

SARJANA MUDA KEJURUTERAAN PERISIAN DENGAN KEPUJIAN (PEMBANGUNAN SISTEM MULTIMEDIA) **BACHELOR OF SOFTWARE ENGINEERING WITH HONOURS (MULTIMEDIA SYSTEMS DEVELOPMENT)**

Pengenalan Program / *Introduction*

Negara memerlukan sumber manusia yang kompeten seiring dengan kemajuan pesat industri telekomunikasi dan rangkaian komputer sebelum tahun 2020 untuk mencapai status negara maju. Pendedahan kepada ilmu terkini dalam kejuruteraan komputer dan telekomunikasi memberikan peluang yang luas kepada pelajar untuk berkhidmat di pelbagai sektor pekerjaan seperti telekomunikasi (elektronik perhubungan), sektor perkilangan dan pembuatan (pengalatan & kawalan, mekatronik), industri komputer dan teknologi maklumat (sistem maklumat dan kejuruteraan komputer). Kejuruteraan perisian merangkumi aspek pembangunan perisian, bermula dari merancang ke fasa penyelenggaraan dengan penyesuaian pendekatan sistematik, berdisiplin, boleh diukur dan teratur. Program Sarjana Muda Kejuruteraan Perisian (Multimedia Systems Development) memberi tumpuan kepada pengeluaran perisian multimedia melalui analisis, reka bentuk, pembangunan dan pelaksanaan sistem berdasarkan prinsip-prinsip kejuruteraan perisian.

The country needs competent human resources in line with the rapid advancement of telecommunications and computer networking industry before 2020 to achieve developed nation status. Exposure to the latest knowledge in computer engineering and telecommunications provide wide opportunities for students to serve in various sectors such as telecommunications (electronic communication), the manufacturing sector and manufacturing (tooling and control, mechatronics), the computer industry and information technology (information systems and engineering computer). Software engineering concerns with software development aspects, starting from planning to maintenance phase by adapting systematic, disciplined, quantifiable and organised approach. The Bachelor of Software Engineering (Multimedia Systems Development) programme focuses on multimedia software production through the analysis, design, development and implementation of the system based on the software engineering principles.

Syarat Kemasukan / *Entry Requirements*

Memenuhi Syarat Am Universiti;
Fulfil General Admission Requirements;

SERTA / AND;

DIPLOMA

1. Memiliki Diploma yang berkaitan daripada institusi pendidikan yang diiktiraf oleh Universiti dan Kerajaan Malaysia dan mendapat sekurang-kurangnya **PNGK 3.00**;
*Possess a Diploma in related areas from any educational institution recognized by the University and the Malaysia Government and obtained at least **CGPA of 3.00**;*

DAN / AND;

Mendapat sekurang-kurangnya **kredit** pada peringkat **SPM** dalam mata pelajaran:

- Mathematics

atau

Mendapat sekurang-kurangnya **lulus** pada peringkat **Diploma** dalam mata pelajaran:

- Mathematics

*Obtained at least a **Credit** at **SPM** level in the following subject:*

- *Mathematics*

Or

*Obtained at least a **Pass** at **Diploma** level in the following subject:*

- *Mathematics*

DAN / AND;

- (a) Calon dikehendaki mengemukakan transkrip akademik dari semester 1 hingga akhir
Candidates are required to submit academic transcripts of first or final semester

DAN / AND;

- (b) Mendapat sekurang-kurangnya Tahap 3 (Band 3) dalam Malaysian University English Test (MUET).
Obtain at least Level 3 (Band 3) in the Malaysian University English Test (MUET).

DAN / AND;

- (c) Lulus ujian dan/atau temu duga yang ditetapkan oleh fakulti
Pass in tests and/or interviews for admission as required by faculty

*Calon Lulusan Diploma dalam bidang Komputeran akan mendapat pengecualian kursus Tahun 1 dan ditawarkan terus ke Tahun 2 pengajian (tertakluk kepada kelulusan pihak fakulti).

**Candidates for the Diploma in Computer Science will receive a Year 1 course exemption and be offered straight to Year 2 of study (subject to faculty approval).*

ATAU / OR;

STPM / MATRIKULASI / ASASI

1. Mendapat sekurang-kurangnya **PNGK 2.50** pada peringkat **STPM / Matrikulasi KPM / Asasi**;
*Obtains a minimum **CGPA of 2.50** at the **STPM / KPM Matriculation / Foundation**;*

DAN / AND;

2. Mendapat sekurang-kurangnya **Gred C (NGMP 2.00)** pada peringkat **STPM / Matrikulasi KPM / Asasi** dalam **mana – mana dua (2) mata pelajaran berikut**:
- Biology
 - Physics / Engineering Physics
 - Chemistry / Engineering Chemistry
 - Information and Communications Technology (ICT) / Computer Science
 - Mathematics / Mathematics M / Mathematics T

Obtained at least **Grade B (CGPA 2.67)** at the **STPM / KPM Matriculation / Foundation**; level in the following subjects:

- *Biology*
- *Physics / Engineering Physics*
- *Chemistry/ Engineering Chemistry*
- *Information and Communications Technology (ICT) / Computer Science*
- *Mathematics / Mathematics M / Mathematics T*

DAN / AND;

3. Mendapat sekurang-kurangnya **Gred C/Gred 6C** pada peringkat **SPM** dalam mata pelajaran:

- *Mathematics / Additional Mathematics; dan*

*Obtained at least a **Grade C/Grade 6C** at **SPM** level in the following subject:*

- *Mathematics / Additional Mathematics; dan*

DAN / AND;

(a) Mendapat sekurang-kurangnya Tahap 3 (Band 3) dalam Malaysian University English Test (MUET).

Obtain at least Level 2 (Band 2) in the Malaysian University English Test (MUET).

DAN / AND;

(b) Lulus ujian dan/atau temu duga yang ditetapkan oleh fakulti

Pass in tests and/or interviews for admission as required by faculty

ATAU / OR;

STPM / MATRIKULASI / ASASI (BUKAN TAHUN SEMASA)

4. Mendapat sekurang-kurangnya **PNGK 2.50** pada peringkat **STPM / Matrikulasi KPM / Asasi**;

*Obtains a minimum **CGPA of 2.50** at the **STPM / KPM Matriculation / Foundation**;*

DAN / AND;

5. Mendapat sekurang-kurangnya **Gred C (NGMP 2.00)** pada peringkat **STPM / Matrikulasi KPM / Asasi** dalam mana – mana dua (2) mata pelajaran berikut:

- *Biology*
- *Physics / Engineering Physics*
- *Chemistry / Engineering Chemistry*
- *Information and Communications Technology (ICT) / Computer Science*
- *Mathematics / Mathematics M / Mathematics T*

*Obtained at least **Grade B (CGPA 2.67)** at the **STPM / KPM Matriculation / Foundation**; level in the following subjects:*

- *Biology*
- *Physics / Engineering Physics*
- *Chemistry/ Engineering Chemistry*
- *Information and Communications Technology (ICT) / Computer Science*

- *Mathematics / Mathematics M / Mathematics T*

DAN / AND;

6. Mendapat sekurang-kurangnya **Gred C/Gred 6C** pada peringkat **SPM** dalam mata pelajaran:

- Mathematics / Additional Mathematics; dan

*Obtained at least a **Grade C/Grade 6C** at **SPM** level in the following subject:*

- *Mathematics / Additional Mathematics; dan*

DAN / AND;

(c) Mendapat sekurang-kurangnya Tahap 3 (Band 3) dalam Malaysian University English Test (MUET).

Obtain at least Level 2 (Band 2) in the Malaysian University English Test (MUET).

DAN / AND;

(d) Lulus ujian dan/atau temu duga yang ditetapkan oleh fakulti

Pass in tests and/or interviews for admission as required by faculty

ATAU / OR;

CALON LEPASAN STAM

TIDAK DITAWARKAN KEPADA CALON STAM

ATAU / OR;

APEL-A

1. Lulus Sijil Pelajaran Malaysia (SPM) dengan mendapat kepujian dalam mata pelajaran Bahasa Melayu/Bahasa Malaysia atau kepujian Bahasa Melayu / Bahasa Malaysia Kertas Julai dan lulus dalam mata pelajaran Sejarah;

Pass the Malaysian Education Certificate (SPM) with credits in Malay Language / Malaysia Language subject or credits in Malay Language / Malaysia Language in July papers and pass history subjects;

DAN / AND;

a) Sijil Perakuan APEL MQA dengan mendapat Tahap 6 MQF;

MQA APEL Certificate with a Level 6 MQF;

DAN / AND;

b) Mendapat sekurang-kurangnya **Kepujian** pada peringkat **SPM** dalam mata pelajaran:

- Mathematics

*Obtained at least a **Honour** at **SPM** level in the following subject:*

- *Mathematics*

DAN / AND;

- c) Mendapat sekurang-kurangnya Tahap 3 (Band 3) dalam Malaysian University English Test (MUET).
Obtain at least Level 2 (Band 2) in the Malaysian University English Test (MUET).

DAN / AND;

- d) Lulus ujian dan/atau temu duga yang ditetapkan oleh fakulti
Pass in tests and/or interviews for admission as required by faculty

Mod & Tempoh Program / *Mode of Study & Programme Duration*

- Mod Pengajian : Kerja Khusus / *Mode of Study : Course Work*
- Sepenuh Masa : 3 - 4 tahun / *Full Time : 3 - 4 years*
*Kuliah bermula 8pagi – 5petang, Sabtu - Ahad / *All lectures start from 8am – 5pm, Saturday – Sunday*

Keperluan Bahasa Inggeris / *Requirement for English Language*

Mendapat sekurang-kurangnya Tahap 3 (Band 3) dalam Malaysian University English Test (MUET).
Obtain at least Level 3 (Band 3) in the Malaysian University English Test (MUET).

Kelebihan Program / *Programme Advantages*

- Memenuhi keperluan MQA
Fulfill the MQA requirement
- Selaras dengan perkembangan ilmu semasa dan memenuhi kehendak industri dan pihak berkepentingan
In accordance with the current knowledge development and fulfil the industry needs and interested parties
- Melahirkan pengamal yang mahir dan berpengetahuan
Producing knowledgeable and skilled practitioner

Yuran Program / *Programme Fee*

Warganegara / *Citizens*

Yuran / <i>Fees</i>	Sepenuh Masa / <i>Full Time</i>
Semester pertama / <i>1st semester</i>	RM 4000.00
Semester seterusnya / <i>Subsequent semester</i>	RM 3500.00

Yuran secara pakej: RM21500.00 / Tuition Fee as a Package: RM21500.00

Bukan Warganegara / Non-Citizens

Yuran / Fees	Sepenuh Masa / Full Time
Semester pertama / 1 st semester	RM 6000.00
Semester seterusnya / Subsequent semester	RM 5250.00

Yuran secara pakej: RM32250.00 / Tuition Fee as a Package: RM32250.00

Cara untuk memohon / How to apply

Pendaftaran secara online melalui <http://smp.ukm.my/espeed/> setahun dua pengambilan (pengambilan Mac dan September). Yuran permohonan sebanyak RM50.00 (untuk pemohon tempatan) dan USD30.00 atau RM100.00 (untuk permohonan antarabangsa) dibuat ke akaun CIMB Bank Berhad atas nama Pusat Kembangan Pendidikan (8002233817).

Online registration via <http://smp.ukm.my/espeed/> (Mac and September Intake). Application fee of RM50.00 (for Malaysian application), USD30.00 or MYR100.00 (for International applicants) has been paid to Pusat Kembangan Pendidikan, CIMB account number (8002233817).

Modul Program untuk separuh masa / Course Modules for part time

Semester	Kod Kursus / Course Code	Nama Kursus / Course Name	Taraf Kursus / Category	Unit / Units
Semester I	LMCK1331	Komunikasi Efektif <i>Effective Communication</i>	C2	1
	LMCK1531	Kepimpinan & Kreativiti <i>Creativity and Leaderships</i>	C4	1
	LMCK1621	Etika dan Profesional <i>Ethics and Professionals</i>	C1	1
	TTTK2933	Pengaturcaraan Berorientasikan Objek <i>Object Oriented Programming</i>	WP	3
	TTTE 2104	Kejuruteraan Keperluan Perisian <i>Software Requirement Engineering</i>	WP	4
	TTTH2863	Animasi <i>Animation</i>	WP	3
Jumlah Unit / Total Units				13
Semester II	LMCK1421	Pemikiran Kritikal & Penyelesaian Masalah <i>Critical Thinking & Problem Solving</i>	C3	1
	LMCK2711	Tanggungjawab Alam Sekitar <i>Environmental Responsibility</i>	C5	1
	LMCK2811	Sosial & Kebertanggungjawaban <i>Social & Accountability</i>	C6	1
	LMCW 2163	Tamadun Islam dan Tamadun Asia (CW) <i>Asian and Islamic Civilization</i>	CW	3
	TTTH2863	Pengaturcaraan Multimedia <i>Multimedia Programming</i>	WP	3

	TTTH 2623	Teknologi Audio dan Video Digital <i>Digital Audio and Video Technology</i>	WP	3
			Jumlah Unit / Total Units	
			12	
Semester Pendek	TTTK2323	Pengaturcaraan Mudah Alih <i>Mobile Programming</i>	Elektif	3
	TTTT1964	Pangkalan Data (*) <i>Database(*)</i>	Elektif	3
	* Kepada pelajar yang tiada latarbelakang pangkalan data * For students who don't have database background			3
			Jumlah Unit / Total Units	
			11	
Semester III	LMCW2173	Hubungan Etnik <i>Ethnic relationship</i>	CW	3
	LMCE1022	Workplace Communication	C2	2
	TTTU2983	Pangkalan Data Lanjutan <i>Advanced Databases</i>	WP	3
	TTTH3623	Pemodelan 3D <i>3D Modelling</i>	Elektif	3
				Jumlah Unit / Total Units
			11	
Semester IV	LMCW1022	Asas Keusahawanan dan Inovasi <i>Basic Entrepreneurship and Innovation</i>	CW	2
	TTTP2543	Pengaturcaraan Web <i>Web Programming</i>	WP	3
	TTTH2304	Reka bentuk Perisian untuk Sistem Multimedia <i>Software Design for Multimedia Systems</i>	WP	4
	TTTH 3813	Realiti Maya <i>Visual Reality</i>	Elektif	3
				Jumlah Unit / Total Units
			12	
Semester Pendek	TTTT4056	Latihan Industri <i>Industrial Training</i>	WP	6
	LMCE3011	Speech Communication	Citra	1
				Jumlah Unit / Total Units
			7	
Semester V	TTTT1022	Analisis Data <i>Data Abalysis</i>	CW	2
	LMC-----2	Kursus Citra <i>Citra Course</i>	C1-C6	2
	TTTH4072	Usulan Projek <i>Project Proposal</i>	WP	2
	TTTH3404	Pembangunan Perisian untuk Sistem Multimedia <i>Software Development for Multimedia Systems</i>	WP	4
	TTTE3503	Pengujian Perisian <i>Software Testing</i>	WP	3
				Jumlah Unit / Total Units
			13	
Semester VI	TTTT3013	Komputer, Etika dan Sosial <i>Computers, Ethics and Social</i>	C1	3
	TTTH4086	Projek Akhir <i>Final Project</i>	WP	6

	TTTE4333	Pengurusan dan Penyelenggaraan Perisian <i>Software Management and Maintenance</i>	WP	3
Jumlah Unit / Total Units				12
Semester Pendek	TTTT4076	Projek Industri <i>Industrial Project</i>	WP	6
	Jumlah Unit / Total Units			
Semester VII	**TTTT4056	Latihan Industri <i>Industrial Training</i>	WP	6
	**TTTT4076	Projek Industri <i>Industrial Project</i>	WP	6
	** Pelajar perlu mengikuti latihan industri di semester 7 jika tidak bekerja dalam sector ICT ** Students are required to undergo industrial training in the semester 7 if they are not working in the ICT sector.			
	Jumlah Unit / Total Units			
Jumlah Keseluruhan / Grand Tota				89

****Nota:** W = Wajib / *Compulsory*; P =Pilihan / *Elective* AU – Audit / *Audit*

*Subject to change

Sebarang pertanyaan lanjut, sila hubungi Penyelaras Program /
Any enquiry please contact Programme Coordinator

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