

# BACHELOR OF COMPUTER SCIENCE

Entry Requirement for : **BACHELOR OF COMPUTER SCIENCE ( BIOINFORMATICS )**

Applicant Level	University Basic Entry Requirement	Special Entry Requirement
Matriculation/ KPM/ Asasi Sains UM/ Asasi Undang-undang KPTM	Passed SPM or equivalent with credit in Bahasa Melayu / Bahasa Malaysia.  Passed KPM Matriculation/ Asasi Sains UM/ Asasi Undang-undang KPTM with at least CPA 2.33 and Attended Malaysian University English Test (MUET)	Passed with at least <b>Gred B- (2.67)</b> at matriculation / asasi levels in THREE (3) following subjects : <ul style="list-style-type: none"> <li>▪ Mathematics/ Engineering Mathematics; and</li> <li>▪ any TWO (2) of the subjects: - Biology, Physics / Engineering Physics, Chemistry/ Engineering Chemistry and</li> </ul> Passed with credit at SPM level in TWO (2) following subjects: <ul style="list-style-type: none"> <li>▪ Mathematics, Biology</li> </ul>
STPM / equivalent	Passed SPM/SPMV with credit in Bahasa Melayu / Bahasa Malaysia.  Passed STPM with : - Grade C (GPA 2.00) in Pengajian Am, and - Grade C (GPA 2.00) in TWO (2) other subjects Attended Malaysian University English Test (MUET)	Passed with at least <b>Gred B- (2.67)</b> at STPM/ equivalent levels in THREE (3) following subjects : <ul style="list-style-type: none"> <li>▪ Mathematics T/ Further Mathematics T/ Computing; and</li> <li>▪ any TWO (2) of the subjects: ▪ Biology, Physics, Chemistry and</li> </ul> Passed with credit at SPM level in TWO (2) following subjects: <ul style="list-style-type: none"> <li>▪ Mathematics, Biology</li> </ul>

This program will be conducted full time in 4 years.

### FURTHER INFORMATION

For more details on the programme, please direct your inquiries to:

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Faculty of Computer Science & Information Systems



# BACHELOR OF COMPUTER SCIENCE



Penarafan UTM di Tier 5 - Kategori Cemerlang



# BACHELOR OF COMPUTER SCIENCE

## 1. BACHELOR OF COMPUTER SCIENCE ( BIOINFORMATICS )

Bioinformatics is an advanced, emerging interdisciplinary field of science and technology that has a brilliant future in which it combines the disciplines of both Biology and Computer Science. In light of this, the Bachelor of Computer Science (Bioinformatics) was established in Universiti Teknologi Malaysia (UTM). This comprehensive programme is specially tailored to produce professional workforce (human resources) who have the expertise in the field of Bioinformatics wherein they are

a. Proficient of utilising technology and sophisticated computer software in the field of biology (biotechnology, medical and agriculture), such as managing and analysing biological data, modelling and simulation of biological processes, solving biological problems, conducting research, etc.

b. Capable of designing, developing, implementing and testing powerful and effective software in order to use and apply it in the field of biology (biotechnology, medical, and agriculture), such as managing and analysing biological data, modelling and simulation of biological processes, solving biological problems, conducting research, etc.

c. Capable of utilizing and developing computer technologies as well as computer software to be implemented in various other disciplines (engineering, chemistry, accounting, management, etc) under both government and private sectors.

To get more details, kindly please visit the following website:

<http://webs.cs.utm.my/bioinformatics/>

## 2. BACHELOR OF COMPUTER SCIENCE ( SOFTWARE ENGINEERING )

This program aims at producing professional software engineers that may solve the current software chronic crisis such as late delivery and unusable software systems. It is systematically designed according to various inputs from industry and international experts. In addition, the curriculum follows the ACM/IEEE SE Curricula Recommendation that makes this program in accordance with an international standard. The state-of-the-art teaching & learning methods were used to equip students with the necessary knowledge, technical skills, and generic skills that are extremely needed in their career. It is expected that this program may provide graduates to fill the large number of vacancies in software industry, especially in providing software engineers who are capable to produce high quality software, which in turn bring the best return on investment for various businesses and organizations.

## 3. BACHELOR OF COMPUTER SCIENCE ( DATABASE SYSTEMS )

This program is specially designed together with industry inputs, to fulfill the much needed entry-level database technologists. Preparing students to be one of the most valuable people in an organization - the master, the innovator, the gatekeeper of today's corporate lifeblood and digital assets - knowledge, information and data. You will be professionally trained to be a DATABASE versatilist whom effectively and ultimately manage and analyze terabytes of data from huge sources, in various formats, and for diverse types of use and organizations. Having the critical knowledge, skills and power to design and model the key aspect and heart of an organization, attractive income and well sought after in ICT career are guaranteed. The DATABASE versatilist can become system/programmer analyst. In addition, they may well fill up more specialized career such as Information System Developer, Database Administrator, Computer Auditor, Software Engineer, Project Manager, Database Designer, Academician, Researcher and Technopreneur.

## 4. BACHELOR OF COMPUTER SCIENCE ( COMPUTER NETWORK AND SECURITY )

This program is specially designed with the objective to prepare students to play vital roles in the field of computer network and security. The program aligns its learning outcome, content and experience to professional certifications. Students will acquire technical and professional skills, both highly valued by the industry, through lectures, hands-on labs, simulations and projects.

## 5. BACHELOR OF COMPUTER SCIENCE ( GRAPHICS AND MULTIMEDIA SOFTWARE )

This is a comprehensive program that dwells deeply into the world of computer graphics and multimedia as well as virtual reality. In line with the aim of producing skilled graphics and multimedia software developers, short courses are periodically offered. The technologies of graphics, multimedia and animation have pervaded most of the activities of business, communication and education. Hence the need for capable and experienced players in this field has increased.

Entry Requirement for : **BACHELOR OF COMPUTER SCIENCE ( DATABASE SYSTEMS )**  
**BACHELOR OF COMPUTER SCIENCE ( COMPUTER NETWORK & SECURITY )**  
**BACHELOR OF COMPUTER SCIENCE ( SOFTWARE ENGINEERING )**  
**BACHELOR OF COMPUTER SCIENCE ( GRAPHICS AND MULTIMEDIA SOFTWARE )**

Applicant Level	University Basic Entry Requirement	Special Entry Requirement
Diploma or equivalent Direct to 2 <sup>nd</sup> year	Passed SPM or equivalent with credit in Bahasa Melayu / Bahasa Malaysia.  Obtained Diploma or other certifications from institutions recognized by Malaysian Government and approved by the University Senate.  Attended Malaysian University English Test (MUET)	Completion of Diploma in Computer Science from UTM or equivalent with at least PNGK: 2.50 or Candidates with PNGK < 2.50, with at least 2 years working experience in related area.  Passes with credit in Mathematics at SPM level or equivalent or score at least Grade C in one of the mathematics subjects at Diploma level. Candidates have to submit their complete Diploma results/ transcripts (from 1st semester till final semester ) and copies of Diploma or a certified letter of graduation confirmation.
Matriculation/ KPM/ Asasi Sains UM/ Asasi Undang-undang KPTM	Passed SPM or equivalent with credit in Bahasa Melayu / Bahasa Malaysia.  Passed KPM Matriculation/ Asasi Sains UM/ Asasi Undang-undang KPTM with at least CPA 2.33 and Attended Malaysian University English Test (MUET)	<b>Science Stream:</b> Passed with at least Grade C+ (2.33) in Mathematics and Passed with at least Grade C+ (2.33) in ONE (1) of these subjects: Physics, Chemistry, Biology, Computer Science and Passed with credit in Mathematics at SPM level or equivalent
STPM / equivalent	Passed SPM/SPMV with credit in Bahasa Melayu / Bahasa Malaysia.  Passed STPM with : - Grade C (GPA 2.00) in Pengajian Am, and - Grade C (GPA 2.00) in TWO (2) other subjects Attended Malaysian University English Test (MUET)	Passed with at least Grade C+ (2.33) in Mathematics T/ Further Mathematics/ Computing; and Passed with at least Grade C+ (2.33) in any ONE (1) of these subjects: Physics, Chemistry, Biology and Passed with credit in Mathematics at SPM level or equivalent

This program will be conducted full time in 4 years.