

6.0 COURSES SYNOPSIS

6.1. Foundation Courses (GTU)

GTU101/3-Structure and Function of Humans I

This course introduces students to basic anatomy and physiology of humans. It covers the anatomical and physiological aspects of the various human organ systems, which includes cell and tissue, skeletal system, muscular system, cardiovascular system, nervous system and special senses such as vision, hearing, smell and taste. It also includes basic teaching and dynamic transfer of knowledge that emphasises on human health. The course will be conducted via lecture, practical and discussion. The students will be assessed through tests, assignments, practical tests/OSPE and final examination.

List of text/reference books:

1. Marieb, E.N. & Hoehn, K.N. *Human Anatomy and Physiology* (9th Ed.). San Francisco: Benjamin Cummings Publishing Co., 2013.
2. Marieb, E.N. *Anatomy and Physiology Coloring Workbook: A Complete Study Guide* (9th Ed.). San Francisco: Pearson Benjamin Cummings, 2008.
3. Saladin, K.S. *Anatomy and Physiology: The Unity of Form and Function* (5th Ed.). New York: McGraw-Hill, 2010.
4. Tortora, G.J. & Derrickson, B.H. *Principles of Anatomy and Physiology* (13th Ed.). NJ: John Wiley & Sons Inc., 2011.
5. Young, B. & Heath, J.W. *Wheater's Functional Histology: A Text and Color Atlas* (5th Ed.). Edinburgh: Churchill Livingstone, 2006.

GTU103/3-Fundamentals of Health Informatics

The course introduces students to health informatics emphasizing the fundamental concept and application of information and communication technology (ICT) in the field of health sciences. It covers computer system (hardware, software and networking), security and siber crime, usage procedure, introduction to data structure, operating systems, e-learning, Office Suite Application (Word Processor, Presentation and Spreadsheet), website development, graphic and animation editing applications. Integrating the knowledge on software, hardware and its usage for daily activities also for health research purposes in interdisciplinary practical environment will eventually transform ICT known-how for better quality of life in future. Best practice is also introduced to let the students appreciate the positive values of innovativeness and creativity, thus creating culture for more intellectual usage, with the purpose of adopting the technology for future generation's sustainable life. The course will be conducted via lecture, practical and group discussions including electronic forum. The students will be evaluated through tests, assignments, practical test and final examination.

List of text/reference books:

1. Felkey, B.G., Fox B.I. & Thrower M.R. *Health Care Informatics: Skill-based Resources*. AphA, 2006.
2. Hoyt, R.E., Bailey, N. & Yoshihashi, A. *Health Informatics: Practical Guide for Healthcare and Information Technology Professionals* (5th Ed). Lulu.com, 2012.
3. Joos, I., Nelson, R. & Smith, M.J. *Introduction to Computers for Healthcare Professionals* (5th Ed). Jones and Bartlett Publishers, 2010.

4. Laudon K. & Laudon J. *Essentials of Management Information Systems* (10th Ed.), Prentice Hall, 2012.
5. Wager, K.A., Lee, F.W., Glaser, J.P. *Health Care Information Systems: A Practical Approach for Health Care Management*, John Wiley & Sons, 2009.

GTU104/3-Structure and Function of Humans II

This course introduces students to basic anatomy and physiology of humans. It covers anatomical and physiological of the respiratory, renal, gastrointestinal, endocrine and reproductive systems as well as the skin. It also includes basic teaching and dynamic transfer of knowledge that emphasis on human health. The course is conducted via lecture, practical and discussion. The students are evaluated through tests, assignments, practical tests/OSPE and final examination.

List of text/reference books:

1. Marieb, E.N. & Hoehn, K.N. *Human Anatomy and Physiology* (7th Ed.). San Francisco: Benjamin Cummings Publishing Co., 2008.
2. Marieb, E.N. *Anatomy and Physiology Coloring Workbook: A Complete Study Guide* (9th Ed.). San Francisco: Pearson Benjamin Cummings, 2013.
3. Saladin, K.S. *Anatomy and Physiology: The Unity of Form and Function* (5th Ed.). New York: McGraw-Hill, 2010.
4. Tortora, G.J. & Derrickson, B.H., *Principles of Anatomy and Physiology* (13th Ed.). New York: John Wiley & Sons Inc., 2011.
5. Young, B. & Heath, J.W. *Wheater's Functional Histology: A Text and Color Atlas* (5th Ed.). Edinburgh: Churchill Livingstone, 2006.

GTU105/3-Psychology and Behavioural Science

This course introduces students to the basic theoretical knowledge and principles of psychology. It also covers developmental psychology including psychology of infants; children and adolescents together with factors that influence them like familial and external factors will be covered. Principles of behavioural sciences with respect to personality, motivation, emotion, attitude, management of mental stress and counseling techniques will also be taught. The course will be conducted via lectures, tutorials and discussion. Students will be assessed through assignments, test and final examination.

List of text/reference books:

1. Comer, R. & Gould, E. *Psychology Around Us* (2nd Ed.), John Wiley and Sons, 2013.
2. Eysenck, M. W. *Simply Psychology* (3rd Ed.), Psychology Press, 2013.
3. Feldman, R.S., *Understanding Psychology* (11th Ed.), Mc Graw-Hill, 2013.

GTU106/3-Biochemistry and Basic Genetics

This course introduces students to fundamental principles of biochemistry and genetics. It covers the structures and functions of cellular organelles, chemical bonds, structures and functions of biomolecules as well as the basic genetics, which includes the structures and functions of DNA and RNA as the genetic materials, replication, transcription, translation, Mendel's Law and other traits inheritance as well as population genetics. This course is conducted through lectures, tutorials, practical and assignments. Activity that will be conducted to achieve sustainability is through assignments that emphasize on quality of life by vitamin intake, the importance of water in terms of biology and life transformation in the genetic field. The students are evaluated through tests, assignments, laboratory reports and final examination.

List of text/reference books:

1. Boyer, R. *Concepts in Biochemistry* (3rd Ed.). NJ: John Wiley & Sons Inc., 2006.
2. Devlin, T.M. *Textbook of Biochemistry: With Clinical Correlations* (5th Ed.). New York, NY: Wiley-Liss, 2002.
3. Horton, H.A. *Principles of Biochemistry* (4th Ed.). Upper Saddle River, NJ: Prentice Hall, 2006.
4. McKee, T. & McKee, J.R. *Biochemistry: The Molecular Basis of Life* (5th Ed.). Boston: McGraw-Hill, 2011.
5. Murray, R., Bender, D., Botham, K.M., Kennelly, P.J., Rodwell, V. & Weil, P.A. *Harper's Biochemistry* (2th Ed.). McGraw-Hill Medical, 2012.

GTU202/3- Health and Society

This course scrutinises problems and development of health from the sociological and anthropological underpinnings as an alternative to biomedical perspectives. Lectures and discussions will examine the concepts of health and disease, the relationship between health and behaviour, the influence of culture, religion and social class (poverty) in the prevention of disease and the introduction of gender issues and rights. Students will also be introduced to health system which is associated with the welfare of society and its impact on certain groups in society.

List of text/reference books:

1. Helman, C. *Culture Health and Illness*. Oxford: Butterworth Heinemann, 2000.
2. Scrambler, G. *Sociology as applied to Medicine*. (6th Ed.). Saunders Elsevier, London: 2008.
3. Weiss, Gregory L. & Lynne E. Lonnquist. *The Sociology of Health, Healing, and Illness* (6th Ed.). Pearson Education Inc. New Jersey, 2006.
4. Weitz, R. *The Sociology of Health, Illness and Health Care a Critical Approach*. Belmont, CA: Wadsworth/Thomson Learning, 2001.

GTU301/3- Ethics and Law for Health Care Professionals

This course introduces students to the relationship of morality, ethics and law, and the importance of ethics in their daily life as well as in their professional setting. It covers basic moral and ethical concepts, research ethics as well introductory understanding of law and ethics. The relationship between professional and clients will be discussed in details. Students will be exposed to ethical theories as well as case examples to assist their understanding on the subject matter. The course will be taught via lectures, tutorials and discussion. Students will be assessed through test, essay, presentation and final examination.

List of text/reference books:

1. Beuchamp, T.L. & Leroy, W. *Bioethics* (6th Ed.). Thomson, Australia, 2003.
2. Di Leo, J.R. *Morality Matters*. McGraw Hill, Boston, 2002.
3. Jecker, N., Jonsen, AR., Pearlman, RA., *Bioethics* (2nd Ed.), Jones and Bartlett, Sudbury Masachuset, 2007
4. Judson, K., Harrison, C., *Law & Ethics for Health Profession* (6th Ed). McGraw Hill, New York, 2013
5. Steinback, B. et al. *Ethical issues in Modern Medicine* (6th Ed.). McGraw Hill, Boston, 2003.

GTU302/3-Biostatistics

This course introduces to students the basic knowledge of biostatistics in medicine and health fields. It also covers the fundamental application of statistical tools in health data collection, qualitative data analysis, quantitative data analysis and interpretation of results. The course will be conducted through lectures and other student centered learning activities, based on the simulate data related with current health issues in Malaysia. This could enhance students' awareness on the importance of health and then enabling them to have sustainable healthy lifestyle. The students will be assessed through continuous assessments, assignments, and final examination.

List of text/reference books:

1. Daniel, W.W. *A Foundation for Analysis in the Health Sciences* (8th Ed.). John Wiley & Sons, 2008.
2. Motulsky, H. *Intuitive Biostatistics* (2nd Ed). Oxford University Press, 2010.
3. Nor Azwany, Y. et al. *Research Methodology in Health Sciences* (1st Ed.). Pustaka Aman Press Sdn Bhd, Kelantan, 2012.
4. Norman, G.R., Streiner, D.L. & Norman, G.R. *Biostatistics - The Bare Essentials* (3rd Ed.). Ontario: B.C. Decker Inc., 2008.
5. Norsa'adah, B. *Basic Statistics Step by Step using PASW 18*. (1st Ed.). Fazwan Enterprise, Kelantan, 2011.

GTU304/3-Research Methodology

This course introduces students to various important concepts and aspects in research methodology. It encompasses the characteristics, types and approaches in research usually employed by the researchers. Students will also be exposed to the integration of Health Science research mechanism with the Social Science counterpart as a comprehensive research. The process of scientific calculation of sample size, preparation and critical evaluation of research proposal, data analysis and research report writing will be given greater emphasis.

List of text/reference books:

1. Chua, Y. P., *Mastering Research Methods*. Kuala Lumpur: McGraw Hill Education, 2012.
2. Abdul Aziz Al-Safi, I., Kamarul Imran, M., Mohamed Rusli, A., Nor Azwany, Y., & Wan Mohd Zahiruddin, W. M., *Research Methodology in Health Sciences* (Y. Nor Azwany & W. M. Wan Mohd Zahiruddin Eds. 2nd ed.). University Sains Malaysia, Kubang Kerian: PPSP Publication, 2014.
3. Minichiello, V., Sullivan, G., & Greenwood, K., *Research Methods for Nursing and Health sciences* (2nd ed.). Australia: Pearson education Australia, 2004.
4. Chua, Y. P., *Kaedah dan Statistik Penyelidikan: Buku 2 – Asas Statistik Penyelidikan*. Kuala Lumpur McGraw Hill Education, 2006.
5. Montgomery, D. D., *Design and Analysis of Experiments* (5th ed.). New York: John Wiley and Sons, 2000.