



PROGRAMME SPECIFICATION UNTIL SEMESTER 2011/12-3

1. Programme Name		Bachelor in Civil Engineering		
2. Final Award		Bachelor of Engineering (Civil)		
3. Awarding Institution		UTM		
4. Teaching Institution		UTM		
5. Professional or Statutory Body of Accreditation		Board of Engineers Malaysia (BEM)		
6. Language(s) of Instruction		Bahasa Melayu and English		
7. Mode of Study (Conventional, distance learning, etc)		Distance Learning		
8. Mode of operation (Franchise, self-govern, etc)		Self-governing		
9. Study Scheme (Full Time/Part Time)		Part Time		
10. Study Duration		Minimum : 4 1/2 yrs (9 normal semesters) Maximum : 10 yrs (20 normal semesters) Effective 9 Mac 2011		
Type of Semester	No. of Semesters		No. of Weeks / Semester	
	Full Time	Part Time	Full Time	Part Time
Normal	8	9	14	14
Short	4	5	8	8
11. Entry Requirement	<ol style="list-style-type: none"> Diploma in Civil Engineering with minimum CGPA of 2.70 from recognized institutions. Or For candidates who hold a Diploma in Civil Engineering from recognized institutions, with CGPA lower than 2.70 but with a minimum of 2 years working experience are also eligible to apply 			

12. Programme Objectives
<ol style="list-style-type: none"> Graduates are competent, creative and innovative in acquiring and applying knowledge towards solving civil engineering problems. Graduates possess good leadership qualities, able to work in a team and serve the society. Graduates demonstrate professionalism and uphold ethical values with integrity. Graduates are able to communicate effectively and possess strong self confidence.

13. Programme Learning Outcomes			
Code	Intended Learning Outcomes	Teaching and Learning Methods	Assessment
(a) Technical Knowledge and Competencies			
LO1	Ability to acquire knowledge of science and civil engineering principles.	Lectures, tutorials, seminars, laboratory works, directed reading, independent study, active learning.	Examinations, laboratory reports, presentations, assignments, problem-based exercises, project reports.
LO2	Ability to use the techniques, skills and modern civil engineering tools.	Lectures, tutorials, computer hands-on sessions, laboratory works, industrial training, surveying camps.	Examinations, laboratory reports, presentations, assignments, problem-based exercises, project reports, design tasks, simulation exercises, industrial training reports.



PROGRAMME SPECIFICATION UNTIL SEMESTER 2011/12-3

13. Programme Learning Outcomes			
Code	Intended Learning Outcomes	Teaching and Learning Methods	Assessment
(a) Technical Knowledge and Competencies			
LO3	Ability to analyse, interpret, develop and conduct experiments; and design components, systems, or processes.	Project supervision, lectures, tutorials, laboratory works, directed reading, simulation exercises, computer-based independent study, problem-based learning.	Final Year Project reports, project reports, design tasks, examinations, laboratory reports, presentations, assignments.
Code	Intended Learning Outcomes	Teaching and Learning Methods	Assessment
(b) Generic Skills			
LO4	Ability to think critically, identify, formulate and solve civil engineering related problems.	Project supervision, lectures, tutorials, laboratory works, group projects, independent study.	Final Year Project reports, project reports, design tasks, examinations, laboratory reports, presentations, assignments.
LO5	Ability to communicate effectively and with confidence.	Projects, independent study, tutorials, surveying camps.	Oral presentations, written reports.
LO6	Ability to identify business opportunities and embark on entrepreneurship.	Independent study, group project, industrial visit, Seminar (SEMKA), dialogue with invited speaker.	Seminar report, written business proposal.
LO7	Ability to function effectively as an individual in a team to achieve common goals.	Independent projects, group projects, industrial training, final year project, surveying camps.	Industrial training report and logbook, project report, final year project report and logbook.
LO8	Ability to perpetually seek and acquire contemporary knowledge.	Independent study, final year projects.	Final year project reports, assignments.
LO9	Ability to lead, communicate and manage effectively with confidence.	Lectures, laboratory works, group assignments, Industrial training, final year project.	Industrial training reports and logbooks, final year project reports and logbooks.
LO10	Ability to apply high ethical standards in professional practice and social interactions for sustainable development.	Final year projects, Laboratory works, Industrial training, surveying camps.	Written assignments, laboratory reports, essays, final year project reports, Industrial training report.



PROGRAMME SPECIFICATION UNTIL SEMESTER 2011/12-3

NOTES ON CURRICULUM:

The following information is based on the existing curriculum and valid until semester 2011/12-3.

A new curriculum will be introduced in semester 2012/13-1.

14. Classification of Subjects

No.	Classification	Credit Hours	Percentage
i.	University		
	a. General	10	13.4%
	b. Language	6	
	c. Co-curriculum	2	
ii.	Faculty / Programme Core	107	79.9%
iii.	Programme Electives	9	6.7%
	Total	134	100%
For engineering programmes please complete the following classification. (Others please refer to the Statutory Body guidelines)			
A	Engineering Subjects		
	(a) Lecture/Project/Design studio	81	73.9%
	(b) Laboratory/Workshop/Field	7	
	(c) Industrial Training	5	
	(d) Final Year Project	6	
	Total credit hours for Part A	99	
B	Related Subjects		
	(a) Applied Science/Maths/Computer	17	26.1%
	(b) Management/Law/Humanities/Ethics	10	
	(c) Co-Curriculum	2	
	(d) English	6	
	(e) Others	-	
	Total credit hours for Part B	35	
	Total Credit Hours for Parts A and B	134	100%

15. Total credit hours to graduate

134 credit hours



PROGRAMME SPECIFICATION UNTIL SEMESTER 2011/12-3

16. Programme structure and features, curriculum and award requirements

The programme is offered on part-time mode and is based on a 2 normal-Semester and 1 short-semester in each Academic Session. Courses are delivered and assessed in each Semester. Assessment is based on final examination and coursework conducted throughout the semester.

Award requirements:

To graduate, students should :

- Attain a total of no less than 134 credit hours with minimum CGPA of 2.0.
- Complete and pass the Industrial Training equivalent to 5 credit hours for students without any working experience. Exemption to industrial training is given to students who have at least one year working experience. To obtain exemption students must submit a technical report on the related experience, attend and pass the interview.
- Complete and pass the undergraduate Final Year Project.
- Complete and pass the Civil Engineering Seminar.

The programme is conducted according to the course menu (Menu Matapelajaran) shown in the following tables.

The first and second tables are the menu for the July and December intakes respectively. The third table shows an example of the course menu for Ipoh Learning Centre, with student intake conducted in December.



PROGRAMME SPECIFICATION UNTIL SEMESTER 2011/12-3

SPACE - PROGRAM IJAZAH SARJANA MUDA KEJURUTERAAN AWAM (SAW) SEPARUH MASA

MENU MATA PELAJARAN PENGAJIAN EMPAT TAHUN BAGI KEMASUKAN SEMESTER I (JULAI)

KURIKULUM SAB
(MULAI 0708-1)

(1). PENGECCUALIAN KREDIT BERDASARKAN KELAYAKAN DIPLOMA (Permohonan pengecualian kredit mesti dibuat dalam tempoh 2 semester pertama pengajian)

Diploma	KOD UTM	MATA PELAJARAN	KREDIT	JUM. KREDIT
Diploma drp KST UTM, KUiTTHO, UiTM, Politeknik	SAB1011	Amali Ukur Kejuruteraan	1	21
	SAB1023	Ukur Kejuruteraan	3	
	SAB1031	Khemah Ukur	1	
	SAB1042	Makmal Kejuruteraan Awam I	2	
	SAB1213	Mekanik Gunaan	3	
	SAB1423	Lukisan Kejuruteraan Awam	3	
	SAB1513	Mekanik Bendalir	3	
	SAB1713	Mekanik Tanah	3	
	UKR1##1	Ko-Kurikulum	1	
	UKR1##1	Ko-Kurikulum	1	
	**Diploma drp KST UTM shj.	SSE1792	Kalkulus	
	ULT1022	TITAS (Tamadun Islam dan Tamadun Asia)	2	

(2). MATA PELAJARAN YANG PERLU DIAMBIL MENGIKUT SEMESTER (Pendaftaran MP dibuat pada setiap semester secara online, kecuali pada semester 1-secara isi borang)

TAHUN	NO. SEMESTER	KOD	MATA PELAJARAN	*JENIS M/P	PRA-SYARAT	KREDIT	JUM. KREDIT
2	I	SSE 1793	Persamaan Terbitan	K		3	10
		SAB 2912	Olahan Air	K	SAB 1513	2	
		SAB 2112	Bahan Kejuruteraan Awam	K		2	
		SAB 2223	Mekanik Bahan & Struktur	K		3	
	II	SSE 1893	Matematik Kejuruteraan	K		3	10
		SAB 2513	Hidraulik	K	SAB 1513	3	
		SAB 2712	Geologi & Mekanik Batuan	K	SAB 1713	2	
		SAB 2922	Kejuruteraan Air Sisa	K	SAB 1513	2	
	Semester Pendek/Mei 1	SSE 1792	Kalkulus	K		2	6
		UHS 1152	Hubungan Etnik	K		2	
		UHB 1412	English for Academic Communication	K		2	
	III	SAB 2722	Geoteknik I	K	SAB 1713	2	10
		SSE 2193	Statistik Kejuruteraan	K		3	
		SAB 2032	Sistem Mekanikal & Elektrikal	K		2	
		SAB 3413	Aturancangan Komputer	KM		3	
	IV	SAB 3112	Kontrak dan Taksiran	K	SAB 1423, SAB 2112	2	10
		SSE 2393	Kaedah Berangka	K		3	
		SAB 2832	Kejuruteraan Jalanraya	K	SAB 1713, SAB 1023	2	
		SAB 3243	Teori Struktur	K	SAB 2223	3	
	Semester Pendek/Mei 2	ULT 1022	TITAS (Tamadun Islam dan Tamadun Asia)	K		2	6
UHB 2422		Advanced English for Academic Communication	K		2		
UHS 2##2		Elektif FPPSM	K		2		
3	V	SAB 3353	Rekabentuk Konkrit Tetulang I	K	SAB 2223, SAB 3243	3	10
		SAB 3712	Geoteknik II	K	SAB 1713	2	
		SAB 3122	Teknologi Pembinaan	K	SAB 2112	2	
		SAB 3613	Hidrologi	K	SAB 1513	3	
	VI	SAB 3233	Rekabentuk Struktur Keluli & Kayu	K	SAB 3243	3	10
		SAB 3842	Kejuruteraan Lalulintas	K	SAB 1713, SAB 1023	2	
		SHD 3412	Keusahawanan	K		2	
		SAB 4223	Analisis Struktur	KM	SAB 3243	3	
	Semester Pendek/Mei 3	ULT 2##2	Elektif dari Pusat Pengajian Islam & Pembangunan Sosial	K		2	6
		UHB 3##2	Elektif dari Jabatan Bahasa FPPSM	K		2	
SAB 2012		Makmal Kejuruteraan Awam II	M	SAB 1042	2		
4	VII	SAB 4012	Projek Amalan Profesional	P	semua mp thn 3	2	10
		SAB 4913	Pengurusan Alam Sekitar	K	SAB 2912, SAB 2922	3	
		SAB 4333	Rekabentuk Konkrit Tetulang II	K	SAB 3243, SAB 3353	3	
		SAB 4412	Sistem Maklumat Kejuruteraan Awam	K	SAB 1413	2	
	VIII	SAB 4113	Pengurusan Projek & Pembinaan	K	SAB 3112	3	11
		SAB 4022	Kaedah Penyelidikan & PSM	KP		2	
		SAB 4##3	Elektif I	K		3	
		SAB 4##3	Elektif II	K		3	
	Semester Pendek/Mei 4	SAB 3011	Makmal Kejuruteraan Awam III	M	SAB 2012	1	2
		SAB 4021	Seminar Kejuruteraan Awam	S		1	
	IX	SAB 4034	Projek Sarjana Muda	P	SAB 4022	4	7
		SAB 4##3	Elektif III	K		3	
	Semester Pendek/Mei 5	SAB 3045	Latihan Industri	LI	PSLI	5	5
			(boleh diambil pada Semester Mei atau semester lazim)				
	JUMLAH KREDIT (Termasuk **Matapelajaran SSE1792 dan ULT1022)						

*Jenis M/P
K = Kuliah
M = Makmal
KM = Kuliah + Makmal
S = Seminar
P = Projek
LI = Latihan Industri

LATIHAN INDUSTRI (LI)- SAB3045
Pra-Syarat Latihan Industri (PSLI); item 1-3:
1.Pernah mengambil kursus asas kejuruteraan awam yg disyaratkan (tidak semestinya lulus)
2.Keputusan perlu KB pada semester semasa atau semester sebelumnya
3-tidak dibenarkan mendaftar kursus lain semasa menjalani Latihan Industri
Pengecualian LI; item 4-6:
4. Pada semester VII, pelajar boleh memohon pengecualian Latihan Industri.
5. Untuk syarat kelayakan dan cara memohon pengecualian Latihan Industri, lihat laman web SPACE-FKA: <http://www.fka.utm.my/space/>
6. Pelajar yang tidak layak mendapat pengecualian Latihan Industri, perlu menjalani Latihan Industri pada Semester Mei 5 atau semester lazim yang berikutnya dan syarat PSLI (item 1-3) mesti dipatuhi.

	KUiTTHO UiTM, Poli	KST
Jumlah pengecualian kredit diploma	21	25
Jumlah kredit perlu ambil di SPACE	113	109
Jumlah kredit penganugerahan	134	134

2.2.09



PROGRAMME SPECIFICATION UNTIL SEMESTER 2011/12-3

SPACE - PROGRAM IJAZAH SARJANA MUDA KEJURUTERAAN AWAM (SAW) SEPARUH MASA

MENU MATA PELAJARAN PENGAJIAN EMPAT TAHUN BAGI KEMASUKAN SEMESTER II (DISEMBER)

KURIKULUM SAB
(MULAI 0708-1)

(1). PENGEJUALIAN KREDIT BERDASARKAN KELAYAKAN DIPLOMA (Permohonan pengecualian kredit mesti dibuat dalam tempoh 2 semester pertama pengajian)

Diploma	KOD UTM	MATA PELAJARAN	KREDIT	JUM. KREDIT
Diploma drp KST UTM, KUITTHO, UITM, Politeknik	SAB1011	Amali Ukur Kejuruteraan		1
	SAB1023	Ukur Kejuruteraan		3
	SAB1031	Khemah Ukur		1
	SAB1042	Makmal Kejuruteraan Awam I		2
	SAB1213	Mekanik Gunaan		3
	SAB1423	Lukisan Kejuruteraan Awam		3
	SAB1513	Mekanik Bendalir		3
	SAB1713	Mekanik Tanah		3
	UKR1##1	Ko-Kurikulum		1
	UKR1##1	Ko-Kurikulum		1
**Diploma drp KST UTM shj.	SSE1792	Kalkulus		2
	ULT1022	TITAS (Tamadun Islam dan Tamadun Asia)		2
				25

(2). MATA PELAJARAN YANG PERLU DIAMBIL MENGIKUT SEMESTER (Pendaftaran MP dibuat pada setiap semester secara online, kecuali pada semester 1-secara isi borang)

TAHUN	NO. SEMESTER	KOD	MATA PELAJARAN/ KURSUS	*JENIS M/P	PRA-SYARAT	KREDIT	JUM. KREDIT
2	I	SSE 1793	Persamaan Terbitan	K		3	10
		SAB 2912	Olahan Air	K	SAB 1513	2	
		SAB 2112	Bahan Kejuruteraan Awam	K		2	
		SAB 2223	Mekanik Bahan & Struktur	K		3	
	Semester Pendek/Mei 1	SSE 1792	Kalkulus	K		2	6
		UHS 1152	Hubungan Etnik	K		2	
		UHB 1412	English for Academic Communication	K		2	
	II	SSE 1893	Matematik Kejuruteraan	K		3	10
		SAB 2513	Hidraulik	K	SAB 1513	3	
		SAB 2712	Geologi & Mekanik Batuan	K	SAB 1713	2	
		SAB 2922	Kejuruteraan Air Sisa	K	SAB 1513	2	
	III	SAB 2722	Geoteknik I	K	SAB 1713	2	10
		SSE 2193	Statistik Kejuruteraan	K		3	
		SAB 2032	Sistem Mekanikal & Elektrikal	K		2	
		SAB 3413	Aturancangan Komputer	KM		3	
	Semester Pendek/Mei 2	ULT 1022	TITAS (Tamadun Islam dan Tamadun Asia)	K		2	6
		UHB 2422	Advanced English for Academic Communication	K		2	
		UHS 2##2	Elektif FPPSM	K		2	
	IV	SAB 3112	Kontrak dan Taksiran	K	SAB 1423, SAB 2112	2	10
		SSE 2393	Kaedah Berangka	K		3	
SAB 2832		Kejuruteraan Jalanraya	K	SAB 1713, SAB 1023	2		
SAB 3243		Teori Struktur	K	SAB 2223	3		
3	V	SAB 3353	Rekabentuk Konkrit Tetulang I	K	SAB 2223, SAB 3243	3	10
		SAB 3712	Geoteknik II	K	SAB 1713	2	
		SAB 3122	Teknologi Pembinaan	K	SAB 2112	2	
		SAB 3613	Hidrologi	K	SAB 1513	3	
	Semester Pendek/Mei 3	ULT 2##2	Elektif dari Pusat Pengajian Islam & Pembangunan Sosial	K		2	6
UHB 3##2	Elektif dari Jabatan Bahasa FPPSM	K		2			
SAB 2012	Makmal Kejuruteraan Awam II	M	SAB 1042	2			
VI	SAB 3233	Rekabentuk Struktur Keluli & Kayu	K	SAB 3243	3	10	
	SAB 3842	Kejuruteraan Lalulintas	K	SAB 1713, SAB 1023	2		
	SHD 3412	Keusahawanan	K		2		
	SAB 4223	Analisis Struktur	KM	SAB 3243	3		
4	VII	SAB 4012	Projek Amalan Profesional	P	semua mp thn 3	2	10
		SAB 4913	Pengurusan Alam Sekitar	K	SAB 2912, SAB 2922	3	
		SAB 4333	Rekabentuk Konkrit Tetulang II	K	SAB 3243, SAB 3353	3	
		SAB 4412	Sistem Maklumat Kejuruteraan Awam	K	SAB 1413	2	
	Semester Pendek/Mei 4	SAB 3011	Makmal Kejuruteraan Awam III	M	SAB 2012	1	2
		SAB 4021	Seminar Kejuruteraan Awam	S		1	
	VIII	SAB 4113	Pengurusan Projek & Pembinaan	K	SAB 3112	3	11
		SAB 4022	Kaedah Penyelidikan & PSM	KP		2	
		SAB 4##3	Elektif I	K		3	
		SAB 4##3	Elektif II	K		3	
	IX	SAB 4034	Projek Sarjana Muda	P	SAB 4022	4	7
SAB 4##3		Elektif III	K		3		
Semester Pendek/Mei 5	SAB 3045	Latihan Industri <small>(boleh diambil pada Semester Mei atau semester lazim)</small>	LI	PSLI	5	5	
JUMLAH KREDIT (Termasuk **Matapelajaran SSE1792 dan ULT1022)							113

***Jenis M/P**

K = Kuliah
M = Makmal
KM = Kuliah + Makmal
S = Seminar
P = Projek
LI = Latihan Industri

LATIHAN INDUSTRI (LI)- SAB3045

Prasyarat Latihan Industri (PSLI); item 1-3:
1-Pernah mengambil kursus asas kejuruteraan awam yg disyaratkan (tidak semestinya lulus)
2-Keputusan perlu KB pada semester semasa atau semester sebelumnya
3-Tidak dibenarkan mendaftar kursus lain semasa menjalani Latihan Industri

Pengecualian LI; item 4-6:
4. Pada semester VII, pelajar boleh memohon pengecualian Latihan Industri.
5. Untuk syarat kelayakan dan cara memohon pengecualian Latihan Industri, lihat laman web SPACE-FKA: <http://www.fka.utm.my/space/>
6. Pelajar yang tidak layak mendapat pengecualian Latihan Industri, perlu menjalani Latihan Industri pada Semester Mei 5 atau semester lazim yang berikutnya dan syarat PSLI (item 1-3) mesti dipatuhi.

	KUITHO UITM,Poli	KST
Jumlah pengecualian kredit diploma	21	25
Jumlah kredit perlu ambil di SPACE	113	109
Jumlah kredit penganugerahan	134	134

2.2.09

SEMINAR KEJ. AWAM

SAB4021: Untuk pelajar semester VII ke atas.



PROGRAMME SPECIFICATION UNTIL SEMESTER 2011/12-3

SPACE - PROGRAM IJAZAH SARJANA MUDA KEJURUTERAAN AWAM (SAW) SEPARUH MASA

MENU MATA PELAJARAN PENGAJIAN EMPAT TAHUN BAGI KEMASUKAN SEMESTER II (DISEMBER)

KURIKULUM SAB
(MULAI 0708-1)

IPOH, Intake 0809-2

(1). PENGEUCALIAN KREDIT BERDASARKAN KELAYAKAN DIPLOMA (Permohonan pengecualian kredit mesti dibuat dalam tempoh 2 semester pertama pengajian)

Diploma	KOD UTM	MATA PELAJARAN	KREDIT	JUM. KREDIT
Diploma drp KST UTM, KUITTHO, UITM, Politeknik	SAB1011	Amali Ukur Kejuruteraan		1
	SAB1023	Ukur Kejuruteraan		3
	SAB1031	Khemah Ukur		1
	SAB1042	Makmal Kejuruteraan Awam I		2
	SAB1213	Mekanik Gunaan		3
	SAB1423	Laksian Kejuruteraan Awam		3
	SAB1513	Mekanik Bendalir		3
	SAB1713	Mekanik Tanah		3
	UKR1#01	Ko-Kurikulum		1
	UKR1#01	Ko-Kurikulum		1
**Diploma drp KST UTM shj.	SSE1792	Kalkulus		2
	ULT1022	TITAS (Tamadun Islam dan Tamadun Asia)		2
				25

(2). MATA PELAJARAN YANG PERLU DIAMBIL MENGIKUT SEMESTER (Pendaftaran MP dibuat pada setiap semester secara online, kecuali pada semester I-secara isi borang)

TAHUN	NO. SEMESTER	KOD	MATA PELAJARAN/ KURSUS	JENIS M/P	PRA-SYARAT	KREDIT	JUM. KREDIT
2	I 0809-2	SSE 1793	Persamaan Terbitan	K		3	10
		SAB 2912	Olahan Air	K	SAB 1513	2	
		SAB 2112	Bahan Kejuruteraan Awam	K		2	
		SAB 2223	Mekanik Bahan & Struktur	K		3	
	Semester Pendek/Mei 1 0809-3	SSE 1792	Kalkulus	K		2	6
		UHS 1152	Hubungan Etnik	K		2	
		UHB 1412	English for Academic Communication	K		2	
	II 0910-1	SSE 1893	Matematik Kejuruteraan	K		3	10
		SAB 2513	Hidraulik	K	SAB 1513	3	
		SAB 2712	Geologi & Mekanik Batuan	K	SAB 1713	2	
		SAB 2922	Kejuruteraan Air Sisa	K	SAB 1513	2	
	III 0910-2	SAB 2722	Geoteknik I	K	SAB 1713	2	10
		SSE 2193	Statistik Kejuruteraan	K		3	
		SAB 2032	Sistem Mekanikal & Elektrikal	K		2	
		SAB 3413	Aturancangan Komputer	KM		3	
	Semester Pendek/Mei 2 0910-3	ULT 1022	TITAS (Tamadun Islam dan Tamadun Asia)	K		2	6
		UHB 2422	Advanced English for Academic Communication	K		2	
		UHS 2#02	Elektif FPPSM	K		2	
	IV 1011-1	SAB 3112	Kontrak dan Taksiran	K	SAB 1423, SAB 2112	2	10
		SSE 2393	Kaedah Berangka	K		3	
SAB 2832		Kejuruteraan Jalanraya	K	SAB 1713, SAB 1023	2		
SAB 3243		Teori Struktur	K	SAB 2223	3		
3	V 1011-2	SAB 3353	Rekabentuk Konkrit Tetulang I	K	SAB 2223, SAB 3243	3	10
		SAB 3712	Geoteknik II	K	SAB 1713	2	
		SAB 3122	Teknologi Pembinaan	K	SAB 2112	2	
		SAB 3613	Hidrologi	K	SAB 1513	3	
	Semester Pendek/Mei 3 1011-3	ULT 2#02	Elektif dari Pusat Pengajian Islam & Pembangunan Sosial	K		2	6
UHB 3#02		Elektif dari Jabatan Bahasa FPPSM	K		2		
VI 1112-1	SAB 3233	Rekabentuk Struktur Keluli & Kayu	K	SAB 3243	3	10	
	SAB 3842	Kejuruteraan Lalulintas	K	SAB 1713, SAB 1023	2		
	SHD 3412	Keusahawanan	K		2		
	SAB 4223	Analisis Struktur	KM	SAB 3243	3		
4	VII 1112-2	SAB 4012	Projek Amalan Profesional	P	semua mp thn 3	2	10
		SAB 4913	Pengurusan Alam Sekitar	K	SAB 2912, SAB 2922	3	
		SAB 4333	Rekabentuk Konkrit Tetulang II	K	SAB 3243, SAB 3353	3	
		SAB 4412	Sistem Maklumat Kejuruteraan Awam	K	SAB 1413	2	
	Mei 4 1112-3	SAB 3011	Makmal Kejuruteraan Awam III	M	SAB 2012	1	2
		SAB 4021	Seminar Kejuruteraan Awam	S		1	
	VIII 1213-1	SAB 4113	Pengurusan Projek & Pembinaan	K	SAB 3112	3	11
		SAB 4022	Kaedah Penyelidikan & PSM	KP		2	
		SAB 4#03	Elektif I	K		3	
		SAB 4#03	Elektif II	K		3	
IX 1213-2	SAB 4034	Projek Sarjana Muda	P	SAB 4022	4	7	
	SAB 4#03	Elektif III	K		3		
Mei 5 1213-3	SAB 3045	Latihan Industri	LI	PSLI	5	5	
		<i>(boleh diambil pada Semester Mei atau semester lazim)</i>					
JUMLAH KREDIT (Termasuk **Matapelajaran SSE1792 dan ULT1022)							113

*Jenis M/P
K = Kuliah
M = Makmal
KM = Kuliah + Makmal
S = Seminar
P = Projek
LI = Latihan Industri

LATIHAN INDUSTRI (LI)- SAB3045

- Prasyarat Latihan Industri (PSLI); item 1-3:**
1-Pernah mengambil kursus asas kejuruteraan awam yg disyaratkan (tidak semestinya lulus)
2-Keputusan perlu KB pada semester semasa atau semester sebelumnya
3-Tidak dibenarkan mendaftar kursus lain semasa menjalani Latihan Industri
- Pengecualian LI; item 4-6:**
4. Pada semester VII, pelajar boleh memohon pengecualian Latihan Industri.
5. Untuk syarat kelayakan dan cara memohon pengecualian Latihan Industri, lihat laman web SPACE-FKA: <http://www.fka.utm.my/space/>
6. Pelajar yang tidak layak mendapat pengecualian Latihan Industri, perlu menjalani Latihan Industri pada Semester Mei 5 atau semester lazim yang berikutnya dan syarat PSLI (item 1-3) mesti dipatuhi.

2.2.09

**SEMINAR KEJ. AWAM
SAB4021:** Untuk pelajar semester VII ke atas.

	KUITHO UITM, Poli	KST
Jumlah pengecualian kredit diploma	21	25
Jumlah kredit perlu ambil di SPACE	113	109
Jumlah kredit penganugerahan	134	134



PROGRAMME SPECIFICATION UNTIL SEMESTER 2011/12-3

17. Mapping of Programme Learning Outcomes to Courses

CORE COURSES OFFERED		LEARNING OUTCOMES									
		Acquire Knowledge	Use Technique	Analyse & Development	Problem Solving	Communication	Entrepreneurship	Team Work	Life Long Learning	Leadership	Ethical
		LO1	LO2	LO3	LO4	LO5	LO6	LO7	LO8	LO9	LO10
CORE COURSES											
SAB 1011	Engineering Survey – Fieldwork	b	a	a	2	1	-	2	-	2	2
SAB 1023	Engineering Survey	a	a	b	2	2	-	-	-	-	2
SAB 1031	Survey Camp	b	a	a	2	2	-	1	2	1	2
SAB 1042	Civil Engineering Laboratory I	a	a	a	2	1	-	1	2	2	2
SAB 1213	Applied Mechanics	a	b	b	1	2	2	2	2	2	2
SAB 1423	Civil Engineering Drawing	a	a	b	-	2	-	2	2	2	1
SAB 1513	Fluid Mechanics	a	a	a	1	2	-	2	2	2	2
SAB 1713	Soil Mechanics	a	b	b	2	1	-	1	2	2	2
SAB 2012	Civil Engineering Laboratory II	a	a	a	2	1	-	1	2	2	2
SAB 2032	Mechanical & Electrical Systems	a	b	b	2	2	2	-	2	2	1
SAB 2112	Civil Engineering Materials	a	b	b	-	2	2	2	1	-	-
SAB 2223	Mechanics of Materials and Structures	a	b	b	1	2	2	2	2	-	2
SAB 2513	Hydraulics	a	a	a	1	2	2	2	2	-	2
SAB 2712	Geology & Rock Mechanics	a	a	a	2	2	2	2	1	2	2
SAB 2722	Geotechnics I	a	a	b	1	2	-	2	-	-	2
SAB 2832	Highway Engineering	a	b	a	1	2	-	2	-	-	2
SAB 2912	Water Treatment	a	b	c	2	2	-	-	2	-	1
SAB 2922	Waste Water Engineering	a	b	c	2	2	-	-	2	-	1
SAB 3011	Civil Engineering Laboratory III	a	a	a	2	1	-	2	2	2	2
SAB 3045	Industrial Training	a	b	b	2	1	2	2	2	2	1
SAB 3112	Contract & Estimating	a	b	b	2	2	-	1	2	2	2
SAB 3122	Construction Technology	a	b	c	2	1	2	2	2	-	2
SAB 3233	Structural Steel & Timber Design	a	a	a	2	2	-	1	2	2	2
SAB 3243	Theory of Structures	a	b	c	1	-	-	-	-	-	-
SAB 3353	Reinforced Concrete Design I	a	a	a	2	2	-	2	2	2	1
SAB 3413	Computer Programming	a	a	a	1	2	-	2	2	-	-
SAB 3613	Hydrology	a	b	a	1	2	2	2	2	-	2
SAB 3712	Geotechnics II	a	a	b	1	2	-	2	-	-	2
SAB 3842	Traffic Engineering	a	b	a	1	2	-	-	-	-	2
SAB 4012	Projects in Professional Practice	b	a	a	1	1	2	1	2	2	2
SAB 4021	Civil Engineering Seminar	b	c	c	2	2	-	1	-	2	2
SAB 4022	Research Methodology & Final Year Project	b	b	b	2	-	-	-	1	-	-
SAB 4034	Final Year Project	b	b	b	2	1	-	-	2	-	-
SAB 4113	Construction & Project Management	b	b	b	2	2	2	1	2	-	2
SAB 4223	Structural Analysis	a	a	a	1	2	2	2	-	-	-
SAB 4333	Reinforced Concrete Design II	a	a	a	2	2	-	1	2	2	2
SAB 4412	Civil Engineering Information Technology	b	a	a	2	2	-	2	1	2	2
SAB 4913	Environmental Management	a	b	b	2	2	-	1	2	1	2



PROGRAMME SPECIFICATION UNTIL SEMESTER 2011/12-3

ELECTIVE COURSES OFFERED		LEARNING OUTCOMES									
		Acquire Knowledge	Use Technique	Analyse & Development	Problem Solving	Communication	Entrepreneurship	Team Work	Life Long Learning	Leadership	Ethical
		LO1	LO2	LO3	LO4	LO5	LO6	LO7	LO8	LO9	LO10
ELECTIVE COURSES											
SAM 5022	Civil Engineering System & Problem Solving	a	a	a	1	2	-	2	-	2	2
SAB 4133	Construction Law & Contract	a	b	a	2	1	-	1	2	2	2
SAB 4143	Construction Plants & Equipment	a	c	b	1	2	2	2	-	-	2
SAB 4163	Concrete Technology	a	b	b	-	2	2	2	1	-	-
SAB 4233	Offshore Structure	a	b	b	1	2	2	2	2	-	-
SAB 4243	Finite Element Method	a	a	a	1	2	-	2	-	-	-
SAB 4263	Earthquake & Wind Engineering	a	a	b	1	2	-	2	2	2	2
SAB 4273	Maintenance of Seismic Structures and Materials	a	a	b	1	2	-	2	2	2	2
SAB 4323	Design of Pre-Stressed Concrete	a	a	a	2	2	-	1	2	2	2
SAB 4383	Tall Building System : Analysis & Design	a	a	a	1	2	2	1	2	2	2
SAB 4433	Advance Programming	a	a	a	2	2	-	2	1	2	2
SAB 4463	Construction Integrated Environment	a	a	b	2	1	2	2	2	2	2
SAB 4473	Geographic Information System	a	a	b	2	2	-	1	2	-	-
SAB 4523	Coastal Engineering	a	a	a	1	2	-	2	2	-	-
SAB 4613	Integrated Water Resources Management	a	a	a	1	1	-	2	2	-	2
SAB 4623	Hydrology Analysis & Design	a	a	a	1	-	-	-	-	-	-
SAB 4643	Environmental Hydraulics & Hydrology	a	a	a	1	2	-	2	2	-	2
SAB 4713	Geotechnical Engineering Design	a	a	a	2	1	-	1	2	-	2
SAB 4733	Foundation Engineering	a	a	a	2	2	-	1	2	2	2
SAB 4813	Advanced Highway Engineering	a	a	a	2	1	-	2	2	-	2
SAB 4823	Transportation & Traffic Engineering	a	a	a	1	2	-	2	2	-	2
SAB 4833	Airport Planning & Design	a	a	a	1	2	-	2	2	-	2
SAB 4923	Advanced Water & Wastewater Treatment	a	b	b	2	1	-	2	-	2	-
SAB 4943	Municipal Solid Waste Management	a	b	c	-	-	1	2	-	-	-
SAB 4973	Industrial & Hazardous Waste Treatment	a	b	b	-	2	-	1	1	2	2
SAB 4983	Water Quality Management	a	b	b	2	1	-	2	2	-	2

TECHNICAL SKILLS

a	=	Major contribution to outcome
b	=	Moderate contribution to outcome
c	=	Minor contribution to outcome

GENERIC SKILLS

1	=	Substantial (with assessment)
2	=	Not Substantial (introduction/observation)



PROGRAMME SPECIFICATION UNTIL SEMESTER 2011/12-3

18. Our Uniqueness

1. One of the biggest Civil Engineering faculties in the world.
2. One of the biggest and best Civil Engineering lab/facilities in the region.
3. A major contributor of Civil Engineering graduates in the local workforce.
4. High employability rate of graduates.
5. A major contributor of leaders in government and industrial sectors.
6. The first Civil Engineering Faculty to achieve ISO 9001:2000 and ISO 17025 certifications.
7. Diversity of lecturers (qualification background from institutions all over the world).

19. Career Prospects and Career Path

Graduates of the programme can work as a Project Engineer, Construction Engineer, Hydraulic Engineer, Environmental Engineer, Highway and Transport Engineer, Geotechnical Engineer, Site Engineer, Design Engineer and Structural Engineer.

20. Facilities available

Range of facilities;

1. Structural Engineering Laboratory
2. Material Engineering Laboratory
3. Hydraulics and Hydrology Laboratory
4. Environmental Laboratory
5. Geotechnical Laboratory
6. Highway & Transportation Laboratory
7. Computer Laboratory
8. Civil Engineering Testing Unit (CETU)
9. Information Technology Unit of Civil Engineering (ITUCE)
10. Conducive Learning Centres
11. Knowledge Resource Centre at Every Learning Centres
12. Digital library accessible to all students via internet
13. Conventional Lectures (Face-to-face lectures)
14. Similar curriculum and contact credit hours to the full-time mode