






**KETUA PEGAWAI EKSEKUTIF**  
(Chief Executive Officer)  
**AGENCI KELAYAKAN MALAYSIA**  
(Malaysian Qualifications Agency)

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 OFFICIAL : Agensi Kelayakan Malaysia (MQA)

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Ruj. kami : MQA.100-1/7/1 (24)

Tarikh : 16 Februari 2017

## KEPADA SEMUA PEMBERI PENDIDIKAN TINGGI (PPT)

Tuan/Puan,

### SURAT PEKELILING MQA BIL. 1/2017

### PENGISIAN MATRIKS *BODY OF KNOWLEDGE* (BOK) BAGI PROGRAM YANG TERTAKLUK DI BAWAH STANDARD PROGRAM: KOMPUTERAN

Dengan segala hormatnya saya merujuk kepada perkara di atas dan Pekeliling MQA Bil.1/2015 – Penggunaan Standard Program: Komputeran bertarikh 23 Mac 2015.

2. Dimaklumkan bahawa Mesyuarat Jawatankuasa Akreditasi (MJA) telah memutuskan agar matriks *Body of Knowledge* (BoK) bagi program-program di bawah Standard Program: Komputeran hendaklah diguna pakai. Matriks BoK ini adalah penting bagi menentukan kesesuaian penamaan program berlandaskan empat Disiplin Komputeran iaitu **Teknologi Maklumat, Sistem Maklumat, Sains Komputer dan Kejuruteraan Perisian.**

3. Sehubungan itu, bagi program yang tertakluk di bawah Standard Program: Komputeran, **Pemberi Pendidikan Tinggi (PPT) perlu membuat pengisian matriks BoK.** Pengisian matriks BoK ini perlu disertakan oleh pihak PPT semasa mengemukakan permohonan penilaian program (Akreditasi Sementara – MQA-01, Akreditasi Penuh – MQA-02). Manakala bagi program yang masih dalam proses penilaian MQA, matriks BoK ini perlu dikemukakan kepada MQA sebelum program tersebut dibawa ke Mesyuarat Jawatankuasa Akreditasi (MJA).

4. Contoh templat dan panduan pengisian matriks BoK adalah seperti yang dilampirkan dan juga boleh didapati di portal rasmi MQA: [www.mqa.gov.my](http://www.mqa.gov.my). Bagi pengisian templat tersebut, pihak PPT perlu memasukkan jam kuliah kursus teras dalam setiap segmen BOK ke dalam ruang jadual yang disediakan. Sekiranya kursus teras tersebut menyumbang kepada lebih dari satu segmen BOK, jam kuliah perlu dipisahkan mengikut BOK tersebut. Pengiraan bagi *Actual* BOK dan juga *Required* BOK adalah secara automatik yang mana kesesuaian penamaan program akan ditentukan berdasarkan nilai *Actual* BOK.

5. Sebarang pertanyaan berkenaan pengisian matriks BOK ini boleh dirujuk kepada Puan Nenny Shahriza Samsuddin di talian 03-7968 2271, e-mel: [nenneyshahriza@mqa.gov.my](mailto:nenneyshahriza@mqa.gov.my).

6. Dimaklumkan bahawa pelaksanaan terhadap pengisian ini adalah **berkuat kuasa serta-merta**.

Sekian, terima kasih,

**“BERKHIDMAT UNTUK NEGARA”**

Yang ikhlas,

  
(DATO' PROF. DR. RUJHAN BIN MUSTAFA)

E-mel : [mrujhan@mqa.gov.my](mailto:mrujhan@mqa.gov.my)

**Guidelines:**

- This Excel file contains four worksheets for each specialisation within Computing degrees i.e. Computer Science (CS), Software Engineering (SE), Information Technology (IT), and Information Systems (IS).
- Select the right specialisation and insert the name of degree programme above a table.
- Insert the courses covering the core body of knowledge in the "Typical Course" column.
- Insert in the "Year" column the year in the degree programme the particular course is taught.
- Insert the credit hours allocated for each course in the "Credit" column.
- Insert the lecture hours in each segment of the body of knowledge in the respective column. If the course contributes to more than one segment of the body of knowledge, split the lecture hours accordingly.
- Insert elective courses offered under the "Elective Course" column at the second half of the table.

Name of Degree: BSc. Computer Science

Year	Typical Course	cr	AL	AR	DS	SDF	PL	SE	SF	SP	CN	GV	HCI	IS	IAS	IM	NC	OS	PBD	PD	
1	Programming in C++	3				28															
1	Algorithm and Data Structure	3				24					4										
1	Discrete Mathematics	3			28																
1	Statistics	3			28																
2	Computer Architecture & OS	3		18														10			
2	Software Eng Methodology	3						28													
2	Databases	3													10	18					
2	Computer Network	3															28				
3	Human Computer Interaction	3									8	10	10								
3	Compiler Construction	3				28															
3	Advanced Programming	3							28												
3/4	Design and Analysis of Algorithm	3	28																		
3/4	Ethics and Professional Issues	3								28											
3/4	Advanced Architecture	3																8		20	
4	Project	9																			
4	Industrial Training	12																			
Actual BOK			28	18	56	52	28	28	28	28	4	8	10	10	10	18	28	18	0	20	392
Required BOK			28	16	41	43	28	28	27	16	1	3	8	10	9	10	10	15	0	15	308
Elective Course																					
Modeling and Simulation																					
Mixed, Augmented, and Virtual Reality																					
Security Policy & Governance																					
Data Mining																					
Natural Language Processing																					

Body of Knowledge		Core Hours
AL	Algorithms and Complexity	28
AR	Architecture and Organization	16
DS	Discrete Structure	41
PL	Programming Languages	28
SDF	Software Development Fundamentals	43
SE	Software Engineering	28
SF	Systems Fundamentals	27
SP	Social Issues	16
CN	Computational Science	1
GV	Graphics and Visualization	3
HCI	Human Computer Interaction	8
IS	Intelligent Systems	10
IAS	Information Assurance and Security	9
IM	Information Management	10
NC	Networking and Communication	10
OS	Operating Systems	15
PBD	Platform Based Development	0
PD	Parallel and Distributed Computing	15

	Min	Max
Total Core (credit hour)	42	48
Project	9	12
Specialization	18	24
Compulsory/Liberal/Electives	34	40
Industrial Training	0	12

# CONTOH TEMPLAT MATRIKS BOK

## Software Engineering

Name of Institution:

Diploma Programme:

Year	Core Courses	Credit	CA	DB	DS	CL	NC	OS	PF	SD
<b>Actual BOK</b>			0	0	0	0	0	0	0	0
<b>All Elective Courses</b>										

Body of Knowledge	
CA	Computer Architecture
DB	Database
DS	Discrete Mathematics
CL	Calculus and Algebra
NC	Net-Centric Computing
OS	Operating Systems
PF	Programming Fundamentals
SD	System Analysis and Design

## Computer Science

Name of Institution:

Diploma Programme:

Year	Core Courses	Credit	CA	DB	DS	CL	NC	OS	PF	SD
<b>Actual BOK</b>			0	0	0	0	0	0	0	0
<b>All Elective Courses</b>										

Body of Knowledge	
CA	Computer Architecture
DB	Database
DS	Discrete Mathematics
CL	Calculus and Algebra
NC	Net-Centric Computing
OS	Operating Systems
PF	Programming Fundamentals
SD	System Analysis and Design

## Information Systems

Name of Institution: \_\_\_\_\_

Diploma Programme: \_\_\_\_\_

Year	Core Courses	Credit	CA	DB	DS	CL	NC	OS	PF	SD
<b>Actual BOK</b>			0	0	0	0	0	0	0	0
	<b>All Elective Courses</b>	<b>Credit</b>								

Body of Knowledge	
CA	Computer Architecture
DB	Database
DS	Discrete Mathematics
CL	Calculus and Algebra
NC	Net-Centric Computing
OS	Operating Systems
PF	Programming Fundamentals
SD	System Analysis and Design

## Information Technology

Name of Institution: \_\_\_\_\_

Diploma Programme: \_\_\_\_\_

Year	Core Courses	Credit	CA	DB	DS	CL	NC	OS	PF	SD
<b>Actual BOK</b>			0	0	0	0	0	0	0	0
	<b>All Elective Courses</b>	<b>Credit</b>								

Body of Knowledge	
CA	Computer Architecture
DB	Database
DS	Discrete Mathematics
CL	Calculus and Algebra
NC	Net-Centric Computing
OS	Operating Systems
PF	Programming Fundamentals
SD	System Analysis and Design