the basis of limitations to lab facility and cadaveric resources. For detailed information on the quota subject application process, refer to the Quota Subject link on the MDHS Student Centre website: http://sc.mdhs.unimelb.edu.au/quota-subjects
Time Commitment:	Contact Hours: 72 hours (3 x one hour lectures per week, 1 x three hour practical per week) Total Time Commitment: 170 hours
Prerequisites:	You must have taken the following subject prior to enrolling in this subject: **Subject** / **Study Period Commencement:** / **Credit Points:** ANAT20006 Principles of Human Structure / Semester 1, Semester 2 / 12.50 OR (For Bachelor of Biomedicine students) **Subject** / **Study Period Commencement:** / **Credit Points:** BIOM20002 Human Structure and Function / Semester 2 / 25 Note: 516-204 Anatomy 1 and 516-207 Anatomy 2 are alternative pre-requisites for entry into this subject.
Corequisites:	None
Recommended Background Knowledge:	None
Non Allowed Subjects:	None
Core Participation Requirements:	For the purposes of considering request for Reasonable Adjustments under the Disability Standards for Education (Cwth 2005), and Student Support and Engagement Policy, academic requirements for this subject are articulated in the Subject Overview, Learning Outcomes, Assessment and Generic Skills sections of this entry. It is University policy to take all reasonable steps to minimise the impact of disability upon academic study, and reasonable adjustments will be made to enhance a student's participation in the University's programs. Students who feel their disability may impact on meeting the requirements of this subject are encouraged to discuss this matter with a Faculty Student Adviser and Student Equity and Disability Support: http://services.unimelb.edu.au/disability
Coordinator:	Dr Varsha Pilbrow
Contact:	Subject Coordinator Varsha Pilbrow **vpilbrow@unimelb.edu.au (mailto:vpilbrow@unimelb.edu.au)** Administrative Coordination **BiomedSci-AcademicServices@unimelb.edu.au (mailto:BiomedSci-AcademicServices@unimelb.edu.au)**

Subject Overview:	This subject provides an overview of human locomotor anatomy. The terminology of human topographic anatomy as it relates to the back, neck and limbs; the functional anatomy of the back, neck, upper and lower limbs; the principles underlying human gait and locomotion; the evolutionary changes leading from primate to human locomotion; the neural control of gait and locomotion; and the design of artificial joints and limbs will be covered. Didactic lectures on anatomy will be supplemented by specialist lectures by practitioners to demonstrate the disciplinary breadth achievable with anatomical knowledge. Cadaveric dissection will be used to complement learning, by exposing the boundaries and contents of important regions of the back, neck and limbs; and anatomical models, computer programs, prosected specimens and modern imaging techniques will be used to appreciate anatomical structures.
Learning Outcomes:	Upon completion of this subject, students will: # comprehend the organisation of the human locomotor system; the factors responsible for stability of the vertebral column and head; the functional anatomy of the back, neck and limbs; the organisation of the bones, joints, muscles, fascia, nerves and vessels of the neck, back, upper and lower limbs; radiological anatomy of the back, neck and limbs; gait and locomotion in primates and humans; central nervous system control of movement; and the design and reconstruction of artificial joints and limbs; # appreciate the mechanical, clinical, radiological, evolutionary and forensic applications of human locomotor anatomy; # manipulate dissecting instruments to differentiate and describe the muscle belly, tendons, proximal and distal attachment of all major muscles of the trunk and extremities; locate major ligaments and articular capsules of the major joints of the trunk and extremities; describe the shape of the joint surfaces and relate this to the type of joint, degrees of freedom, and possible motions parallel with the cardinal planes; distinguish and define the major arteries and veins of the back, neck and limbs; recognize and locate all major nerves and plexi of the locomotor system; distinguish and describe on models and prosections, bony, ligamentous, muscular, tendinous, nervous and vascular structures. develop observational and organisational skills to interpret exposed anatomical structures and regions of the back, neck and limbs; written and oral communication skills to describe normal and impaired anatomical structures of the human locomotor system.
Assessment:	2 quizzes on theory and practical work throughout the semester, each worth 10% (20%); 2-hour written theory examination at the end of semester (40%); 2-hour written practical examination at the end of semester (40%)
Prescribed Texts:	Moore KL et al: Clinically Oriented Anatomy, Lippincott Williams & Wilkins 2014 OR Drake et al Gray's Anatomy for Students, Elsevier 2015
Breadth Options:	This subject potentially can be taken as a breadth subject component for the following courses: # **Bachelor of Arts (https://handbook.unimelb.edu.au/view/2016/B-ARTS)** # **Bachelor of Commerce (https://handbook.unimelb.edu.au/view/2016/B-COM)** # **Bachelor of Environments (https://handbook.unimelb.edu.au/view/2016/B-ENVS)** # **Bachelor of Music (https://handbook.unimelb.edu.au/view/2016/B-MUS)** You should visit **learn more about breadth subjects (http://breadth.unimelb.edu.au/breadth/info/index.html)** and read the breadth requirements for your degree, and should discuss your choice with your student adviser, before deciding on your subjects.
Fees Information:	Subject EFTSL, Level, Discipline & Census Date, http://enrolment.unimelb.edu.au/fees
Generic Skills:	# Capacity for independent study, rational enquiry and self-directed learning. # Ability to analyse problems. # Oral and written communication skills. # Time management skills. # Teamwork in interpretation and analysis of new information.

Notes:	This subject is available to students enrolled in the New Generation BSc, BBiomed, pre-2008 BSc, pre-2008 BASc, pre-2008 BBiomedSc.
Related Majors/Minors/ Specialisations:	Anatomy (pre-2008 Bachelor of Science) Human Structure and Function Physiology Science-credited subjects - new generation B-SCI and B-ENG. Selective subjects for B-BMED