3.2.1.1 Overview

We are entering into an exciting time where we are seeing advances in the biomedical sciences that will transform the world. With the current plan of the Singapore government to establish this country as a biomedical hub and their continued support for the growth of the local biomedical industry, the demand for graduates well-trained in Biomedical Engineering will increase.

The undergraduate programme is designed to provide students with strong fundamental and broad based learning in engineering and life sciences while its approach is integrative with the students exposed to clinical applications as well. There is a strong emphasis in engineering design in our curriculum and we provide students with a unique educational experience through these design modules. A significant part of the curriculum is also set aside for non-engineering modules in areas such as management, organisation, critical thinking and other relevant areas. This is intended to equip our graduates with a broad-based knowledge enabling them to function effectively in tomorrow’s workplace.

Our Programme Educational Objectives are to prepare our graduates so that they are able to (a) apply the core concepts of biomedical engineering, its underlying sciences, and relevant technologies in their chosen profession; (b) utilise effective communication, learning, and teamwork skills to facilitate continued professional development; (c) possess a high standard of personal and professional integrity and ethical responsibility and (d) progress into positions of increasing leadership responsibilities.

Technical electives within the curriculum allow our students to explore areas of special interest which they do in their upper years. Students may choose to focus in one of the following areas, namely (a) biomaterials/tissue engineering, (b) biomechanics and (c) biomedical electronics and imaging. These focus areas represent technology areas that are of particular significance to the industry.

Students who want to major in Biomedical Engineering but do not have GCE ‘A’ Level Chemistry or their equivalent are required to read a bridging module CM1417 Fundamentals of Chemistry.