

SUBJECT DESCRIPTION FORM

Subject Title: Independent Study in Biomedical Engineering

Subject Code: HTI5153

Credit Value: 3

Date of Submission: Feb 2007

Responsible Staff and Department: Dr. Aaron K. L. Leung (HTI)

Recommended Background Knowledge: Nil

Exclusions: Nil

Special Note to Students:

Consent of subject instructor together with the endorsement of the subject leader must be obtained BEFORE subject registration.

Learning Approach:

Students will be required to undertake guided independent study in depth on a topic mutually agreed upon with the instructor. The student will read widely on the scientific issues and, in specific areas, also in depth. Students may be arranged into a small group of three to four persons to undertake cooperative studies of a subject in tutorial sections with the instructor.

Contact hours:

Tutorial Contact	28 hours
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Independent Study hours:

Self-study	70 hours
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Mini Project

42 hours

Total: 140 hours

Assessment:

Continuous Assessment	
Tutorial participation	10%
Assignments	60%
Mini Project	30%

Learning Outcomes:

To facilitate a student who has a particular interest in certain biomedical engineering topic to pursue an independent study in that area under special supervision. If the student enrolment of a particular biomedical engineering subject in a particular term is small, an individual student who meets the subject pre-requisites could register to independently study that BME subject under personal guidance of an instructor.

Syllabus:

The student is expected to study in depth a specific biomedical engineering topic mutually agreed upon with the instructor.

Indicative Reading List and References:

Relevant texts and journal articles will be assigned based on the specific area of study under supervision of the instructor. In addition, the student should take note of the following guides to independent study:

1. Akerlind, G.S. & Trevitt, A.C. (1999) *Enhancing self-directed learning through educational technology*, Innovations in Education and Training International. 36(2):96-105.
2. Cameron, D.R. (1997). *Self-directed learning: Toward a comprehensive model*. Adult Education Quarterly. 48(1):18-33.
3. Hoban, J. Dennis; Lawson, Sonya R.; Mazmanian, Paul E.; Best, A.M.; Seibel, Hugo R. (2005) *The Self-Directed Learning Readiness Scale: a factor analysis study*. Medical Education, 39(4), 370-379.
4. Boyer, Naomi R. (2003). *The learning contract process*. Quarterly Review of Distance Education. 4(4), 369-383.
5. O'Shea, Ellen. *Self-directed learning in nurse education: a review of the literature*. Journal of Advanced Nursing, 2003, 43(1), 62-70.