University Foundation Studies - Two-Semester Program
Science & Engineering

Subject Descriptions

**Academic English B**
Provides students with the linguistic skills needed for the demands of university study. Topics include writing reports, writing summaries, making oral presentations, effective reading and note-taking.

**Biology**
The biology unit focuses on human physiology from cell theory to basic anatomy, as required for further study in the health sciences. It also introduces the key concepts in evolutionary theory, genetics and biotechnology, as necessary for further study in general biological science.

**Chemistry**
Examining the conventional notation and terminology used in chemistry, The subject focuses on developing practical and problem-solving skills in the context of topics such as atomic structure, the periodic table, chemical bonding, reactions of substances, chemical energy and organic chemistry. It emphasises the value of careful observation, scientific method, measurement and experimental design.

**Computer Studies**
An introduction to computing, Windows, Word, Excel, Access, PowerPoint, and the web, as well as data storage, data management, databases, communications and networks.

**Mathematics**
The study of basic arithmetic and algebra involving surds, inequalities, absolute values and functions, calculus, trigonometry and the trigonometric functions is undertaken.

**Physics**
Physics examines the general laws of motion and mechanics. Topics include work, energy, power, linear and angular momentum, vibrational motion, electricity and magnetism. Wave motion, sound, light, lenses and imaging systems are also studied.

**Mathematics Extension**
Topics such as advanced algebraic techniques including inequalities and mathematical induction, permutations and combinations, polynomials, the binomial theorem and binomial probability are studied.

OR

**Scientific Method**
Scientific Method develops skills and processes associated with science and science based subjects.

And

**Statistics for Academic Purposes**
Areas studies include the use of a calculator as a statistical instrument, collecting and displaying data, and an investigation of correlation and linear regression.

Note: Not all subjects will be studied.