DENT20001 Oral Health Sciences 2a

Credit Points:	37.50
Level:	2 (Undergraduate)
Dates & Locations:	2010, Parkville This subject commences in the following study period/s: Semester 1, Parkville - Taught on campus.
Time Commitment:	Contact Hours: 192 hours of lectures, tutorials, practical activities - including workshops and dissection - and computer assisted learning (CAL) Total Time Commitment: Not available
Prerequisites:	Successful completion of all Year 1 subjects.
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 Students Experiencing Academic Disadvantage Policy, academic requirements for this subject are articulated in the Subject Description, Subject Objectives and Assessment Requirements of this entry. The University is dedicated to provide support to those with special requirements. Further details on the disability support scheme can be found at the Disability Liaison Unit website: http://www.services.unimelb.edu.au/disability/
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Subject Overview:	This subject comprises three modules: *Physiology:* Physiological integration, the interface between tissue cells and the internal environment, biophysics of excitable and contractile tissue, the physiology of mammalian organ-systems: circulatory, respiratory, muscular, renal and digestive; the coordination of bodily functions by hormonal and neural mechanisms. The Physiology lectures will incorporate active interaction between students and lecturers using personal response system (PRS) clickers to answer questions during lectures. *Biochemistry:* The thermo-dynamics and homeostasis of living systems and biochemical adaption; the structure, function and metabolism of proteins, carbohydrates, lipids and nucleic acids; basic principles of gene structure and expression and metabolic disorders with a genetic basis; and structure and function of immuno-globulins. *Topographical Anatomy:* The structure and organisation of the head and neck, including development and functional perspectives; practical dissections of the head and neck region; vocationally-relevant clinical anatomy for dentists.
Objectives:	On completion of this subject, students should: Comprehend: # The terminology of physiology, biochemistry and topographical anatomy; # The principles and essential information regarding the: 1 functions of different cell types and how they interact in organ systems; 2 chemical structure and properties of important cellular constituents, and

	3 the digestion, absorption, transport, metabolism and uses of the major nutrients. # The mechanisms by which the different organ systems are controlled in the normal human being; and # The normal numerical values for those physiological variables that are commonly used as indices of disease. # The relationships between chemical properties and functions of: 1 body constituents, 2 metabolic and regulatory processes; 3 vital functions; and 4 adaptive processes of the human body. # The anatomical structure and organisation of the head, face, oral cavity and mandible. Have developed: # Observational and organisational skills: 1 to use experimental techniques in investigating physiological systems and document the findings reliably; 2 in obtaining data using modern biochemical procedures and in reporting the findings; # Skills in analysing and evaluating physiological and biochemical experimental data. Appreciate: # The ranges of normality for physiological parameters; # The factors which influence the significance of: 1 laboratory results and 2 results obtained from investigating physiological factors. # The role of experimentation in the development of biochemical knowledge; and # The clinical relevance of biochemistry and molecular biology.
Assessment:	Assessment includes:Physiology: Two 45-minute mid-semester examinations (10%), one 2-hour written examination at the end of the semester (25%), a component of ongoing assessment related to practical classes, effective PRS participation and contributions; and tasks related to computer-aided learning activities(5%).(40%)Biochemistry: One 2-hour written examination at the end of the semester (25%); assessment of practical work throughout the semester (5%). (30%) Topographical Anatomy: One 2-hour written examination at the end of the semester (25%) and one 40-minute practical test at the end of the semester (5%). (30%) A pass is required in each Section for an overall pass in this subject.
Prescribed Texts:	None
Recommended Texts:	Topographical Anatomy: Moore KL and Dalley A: **2007 Clinically Oriented Anatomy,** 5th ed Rohen JW and Yokochi CL **1999** ***Colour Atlas of Anatomy: A Photographic Study of the Human Body*** 4th ed, Igaku-Shoin Biochemistry: Nelson DL and Cox MM **2004** ***Lehinger Principles of Biochemistry*** , 4th ed, Worth OR Berg JM, Tymockzko JL and Stryer L **2002** ***Biochemistry*** 5 th ed, Freeman Physiology: Silverthorn, D.U., Human Physiology: **2007 An Integrated Approach** 4th ed., Prentice Hall
Breadth Options:	This subject is not available as a breadth subject.
Fees Information:	Subject EFTSL, Level, Discipline & Census Date, http://enrolment.unimelb.edu.au/fees
Related Course(s):	Bachelor of Dental Science