

## OUR VISION

To be the Premier Educator for Service Excellence

## OUR MISSION

To inspire Passion for Service and Contribution to Society through Excellence in Continuous Education

## OUR VALUES

Responsibility, Integrity, Passion and Excellence (RIPE)

## OUR CULTURE

An Open and Conducive Learning Environment, With Mutual Respect and Professionalism to Build A High Performance Organization

## COURSE MODULES & SYNOPSIS

### Cell Biology

The wide variety of living organisms will be described and will include the distinction between prokaryotes and eukaryotes, bacteria, fungi, protozoa, plant cells, animal cells and viruses. The cellular basis of all living organisms is one of the characteristics that define life. The module will consider cell types, cellular evolution, ultrastructure and function and, in addition, relate cell types and cell actions to infection and health matters.

### Introductory Anatomy & Physiology

Human physiology is the science of the mechanical, physical and biochemical functions of humans in good health, their organs, and the cells of which they are composed. Physiology focuses principally at the level of organs and systems. Most aspects of human physiology are closely related to corresponding aspects of animal physiology, and animal experimentation has provided much of the foundation of physiological knowledge. Anatomy and physiology are closely related fields of study: anatomy; the study of form, and physiology; the study of function, are intrinsically tied and are studied in tandem as part of a medical / biomedical curriculum. This module introduces the students to the anatomy of the human body and explains the ways in which the body systems carry out distinct, coordinated and important functions. In this module, students will study basic anatomy, the skeletal system, the muscular system, the nervous and sensory systems and the endocrine system.

### Introductory Biochemistry

This module introduces the student to the processes and components which make up life at the molecular level. The basic structures of the key important molecules will be described and will include the proteins, the nucleic acids, the lipids and the carbohydrates. The structures will be closely related to biological function in later modules which in turn will help in the understanding of normal and disease states.

### Introductory Microbiology

Microbiology is the study of organisms - bacteria, fungi, algae, protozoa, and viruses - that are too small to be seen with the naked eye. Not all micro-organisms are beneficial. For example, one third of the world's population dies from infections (e.g. AIDS affects more than 40 million individuals worldwide), the foot and mouth epidemics, the emergence of avian influenza (bird flu), with its high mortality, bacteria are constantly evolving mechanisms enabling them to resist anti-microbial agents used to treat infections, driving the quest for new antibiotics. Microbiology is concerned not only with pathogenic microbes that cause disease but also the predominantly beneficial activities of microbes in the environment and their many biological applications. This module will introduce this fascinating topic which will be further developed in later modules.

### Personal & Professional Development

This module will provide an introduction to a range (written and oral) skills, their analytical, design and critical thinking skills, and their innovation and entrepreneurial skills. Each of these key educational outcomes will be further developed through the other modules such that the Diplomates / Advanced Diplomates will be of value to the existing and emerging biomedical industries in Singapore and abroad.

### Introductory Biomedical Science Specialisms

This module introduces the student to the different sub-disciplines that comprise the specialist areas within the subject of Biomedical Sciences. The principal sub-disciplines include Clinical Chemistry, Haematology and Serology, Clinical Immunology and Pathology. Medical Microbiology, another major biomedical science specialism is covered in other modules. In this module, the students will learn the broad nature and range of scientific areas of particular focus for each of these sub-disciplines and the way in which these are integrated in the hospital setting for patient diagnosis and health improvement. Learning the terminology of the various specialisms will help the student to communicate effectively with a wide range of biomedical scientists and biomedical science laboratories.



CSM ACADEMY  
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DIPLOMA  
**BIOMEDICAL  
SCIENCE**

**BEHIND EVERY  
BREAKTHROUGH**

IS A TEAM OF SELFLESS INDIVIDUALS.

To apply: Visit us at <http://csmacademy.edu.sg/> or our office

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Certificate No: EDU-2-2105  
Validity: 31-08-2017 to 30-08-2021

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## DIPLOMA IN BIOMEDICAL SCIENCE



### INTRODUCTION - REAL LAB, REAL EXPERIENCE.

The Diploma and Advanced Diploma programmes in Biomedical Science have been designed in such a way that students will benefit from state-of-the-art knowledge and skills, critical thinking and a focused training on innovation and design thinking that will be of value to the existing and emerging biomedical industries in Singapore, the wider Asian market and beyond.

The programme aims to provide knowledge and experience leading to career opportunities in a wide array of areas including biomedical, pharmaceutical, environmental monitoring, public health, agrochemical and food sectors. With the increased importance of globalisation of education and training, these programmes will incorporate, where appropriate, issues of global significance.

In an effort to best match the needs of industry in this area, the Diploma and Advanced Diploma in Biomedical Science have a significant focus on skills development and employer-led, industry-required knowledge acquisition in areas such as technology and knowledge exchange, IPR, entrepreneurship, health & safety, marketing, growth strategies and innovation - these to be presented and developed through business planning exercises, simulations and relevant case studies.

### ABOUT CSM ACADEMY

CSM Academy was established since 2005 as a Private Education Institute to deliver Service Management programmes with a major focus on healthcare services education. It delivers multi-level courses ranging from Certification and Diplomas to Bachelor's and Master's Degrees. Other than healthcare, CSM Academy also provides educational courses across a wide range of other disciplines including biomedical research, digital media, and hospitality & tourism.

CSM Academy emphasises skills competency, applied workplace knowledge and service excellence, developing several of their own intellectual property programmes in Aged Care, Therapy Services and Biomedical Science, all designed to help students make a positive impact in the lives of someone else.

### COURSE DURATION

Full time: 8 months (3-hour lessons/day, 5 days/week)  
Part time: 12 months (5-hour lessons/day, 3 days/week)

### DELIVERY MODE

Classroom-based lectures and laboratory sessions. Laboratory sessions will be conducted at an industrial laboratory.

### COURSE COMMENCEMENT

January, April, July, October

Note:

- A minimum number of 15 students for the commencement of the class.
- Students will be informed 2 weeks before the commencement of the class.

### COURSE DEVELOPER AND AWARDDING BODY

CSM Academy International, Singapore

### ASSESSMENT METHODOLOGY

A combination of examinations, critical analysis and synthesis or laboratory reports, abstracts, business planning exercises, simulation and case studies will be among the assessment tools.

Note:- In case students fail the main examination of a particular module, they are allowed to sit for "one" supplementary assessment with payment of the appropriate fee\*. Students are to re-take the module, shall they fail the supplementary assessment. Modules are independent of each other.

\* Refer to the Miscellaneous Fees

### GRADUATION REQUIREMENTS

Students must complete and pass all 6 modules each for the Diploma and Advanced Diploma program to be awarded Diploma in Biomedical Science and Advanced Diploma in Biomedical Science respectively. Attendance requirement for local students is 75% and for international students is 90% in any month of the course.

### CAREER OPPORTUNITY

Employment opportunities include technical posts in a variety of biomedical science specialists laboratories within the hospital environment (haematology, medical microbiology, clinical biochemistry, pathology, etc.) or technical posts within pharmaceutical companies or research groups (academic and industrial), for example:



Cardiac Technologist



Medical Technologist



Research Assistant



Sales and Marketing Personnel for Health Sectors

The topics covered by the curriculum are sufficiently broad to allow students to also diversify into allied disciplines such as biological sciences, biotechnology and life sciences. Students would also have the relevant knowledge and skills to consider further education and training in a range of health-related programme (physiotherapy, radiography, nursing).



### ENTRY REQUIREMENT

For Diploma:

Minimum Entry Requirements:

- GCE 'A' level with at least 3 passes or equivalent
- or
- GCE 'O' Level holder with a minimum age of 30 at the point of application and 8 years of working experience

English Language Requirement:

- GCE 'A' level pass in English or equivalent

### FEES

#### Application Fee

(Non-Refundable and non-transferrable)

Local Students: S\$50

International Students: S\$600

#### Course Fee

For local students: S\$ 1,600.00 per module totalling S\$ 9,600.00 (6 modules) – before GST

For International students: S\$10,500 (before GST)

Note:

Students are required to pay for the following miscellaneous fees on modules with lab sessions:

- S\$30 for Lab Coat ((before GST)

- S\$150 for material cost for modules with lab experiment (before GST)

#### Insurance Fees

Fee Protection Scheme\*\*\*: Subject to prevailing market rate

Medical Insurance Fee\*\*\*\*: Subject to prevailing market rate

\*\*\* The Fee Protection Scheme (FPS) serves to protect students' paid fees.

\*\*\*\* It is compulsory for all local and international students to purchase medical insurance which is valid throughout their course of studies with the CSM Academy International. Local students (Singaporeans, PRs & Non-student's Pass holders) may opt-out for this scheme if they can provide the proof of adequate medical insurance coverage in Singapore.

Note:

- Payment of fees is in Singapore Dollars.

- Payment method only by Cheque/ Nets/ Telegraphic Transfer

#### Miscellaneous Fees

Please ask for a copy from our Programme Executives or Recruitment Agents.