

SELF REVIEW REPORT

[2018]

FACULTY OF APPLIED SCIENCES

Universiti Teknologi MARA Shah Alam

Selangor Darul Ehsan

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EDARAN TERHAD

ACKNOWLEDGEMENTS

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List of auditees

PROGRAMME	DESIGNATION	AUDITEE
AS250 BSc. (Hons) Textile Science and Fashion Technology <i>(PP Teknologi Industri)</i> <i>Auditors:</i> Dr Wan Nurhayati Wan Hanafi Dr Wan Rozianoor Mohd Hassan	Ketua Pusat Pengajian Programme Coordinator	PM Dr Mohd Rozi Ahmad Dr Nor Dalila Nor Affandi Dr Mohd Iqbal Misnon Dr Nor Dalila Nor Affandi Dr Suzaini Abdul Ghani
AS229 BSc. (Hons) Environment Technology <i>(Pusat Pengajian Kimia dan Persekitaran)</i> <i>Auditors:</i> Puan Haliza Kassim Puan Zarila Mohd Shariff	Ketua Pusat Pengajian Programme Coordinator Lecturer Lecturer EVT474-Nurzulaifa	PM Dr Wan Ramlee Wan A. Kadir Dr Rusdin Laiman Encik Mohd Nizam bin Yusof Puan Nurul Nadiah binti Mohd Firdaus Hum Dr Yong Soon Kong Puan Nurzulaifa Shaheera Arne binti Mohd Yasim

AS243 BSc. (Hons) Polymer Technology <i>(Pusat Pengajian Teknologi Industri)</i> Auditors: <i>Puan Haliza Kassim</i>	Ketua Pusat Pengajian	PM Dr Mohd Rozi Ahmad
	Programme Coordinator	PM Dr Najmi Bonia
AS240 BSc. (Hons) Material Technology <i>(PP Fizik dan Sains Bahan)</i> Auditors: Dr Nur'Ain Yusof Dr Siti Aimi Sarah Zainal Abidin	Resource Person (MST 513 Polymeric Materials)	PM Dr Noor Najmi Bonnia
	Resource Person (MST 511 Metals and Alloys)	Dr Rosmamuhamadani bin Ramli
	Lab Staff OM109	Puan Norfazilah bt Radiman
AS201 BSc(Hons) Biology <i>(PP Biology)</i> Auditors: 1. Dr Nor Juliana Mohd Yusof (Auditor) Dr Judith Gisip (Auditor)	Head, School of Biology	PM Dr Norrizah Bt Jaafar Sidik
	Programme Coordinator AS201 BSc. (Hons) Biology	Dr Aziyah Bt Abd Aziz
	Resource Person (BIO411 Cell Biology)	Dr Nooraain Binti Hashim
	Lecturer (BIO411 Cell Biology)	Dr. Nurdiana Binti Samsulrizal
	Resource Person (BIO460 Biological Diversity)	Dr Asmida Binti Ismail
	Lecturer (BIO460 Biological Diversity)	Dr. Khairul Adzfa Bin Radzun

	Industrial Training Coordinator AS201 (2018)	
	Advisor Student Society BIOSMARTEAM	Dr Mohd Fakharul Zaman Bin Raja Yahya
	Lab Assistant (Makmal A402 – Makmal Biologi Serbaguna)	Encik Mohd Khairul Amri Bin Ismail
	Assistant Science Officer (Makmal WB610 – Makmal Siswazah Biologi)	Puan Zaiemah Bt Sangit
	Lab Assistant (Makmal B219 – Makmal Mikrobiologi)	Wan Raihan Bt Wan Mohd Roslan
AS203 BSc (Hons) Physics (<i>PP Fizik dan Bahan</i>)	Head, School of Physic and Materials Lecturer <i>PHY433</i>	PM Dr Abu Hassan Bin Husin
Auditors: Dr Nor Juliana Mohd Yusof Dr Judith Gisip	Programme Coordinator AS203 BSc. (Hons) Physics	Dr Zurianti Bt Abd Rahman
	Industrial Training Coordinator AS203 (2018)	Dr. Siti Zafirah Binti Zainal Abidin
	Advisor Student Society AS203	Dr. Zety Sharizat Bt Hamidi
	Lecturer <i>PHY433</i> (Lab)	Dr Zakiah Bt Mohamed
	Science Officer	En. Abul Bin Ishak
AS244 BSc (Hons) Biomolecular Science (<i>PP Biology</i>)	AS244 Programme Coordinator	Dr Aziyah Aziz
	Resource Person (BMS413 Cells and Life)	Puan Mazatulikhma Mat Zain
	Resource Person (BMS414 Genes and Heredity)	PM Zainon Bt A Rahman

Auditors: Dr Nur'Ain Yusof Dr Siti Aimi Sarah Zainal Abidin	Resource Person (BMS481 Bioanalytical Chemistry)	Puan Amaliawati Ahmad Latiffi
AS253 BSc. (Hons) Chemistry (Forensic Analysis) <i>(Pusat Pengajian Kimia dan Persekitaran)</i>	Head of Centre/ School of Chemistry	Assoc. Prof. Dr Norizan Ahmad
	Programme Coordinator AS253 BSc. (Hons) Chemistry (Forensics Analysis)	Dr Nor Suhaila Mohd Hanapi
	Lecturer <i>CHM 420 General Chemistry</i>	Pn. Ruhani Ibrahim
	Lecturer <i>CHM 420 General Chemistry</i>	Prof. Dr. Rohaya Ahmad
Auditors: En Azlan Zakaria (Ketua Unit Kualiti Wan Rozianoor Mohd Hassan Dr. Wan Nurhayati Wan Hanafi	Resource Person <i>CHM 420 General Chemistry</i>	Dr Lim Ying Chin
AS245-BSc. (Hons) Applied Chemistry <i>(Pusat Pengajian Kimia dan Persekitaran)</i>	Head of Centre/ School of Chemistry	Assoc. Prof. Dr Norizan Ahmad
	Programme Coordinator AS245 BSc. (Hons) Applied Chemistry	Dr Hamizah Mohd Zaki
	Lecturer <i>CMT450</i>	Pn Maryam Husin
	Lecturer <i>CMT458</i>	Dr Mohammad Noor Jalil
	Lecturer <i>CHM457</i>	Dr Mohd Fazli Mohammat
	Lecturer <i>CHM457</i>	Dr Mohd Tajudin Mohd Ali
AS246 BSc. (Hons) Food Science and Technology <i>(Pusat Pengajian Teknologi Industri)</i>	Head of School of Industrial Technology	Assoc. Prof. Dr. Mohd Rozi Ahmad
	Programme Coordinator	Dr. Fadhilah Jailani
	Lecturer <i>FST 459</i> (Food Engineering)	Dr. Siti Roha Ab Mutalib
	Lecturer <i>FST 556</i> (Chemical Analysis of Food)	Dr. Azizah Othman
	Lecturer <i>FST 437</i> (Basic Food Science and Technology)	Dr. Siti Suhara Ramli
Auditors: Dr Nur Amalina Mustaffa Dr. Nurul Izrini Binti Ikhsan		

AS251-BSc.(Hons) Industrial Physics <i>(PP Fizik dan Bahan)</i> Auditors Dr. Engku Zaharah Engku Zawawi Pn. Nur Aimi Jani	Programme Coordinator AS251 BSc. (Hons) Industrial Physics	Dr Zurianti Abdul Rahman
	Lecturer PHY433 (group AS2511D & AS2511M1)	Dr Norazila
	Lecturer PHY433 (group AS2511M2)	Dr Zakiah
AS222 BSc. (Hons) Chemistry with Management/AS202 BSc (Hons) Chemistry <i>(Pusat Pengajian Kimia dan Persekitaran)</i> Auditors: Dr. Engku Zaharah Engku Zawawi Pn. Nur Aimi Jani	Programme Coordinator AS222 BSc. (Hons) Chemistry with Management	Dr Hamizah Mohd Zaki
	Lecturer CHM420 (Resource person)	Dr Lim Ying chin
	Lecturer PHY400	Pn. Syafawati Nadiyah Mohamed

SUMMARY OF ASSESSMENT PANEL'S FINDINGS

The observation of FSG Internal Audit Reviewers on the quality assurance system deployed in FSG during internal audit exercise Bil. 1 2018 focused on the following areas of COPIA :

- i. Area 2 – Curriculum Design and Delivery
- ii. Area 3 – Assessment of Students
- iii. Area 4 – Student Selection and Support Service
- iv. Area 5 – Academic Staff
- v. Area 6 – Educational Resources
- vi. Area 7 – Programme Monitoring and Review
- viii. Area 9 – Continuous Quality Improvement

The findings of the audit are summarized as Strengths and Areas of Concern to provide a quick overview of the internal audit results. The number of concerns should not be interpreted as reflecting a negative state of the Faculty management. However, the concerns should be viewed by the faculty as opportunities to further strengthen the quality of FSG and programmes offered. The detail evaluation results and the rationale for the classification are provided in the report below.

Ratings

5 = Excellent	This level indicates an achievement that has consistently been above all the benchmarked and enhanced standards.
4 = Good	This level indicates the achievement of all the benchmarked and at least 50% of the enhanced standard has been met and improving for at least the last two reviews.
3 = Satisfactory	This level indicates the achievement minimally of all the benchmarked standards.
2 = Less than satisfactory	This level indicates achievement of at least 70% of the benchmarked standard or performance has been declining for at least the last two reviews.
1 = Unsatisfactory	This level indicates less than a 70% achievement of the benchmarked standards.

The nine areas of evaluation in the code of practice for institutional audit (COPIA) are:

1. Vision, Mission, Educational Goals and Learning Outcomes;
2. Curriculum Design and Delivery ;
3. Assessment of Students;
4. Student Selection and Support services;
5. Academic Staff;
6. Educational Resources;
7. Programme Monitoring and Review;
8. Leadership, Governance and Administration;
9. Continual Quality Improvement.

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List of Abbreviations

ATP	Amanah Tugas Pensyarah
CO	Course Outcomes
CQI	Continuous Quality Improvement
COPPA	Code of Practice for Programme Accreditation
CDL	Closing the Loop
FSG	<i>Fakulti Sains Gunaan</i> (Faculty of Applied Sciences)
HEA	Hal Ehwal Akademik (Academic Affairs)
HEP	Hal Ehwal Pelajar (Student Affairs)
ICT	Information & Communication Technology
IPSiS	<i>Institut Pengajian Siswazah</i> (Institute of Graduate Studies)
iLQAM	Institute of Leadership and Quality Management
IRMI	Institute of Research Management and Innovation
IT	Information Technology
KAP	Kursus Asas Pengajaran (Basic Teaching Course)
KPUSAT	Ketua Pusat Pengajian
PENGAJIAN	
KI	Kemahiran Insaniah (Soft Skills)
LO	Learning Outcomes
MOA	Memorandum of Agreement
MOU	Memorandum of Understanding
MoHE	Ministry of Higher Education
MQA	Malaysian Qualifications Agency
MRM	Management Review Meeting
OBE	Outcome Based Education
PO	Programme Outcomes
QMS	Quality Management System

RP	Resource Person
SLT	Student Learning Time
SRP	Self Review Portfolio
SRR	Self Review Report
SuFO	Student Feedback Online
TLA	Teaching Learning Activities
UHEK	Unit Hal Ehwai Kurikulum
UiTM	Universiti Teknologi MARA

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OVERALL SUMMARY OF THE SELF REVIEW**Summary of Strengths****Summary of Strengths**

1. The Faculty does have a clear and defined process to establish, review and evaluate the curriculum as per the guidelines from UHEK website. All programmes that are currently offered have been presented before *Jawatankuasa Akademik Fakulti (JAF)* and the university's senate committee. Feedback from the academic advisors, external examiners, alumni and industry has been taken into consideration and were sighted in establishing, reviewing and evaluating the curriculum. Almost all programmes sampled had undergone two cycle of curriculum review since the implementation of OBE in 2010, which was in 2013 and recently in 2017.
2. From the 2017 review exercise, a few of the programmes have undergone major rebranding to keep up with the current trends and demands of prospective employers. The programmes are AS202 BSc (Hons) Chemistry, which has been changed to incorporate Management courses into the programme and AS248 BSc (Hons) Textile Technology, which will offer double degree programme , AS250 BSc (Hons) Textile Science and Fashion Technology, in collaboration with Faculty of Fashion and Design. Most programmes have implemented the new curriculum reviewed in 2017, starting from September 2018.
3. The involvement of academic staff in research and development, innovation and design have been acknowledged at university and national levels with numerous research grants, projects and awards.
4. FSG has numerous student societies to enhance students' soft skill and leadership qualities. All programmes have their respective student representative and some are really active in their agenda of activities. The activities include academic visits to industries and involvement in services to the public.

Areas of Concern That Need To Be Addressed

1. Utilization of Academic Advisors

As part of the COPPA requirement, the external examiners and/or advisors must be appointed and utilized to provide assurance that the academic programme t can meet the benchmark standards. However, the utilisations of the appointed academic advisor in giving evaluation on the curriculum related issues has not been effective since no report is generated after the appointment of the academic advisor/external examiner for most programmes. Some programmes have yet to renew the appointments of their academic advisors after the review exercise initiated in 2017.

2. Monitoring of same courses undertaken by different lecturers at the Faculty

The panel noted **a lack of monitoring activity and communication in the assessment of similar course codes among different lectures on the same campus.** There was also **no evidence of the moderation activity being conducted between lecturers teaching the same code to ensure assessment reliability (COPIA 3.2.1).** Therefore, the validity, reliability, consistency, currency and fairness of the student assessment system cannot be ascertained within the same faculty over different programmes and also being offered at different campuses. Panel suggest the role of RP to be strengthened to include monitoring of courses especially in moderating the assessment difficulty levels in Bloom's taxonomy not only for the final examination but also for the continuous assessment, which in most courses offered carry more weightage than the final exams. This should be monitored not just in the same campus, Shah Alam, but also wqhen the courses are offered at other campuses all over Malaysia.

3. Inadequate Educational Resources

The faculty must have sufficient and appropriate resources, including equipment and facilities for training to ensure effective delivery of the curriculum (COPIA 6.1.1). The panel found that **chemicals, equipment and consumables are not sufficiently provided to run planned laboratory work as outlined in the course information,** Some labs were too small to accommodate large number of students that has registered for the course forcing some students to stand during the duration of the lab hours. If the lab activities involves usage of hazardous chemicals, potential for accidents to happen is great. Safety measures are important and must be observed to avoid unwanted incidences.

AREA 2: CURRICULUM DESIGN AND DELIVERY

Quality Criteria and Standards	Review: Evaluate, judge, conclude, continuous quality improvement (based on evidence) (eg. effectiveness of process/activity, results achieved, comparisons between programmes, courses etc)	Self review rating
2.1 Curriculum Design and Teaching-Learning Methods		
2.1.1 Benchmarked Standards		
<ul style="list-style-type: none"> The Faculty/Campus/Division must have a clearly defined process to establish, review and evaluate the curriculum in which the Faculty/Campus/Division, the administration and the governing board plays an active role. 	<p>The Faculty does have a clear and defined process to establish, review and evaluate the curriculum as per the guidelines from UHEK website.</p> <p>All programmes that are currently offered have been presented before the <i>Jawatankuasa Akademik Fakulti (JAF)</i> and the university's senate committee. Feedback from the academic advisors, external examiners, alumni and industry has been taken into consideration and were sighted in establishing, reviewing and evaluating the curriculum. Almost all programmes sampled had undergone two cycles of curriculum review since the implementation of OBE in 2010.</p> <p>FSG has also offered three more MSc programmes;</p> <ol style="list-style-type: none"> AS710 MSc in Applied Biology (commenced in September 2014), AS728 MSc in Environmental Technology (commenced in September 2014), AS746 MSc Food Science and Technology (commenced in September 2016) <p>FSG have also offered double degree BSc programmes, BSc (Hons) Textile technology and Fashion Design, collaborating with Faculty of Art and Design</p> <p>From the internal audit findings Bil 1 2018, all 11 BSc programmes offered has followed a well-defined process in establishing the curriculum in which the faculty, the administration and the governing board play an active role.</p> <p>The programme shows that the content, approach, and teaching-learning methods of the curricula are consistent with, and supportive of, their learning outcomes.</p> <p>The market survey was thoroughly conducted since most of the programme was intended to fulfil the requirement and suggestions/feedbacks from the academic panels and industry</p> <p><u>Evidences:</u> <i>Report on Market Survey and "Implikasi Staf, Fizikal dan Kewangan" in</i></p>	5

Quality Criteria and Standards	Review: Evaluate, judge, conclude, continuous quality improvement (based on evidence) (eg. effectiveness of process/activity, results achieved, comparisons between programmes, courses etc)	Self review rating
	<p>a) <i>Review of Programmes document file for:</i></p> <ul style="list-style-type: none"> i. AS203 BSc (Hons) Physics ii. AS230 /240 BSc (Hons) Material Technology / BSc(Hons) Material Science and Technology iii. AS231 BSc (Hons) Industrial Physics iv. AS243 BSc (Hons) Polymer Technology v. AS246 BSc (Hons) Food Science & Technology vi. AS248 /250 BSc (Hons) Textile Technology / Textile Science & Fashion Technology vii. AS244 BSc (Hons) Bio-Molecular Science viii. AS201 BSc (Hons) Biology ix. AS202/AS222 BSc(Hons) Chemistry/ BSc(Hons) Chemistry with Management x. AS245 BSc (Hons) Applied Chemistry xi. AS253 BSc (Hons) Chemistry (Forensic Analysis) xii. AS229 BSc (Hons) Environmental Technology 	
<ul style="list-style-type: none"> • All programmes must be considered only after their needs assessment has indicated that there is a need for them to be conducted. 	<p>New programmes were seen to be offered only after the needs analysis and resources were identified for example meeting with stakeholder panels</p>	3
<ul style="list-style-type: none"> • All programmes must be considered only after the resources to support them have been identified. 	<p><u>Evidences:</u> <i>Report on Market Survey and “Implikasi Staf, Fizikal dan Kewangan” in</i></p> <p>a) <i>Review of Programmes document file for:</i></p> <ul style="list-style-type: none"> i. AS203 BSc (Hons) Physics ii. AS230 /240 BSc (Hons) Material Technology / BSc(Hons) Material Science and Technology iii. AS231 BSc (Hons) Industrial Physics iv. AS243 BSc (Hons) Polymer Technology v. AS246 BSc (Hons) Food Science & Technology vi. AS248 /250 BSc (Hons) Textile Technology / Textile Science & Fashion Technology vii. AS244 BSc (Hons) Bio-Molecular Science viii. AS201 BSc (Hons) Biology ix. AS202/AS222 BSc(Hons) Chemistry/ BSc(Hons) Chemistry with Management x. AS245 BSc (Hons) Applied Chemistry 	

Quality Criteria and Standards	Review: Evaluate, judge, conclude, continuous quality improvement (based on evidence) (eg. effectiveness of process/activity, results achieved, comparisons between programmes, courses etc)	Self review rating
	xi. AS253 BSc (Hons) Chemistry (Forensic Analysis) xii. AS229 BSc (Hons) Environmental Technology	
<ul style="list-style-type: none"> The aims and objectives of all programmes must be consistent with, and supportive of, the Faculty/Campus/Division's vision and mission. 	<p>The aims and objectives of all programmes have been designed based on, and aligned to the faculty's vision and mission.</p> <p><u>Evidences:</u></p> <p>a) Programme study plan, Course Files, Programme Objectives, Programme Outcomes from programmes:</p> <ul style="list-style-type: none"> i. AS203 BSc (Hons) Physics ii. AS230 /240 BSc (Hons) Material Technology / BSc(Hons) Material Science and Technology iii. AS231 BSc (Hons) Industrial Physics iv. AS243 BSc (Hons) Polymer Technology v. AS246 BSc (Hons) Food Science & Technology vi. AS248 /250 BSc (Hons) Textile Technology / Textile Science & Fashion Technology vii. AS244 BSc (Hons) Bio-Molecular Science viii. AS201 BSc (Hons) Biology ix. AS202/AS222 BSc(Hons) Chemistry/ BSc(Hons) Chemistry with Management x. AS245 BSc (Hons) Applied Chemistry xi. AS253 BSc (Hons) Chemistry (Forensic Analysis) xii. AS229 BSc (Hons) Environmental Technology 	4

Quality Criteria and Standards	Review: Evaluate, judge, conclude, continuous quality improvement (based on evidence) (eg. effectiveness of process/activity, results achieved, comparisons between programmes, courses etc)	Self review rating
<ul style="list-style-type: none"> The Faculty/Campus/Division must show that the content, approach, and teaching-learning methods of the curricula are consistent with, and supportive of, their learning outcomes. 	<p>Lecturers are required to conduct lectures according to the syllabus plan and course files that are consistent with, and supportive of, their learning outcomes. The T&L activities are consistent with the curriculum. All lecturers are required to follow the content, approach, and teaching-learning methods written in the course files.</p> <p><u>Evidences:</u> Course File and teaching portfolios of Codes , Aims document of the following courses:</p> <p>PHY433 Khairunnadim (AS2031S2) ,PHY433 PM Abu Hassan (AS2031S1), MST511 Rosmamuhamadani (AS2401M2), MST513 Noor Najmi (AS2401M2) , FST459 – Siti Roha Ab Mutalib, FST556- Azizah Othman, FST437 – Siti Suhara Ramli, BMS414 – Zainon Abd Rahman, BMS413 – Dr Maizatulkhuma Mat Zain, BMS481- Amaliawati Ahmad Latiffi, BMS481 – Rohana Mat Nor, CHM420 – Dr Lim Ying Chin, PHY400 - Syafawati, CMT450 – Maryam Husin, CMT458 – Dr Mohammad Noor Jalil ,CHM457 – Dr Mohd Fazli Mohammad , CHM457 – Dr Mohd Tajudin Mohd Ali, CHM420 – Ruhani Ibrahim, CHM420 – Prof Dr Rohaya Ahmad, EVT427- PM Nesamalar, EVT474-Nurzulaifa.</p>	3
<ul style="list-style-type: none"> There must be a variety of teaching-learning methods in order to achieve the eight domains of the learning outcomes and to ensure that students take responsibility for their own learning. 	<p>There are variety of teaching-learning methods in order to achieve the eight domains of the learning outcomes and to ensure that students take responsibility for their own learning such as face to face method (lecture and laboratory), non-face to face (self-learning and assignments, site visits, final year project, thesis writing and industrial attachment) as shown in the course information details.</p> <p><u>Evidences from the following course information:</u></p> <p>PHY433 Khairunnadim (AS2031S2) ,PHY433 PM Abu Hassan (AS2031S1), MST511 Rosmamuhamadani (AS2401M2), MST513 Noor Najmi (AS2401M2) , FST459 – Siti Roha Ab Mutalib, FST556- Azizah Othman, FST437 – Siti Suhara Ramli, BMS414 – Zainon Abd Rahman, BMS413 – Dr Maizatulkhuma Mat Zain, BMS481- Amaliawati Ahmad Latiffi, BMS481 – Rohana Mat Nor, CHM420 – Dr Lim Ying Chin, PHY400 - Syafawati, CMT450 – Maryam Husin, CMT458 – Dr Mohammad Noor Jalil ,CHM457 – Dr Mohd Fazli Mohammad , CHM457 – Dr Mohd Tajudin Mohd Ali, CHM420 – Ruhani Ibrahim, CHM420 – Prof Dr Rohaya Ahmad, EVT427- PM Nesamalar, EVT474-Nurzulaifa.</p>	3

Quality Criteria and Standards	Review: Evaluate, judge, conclude, continuous quality improvement (based on evidence) (eg. effectiveness of process/activity, results achieved, comparisons between programmes, courses etc)	Self review rating
<ul style="list-style-type: none"> The teaching and learning activities must be consistent with the curriculum. 	<p>To ensure that teaching and learning is consistent with the curriculum, FSG adopts the standard university practice:</p> <ol style="list-style-type: none"> Appointment of RPs to coordinate the teaching and learning in their respective courses Use of PROPENS to monitor delivery methods as per plan Use of CDL-CQI to monitor and examine the implementation of OBE-SCL curriculum All programmes have been revised to the OBE format prescribed by HEA. These programmes have been vetted by HEA and further approved by MoHE as consistent with the stated LO domains under the MQF and the MoHE soft skills. <p>From the courses and programmes that were sampled, all the relevant OBE documents (CO-PO, Entrance and Exit survey, CDL, Teaching Portfolio), CDL analysis on CO-PO/LO-KI is sighted for some individual course:</p> <p>BMS413 – Dr Maizatulkhama Mat Zain, BMS481- Amaliawati Ahmad Latiffi, BMS481 – Rohana Mat Nor, CHM420 – Dr Lim Ying Chin, PHY400 - Syafawati, CMT450 – Maryam Husin, CMT458 – Dr Mohammad Noor Jalil, CHM457 – Dr Mohd Fazli Mohammat, CHM457 – Dr Mohd Tajudin Mohd Ali , CHM420 – Ruhani Ibrahim ,CHM420 – Prof Dr Rohaya Ahmad, EVT427- PM Nesamalar, EVT474-Nurzulaifa. BMS413 – Dr Maizatulkhama Mat Zain, BMS481- Amaliawati Ahmad Latiffi, BMS481 – Rohana Mat Nor, CHM420 – Dr Lim Ying Chin, PHY400 - Syafawati, CMT450 – Maryam Husin,CMT458 – Dr Mohammad Noor Jalil, CHM457 – Dr Mohd Fazli Mohammat, CHM457 – Dr Mohd Tajudin Mohd Ali, CHM420 – Ruhani Ibrahim, CHM420 – Prof Dr Rohaya Ahmad, EVT427- PM Nesamalar, EVT474-Nurzulaifa.</p>	3
2.1.2 Enhanced Standards		
<ul style="list-style-type: none"> The curriculum should encourage multi-disciplinary approaches to enhance personal development through electives, study pathways and other means which should be monitored and appraised. 	<p>The curriculum in all programmes do encourage multi-disciplinary approaches in which courses in Marketing, Entrepreneurship, Human resource and Business management are included as electives or main courses. Programmes that do not employ the multi-disciplinary approaches provides activities such as career talks, industrial visits, industrial attachments overseas and encourage their students to attend local and international conferences in order enhance personal development which are monitored and appraised.</p> <p>Evidences:</p>	3

Quality Criteria and Standards	Review: Evaluate, judge, conclude, continuous quality improvement (based on evidence) (eg. effectiveness of process/activity, results achieved, comparisons between programmes, courses etc)	Self review rating
	<p>a) Study plan of the following programmes</p> <ul style="list-style-type: none"> i. AS203 BSc (Hons) Physics ii. AS230 /240 BSc (Hons) Material Technology / BSc(Hons) Material Science and Technology iii. AS231 BSc (Hons) Industrial Physics iv. AS243 BSc (Hons) Polymer Technology v. AS246 BSc (Hons) Food Science & Technology vi. AS248 /250 BSc (Hons) Textile Technology / Textile Science & Fashion Technology vii. AS244 BSc (Hons) Bio-Molecular Science viii. AS201 BSc (Hons) Biology ix. AS202/AS222 BSc(Hons) Chemistry/ BSc(Hons) Chemistry with Management x. AS245 BSc (Hons) Applied Chemistry xi. AS253 BSc (Hons) Chemistry (Forensic Analysis) xii. AS229 BSc (Hons) Environmental Technology 	
<ul style="list-style-type: none"> • The needs analysis for all programmes should involve feedback from external sources including the market, students, alumni, peers, and international experts whose commentaries are utilised for purposes of curriculum improvement. 	<p>The needs analysis for most programmes do involve feedback from external sources including market, students, alumni and international experts' commentaries as shown by some of the programmes obtained during curriculum review exercises. All the programmes sampled, have shown that the needs and resources for the programmes were assessed through various survey from alumni, industry players and students.</p> <p><u>Evidences:</u></p> <p>1) Market Survey, alumni Survey, academic advisors' comments from Programme Review document file for:</p> <ul style="list-style-type: none"> i. AS203 BSc (Hons) Physics ii. AS230 /240 BSc (Hons) Material Technology / BSc(Hons) Material Science and Technology iii. AS231 BSc (Hons) Industrial Physics iv. AS243 BSc (Hons) Polymer Technology v. AS246 BSc (Hons) Food Science & Technology vi. AS248 /250 BSc (Hons) Textile Technology / Textile Science & Fashion Technology vii. AS244 BSc (Hons) Bio-Molecular Science 	3

Quality Criteria and Standards	Review: Evaluate, judge, conclude, continuous quality improvement (based on evidence) (eg. effectiveness of process/activity, results achieved, comparisons between programmes, courses etc)	Self review rating
	viii. AS201 BSc (Hons) Biology ix. AS202/AS222 BSc(Hons) Chemistry/ BSc(Hons) Chemistry with Management x. AS245 BSc (Hons) Applied Chemistry xi. AS253 BSc (Hons) Chemistry (Forensic Analysis) xii. AS229 BSc (Hons) Environmental Technology	
<ul style="list-style-type: none"> There should be co-curricular activities that will enrich students' experiences, and foster personal development and responsibility. 	<p>There are co-curricular activities that are seen in most programmes that handled through students' society such as Leadership training programmes, Graduation Dinners under the management of Office of Student Affairs, where in most activities the students are required to provide proposal planning and budgeting of their events to the faculty for approval. These activities will enrich students' experiences, and foster personal development and responsibility.</p> <p>Evidences:</p> <p>1) Laporan Aktiviti Persatuan Pelajar FSG 2017-2018</p>	4
2.2 Curriculum Content and Structure		
2.2.1 Benchmarked Standards		
<ul style="list-style-type: none"> All academic programmes must incorporate the core content of the discipline that is essential for understanding the concepts, principles and methods that support the programme outcomes. 	<p>The programme documents generally provide evidence that the programmes incorporate the core content of the discipline essential for understanding the concepts, principles and methods that support the programme outcomes. All academic programmes sampled had shown the evidence of incorporating the core content of the discipline that are essential for understanding the concepts, principles and methods that support the programme outcomes and fulfil the requirements of the respective discipline.</p> <p>Various core courses/subjects that support the programme outcomes are selected in the curriculum of each academic programme. Many teaching and assessment method are used to ensure the courses selected meet the skills/capabilities requirements of MOHE learning outcomes.</p> <p>Evidences:</p>	3

Quality Criteria and Standards	Review: Evaluate, judge, conclude, continuous quality improvement (based on evidence) (eg. effectiveness of process/activity, results achieved, comparisons between programmes, courses etc)	Self review rating
	<p><i>PO, POE matrix, CO-PO Matrix and other relevant OBE documents in the Programme Review document file 2017 for the following programmes:</i></p> <ol style="list-style-type: none"> <i>i. AS203 BSc (Hons) Physics</i> <i>ii. AS230 /240 BSc (Hons) Material Technology / BSc(Hons) Material Science and Technology</i> <i>iii. AS231 BSc (Hons) Industrial Physics</i> <i>iv. AS243 BSc (Hons) Polymer Technology</i> <i>v. AS246 BSc (Hons) Food Science & Technology</i> <i>vi. AS248 /250 BSc (Hons) Textile Technology / Textile Science & Fashion Technology</i> <i>vii. AS244 BSc (Hons) Bio-Molecular Science</i> <i>viii. AS201 BSc (Hons) Biology</i> <i>ix. AS202/AS222 BSc(Hons) Chemistry/ BSc(Hons) Chemistry with Management</i> <i>x. AS245 BSc (Hons) Applied Chemistry</i> <i>xi. AS253 BSc (Hons) Chemistry (Forensic Analysis)</i> <i>xii. AS229 BSc (Hons) Environmental Technology</i> 	
<ul style="list-style-type: none"> • All academic programmes must fulfil the requirements of the discipline and incorporate topics of local, national and international importance, taking into account the appropriate discipline standards and international best practices for the field, as well as changes in them. 	<p>Academic programmes that were sampled fulfil the requirements of the discipline and incorporate up-to-date topics of importance (local and international) in its curriculum and programme structure taking into account the appropriate discipline standards and international best practices for the field, as well as changes in them by taking inputs from various stakeholders (lecturers, experts in the field, industrial players, other university professors and alumni)</p> <p>a) As part of the COPPA requirement, the external examiners and/or advisors must be appointed and utilized to provide assurance that the academic programmes can meet the benchmark standards. However, the utilisations of the appointed academic advisor in giving evaluation on the curriculum related issues has not been effective since no report is generated after the appointment of the academic advisor/external examiner for the following programmes:</p> <ol style="list-style-type: none"> i. AS203 BSc (Hons) Physics ii. AS230 /240 BSc (Hons) Material Technology / BSc(Hons) Material Science and Technology iii. AS231 BSc (Hons) Industrial Physics 	3

Quality Criteria and Standards	Review: Evaluate, judge, conclude, continuous quality improvement (based on evidence) (eg. effectiveness of process/activity, results achieved, comparisons between programmes, courses etc)	Self review rating
	iv. AS243 BSc (Hons) Polymer Technology v. AS246 BSc (Hons) Food Science & Technology vi. AS248 /250 BSc (Hons) Textile Technology / Textile Science & Fashion Technology vii. AS244 BSc (Hons) Bio-Molecular Science viii. AS201 BSc (Hons) Biology ix. AS202/AS222 BSc(Hons) Chemistry/ BSc(Hons) Chemistry with Management x. AS245 BSc (Hons) Applied Chemistry xi. AS253 BSc (Hons) Chemistry (Forensic Analysis) xii. AS229 BSc (Hons) Environmental Technology b) The appointment period of external examiners /academic advisors from most programmes audited has expired, except for AS243 BSc (Hons) Polymer Technology. During the interview of the KPPs and KPs, the response was that they are in the process of appointing new academic advisors and industrial panels. The panel of auditors highly recommend that succession plans to be in placed at least 6 months before expiry dates of the advisors are reached. This is to ensure that the programmes fulfil the requirements of the discipline and incorporate topics of local, national and international importance, taking into account the appropriate discipline standards and international best practices for the field, as well as changes in them	
2.2.2 Enhanced Standards		
<ul style="list-style-type: none"> The Faculty/Campus/Division should establish mechanisms -- through the use of the latest technology and through global networking -- to access to real time information and to identify up-to-date topics of importance for inclusion in the curriculum and its delivery. 	<p>Academic programmes that were sampled fulfill the requirements of the discipline and incorporate up-to-date topics of importance (local and international) through academic staff that are encouraged and focused on research which enable students to have access to the latest developments in the discipline. Through the research the academic staff are able to identify the up-to-date topics in the curriculum and its delivery. The academic staff are also appointed as members in the curriculum committee in each programme.</p> <p>Panel commend programme AS229 BSc (Hons) Environmental Technology for establishing GIS (Global Information System) for the students to access the real-time information in certain courses in the programme. This programme has also assigned dedicated Laboratories for the students' effective learning experience.</p>	4

Quality Criteria and Standards	Review: Evaluate, judge, conclude, continuous quality improvement (based on evidence) (eg. effectiveness of process/activity, results achieved, comparisons between programmes, courses etc)	Self review rating
2.3 Management of Programmes		
2.3.1 Benchmarked Standards		
<ul style="list-style-type: none"> Students must be provided with the most current written information about the aims, outline, learning outcomes, and methods of assessment of programmes offered by the Faculty/Campus/Division. 	<p>FSG students are provided with general information about their programme upon enrolment and course information is provided by the respective KPPs. Students are also provided with lesson plans that have information about the aims, outline, learning outcomes, and methods of assessment for each course by their respective lecturers.</p> <p>Academic Information Management System (AIMS) was recently created to ensure curriculum review management, exam management, academic resources management, "System RES" and "JSU (<i>Jadual Spesikasi Ujian</i>)" are incorporated as one system. The main aim is to ensure that the most current information of academic courses is updated regularly and made available to all programmes community especially for programmes that are conducted at different campuses.</p> <p>However, it was found that the information available from the AIMS especially SLT does not match or portray the actual teaching and learning activities done in class. Panel suggest the contents in the AIMS to be updated carefully especially the SLT to ensure the course information provided is the most current and the information from AIMS to be used as the main reference.</p> <p><u>Evidences</u></p> <p><i>Course Files for codes PST442, EVT 472, PST 410, CHM420 and TXL520</i></p>	3
<ul style="list-style-type: none"> All programmes must have a coordinator and a team of appropriate academic staff (e.g., programme committee or team) that is responsible for the planning, implementation, evaluation and improvement of the programme. 	<p>FSG has four centres each headed by a KPP (<i>Ketua Pusat Pengajian</i>) who is responsible to manage the programmes in their centre. They are responsible for staffing requirements in Shah Alam as well as the branch campuses, succession planning, curriculum and ensuring that programmes run smoothly. The KPUSAT PENGAJIAN is assisted by programme coordinators who are responsible for academic aspects of each programme</p> <p>A clear and specific job scope has been cited for each appointment of the management team in order to facilitate faculty and programme managements. The faculty has also identified the documents under the responsibility of each appointment/posts.</p>	4

Quality Criteria and Standards	Review: Evaluate, judge, conclude, continuous quality improvement (based on evidence) (eg. effectiveness of process/activity, results achieved, comparisons between programmes, courses etc)	Self review rating
	<p><u>Evidences:</u></p> <p>1) Appointment letters of Programme Coordinator for the following programmes:</p> <ul style="list-style-type: none"> i. AS203 BSc (Hons) Physics ii. AS230 /240 BSc (Hons) Material Technology / BSc(Hons) Material Science and Technology iii. AS231 BSc (Hons) Industrial Physics iv. AS243 BSc (Hons) Polymer Technology v. AS246 BSc (Hons) Food Science & Technology vi. AS248 /250 BSc (Hons) Textile Technology / Textile Science & Fashion Technology vii. AS244 BSc (Hons) Bio-Molecular Science viii. AS201 BSc (Hons) Biology ix. AS202/AS222 BSc(Hons) Chemistry/ BSc(Hons) Chemistry with Management x. AS245 BSc (Hons) Applied Chemistry xi. AS253 BSc (Hons) Chemistry (Forensic Analysis) xii. AS229 BSc (Hons) Environmental Technology <p>2) List of JK for Programme activities such as Industrial Training coordinators, Final Year Project coordinators.</p> <p>3) List of Resource Persons for each code conducted by each programme</p>	
<ul style="list-style-type: none"> • All programme teams must have authority and established procedures for programme planning and monitoring. 	<p>a) Programmes that were sampled:</p> <ul style="list-style-type: none"> i. AS203 BSc (Hons) Physics ii. AS230 /240 BSc (Hons) Material Technology / BSc(Hons) Material Science and Technology iii. AS231 BSc (Hons) Industrial Physics iv. AS243 BSc (Hons) Polymer Technology v. AS246 BSc (Hons) Food Science & Technology vi. AS248 /250 BSc (Hons) Textile Technology / Textile Science & Fashion Technology vii. AS244 BSc (Hons) Bio-Molecular Science viii. AS201 BSc (Hons) Biology 	3

Quality Criteria and Standards	Review: Evaluate, judge, conclude, continuous quality improvement (based on evidence) (eg. effectiveness of process/activity, results achieved, comparisons between programmes, courses etc)	Self review rating
	<p>ix. AS202/AS222 BSc(Hons) Chemistry/ BSc(Hons) Chemistry with Management x. AS245 BSc (Hons) Applied Chemistry xi. AS253 BSc (Hons) Chemistry (Forensic Analysis) xii. AS229 BSc (Hons) Environmental Technology</p> <p>have been given the authority and established procedures for programme planning and monitoring. FSG has appointed programmes coordinators and a team of appropriate academic staff (e.g., programme committee or team, course resource persons) that are responsible for the planning, implementation, evaluation and improvement of the programme guided by many guidelines from UHEK.</p> <p>Any issues related to the planning and monitoring will be resolved in FSG JAF meetings.</p> <p><u>Evidences:</u></p> <ol style="list-style-type: none"> 1) List of and Course Resource Persons in each programme 2) Formation of various committee such as OBE committee, Internal Audit Committee 3) Appointment letter of KPP (Ketua Pusat Pengajian) and KP (Koordinator Programme) 4) Appointment letter of Pengerusi Jawatan Kuasa and coordinators within the programme 5) Minutes meeting of JAF 	
<ul style="list-style-type: none"> • All programme teams must be given resources to implement the teaching-learning activities, and to conduct programme evaluation for quality improvement. 	<p>Most programme teams are provided with resources to implement the teaching-learning activities such as desktop computers, common printers that are shared by the academic staff, technology enabled classroom (TEC), classroom that are conducive for T&L activities (air conditioned rooms), well equipped laboratories and common computer labs for students. With these provision of resources the team are able to conduct programme evaluation for quality improvement.</p> <p>However it was found that there were still some courses that was run with insufficient chemicals, equipment and consumables. This will in turn disrupt the running of planned lab work outlined in the courses. Sometimes the lab officers had to purchase materials in advance such as onions and potatoes using their own money first. (BMS481, CMT450).</p> <p>Lab OM109 did not have enough chairs to cater to the number of students that is using the lab. Some of the students were forced to stand during the whole duration of the lab course. (3 hours), other labs where the capacity of students exceeds the safe number are labs 402,</p>	3

Quality Criteria and Standards	Review: Evaluate, judge, conclude, continuous quality improvement (based on evidence) (eg. effectiveness of process/activity, results achieved, comparisons between programmes, courses etc)	Self review rating
	<p>EW2305, lab 509, lab E103.</p> <p>The panel suggest that the faculty consider the current status of their educational resources, before embarking on new programmes or in increasing student intake. The learning environment should be regularly improved through renovations, building new facilities and acquisition of appropriate and up to date equipment to keep abreast of changes and development in educational best practices.</p> <p><u>Evidence:</u></p> <p>1) <i>List of Faculty's Resources (Maklumat Ruang Fakulti) 2018</i></p> <p>2) <i>List of resources for each programme in the Programme review document 2017 for the following programmes:</i></p> <ol style="list-style-type: none"> i. <i>AS203 BSc (Hons) Physics</i> ii. <i>AS230 /240 BSc (Hons) Material Technology / BSc(Hons) Material Science and Technology</i> iii. <i>AS231 BSc (Hons) Industrial Physics</i> iv. <i>AS243 BSc (Hons) Polymer Technology</i> v. <i>AS246 BSc (Hons) Food Science & Technology</i> vi. <i>AS248 /250 BSc (Hons) Textile Technology / Textile Science & Fashion Technology</i> vii. <i>AS244 BSc (Hons) Bio-Molecular Science</i> viii. <i>AS201 BSc (Hons) Biology</i> ix. <i>AS202/AS222 BSc(Hons) Chemistry/ BSc(Hons) Chemistry with Management</i> x. <i>AS245 BSc (Hons) Applied Chemistry</i> xi. <i>AS253 BSc (Hons) Chemistry (Forensic Analysis)</i> xii. <i>AS229 BSc (Hons) Environmental Technology</i> 	
<ul style="list-style-type: none"> • All programmes -- in particular their content and delivery -- must be regularly reviewed and evaluated and the results utilised to assure quality. (At level 6 and above of the MQF, the review must involve external examiners.) 	<p>Curriculum review is done periodically (around 3 to 5 years) based on market survey, feedbacks from academic advisors, external examiners and latest development in particular fields. From the programmes sampled AS203 BSc(Hons) Physics, AS230 /240 BSc(Hons) Material Technology / BSc(Hons) Material Science and Technology, AS231 BSc (Hons) Industrial Physics, AS243 BSc (Hons) Polymer Technology, AS246 BSc(Hons) Food Science & Technology ,AS248 /250 BSc (Hons) Textile Technology / Textile Science & AS202/AS222 BSc(Hons) Chemistry/ BSc(Hons) Chemistry with Management, AS245 BSc(Hons) Applied Chemistry, AS253 BSc(Hons) Chemistry</p>	3

Quality Criteria and Standards	Review: Evaluate, judge, conclude, continuous quality improvement (based on evidence) (eg. effectiveness of process/activity, results achieved, comparisons between programmes, courses etc)	Self review rating
	<p>(Forensic Analysis),AS229 BSc(Hons) Environmental Technology, AS202/ 222 BSc(Hons) Chemistry / BSc (Hons) Chemistry and Management had undergone 2 cycles of curriculum review since the implementation of OBE in 2010. Once in 2013 and recently in 2017.</p> <p>However, even though external examiners and/or advisors were appointed for the curriculum review exercise in all programmes, there has been no specific report generated for some of the programmes to be used as reference or benchmarking after the appointment of the academic advisor/external examiner.</p>	
<ul style="list-style-type: none"> The Faculty/Campus/Division must provide a conducive learning environment for its students in which scholarly and creative achievements are nurtured. 	<p>FSG has provided a conducive learning environment for its students by providing technology enabled classroom (TEC), classroom that are conducive for T&L activities (air conditioned rooms), well equipped laboratories with the latest instruments and common computer labs in which scholarly and creative achievements are continuously nurtured.</p> <p><u>Evidence:</u></p> <p>1) <i>List of Faculty's Resources (Maklumat Ruang Fakulti) 2018</i></p> <p>2) <i>List of resources for each programme in the Programme review document 2017 for the programmes:</i></p> <ol style="list-style-type: none"> i. AS203 BSc (Hons) Physics ii. AS230 /240 BSc (Hons) Material Technology / BSc(Hons) Material Science and Technology iii. AS231 BSc (Hons) Industrial Physics iv. AS243 BSc (Hons) Polymer Technology v. AS246 BSc (Hons) Food Science & Technology vi. AS248 /250 BSc (Hons) Textile Technology / Textile Science & Fashion Technology vii. AS244 BSc (Hons) Bio-Molecular Science viii. AS201 BSc (Hons) Biology ix. AS202/AS222 BSc(Hons) Chemistry/ BSc(Hons) Chemistry with Management x. AS245 BSc (Hons) Applied Chemistry xi. AS253 BSc (Hons) Chemistry (Forensic Analysis) xii. AS229 BSc (Hons) Environmental Technology 	3
<ul style="list-style-type: none"> The Faculty/Campus/Division must have effective structures and processes when fulfilling the 	<p>FSG has an effective structure and processes when fulfilling the necessary criteria and standards of qualifications awarded by following the university procedure and guidelines. After the final exam</p>	3

Quality Criteria and Standards	Review: Evaluate, judge, conclude, continuous quality improvement (based on evidence) (eg. effectiveness of process/activity, results achieved, comparisons between programmes, courses etc)	Self review rating
necessary criteria and standards of qualifications awarded.	<p>weeks, there are meetings held in each programme to discuss the student results where actions and solutions are discussed before presenting the result to JAF meeting. List of students that are qualified to graduate will be endorsed in the JAF meeting.</p> <p><u>Evidences:</u></p> <ol style="list-style-type: none"> 1) University procedures for award of Academic Certification and Classification 2) PK(O)13 Course Assessment and Final Result Evaluation 3) Final Exam Reports for each programme for each semester 4) JAF meeting minutes 5) Fail Rayuan Semak Semula FSG 	
2.3.2 Enhanced Standards		
<ul style="list-style-type: none"> • Innovations to improve teaching and learning should be continuously developed, adequately supported, and critically evaluated, in consultation with principal stakeholders and experts, internally and externally. 	<p>One of the recent addition to some programmes to improve teaching and learning is the incorporation of blended learning in many courses.</p> <p><u>Evidence</u></p> <p>1) Course information of BMS413 – Dr Maizatulikhma Mat Zain, BMS481- Amaliawati Ahmad Latiffi, BMS481 – Rohana Mat Nor, CHM420 – Dr Lim Ying Chin, PHY400 - Syafawati, CMT450 – Maryam Husin, CMT458 – Dr Mohammad Noor Jalil, CHM457 – Dr Mohd Fazli Mohammad, CHM457 – Dr Mohd Tajudin Mohd Ali , CHM420 – Ruhani Ibrahim ,CHM420 – Prof Dr Rohaya Ahmad, EVT427- PM Nesamalar, EVT474-Nurzulaifa. BMS413 – Dr Maizatulikhma Mat Zain, BMS481- Amaliawati Ahmad Latiffi, BMS481 – Rohana Mat Nor, CHM420 – Dr Lim Ying Chin, PHY400 - Syafawati, CMT450 – Maryam Husin, CMT458 – Dr Mohammad Noor Jalil, CHM457 – Dr Mohd Fazli Mohammad, CHM457 – Dr Mohd Tajudin Mohd Ali, CHM420 – Ruhani Ibrahim, CHM420 – Prof Dr Rohaya Ahmad, EVT427- PM Nesamalar, EVT474-Nurzulaifa.</p>	3
<ul style="list-style-type: none"> • The review and evaluation of programmes should involve external expertise nationally and internationally. 	Local and external examiners involve in the review and evaluation of the programme as sighted in the programmes document but for most programmes the external expertise mainly involved local expertise	2
2.4 Linkages with External Stakeholders		

Quality Criteria and Standards	Review: Evaluate, judge, conclude, continuous quality improvement (based on evidence) (eg. effectiveness of process/activity, results achieved, comparisons between programmes, courses etc)	Self review rating
2.4.1 Benchmarked Standards		
<ul style="list-style-type: none"> The Faculty/Campus/Division must have linkages with all external stakeholders at the local, national, regional or global levels for the purposes of planning, implementing and reviewing its programmes. 	<p>All programmes sampled engage external stakeholders during the design of curriculum for the new programmes as well as curriculum review through the appointment of academic advisors and the survey from various stakeholders (alumni and industry players) and through the students' industrial placement (industrial training).</p> <p><u>Evidences:</u></p> <p><i>Curriculum Review Document for the following programmes:</i></p> <ol style="list-style-type: none"> i. AS203 BSc (Hons) Physics ii. AS230 /240 BSc (Hons) Material Technology / BSc(Hons) Material Science and Technology iii. AS231 BSc (Hons) Industrial Physics iv. AS243 BSc (Hons) Polymer Technology v. AS246 BSc (Hons) Food Science & Technology vi. AS248 /250 BSc (Hons) Textile Technology / Textile Science & Fashion Technology vii. AS244 BSc (Hons) Bio-Molecular Science viii. AS201 BSc (Hons) Biology ix. AS202/AS222 BSc(Hons) Chemistry/ BSc(Hons) Chemistry with Management x. AS245 BSc (Hons) Applied Chemistry xi. AS253 BSc (Hons) Chemistry (Forensic Analysis) xii. AS229 BSc (Hons) Environmental Technology 	3
2.4.2 Enhanced Standards		
<ul style="list-style-type: none"> The Faculty/Campus/Division should obtain feedback from employers and utilise the information for curriculum improvement as well as for purposes of student placement, training and workplace exposure. 	<p>In order to prepare students to adapt to the real working environment, industrial training course has been incorporated in the curriculum of most programmes.</p> <p>Even though industrial supervisor comments/feedbacks were obtained from the various forms used during the student industrial training placement, the comments/feedbacks were not analysed by each programme for the improvement of the curriculum or in areas such as student soft skills requirements, suitability of training placement and graduate employability.</p> <p><u>Evidences:</u></p> <p>1) Market Surveys from Programme Review document :</p> <ol style="list-style-type: none"> i. AS203 BSc (Hons) Physics 	3

Quality Criteria and Standards	Review: Evaluate, judge, conclude, continuous quality improvement (based on evidence) (eg. effectiveness of process/activity, results achieved, comparisons between programmes, courses etc)	Self review rating
	<p>ii. AS230 /240 BSc (Hons) Material Technology / BSc(Hons) Material Science and Technology</p> <p>iii. AS231 BSc (Hons) Industrial Physics</p> <p>iv. AS243 BSc (Hons) Polymer Technology</p> <p>v. AS246 BSc (Hons) Food Science & Technology</p> <p>vi. AS248 /250 BSc (Hons) Textile Technology / Textile Science & Fashion Technology</p> <p>vii. AS244 BSc (Hons) Bio-Molecular Science</p> <p>viii. AS201 BSc (Hons) Biology</p> <p>ix. AS202/AS222 BSc(Hons) Chemistry/ BSc(Hons) Chemistry with Management</p> <p>x. AS245 BSc (Hons) Applied Chemistry</p> <p>xi. AS253 BSc (Hons) Chemistry (Forensic Analysis)</p> <p>xii. AS229 BSc (Hons) Environmental Technology</p> <p>2) Industrial Training course documents of FSG604 (Industrial Training) from the following programmes:</p> <p>i. AS203 BSc (Hons) Physics</p> <p>ii. AS230 /240 BSc (Hons) Material Technology / BSc(Hons) Material Science and Technology</p> <p>iii. AS231 BSc (Hons) Industrial Physics</p> <p>iv. AS243 BSc (Hons) Polymer Technology</p> <p>v. AS246 BSc (Hons) Food Science & Technology</p> <p>vi. AS248 /250 BSc (Hons) Textile Technology / Textile Science & Fashion Technology</p> <p>vii. AS244 BSc (Hons) Bio-Molecular Science</p> <p>viii. AS201 BSc (Hons) Biology</p> <p>ix. AS202/AS222 BSc(Hons) Chemistry/ BSc(Hons) Chemistry with Management</p> <p>x. AS245 BSc (Hons) Applied Chemistry</p> <p>xi. AS253 BSc (Hons) Chemistry (Forensic Analysis)</p> <p>xii. AS229 BSc (Hons) Environmental Technology</p>	
<ul style="list-style-type: none"> The Faculty/Campus/Division should facilitate students to develop linkages with external stakeholders. 	<p>All programmes have facilitated their students to develop linkages with external stakeholders by assisting students in the areas such as practical training placements and industrial visits through the appointment of Industrial Training Coordinators. The coordinators will facilitate the students to develop linkages with external stakeholders by providing the letter of intent and obtaining practical training placements.</p>	3

Quality Criteria and Standards	Review: Evaluate, judge, conclude, continuous quality improvement (based on evidence) (eg. effectiveness of process/activity, results achieved, comparisons between programmes, courses etc)	Self review rating
	<p>Student society advisors are also appointed for all programmes to help students to develop linkages with industries and alumni for their club activities.</p> <p>Evidences:</p> <ol style="list-style-type: none"> 1) <i>Appointment letters of Industrial Training coordinators for all programmes</i> 2) <i>Appointment letters of Student Society Advisors</i> 3) <i>Laporan Aktiviti Persatuan Pelajar 2018</i> 	

AREA 3: ASSESSMENT OF STUDENTS

Quality Criteria and Standards	Review: Evaluate, judge, conclude, continuous quality improvement (based on evidence) (eg effectiveness of process/activity, results achieved, comparisons between programmes, courses etc)	Self review rating
3.1 Relationship Between Assessment and Learning		
3.1.1 Benchmarked Standards		
<ul style="list-style-type: none"> The principles, methods and practices of student assessment must be aligned with learning outcomes and the curricula. 	<p>The information of the student assessment methods is seen in the course files of respective courses and the CO-PO matrix are aligned with the learning outcome and curriculum.</p> <p><u>Evidences:</u></p> <p>1) <i>Teaching Portfolio of BMS413 – Dr Maizatulikhma Mat Zain, BMS481- Amaliawati Ahmad Latiffi, BMS481 – Rohana Mat Nor, CHM420 – Dr Lim Ying Chin, PHY400 - Syafawati, CMT450 – Maryam Husin, CMT458 – Dr Mohammad Noor Jalil, CHM457 – Dr Mohd Fazli Mohammat, CHM457 – Dr Mohd Tajudin Mohd Ali , CHM420 – Ruhani Ibrahim ,CHM420 – Prof Dr Rohaya Ahmad, EVT427- PM Nesamalar, EVT474-Nurzulaifa. BMS413 – Dr Maizatulikhma Mat Zain, BMS481- Amaliawati Ahmad Latiffi, BMS481 – Rohana Mat Nor, CHM420 – Dr Lim Ying Chin, PHY400 - Syafawati, CMT450 – Maryam Husin,CMT458 – Dr Mohammad Noor Jalil, CHM457 – Dr Mohd Fazli Mohammat, CHM457 – Dr Mohd Tajudin Mohd Ali, CHM420 – Ruhani Ibrahim, CHM420 – Prof Dr Rohaya Ahmad, EVT427- PM Nesamalar, EVT474-Nurzulaifa.</i></p>	3
<ul style="list-style-type: none"> Assessment must be consistent with the levels defined in the MQF, the eight domains of learning outcomes and the programme standards. 	<p>All samples on the assessments conformed to the eight domains of LO as defined in the MQF (Malaysian Qualification Frameworks). To ensure consistency and compliance to the requirements, the faculty/University has identified a mechanism to map the final examination questions with course outcomes such as the use of JSU in preparing the final exam questions.</p> <p><u>Evidence</u></p> <p>1) <i>Senarai Semakan Borang Audit Kertas Peperiksaan Jun 2016 in which the following items must be checked- Jadual Spesifikasi Ujian, questions vs Course Outcomes, level of difficulty (Bloom Taxonomy) by second examiner</i></p>	3

Quality Criteria and Standards	Review: Evaluate, judge, conclude, continuous quality improvement (based on evidence) (eg effectiveness of process/activity, results achieved, comparisons between programmes, courses etc)	Self review rating
	<p>The information of the student assessment methods are seen in the course file of respective courses (sample from BMS413 – Dr Maizatulikhma Mat Zain, BMS481- Amaliawati Ahmad Latiffi, BMS481 – Rohana Mat Nor, CHM420 – Dr Lim Ying Chin, PHY400 - Syafawati, CMT450 – Maryam Husin, CMT458 – Dr Mohammad Noor Jalil, CHM457 – Dr Mohd Fazli Mohammad, CHM457 – Dr Mohd Tajudin Mohd Ali, CHM420 – Ruhani Ibrahim ,CHM420 – Prof Dr Rohaya Ahmad, EVT427- PM Nesamalar, EVT474-Nurzulaifa. BMS413 – Dr Maizatulikhma Mat Zain, BMS481- Amaliawati Ahmad Latiffi, BMS481 – Rohana Mat Nor, CHM420 – Dr Lim Ying Chin, PHY400 - Syafawati, CMT450 – Maryam Husin, CMT458 – Dr Mohammad Noor Jalil, CHM457 – Dr Mohd Fazli Mohammad, CHM457 – Dr Mohd Tajudin Mohd Ali, CHM420 – Ruhani Ibrahim, CHM420 – Prof Dr Rohaya Ahmad, EVT427- PM Nesamalar, EVT474-Nurzulaifa)</p> <p>in which the levels of the assessment are defined according to MQF and CO-PO matrix are aligned with the learning outcome and curriculum.</p>	
3.1.2 Enhanced Standards		
<ul style="list-style-type: none"> The link between assessment and programme learning outcomes should be reviewed periodically to ensure its effectiveness. 	<p>The analysis on the link between assessment and programme learning outcomes is sighted from the programmes sampled through the CAP (course Assesment Plan) of the following samples (BMS413 – Dr Maizatulikhma Mat Zain, BMS481- Amaliawati Ahmad Latiffi, BMS481 – Rohana Mat Nor, CHM420 – Dr Lim Ying Chin, PHY400 - Syafawati, CMT450 – Maryam Husin, CMT458 – Dr Mohammad Noor Jalil, CHM457 – Dr Mohd Fazli Mohammad, CHM457 – Dr Mohd Tajudin Mohd Ali , CHM420 – Ruhani Ibrahim ,CHM420 – Prof Dr Rohaya Ahmad, EVT427- PM Nesamalar, EVT474-Nurzulaifa. BMS413 – Dr Maizatulikhma Mat Zain, BMS481- Amaliawati Ahmad Latiffi, BMS481 – Rohana Mat Nor, CHM420 – Dr Lim Ying Chin, PHY400 - Syafawati, CMT450 – Maryam Husin, CMT458 – Dr Mohammad Noor Jalil, CHM457 – Dr Mohd Fazli Mohammad, CHM457 – Dr Mohd Tajudin Mohd Ali, CHM420 – Ruhani Ibrahim, CHM420 – Prof Dr Rohaya Ahmad, EVT427- PM Nesamalar, EVT474-Nurzulaifa)</p>	3
3.2 Assessment Methods		
3.2.1 Benchmarked Standards		

Quality Criteria and Standards	Review: Evaluate, judge, conclude, continuous quality improvement (based on evidence) (eg effectiveness of process/activity, results achieved, comparisons between programmes, courses etc)	Self review rating
<ul style="list-style-type: none"> A variety of methods and tools must be used appropriately to assess learning outcomes and competencies. 	<p>A variety of methods and tools are used appropriately to assess learning outcomes and competencies. The methods include assignments (short answers and essay), quizzes, tests, laboratory reports and field visit or industrial reports. Some faculty courses employ debates and presentations in order to evaluate the higher level of Bloom's taxonomy in analytical evaluation and critical thinking components.</p> <p><u>Evidences:</u></p> <p>1) Teaching Portfolios of BMS413 – Dr Maizatulkhuma Mat Zain, BMS481- Amaliawati Ahmad Latiffi, BMS481 – Rohana Mat Nor, CHM420 – Dr Lim Ying Chin, PHY400 - Syafawati, CMT450 – Maryam Husin, CMT458 – Dr Mohammad Noor Jalil, CHM457 – Dr Mohd Fazli Mohammad, CHM457 – Dr Mohd Tajudin Mohd Ali , CHM420 – Ruhani Ibrahim ,CHM420 – Prof Dr Rohaya Ahmad, EVT427- PM Nesamalar, EVT474-Nurzulaifa. BMS413 – Dr Maizatulkhuma Mat Zain, BMS481- Amaliawati Ahmad Latiffi, BMS481 – Rohana Mat Nor, CHM420 – Dr Lim Ying Chin, PHY400 - Syafawati, CMT450 – Maryam Husin,CMT458 – Dr Mohammad Noor Jalil, CHM457 – Dr Mohd Fazli Mohammad, CHM457 – Dr Mohd Tajudin Mohd Ali, CHM420 – Ruhani Ibrahim, CHM420 – Prof Dr Rohaya Ahmad, EVT427- PM Nesamalar, EVT474-Nurzulaifa.</p>	3
<ul style="list-style-type: none"> Assessment must be summative and formative. 	<p>The assessment methods are summative and formative and are employed in all programmes. There are varieties of methods used to assess LO and competencies whereby there are courses assessed with final exam.</p> <p><u>Evidence.</u></p> <p>1) Teaching Portfolios of BMS413 – Dr Maizatulkhuma Mat Zain, BMS481- Amaliawati Ahmad Latiffi, BMS481 – Rohana Mat Nor, CHM420 – Dr Lim Ying Chin, PHY400 - Syafawati, CMT450 – Maryam Husin, CMT458 – Dr Mohammad Noor Jalil, CHM457 – Dr Mohd Fazli Mohammad, CHM457 – Dr Mohd Tajudin Mohd Ali , CHM420 – Ruhani Ibrahim ,CHM420 – Prof Dr Rohaya Ahmad, EVT427- PM Nesamalar, EVT474-Nurzulaifa. BMS413 – Dr Maizatulkhuma Mat Zain, BMS481- Amaliawati Ahmad Latiffi, BMS481 – Rohana Mat Nor, CHM420 – Dr Lim Ying Chin, PHY400 - Syafawati, CMT450 – Maryam Husin,CMT458 – Dr Mohammad Noor Jalil, CHM457 –</p>	3

Quality Criteria and Standards	Review: Evaluate, judge, conclude, continuous quality improvement (based on evidence) (eg effectiveness of process/activity, results achieved, comparisons between programmes, courses etc)	Self review rating
	<i>Dr Mohd Fazli Mohammat, CHM457 – Dr Mohd Tajudin Mohd Ali, CHM420 – Ruhani Ibrahim, CHM420 – Prof Dr Rohaya Ahmad, EVT427- PM Nesamalar, EVT474-Nurzulaifa.</i>	
<ul style="list-style-type: none"> There must be mechanisms to ensure the validity, reliability, consistency, currency and fairness of the student assessment system. 	<p>In order to ensure the validity, reliability, consistency, currency and fairness of the student assessment system, FSG has employed the following mechanism:</p> <ol style="list-style-type: none"> The assessment criteria for each course are made known and stated in the course outline Marking schemes for tests and examination are available Rubrics and grade descriptors are provided for assessment methods such as Laboratory reports, field reports, industrial visits, presentations and final year project thesis. The use of Turnitin, an internet based plagiarism-prevention service to curb plagiarism in students' written work. Second examiners to moderate final exams markings and or centralized markings are employed Second examiners to moderate the marking of Final Year Project thesis Final grades are reviewed and moderated (if necessary) by Programme Coordinators/ heads for courses that are taught by a group of different lecturers at LAF meetings Students are also allowed to appeal for final examination papers to be re-marked. All appeal policies are made known to the students in their academic handbook (<i>Evidence: File Rayuan Semak Semula FSG</i>) <p><u>Monitoring of courses within faculty and courses offered at different campuses</u></p> <p>However it was observed from the interview conducted for BIO411, where two different lecturers were teaching the same courses, the panel noticed that there were evidence of poor or lack of communication between them. It was observed that in conducting the assessment of their course work, different lecturers used different tools of assessment for their quizzes. One lecturer used multiple choice questions while the other used short answer assessment.</p> <p>What is more alarming is the fairness of the assessment used as each of them gave different</p>	2

Quality Criteria and Standards	Review: Evaluate, judge, conclude, continuous quality improvement (based on evidence) (eg effectiveness of process/activity, results achieved, comparisons between programmes, courses etc)	Self review rating
	<p>questions (same topic) to their respective students where the percentages and level of difficulty was not determined together. Furthermore some of the courses' course work percentage is more than the final exams. It is about time that the fairness of continuous assessment be under rigorous scrutiny and closely moderated, in terms of fairness in difficulty level and assessment type. However, final exams questions are moderated by all lecturers teaching the courses, up to courses offered at different campuses</p> <p>The Panel suggest that the RPs for respective courses to closely moderate the fairness issue by ascertaining that the level of difficulty and percentage of marks for each level are determined before the assessment exercise is done.</p> <p>Moderation of assessment for courses that is offered in different campuses must also be closely monitored by the respective RPs. After 2 review exercises have been done (2013 & 2017) these issue should no longer be highlighted. However there were no evidence of any moderation activity being conducted between campuses to ensure assessment reliability. (COPPA3.2.1c). Therefore, the validity, reliability, consistency, currency and fairness of the student assessment system cannot be ascertained within the different campus.</p> <p>Panel suggest the role of the Resource Persons to be strengthened to include monitoring of courses offered not just within the same faculty but also inclusive of other campuses.</p>	
<ul style="list-style-type: none"> The assessment methods must be reviewed at appropriate scheduled intervals to ensure currency. 	<p>To ensure currency and appropriateness of assessment methods, panel noted that the assessment methods are reviewed during the curriculum review exercise of each programme by respective resource person.</p> <p><u>Evidences:</u></p> <p>1) Programme Review document for the following programmes:</p> <ol style="list-style-type: none"> AS203 BSc (Hons) Physics AS230 /240 BSc (Hons) Material Technology / BSc(Hons) Material Science and Technology AS231 BSc (Hons) Industrial Physics AS243 BSc (Hons) Polymer Technology AS246 BSc (Hons) Food Science & Technology 	3

Quality Criteria and Standards	Review: Evaluate, judge, conclude, continuous quality improvement (based on evidence) (eg effectiveness of process/activity, results achieved, comparisons between programmes, courses etc)	Self review rating
	vi. AS248 /250 BSc (Hons) Textile Technology / Textile Science & Fashion Technology vii. AS244 BSc (Hons) Bio-Molecular Science viii. AS201 BSc (Hons) Biology ix. AS202/AS222 BSc(Hons) Chemistry/ BSc(Hons) Chemistry with Management x. AS245 BSc (Hons) Applied Chemistry xi. AS253 BSc (Hons) Chemistry (Forensic Analysis) xii. AS229 BSc (Hons) Environmental Technology	
<ul style="list-style-type: none"> The methods of student assessment -- including the grading criteria -- must be documented and communicated to students on commencement of a programme. 	<p>The methods of student assessment including the grading criteria are documented in the course outline and communicated to the students at the beginning of each semester. The students are informed of the various assessment tools, the usage of rubrics and grading criteria that will be used in the evaluation of each course.</p> <p>Evidences:</p> <p>1) Teaching Portfolios of BMS413 – Dr Maizatulkhuma Mat Zain, BMS481- Amaliawati Ahmad Latiffi, BMS481 – Rohana Mat Nor, CHM420 – Dr Lim Ying Chin, PHY400 - Syafawati, CMT450 – Maryam Husin, CMT458 – Dr Mohammad Noor Jalil, CHM457 – Dr Mohd Fazli Mohammad, CHM457 – Dr Mohd Tajudin Mohd Ali , CHM420 – Ruhani Ibrahim ,CHM420 – Prof Dr Rohaya Ahmad, EVT427- PM Nesamalar, EVT474-Nurzulaifa. BMS413 – Dr Maizatulkhuma Mat Zain, BMS481- Amaliawati Ahmad Latiffi, BMS481 – Rohana Mat Nor, CHM420 – Dr Lim Ying Chin, PHY400 - Syafawati, CMT450 – Maryam Husin,CMT458 – Dr Mohammad Noor Jalil, CHM457 – Dr Mohd Fazli Mohammad, CHM457 – Dr Mohd Tajudin Mohd Ali, CHM420 – Ruhani Ibrahim, CHM420 – Prof Dr Rohaya Ahmad, EVT427- PM Nesamalar, EVT474-Nurzulaifa.</p>	3
3.2.2 Enhanced Standards		
<ul style="list-style-type: none"> The methods of assessing should be comparable to international best practices. 	<p>The methods of assessing by some programmes are comparable to international best practices. International text books are used as reference for test and exam questions. This should be done by the deployment of international external examiners to evaluate the assessment method during the curriculum review exercise and usage of internationally recognized.</p> <p>Currently only the PhD programme employs the international examiner in evaluating the thesis as one of the elements in their method of assessment.</p>	3

Quality Criteria and Standards	Review: Evaluate, judge, conclude, continuous quality improvement (based on evidence) (eg effectiveness of process/activity, results achieved, comparisons between programmes, courses etc)	Self review rating
<ul style="list-style-type: none"> The review of the assessment methods should incorporate current global developments and best practices in the discipline. 	<p>One of the current development being employed by the university is the incorporation of Blended Learning, classes without walls, using information Technology and applications to enhance students learning experience, international internship attachments, double degrees programme and entrepreneurial skills.</p>	3
<ul style="list-style-type: none"> The review of the assessment system should be done in consultation with external experts, both locally and internationally. 	<p>The review of the assessment methods in most programmes are done in consultation with local experts only.</p>	2
3.3 Management of Student Assessment		
3.3.1 Benchmarked Standards		
<ul style="list-style-type: none"> The Faculty/Campus/Division must provide sufficient autonomy to the relevant departments in the management of student assessment. 	<p>FSG has given sufficient autonomy to the relevant programmes in the management of student assessment. This is evident in the directive given to all KPPs from faculty's HEA office to prepare and evaluate their own programme final exams and continuous assessment of each course (sample <i>Letter of directive and guidelines to all s, KPPs and lecturers to prepare the final exam questions for each semester from Penolong Pendaftar</i>).</p> <p>With respect to continuous assessment, FSG provides autonomy to individual lecturers to manage student assessment. Students are provided with information on their assessment at the start of the semester. Most lecturers provide the criteria and rubrics for each type of assessment.</p> <p>Panel commend on the management of final exam where FSG HEA Office has followed diligently the procedure Manual Pengurusan Peperiksaan Akhir UiTM Edisi Pertama (2012) starting from the notice to prepare final exam questions until the delivery of final exam papers to Exam Unit (for printing)</p> <p>Evidences :</p> <ol style="list-style-type: none"> 1) <i>Manual Pengurusan Peperiksaan Akhir UiTM Edisi Pertama (2012)</i> 2) <i>Letter from Unit Exam (BHEP) instructing the preparation of Final exam questions.</i> 	3

Quality Criteria and Standards	Review: Evaluate, judge, conclude, continuous quality improvement (based on evidence) (eg effectiveness of process/activity, results achieved, comparisons between programmes, courses etc)	Self review rating
	3) <i>Instruction from Dean to programmes for the preparation of Final exam questions.</i> 4) <i>Final Exam Vetting Workshops held by all programmes.</i> 5) <i>Final Exam Questions Committee-to check the accuracy of question such as and format and the instructions on the cover page.</i> 6) <i>Borang Pengakuan Staff</i> 7) <i>Borang Produk Pelanggan</i> 8) <i>Buku Rekod Penyerahan Kertas Soalan Peperiksaan Akhir</i> 9) <i>Course Files</i> 10) <i>Information form AIMS</i>	
<ul style="list-style-type: none"> Student assessment results must be communicated to the student within reasonable time. 	<p>Student assessment results are communicated to the student within reasonable time</p> <p>Most lecturers will advertise the continuous assessment grades of each student in their course by pasting the grades outside the bulletin board of their offices. This is usually done one to two weeks before the final examination commences.</p> <p><u>Evidences:</u></p> <p>1) <i>Teaching Portfolios of BMS413 – Dr Maizatulkhuma Mat Zain, BMS481- Amaliawati Ahmad Latiffi, BMS481 – Rohana Mat Nor, CHM420 – Dr Lim Ying Chin, PHY400 - Syafawati, CMT450 – Maryam Husin, CMT458 – Dr Mohammad Noor Jalil, CHM457 – Dr Mohd Fazli Mohammat, CHM457 – Dr Mohd Tajudin Mohd Ali , CHM420 – Ruhani Ibrahim ,CHM420 – Prof Dr Rohaya Ahmad, EVT427- PM Nesamalar, EVT474-Nurzulaifa. BMS413 – Dr Maizatulkhuma Mat Zain, BMS481- Amaliawati Ahmad Latiffi, BMS481 – Rohana Mat Nor, CHM420 – Dr Lim Ying Chin, PHY400 - Syafawati, CMT450 – Maryam Husin,CMT458 – Dr Mohammad Noor Jalil, CHM457 – Dr Mohd Fazli Mohammat, CHM457 – Dr Mohd Tajudin Mohd Ali, CHM420 – Ruhani Ibrahim, CHM420 – Prof Dr Rohaya Ahmad, EVT427- PM Nesamalar, EVT474-Nurzulaifa.</i></p>	3
<ul style="list-style-type: none"> Changes to student assessment methods must follow established procedures and regulations and communicated to students prior to their implementation. 	<p>Changes to student assessment methods does follow established procedures and regulations and are communicated to students prior to their implementation.</p> <p>Most of the changes of the assessment method commonly occurred during the programme curriculum review exercise. Changes are then endorsed by the Faculty's Academic Committee (JAF) before the implementation.</p>	3

Quality Criteria and Standards	Review: Evaluate, judge, conclude, continuous quality improvement (based on evidence) (eg effectiveness of process/activity, results achieved, comparisons between programmes, courses etc)	Self review rating
	<p>Should there be any changes to the assessment required before the next curriculum exercise, the matter will be tabled in the JAF meeting.</p> <p><u>Evidence:</u></p> <p>1) <i>Minutes of JAF meeting</i></p>	
<ul style="list-style-type: none"> The programme grading, assessment and appeal policies must be publicised. 	<p>The programme grading and assessment methods are made known to the students through Course Outlines given to the students at the beginning of the semester. The outline is made available either as hardcopies or softcopies. The appeal policies are publicized in the University's website as well as the Student's Academic Handbook.</p> <p>Evidences:</p> <p>1) <i>Course Outline and Lesson Plan of the following courses (BMS413 – Dr Maizatulkhuma Mat Zain, BMS481- Amaliawati Ahmad Latiffi, BMS481 – Rohana Mat Nor, CHM420 – Dr Lim Ying Chin, PHY400 - Syafawati, CMT450 – Maryam Husin, CMT458 – Dr Mohammad Noor Jalil, CHM457 – Dr Mohd Fazli Mohammat, CHM457 – Dr Mohd Tajudin Mohd Ali, CHM420 – Ruhani Ibrahim, CHM420 – Prof Dr Rohaya Ahmad, EVT427- PM Nesamalar, EVT474-Nurzulaifa. BMS413 – Dr Maizatulkhuma Mat Zain, BMS481- Amaliawati Ahmad Latiffi, BMS481 – Rohana Mat Nor, CHM420 – Dr Lim Ying Chin, PHY400 - Syafawati, CMT450 – Maryam Husin, CMT458 – Dr Mohammad Noor Jalil, CHM457 – Dr Mohd Fazli Mohammat, CHM457 – Dr Mohd Tajudin Mohd Ali, CHM420 – Ruhani Ibrahim, CHM420 – Prof Dr Rohaya Ahmad, EVT427- PM Nesamalar, EVT474-Nurzulaifa).</i></p> <p>2) <i>Students' Academic Handbook</i></p> <p>3) <i>UiTM website- UiTM Academic Regulations</i></p> <p>4) <i>Fail Rayuan Semakan Semula FSG</i></p>	3
<ul style="list-style-type: none"> There must be mechanisms to ensure the security of assessment documents and records. 	<p>There are mechanisms to ensure the security of assessment documents and records. All assessment documents, Final Exam Questions and Answer Schemes are kept in a Safety Vault/ Strong Room at the HEA office and well protected under the jurisdiction of the Assistant Dean of Academic Affairs.</p>	3

Quality Criteria and Standards	Review: Evaluate, judge, conclude, continuous quality improvement (based on evidence) (eg effectiveness of process/activity, results achieved, comparisons between programmes, courses etc)	Self review rating
	<p>Records pertaining to students' continuous assessment and final Course grades are kept by the individual lecturers and in the <i>RES system</i>.</p> <p>Lecturers are advised not to disseminate the complete marking scheme of the tests and previous final exams to the students.</p> <p>Lecturers are also required to fill in the confidentiality forms and are not allowed to keep copies of current final exam questions.</p> <p>All soft copies are kept by the Assistant Registrar of Academic Affairs before the finalized audited papers are sent to the University's Exam Unit for Printing and safe keeping.</p> <p>.</p> <p>Lecturers are also required to fill in a special form when they want to take out final exam scripts from the HEA office.</p> <p><u>Evidences:</u></p> <ol style="list-style-type: none"> 1) <i>Borang Produk Pelangan</i> 2) <i>Borang Pengakuan Staf</i> 3) <i>Borang Kebenaran Membawa Keluar Skrip Kertas Jawapan Peperiksaan Akhir</i> 	
3.3.2 Enhanced Standards		
<ul style="list-style-type: none"> • There should be independent external scrutiny to evaluate and improve the management of student assessment, including formal certification of the processes. 	<p>There is independent external scrutiny to evaluate and improve the management of student assessment, including formal certification of the processes through a regular external audit by InQKA auditors.</p>	3

AREA 4: STUDENT SELECTION AND SUPPORT SERVICES

Quality Criteria and Standards	Review: Evaluate, judge, conclude, continuous quality improvement (based on evidence) (eg effectiveness of process/activity, results achieved, comparisons between programmes, courses etc)	Self review rating
4.1 Admission and Selection		
4.1.1 Benchmarked Standards		
<ul style="list-style-type: none"> The Faculty/Campus/Division must have clear criteria and processes of student admission -- including those affecting transfer and exchange students -- and select students whose capabilities are consistent with these criteria and processes. 	<p>Panel noted that the Faculty does have clear criteria and processes of student admission including those affecting transfer and exchange students and select students whose capabilities are consistent with these criteria and processes.</p> <p>Application are done online through Bahagian Pengurusan Kemasukan Pelajar IPT Kementerian Pengajian Tinggi Malaysia for September intake and through UiTM online for March semester intake.</p> <p>Application announcement can be viewed at http://www.mohe.gov.my.</p> <p>From diploma to degree, applications are forwarded directly to the Student Intake Division via online at http://www.uitmonline.edu.my</p> <p>Applications are done online through IPT Student Admission Management Department of Ministry of Higher Education Malaysia. Application announcement can be viewed at http://www.mohe.gov.my</p> <p>Policy on student intake is discussed in JAF regarding eligibility and number of student intake to FSG.</p> <p>Entry requirement for MUET for FSG has been increased from Band 1 to Band 2 and effective from Sept 2014, it is a prerequisite to study in UiTM.</p>	5
<ul style="list-style-type: none"> The criteria and processes of selection must be published, disseminated and publicly accessible, especially to students. 	<p>The criteria and processes of selection for academic programme has been published, disseminated through:</p> <ol style="list-style-type: none"> 1) <i>Academic Regulation Book</i> 2) <i>Buku Syarat Kelayakan ke UiTM Programme Asasai/Diploma/Pra diploma sepenuh masa</i> 3) <i>Buku Syarat Kelayakan ke UiTM Programme Ijazah Sarjana Muda Sepenuh Masa</i> 4) <i>Ekspo Selangkah ke UiTM</i> 	5

Quality Criteria and Standards	Review: Evaluate, judge, conclude, continuous quality improvement (based on evidence) (eg effectiveness of process/activity, results achieved, comparisons between programmes, courses etc)	Self review rating
<ul style="list-style-type: none"> Prerequisite knowledge and skills for purposes of student entry into each programme must be appropriate and clearly stated. If a selection interview is utilised, the process must be structured, objective and fair. 	<p>For the Faculty of Applied Sciences, AS254 BSc (Hons) Marine Technology is the only programme that has a prerequisite that is candidates should be able to swim/ not afraid of water and interested in this study area and to pass an interview conducted by selected panel of interviewers. (Note: the programme is currently being offered in UiTM Perlis)</p> <p>Panel commends on the process of this interview which is objective and fair. All pertinent matters (i.e criteria, selection of students) to this interview is discussed in <i>Mesyuarat Penyelarasan Temuduga Pelajar AS254 BSc (Hons) Marine Technology</i></p>	5
<ul style="list-style-type: none"> Student selection must be fair and transparent. 	<p>The admission requirements and the applications processes are made known to all prospective students via various mechanisms.</p> <p>All applicants are subjected to the same admission requirements as stated in the handbook. Selection of students is based on merits through online application that is managed by Unit Pusat Universiti and UiTM. Internally, monitoring of admission systems and processes is done through regular internal audits by InQKA and externally by Lloyd's Register Quality Assurance (LRQA). Applicants can appeal or complain to UiTM or KPT in event of any grievances.</p> <p>FSG is not involved in the student selection process.</p>	5
<ul style="list-style-type: none"> There must be a clear policy on, and appropriate mechanism for, appeal. 	<p>The admission policy and selection is monitored and reviewed periodically by the university (through Academic Affairs Division) and not through faculty.</p> <ul style="list-style-type: none"> The appeal mechanism in UiTM is regulated by Policy of Appeal (UiTM Student Admission Office) For September intake (SPM leavers) an appeal can be made via http://www.mohe.gov.my. Candidate is given 10 days to appeal after the announcement is made For Diploma UiTM to bachelor degree UiTM , a candidate must appeal within 10 days through http://istudent.uitm.edu.my/intake 	5
<ul style="list-style-type: none"> The Faculty/Campus/Division must offer appropriate developmental or remedial support to assist students who need such Pusat Pengajian ort. 	<p>All students selected should have met the entry requirement and do not need additional remedial courses. However, there are few clinics conducted in FSG for example, mathematic clinics are organized by the Faculty of Computer Science and Mathematics held at FSG. Special clinics/tutorial for weak students are offered based on lecturer's own initiative. at FSG</p>	5

Quality Criteria and Standards	Review: Evaluate, judge, conclude, continuous quality improvement (based on evidence) (eg effectiveness of process/activity, results achieved, comparisons between programmes, courses etc)	Self review rating
<ul style="list-style-type: none"> The number for each student intake must be related to the resources, capacity and capability of the Faculty/Campus/Division to effectively deliver its programmes. 	<p>The projection of each student intake for every semester is obtained from the Intake Division and CSPI (Centre for Strategic Planning and Information) office where prior to that FSG has informed both offices on the matters pertaining to resources, capacity and capability of each of the programmes.</p>	5
<ul style="list-style-type: none"> Visiting, exchange and transfer students must be accounted for to ensure the adequacy of the Faculty/Campus/Division's resources to accommodate them. 	<p>Currently at FSG the students' visiting and exchange programmes are through MOU with other university. Student transfers usually is a spin-off from MOUs or MOA of individual programmes. The international exchange students are handled through OIA (Office of International Affairs) followed by FSG HEA office.</p>	5
<ul style="list-style-type: none"> The admission policy must be monitored and reviewed periodically to continuously improve the selection processes. 	<p>The admission policy and selection is monitored and reviewed periodically by the university (through Academic Affairs Division) not through faculty specifically.</p> <p>Student's performance will be tabled at senate meeting conducted after every examination of each semester. The failure percentage of faculty/programme will be analysed for root cause. Any improvements suggested will be acted upon by Student Intake Division.</p> <p>Any changes to the student selection or admission policy need to be endorsed in Senate.</p>	5

4.1.2 Enhanced Standards		
<ul style="list-style-type: none"> Student performance should be monitored as a feedback mechanism to assist in improving selection processes. 	<p>The admission policy and selection of students and reviewed periodically by the university (through Academic Affairs Division) and not through the faculty.</p>	
<ul style="list-style-type: none"> The review of the admission policy and processes should be in consultation with relevant stakeholders, nationally and internationally. 		
<ul style="list-style-type: none"> Student intake should incorporate social responsibility by privileged consideration for people with special needs. 		
<ul style="list-style-type: none"> There should be a relationship between student selection, programmes, and the desired learning outcomes. 		
4.2 Articulation Regulations, Credit Transfer and Credit Exemption		
4.2.1 Benchmarked Standards		
<ul style="list-style-type: none"> Faculty/Campus/Division must have well defined and effectively disseminated policies, regulations and processes concerning articulation practices, credit transfers and credit exemptions. 	<p>Panel noted that FSG has a well defined and effectively disseminated policies, regulations and processes concerning articulation practices, credit transfers and credit exemptions as mentioned in Buku Peraturan Akademik such as <i>Borang Pengecualian Kredit</i> for students to apply for credit exemptions.</p> <p>The procedure involves programme coordinators, credit transfer committee, resource persons, academic advisors and the students. Any changes to credit exemption for any courses will be tabled in JAF (<i>Jawatankuasa Akademik Fakulti</i>) meeting (sample <i>Minit Mesyuarat Jawatankuasa Akademik Fakulti</i>).</p> <p>Credit exemption requirement is under the responsibility of Head of Programme and endorsed by JAF and if there is necessity to change PC requirements for each programme, it will be brought to the JAF meeting.</p> <p><u>Articulation Agreements</u></p>	5

	<p>From time to time faculties and campuses negotiate with foreign universities on educational and research collaborations. Any articulation that is agreed upon is stated in these agreements. UiTM graduates can and do further their studies in European, American and Australian universities. Although there are no specific articulation agreements with universities from these regions, these universities readily accept the degrees awarded by UiTM as equivalent to their's. (reference: UiTM Self Review Portfolio for Self Accrediting Status 2014)</p> <p><u>Evidence:</u></p> <p>1. <i>Buku Peraturan Akademik Pelajar</i></p>	
4.2.2 Enhanced Standards		
<ul style="list-style-type: none"> The Faculty/Campus/Division should be in touch with the latest development and thinking about the processes of articulation, credit transfers and credit exemptions including cross-border collaborative provisions. 	Any latest development and thinking of the processes of articulation, credit transfers and credit exemptions including cross-border collaborative provisions is done through the university rather than the faculty.	5
4.3 Transfer of Students		
4.3.1 Benchmarked Standards		
<ul style="list-style-type: none"> The Faculty/Campus/Division must have a well-disseminated policy with clear criteria, mechanisms and processes, both academic and non-academic, to enable qualified students to transfer to another programme, within it or in another Faculty/Campus/Division. 	Panel noted that FSG follows UiTM policy that is students are not allowed to transfer to another programme within the faculty or to other faculties in UiTM. (<i>Pekeliling Tahun 2011</i>)	5
<ul style="list-style-type: none"> Incoming transfer students must have comparable achievement in their previous institution of study. 	Students must submit an application for approval by the Faculty Academic Committee providing all relevant information for a decision. Generally, the courses must be of the same level (depth) and sufficiently covers the content (breadth). The maximum credit exemption from Diploma to bachelors is 1/3 of the total credits in the programme. (reference UiTM Self Review Portfolio for Self Accrediting Status 2014)	5
4.3.2 Enhanced Standards		
<ul style="list-style-type: none"> The Faculty/Campus/Division should have in place policies and mechanisms that facilitate student mobility between programmes and institutions, within the country or cross-border, 	Student mobility between programmes and institutions, within the country or cross-border, through articulation arrangements, joint degrees, exchange semesters, advanced standing arrangements, and the like from MOUs signed between UiTM and the respective institutions and normally supported by Student Mobility's Grant.	5

through articulation arrangements, joint degrees, exchange semesters, advanced standing arrangements, and the like.	<u>Evidence:</u> 1) List of students from Mobility Inbound 2018 and Mobility Outbound 2018 report	
4.4 Student Support services and Co-Curricular Activities		
4.4.1 Benchmarked Standards		
<ul style="list-style-type: none"> The Faculty/Campus/Division must make available appropriate and adequate support services, such as physical, social, financial and recreational facilities, and counselling and health services. 	<p>FSG and UiTM provide adequate support services, such as physical, social, financial and recreational facilities, and counseling and health services to students such as:</p> <ol style="list-style-type: none"> Health Unit Career and Counseling unit Sports Unit Residential College and Hostels Unit Scholarship and Financial Unit Assistance from faculty's Student Affairs Department Academic Advisors Advisors to Student Clubs and Programme Association 	5
<ul style="list-style-type: none"> Student support services must be evaluated regularly to ensure their adequacy, effectiveness and safety. 	<p>The divisions responsible for student support services (SSS) e.g. BHEP, Library and Bursary are subject to external quality audits by the QMS accreditation agencies like SIRIM or LRQA. The system of internal and external audits ensures that the SSS are effective in suPusat Pengajaranoring the needs of the students or clients.</p> <p>The students as users can and do provide feedback via the following mechanisms to top management about the effectiveness of the SSS.</p> <ol style="list-style-type: none"> Aduan Maklum balas Pelanggan (e-Aduan) Facebook i-Learn dan i-CLASS online learning system Laman web BHEA SMS Blast Student Feedback Online (SuFO) Research Student Feedback Online (ReSuFO) Pemantauan Profesionalisma Pensyarah (PRO-PENS) Face to face Telephone Email 	3
<ul style="list-style-type: none"> The Faculty/Campus/Division must designate an administrative unit responsible for planning and implementing student support services, 	<p>FSG has the following designate and administrative unit responsible for planning and implementing student support services</p> <ul style="list-style-type: none"> Timbalan Dekan HEP HEP Coordinators 	3

staffed by individuals who have appropriate experience consistent with their assignments.	<ul style="list-style-type: none"> • <i>Students Development Committee consists of students' society advisors (lecturers)</i> 	
<ul style="list-style-type: none"> • Academic and career counselling must be provided to students by adequate and qualified staff. 	For academic counselling- it is done by Programme coordinator, Academic Advisors and lecturers For non-academic counselling, it is provided by professional counsellors through the Unit counselling HEP	5
<ul style="list-style-type: none"> • Induction programmes must be made available to students and evaluated regularly with special attention given to out of state and international students as well as students with special needs. 	The induction programme is done through the following activities <ul style="list-style-type: none"> • <i>Minggu Mesra Siswa</i> or orientation programme organised by HEP division • At FSG induction is done through <i>Taklimat Dekan, Timbalan Dekan</i> or Programme Coordinators for new students • The number of international students and special needs students are minimal at FSG 	5
4.4.2 Enhanced Standards		
<ul style="list-style-type: none"> • Student support services should be given prominent organisational status in the Faculty/Campus/Division and a dominant role in suPusat Pengajian/menting programme learning outcomes. 	At the university level, student support services is managed by <i>Bahagian Hal Ehwal Pelajar dan Alumni</i> and at the faculty level, FSG has <i>Timbalan Dekan HEP</i> and assisted by various officers and coordinators.	5
<ul style="list-style-type: none"> • An equipped and adequately staffed unit dedicated to academic and non-academic counselling should be established. 	Through university Career and Counselling Unit. FSG does not have its own counselling unit. For academic matters, students are encouraged to seek advice and counselling from the Programme Coordinator.	5
<ul style="list-style-type: none"> • Student academic and non-academic counselling should include ongoing monitoring of the student's progress to measure the effectiveness of, and to improve, the counselling services. 		
<ul style="list-style-type: none"> • There should be a structured training and development plan to enhance the skills and professionalism of the academic and non-academic counsellors. 		
4.5 Student Representation and Participation		
4.5.1 Benchmarked Standards		
<ul style="list-style-type: none"> • The Faculty/Campus/Division must have a widely disseminated policy on student 	UiTM provide guidelines and policy, responsibilities on student representation and policy through <i>Buku Panduan Pelajar, BHEP, UiTM Edisi 5,2008</i>	5

representation and participation in line with national policies and laws.	Students at FSG are encouraged to participate in <i>Persatuan Pelajar</i> and various courses academically and non-academically provided by university and <i>Bahagian HEP</i>	
<ul style="list-style-type: none"> The Faculty/Campus/Division must publish a statement of student rights and responsibilities and make it available to the campus community. 	Statements of student rights and responsibility are protected through various acts: <ul style="list-style-type: none"> • <i>Undang Undang Mahasiswa Akta 174</i> • <i>Akta Institusi Pelajaran (Tatatertib) 176</i> • <i>Ikrar Pelajar dan Aku Janji</i> • <i>Others- Buku Panduan Pelajar</i> • <i>Buku Tatatertib Pelajar</i> • <i>Etika Pelajar</i> 	
<ul style="list-style-type: none"> The jurisdiction of judicial bodies, the disciplinary responsibilities of Faculty/Campus/Division officials, and all disciplinary procedures must be clearly defined and broadly disseminated. 	Also, students at each faculty are represented by MPUSAT PENGAJIAN (Majlis Perwakilan Pelajar)	
<ul style="list-style-type: none"> There must be a policy and programmes for active student participation in areas that affect their welfare, for example, peer counselling, co-curricular activities, and community engagement. 	Students' representative is exposed to UiTM's vision as guidelines to arrange activities that will be based on UiTM's agenda.	
4.5.2 Enhanced Standards		
<ul style="list-style-type: none"> Students and student organisations should be facilitated to gain managerial and leadership experience, to encourage character building, to inculcate a sense of belonging and responsibility, and to promote active citizenship. 	The students and student associations are encouraged to gain experience such as in managerial and leadership roles through association and activities such as <ul style="list-style-type: none"> • <i>Persatuan Kolej Kediaman</i> • Student Associations • <i>ProjekTunas Mekar</i> • <i>Pusat Sukan</i> • Unit Pembangunan Perniagaan (MEDEC) <p><u>Evidence</u></p> <p>1) <i>Laporan Aktiviti Persatuan Pelajar 2017 & 2018 (from Office of Timbalan Dekan HEP)</i></p>	5
<ul style="list-style-type: none"> Where student publications or other media exist, the Faculty/Campus/Division should provide a clear, formal and well-publicised policy regarding such publications. 	All non-academic publications by students must be approved by Student Affairs and Alumni Office which follows Akta 174.	5
<ul style="list-style-type: none"> There should be appropriate channels to allow student participation in the formulation, management and evaluation of the curriculum, and in academic matters relevant to them. 	Currently students are not directly involved in formulation, management and evaluation of the curriculum, and in academic matters relevant to them. However, they can provide feedbacks on academic matters through programme coordinators, lecturers and various evaluation mechanisms such as SUFO and CDL analysis.	3
	For non-academic matters, students are encouraged to document their activities, write reports and publish their activities.	

<ul style="list-style-type: none"> The Faculty/Campus/Division should have adequate facilities to encourage students to be involved in publication activities. 	For academic publications –through final year projects and their supervisors.	
4.6 Alumni		
4.6.1 Benchmarked Standards		
<ul style="list-style-type: none"> The Faculty/Campus/Division must encourage active linkages and continuous relationship between it and its alumni. 	<p>There are many involvements of alumni and the faculty in particular during a programme such as <i>Malam Pra-Graduan FSG</i> which is held every semester. A special event (FSG Alumni Dinner) was held in 2018 to forge a relationship between the alumni and FSG. There is also a mechanism of collecting data regarding FSG Alumni for the development of a database been initiated by certain programmes such as BSc (Hons) in Food Science and Technology Programme and BSc (Hons) Physics</p> <p>This database can be utilised to increase alumni involvement in the faculty such as curriculum review, professional and career development.</p>	3
4.6.2 Enhanced Standards		
<ul style="list-style-type: none"> The views of the alumni should be incorporated in curriculum development, the achievement of the learning outcomes and the future direction of the Faculty/Campus/Division. 	<p>The views of the alumni had been incorporated in curriculum development, the achievement of the learning outcomes and the future direction of the programme as evident in the following:</p> <p><u>Evidences:</u></p> <p>1) <i>Markey survey from Alumni obtained in the curriculum review</i></p> <ol style="list-style-type: none"> i. <i>AS203 BSc (Hons) Physics</i> ii. <i>AS230 /240 BSc (Hons) Material Technology / BSc(Hons) Material Science and Technology</i> iii. <i>AS231 BSc (Hons) Industrial Physics</i> iv. <i>AS243 BSc (Hons) Polymer Technology</i> v. <i>AS246 BSc (Hons) Food Science & Technology</i> vi. <i>AS248 /250 BSc (Hons) Textile Technology / Textile Science & Fashion Technology</i> vii. <i>AS244 BSc (Hons) Bio-Molecular Science</i> viii. <i>AS201 BSc (Hons) Biology</i> ix. <i>AS202/AS222 BSc(Hons) Chemistry/ BSc(Hons) Chemistry with Management</i> x. <i>AS245 BSc (Hons) Applied Chemistry</i> xi. <i>AS253 BSc (Hons) Chemistry (Forensic Analysis)</i> xii. <i>AS229 BSc (Hons) Environmental Technology</i> 	3
<ul style="list-style-type: none"> The Faculty/Campus/Division should encourage the alumni to play a role in preparing students for their professional future, and to provide linkages with industry and the professions. 	Panel did not find any evidence from <i>Laporan Pejabat Penyelidikan dan Jaringan Industri, Alumni Jan-Disember 2017 and 2018</i> which specifically involved alumni in preparing students for their professional future, and providing linkages with industry and the professions.	3

AREA 5: ACADEMIC STAFF

Quality Criteria and Standards	Review: Evaluate, judge, conclude, continuous quality improvement (based on evidence) (eg. effectiveness of process/activity, results achieved, comparisons between programmes, courses etc)	Self review rating
5.1 Recruitment and Management		
5.1.1 Benchmarked Standards		
<ul style="list-style-type: none"> The Faculty/Campus/Division must have a clear and documented academic staff recruitment policy where the criteria for selection are based on academic merit, 	Panel noted that FSG follows UiTM policies, criteria and processes and procedures in academic appointment and promotion exercise of academic staff. For recruitment, FSG follows <i>Prosedur Perolehan Staf Akademik</i> and process of promotion outlined in the Guideline on Promotion Matters of UiTM Lecturers (<i>Garis Panduan Urusan Kenaikan Pangkat Pensyarah</i>) and promotion will be awarded upon fulfilling all the conditions as required for all levels (<i>Pensyarah Kanan, Professor Madya, Profesor</i>)	5
<ul style="list-style-type: none"> The staff to student ratio for each programme must be appropriate to the teaching-learning methods and comply with the programme discipline standards. 	Panel noted that FSG has an adequate number of full-time academic staff for each programme based on the student: lecturer ratio. For example, the maximum ratio based <i>Kementerian Pengajian Tinggi</i> is 1: 30 while FSG has around 1:18	3
<ul style="list-style-type: none"> The Faculty/Campus/Division must have an adequate number of full-time academic staff for each programme. 		
<ul style="list-style-type: none"> The Faculty/Campus/Division must clarify the roles of the academic staff in teaching, research and scholarly activities, consultancy, community services and administrative functions to show a balance of functions and responsibilities in line with academic conventions. 	In order to clarify the roles of the academic staff in teaching, research and scholarly activities, consultancy, community services and administrative functions to show a balance of functions and responsibilities in line with academic convention, panel noted that FSG employs the following: <ol style="list-style-type: none"> It is done through the <i>Perlaksanaan Dasar dan Tugas Akademik</i> which specify the minimum hours that lecturer should teach (i.e min ATP (<i>Amanah Tugas Pensyarah</i> – 39 hours) 	3
<ul style="list-style-type: none"> The Faculty/Campus/Division policy must reflect an equitable distribution of responsibilities among the academic staff. 	<ol style="list-style-type: none"> Through yearly appraisal on the <i>SKT (Sasaran Kerja Tahunan)</i> and <i>Penilaian Prestasi Tahunan (LPUSAT PENGAJIANT)</i> Through <i>Buku dan Nilai Etika Pensyarah</i> 	

Quality Criteria and Standards	Review: Evaluate, judge, conclude, continuous quality improvement (based on evidence) (eg. effectiveness of process/activity, results achieved, comparisons between programmes, courses etc)	Self review rating
<ul style="list-style-type: none"> Recognition and reward through promotion, salary increment or other remuneration must be based on equitable work distribution and meritorious academic roles using clear and transparent policies and procedures. The Faculty/Campus/Division must have clear policies, criteria and processes in academic appointment and promotion exercise -- for example, that of Professors and Associate Professors -- guided by considerations which are in line with national policy and international best practices. 	<p>Panel noted that FSG follows UiTM policies, criteria and processes and procedures in academic appointment and promotion exercise of academic staff.</p> <p>For recruitment, FSG follows <i>Prosedur Perolehan Staf Akademik</i> and process of promotion outlined in the Guideline on Promotion Matters of UiTM Lecturers (<i>Garis Panduan Urusan Kenaikan Pangkat Pensyarah</i>) and promotion will be awarded upon fulfilling all the conditions as required for all levels (<i>Pensyarah Kanan, Prof Madya, Profesor</i>).</p> <p>Any new appointment of academic staff must go through <i>JawatanKuasa Kesepakatan UiTM</i></p>	3
5.1.2 Enhanced Standards		
<ul style="list-style-type: none"> The recruitment policy should seek a balance between senior and junior academic staff, between academic and non-academic staff, between academic staff with different approaches to the subject, and between local and international academic staff with multi-disciplinary backgrounds. 	<p>Number of academic staff based on designation</p> <p>Professor: 19 Assoc. Prof: 50 Senior Lecturer: 119 Lecturer: 63 International academic staff: 3.</p>	3
<ul style="list-style-type: none"> The Faculty/Campus/Division should have national and international linkages to provide for the involvement of renowned academics and professionals to enhance its scholarly activities. 	<p>Documentation for International linkages and MOU follow the guidelines available from HEA, UiTM. Panel noted FSG has developed linkages through the visiting professors from international universities and the signing of various MOU and MOA and meeting with industries.</p> <p><u>Evidence</u></p> <p>1) <i>Laporan Pejabat Penyelidikan dan Jaringan Industri & Alumni, Fakulti Sains Gunaan- Januari Disember 2018)</i></p>	3
5.2 Service and Development		
5.2.1 Benchmarked Standards		
<ul style="list-style-type: none"> The Faculty/Campus/Division must provide for an effective academic staff development programme. 	<p>The faculty provides effective staff development by providing training through ILQAM and also in-house training provided by internal and external trainers. For the support staff the training is provided by</p>	3

Quality Criteria and Standards	Review: Evaluate, judge, conclude, continuous quality improvement (based on evidence) (eg. effectiveness of process/activity, results achieved, comparisons between programmes, courses etc)	Self review rating
<ul style="list-style-type: none"> The policy on the academic staff must address matters related to service, development and appraisal. 	<p>JPBSM. Academic staff can also apply for fund for attending conference, workshop or special training from faculty.</p> <p>Training programmes for academic staff is determined by ILQAM and training programme for non-academic staff is provided by <i>JPbSM</i>. All information and policies service, development and appraisal are available at registrar office and the official website,</p> <p>Academic staff is also allowed to go for conference, training, sabbatical leave provided their application is approved by the faculty and the university.</p> <p><u>Evidences</u></p> <p>1) Data from E –Latihan and reports submitted to <i>JPbSM</i></p>	
<ul style="list-style-type: none"> The Faculty/Campus/Division must provide mentoring and formative guidance for new academic staff as part of its staff development programme. 	<p>For new academic staff the mentoring and formative guidance is done through <i>KPUSAT PENGAJIAN</i> and the new academic staff are required to attend various courses such as <i>Kursus Asas Pengajaran</i> and <i>Kursus OBE</i>.</p> <p>FSG provides effective staff development by providing training through ILQAM and also occasional in-house training provided by internal and external trainers. For support staff the training is provided by JPBSM.</p>	3
<ul style="list-style-type: none"> The academic staff must be provided with the necessary training, tools and technology for self-learning, access to information and for communication. 	<p>Training programmes for academic staff is determined by ILQAM and training programme for non-academic staff is provided by <i>JPbSM</i></p> <p>Academic staff can also apply for fund for attending conference, workshop or special training from faculty.</p> <p>Reports after attending conferences/training available at <i>JPbSM</i></p>	3

Quality Criteria and Standards	Review: Evaluate, judge, conclude, continuous quality improvement (based on evidence) (eg. effectiveness of process/activity, results achieved, comparisons between programmes, courses etc)	Self review rating
<ul style="list-style-type: none"> The Faculty/Campus/Division must provide for a suitable environment for the student appraisal of the academic staff. 	Similar to other faculty student appraisal of academic staff is done through SUFO. However, panel has not sighted any report or analysis based on the SUFO result used for improvements in teaching and learning	3
5.2.2 Enhanced Standards		
<ul style="list-style-type: none"> The Faculty/Campus/Division should provide oPusat Pengajianortunities -- including funding -- for academic staff participation in professional, academic and other relevant activities, national and international. It should appraise this participation and demonstrate that it utilises the results of this appraisal for improvement of the student experience. 	FSG does provide fund for academic staff to attend conference, workshop or special training or sabbatical leave. Academic staff can apply for this fund and there will be a special meeting held at the faculty to evaluate the applications. <u>Evidence</u> 1) <i>Meeting Minutes of Mesyuarat Khas dan PbSM</i>	3
<ul style="list-style-type: none"> The Faculty/Campus/Division should have appropriate provision to allow for advanced enhancement for its academic staff through research leave, sabbatical, and sponsored participation in, and organisation of, conferences. 		

AREA 6: EDUCATIONAL RESOURCES

Quality Criteria and Standards	Review: Evaluate, judge, conclude, continuous quality improvement (based on evidence) (eg. effectiveness of process/activity, results achieved, comparisons between programmes, courses etc)	
6.1 Physical Facilities		
6.1.1 Benchmarked Standards		
<ul style="list-style-type: none"> The Faculty/Campus/Division must have sufficient and appropriate resources, including equipments and facilities for training, to ensure effective delivery of the curriculum. Educational resources, including infrastructure and resources in support of academic staff development programmes, must be distributed according to the educational needs. 	<p>Panel noted that FSG have sufficient and appropriate resources, including equipment and facilities for training, to ensure effective delivery of the curriculum. All FSG classrooms and lecture hall are accommodated with complete set of LCD, PC, and Projector. All laboratories for respective courses are equipped with apparatus and tools for the effective delivery of the curriculum</p> <p>List of classrooms and laboratories are updated by HEA based on the requirement of usage per each programme every semester.</p> <p>Computers labs are also provided for students.</p> <p>Based on the <i>Jadual Waktu Bilik Kuliah FSG Semester March-July 2017</i> and <i>Jadual Waktu Makmal FSG Semester March-July 2016</i>, it is shown that resources are adequate and fully available for all programmes at FSG as the timetable shows that only few classes and laboratories had sessions after 6pm.</p> <p><i>Evidence</i></p> <ol style="list-style-type: none"> <i>Jadual Waktu Bilik Kuliah FSG Semester September -January 2018</i> <i>Jadual Waktu Makmal FSG Semester September -January 2018</i> <i>Maklumat Ruang FSG 2018</i> 	3
<ul style="list-style-type: none"> The physical facilities must comply with the relevant laws, and with health and safety regulations. 	Not audited	
<ul style="list-style-type: none"> The library and resource centre must have adequate and current references, qualified staff and other facilities -- including appropriate information and communication technology-mediated reference materials -- to support academic programmes and research activities. 	<p>Not Applicable to FSG</p> <p>Library is complete with the latest database and easy to access by students and all UiTM staffs.</p>	3
<ul style="list-style-type: none"> The Faculty/Campus/Division must provide adequate and suitable facilities to promote research activities. 	The faculty always update the academic staff on the availability of grants and scholarship for research activities offered local and abroad.	3

	<p>There are also many labs in FSG that are dedicated for research and FYP projects.</p> <p><u>Evidence</u></p> <p>1) <i>List of labs from Maklumat Ruang FSG 2018</i></p>	
<ul style="list-style-type: none"> The Faculty/Campus/Division must have a policy regarding access to information and external linkages for effective teaching and learning, for example, through the use of the most current electronic devices, library databases, networks and linkages and other effective means of using information and communication technology. 	<p>FSG provides IT facilities (computers, Wi-Fi, internet, emails, software) to all staffs for effective teaching and learning. Also, UiTM has support system such as:</p> <ul style="list-style-type: none"> a) <i>Bahagian Pembangunan dan Pengurusan Fasilitas</i> b) <i>Unit Pengurusan Teknologi Maklumat</i> c) <i>Bahagian Perpustakaan</i> 	3
6.1.2 Enhanced Standards		
<ul style="list-style-type: none"> The physical learning environment should be periodically reviewed to assess its quality and appropriateness for current education and training, and regularly improved through renovations, building new facilities and the acquisition of the latest and appropriate equipment to keep up with the development in educational practices and changes. 	<p>Currently the physical learning environment is not reviewed regularly with respect to its quality and appropriateness for current education and training, and regularly improved through renovations, building new facilities and the acquisition of the latest and appropriate equipment to keep up with the development in educational practices and changes.</p>	3
<ul style="list-style-type: none"> Students and faculty should be provided with adequate and continual support to learn how to utilise new equipment and to access information in the various and ever changing mediums and formats. 	<p>Students and staff are provided with adequate and continual support to learn how to utilise new equipment and to access information in the various and ever changing mediums and formats.</p> <ul style="list-style-type: none"> -new software training or method (e-learning blended learning training) -For students, some of the important introductory training during library orientation programme 	3
<ul style="list-style-type: none"> The facilities should be user friendly to those with special needs. 	<p>Currently the facilities at FSG are not specifically user friendly to those with special needs.</p>	3

6.2 Research and Development (<i>These standards are largely directed to universities and university colleges</i>)	Review: Evaluate, judge, conclude, continuous quality improvement (based on evidence) (eg. effectiveness of process/activity, results achieved, comparisons between programmes, courses etc)	
6.2.1 Benchmarked Standards		
<ul style="list-style-type: none"> The Faculty/Campus/Division must have a policy and planning that identifies the priorities, facilities and development in research and commercialisation. 	<p>Policy and planning that identifies the priorities, facilities and development in research and with the guidelines from IRMI (Institute of Research Management and Innovation)</p> <p>Among the achievement:</p> <ol style="list-style-type: none"> Publications at many refuted journal Many of Special Interest Groups or research clusters or interest/areas at FSG have been created Many joint ventures and Consultation have been initiated and proceeded <p>Evidences:</p> <ol style="list-style-type: none"> <i>Laporan Pejabat Penyelidikan dan Jaringan Industri, Alumni, Fakulti Sains Gunaan- Januari Disember 2018)</i> <i>FSG MyRA report 2018</i> <i>List of FSG MoU's with International Institutions</i> <i>List of FSG Local Industrial Partners</i> <i>List of Research Interest Group (RIG) (Entiti Kecemerlangan FSG) (there are about 16 different EKs)</i> 	3
<ul style="list-style-type: none"> The Faculty/Campus/Division must facilitate and provide incentives for the academic staff and the departments to conduct research. 	<p>Currently the incentives for the academic staff and the departments that conduct research comes in the forms of allowances such as travel and lodging. Academic staff can also apply for fund to attend conference, workshop or special training with regards to research activities.</p>	3
<ul style="list-style-type: none"> The interaction between research and education must be reflected in the curriculum, inform current teaching, and encourage and prepare students for engagement in research, scholarship and development. 	<p>The interaction between research and education is reflected in the curriculum courses such as Final Year Projects which introduce students to elements of research - proposal, writing thesis and defense of the findings. The interaction between research and education is well reflected in that can prepare students for the engagement in research.</p>	3

6.2.2 Enhanced Standards		
<ul style="list-style-type: none"> There should be a link between research, development and commercialisation. 	List of research products that have been commercialized and patented is available at IRMI (Institute of Research Management and Innovation) under its entity RIBU	3
<ul style="list-style-type: none"> The Faculty/Campus/Division should periodically review research resources and facilities and take appropriate action to enhance its research capabilities and to keep up with latest technology. 	There is no report sighted on the adequacy and improvement of the research facilities and capabilities at FSG	3
<ul style="list-style-type: none"> The Faculty/Campus/Division should provide incentives, including funding, to academic staff to engage in publication, including in reputable refereed journals. 	Currently there is no financial incentives provided to academic staff that engage in publication. However, funding for academic staff to engage in publication in refuted journal can be applied to IRMI and also by using the academic staff's research grant	3
6.2 Educational Expertise		
6.3.1 Benchmarked Standards		
<ul style="list-style-type: none"> The Faculty/Campus/Division must have a policy on the use of educational expertise in planning educational programmes and in the development of new teaching and assessment methods. 	<p>Panel noted that FSG does have a policy on the use of educational expertise in planning educational programmes and in the development of new teaching and assessment methods through the appointment of external examiners and academic advisors for each programme.</p> <p>As part of the COPPA requirement, the external examiners and/or advisors must be appointed and utilized to provide assurance that the academic programme can meet the standard. However, the utilisations of the appointed academic advisor has not been effective since no report is generated after the appointment of the academic advisor/external examiner benchmark standards.</p>	3
6.3.2 Enhanced Standards		
<ul style="list-style-type: none"> The Faculty/Campus/Division should have access to educational experts whose expertise can be utilised for staff development and educational research in the various disciplines. 	<p>FSG has access to educational experts whose expertise can be utilised for staff development and educational research in the various disciplines for example by bringing visiting professors or educational experts to share their knowledge in various research field.</p> <p><u>Evidences:</u></p> <p>Appointment of academic advisors in the following document.</p> <p>a) <i>Programme review document 2017 of the following programmes:</i></p>	3

	<p>Academic staff is also encouraged to attend conference and seminar locally and internationally to meet many experts in various research fields.</p> <p><u>Evidence</u></p> <p>a) List of conference and seminar attended by FSG academic staff</p> <p>FSG has also organised many conferences that had been attended by many educational experts locally and intentionally.</p> <p><u>Evidence :</u></p> <p>1) List of conferences organised by FSG in MYRA report 2017 and report 2018</p>	
6.4 Educational Exchanges		
6.4.1 Benchmarked Standards		
<ul style="list-style-type: none"> The Faculty/Campus/Division must have a policy on exchanges of students, academic staff and educational resources, and disseminate it to students and faculty. 	<p>Policy on exchange of students, academic staff and educational resources follows guidelines by the university. The Office of International Affairs (OIA) services and resources are designed to support and facilitate faculties and campuses in their systematic and sustained efforts to achieve strategic, comprehensive internationalisation and to prepare students to succeed in an increasing globalised world. Amongst the functions of the OIA are to coordinate and facilitate bodies that document and monitor agreements and make contacts.</p> <p>Students and staff mobility is one of the main activities of MOUs / MOAs signed with several international partners. The general objectives of MOUs / MOAs cover the following: student and staff mobility, visit, exchanges of expertise (visiting Professor, external examiner, academic advisor, joint-supervisor and invited speaker), scholarly collaboration (conferences, symposiums, workshop and publication), postgraduate joint degree, training and consultancy (information obtained from UiTM Self Review Portfolio for Self-Accrediting Status 2014-20 Jan 2015)</p> <p>Currently, the exchange of students or academic staff to FSG is based on MOU signed with the respective university.</p> <p>For academic staff, the policy and procedures for exchange of educational resources are set by <i>JPbSM</i>.</p> <p>Information regarding student mobility (e.g. ASEAN International Mobility for Students (AIMS Programme) is disseminated to students and faculties via email and website.</p> <p><u>Evidence :</u></p>	3

	1) List of FSG MoU's with International Institutions	
6.4.2 Enhanced Standards		
<ul style="list-style-type: none"> The Faculty/Campus/Division should have a clear policy and future planning on educational collaboration with relevant international institutions. 	The policy on collaboration with relevant international institutions follow the guidelines set by IRMI (Institute of Research Management and Innovation).	3
<ul style="list-style-type: none"> The Faculty/Campus/Division should provide appropriate facilities and adequate financial allocation for exchanges of academic staff, students, and resources. 	<p>FSG does provide fund for academic staff and students who are interested in doing educational exchanges with other institutes. Students or academic staff can apply for this fund and there will be a special meeting held at the faculty to evaluate the applications.</p> <p><u>Evidence</u></p> <p>1) <i>Meeting Minutes of Mesyuarat Khas dan PbSM</i></p>	3

6.5. Financial Allocation	Review: Evaluate, judge, conclude, continuous quality improvement (based on evidence) (eg. effectiveness of process/activity, results achieved, comparisons between programmes, courses etc)	Self Review Rating
6.5.1 Benchmarked Standards		
<ul style="list-style-type: none"> The Faculty/Campus/Division must have budgetary and procurement procedures to ensure that its resources are sufficient and that it is capable of utilising its finances efficiently and responsibly to achieve its objectives and maintain high standards of quality. 	FSG follows UiTM policy through Office of Bursary (Pejabat Bendahari) on all matters pertaining to budgetary and procurement procedures, responsibility and authority, tuition fees and refunds.	5
<ul style="list-style-type: none"> The Faculty/Campus/Division must have a clear line of responsibility and authority for budgeting and resource allocation that takes into account the specific needs of each department. 		
<ul style="list-style-type: none"> The Faculty/Campus/Division must have a written and well-disseminated policy on tuition fees, refunds and other related payments. 		
6.5.2 Enhanced Standards		
<ul style="list-style-type: none"> Those responsible for an academic programme should be given sufficient autonomy to appropriately allocate resources to achieve the programme objectives and to maintain high educational standards. 		

AREA 7: PROGRAMME MONITORING AND REVIEW

Quality Criteria and Standards	Review: Evaluate, judge, conclude, continuous quality improvement (based on evidence) (eg. effectiveness of process/activity, results achieved, comparisons between programmes, courses etc)	Self Review Rating
7.1 Mechanisms for Programme Monitoring and Review		
7.1.1 Benchmarked Standards		
<ul style="list-style-type: none"> The Faculty/Campus/Division must have a policy on the reviewing, monitoring and evaluation of all programmes offered that utilises proper mechanisms and resources, including benchmark data, teaching-learning methods and technologies, administration and related educational services, as well as feedback from principal stakeholders. 	<p>FSG has a clear and defined process to establish, review and evaluate the curriculum as per the guidelines from UHEK website (<i>Carta Alir Prosedur Pengurusan Perlaksanaan Kurikulum</i>). The programmes are reviewed every 3 to 5 years and most programmes have completed the second cycle of the curriculum review exercise. Out of 15 programmes, 14 programmes had conducted their second curriculum exercise and approved by JAF since the implementation of OBE in 2010.</p> <p><u>Evidence :</u></p> <p>1) <i>Programme Review Documents of the following programmes:</i></p> <ol style="list-style-type: none"> i. AS203 BSc (Hons) Physics ii. AS230 /240 BSc (Hons) Material Technology / BSc(Hons) Material Science and Technology iii. AS231 BSc (Hons) Industrial Physics iv. AS243 BSc (Hons) Polymer Technology v. AS246 BSc (Hons) Food Science & Technology vi. AS248 /250 BSc (Hons) Textile Technology / Textile Science & Fashion Technology vii. AS244 BSc (Hons) Bio-Molecular Science viii. AS201 BSc (Hons) Biology ix. AS202/AS222 BSc(Hons) Chemistry/ BSc(Hons) Chemistry with Management x. AS245 BSc (Hons) Applied Chemistry xi. AS253 BSc (Hons) Chemistry (Forensic Analysis) xii. AS229 BSc (Hons) Environmental Technology 	5
<ul style="list-style-type: none"> There must be a programme review committee for each department headed by a designated coordinator. 	<p>There are programme review committees set up for each programme headed by a Programme Coordinator and KPP (<i>Ketua Pusat Pengajian</i>). The committee consist among them lecturers teaching the courses, resource persons and guest panellists (external examiner and academic advisors).</p> <p><u>Evidence :</u></p> <p>1) <i>Programme Review Documents</i></p> <ol style="list-style-type: none"> i. AS203 BSc (Hons) Physics 	3

Quality Criteria and Standards	Review: Evaluate, judge, conclude, continuous quality improvement (based on evidence) (eg. effectiveness of process/activity, results achieved, comparisons between programmes, courses etc)	Self Review Rating
	<ul style="list-style-type: none"> ii. AS230 /240 BSc (Hons) Material Technology / BSc(Hons) Material Science and Technology iii. AS231 BSc (Hons) Industrial Physics iv. AS243 BSc (Hons) Polymer Technology v. AS246 BSc (Hons) Food Science & Technology vi. AS248 /250 BSc (Hons) Textile Technology / Textile Science & Fashion Technology vii. AS244 BSc (Hons) Bio-Molecular Science viii. AS201 BSc (Hons) Biology ix. AS202/AS222 BSc(Hons) Chemistry/ BSc(Hons) Chemistry with Management x. AS245 BSc (Hons) Applied Chemistry xi. AS253 BSc (Hons) Chemistry (Forensic Analysis) xii. AS229 BSc (Hons) Environmental Technology 	
<ul style="list-style-type: none"> • In collaborative arrangements, the partners involved must share the responsibility of programme monitoring and review. 	Currently, FSG has one collaborative degree programme with Faculty of Fashion and Design, AS250 BSc (Hons) in Textile Science and Fashion Technology.	4
<ul style="list-style-type: none"> • The areas of concern and ways to improve programmes as identified by the Faculty/Campus/Division self-review processes must be brought to the attention of the highest management level to ensure further appropriate measures. 	<p>The areas of concern and ways to improve programme as identified by the Faculty self-review processes are brought to the attention of the Dean. The Dean will discuss these issues with the faculty's management team in the <i>MKSP</i> and <i>Jawatankuasa Akademik FSG (JAF)</i> meeting and if the need arises, will convey the findings for areas of concern to the top management of the university or the external audit team from InQKA that will further highlight the issues to the highest management level in the University to ensure further appropriate measures be taken.</p> <p>The MKSP meeting will be held regularly and shall follow the <i>Prosedur Mesyuarat Kaji Semula Pengurusan PK.UiTM.FSG.(P).07</i> in conducting the meeting. A new revised agenda of MKSP will be taken into effect in 2019.</p>	
<ul style="list-style-type: none"> • Student performance and progression must be analysed to ascertain the achievement of the learning outcomes of each programme. 	With respect to the student performance and progression in the learning outcomes of each programme, the CDL is used to ascertain the achievement of the learning outcomes of each programme. All OBE courses offered in the programmes are subjected to analysis of entrance and exit surveys where gap analysis is done. SUFO analysis where students' feedback on the T&L methods used and resources provided by the faculty is analysed. Every semester the performance of the students in each course is	3

Quality Criteria and Standards	Review: Evaluate, judge, conclude, continuous quality improvement (based on evidence) (eg. effectiveness of process/activity, results achieved, comparisons between programmes, courses etc)	Self Review Rating
	discussed in the JAF meeting in order to gauge the achievement of the learning outcome of the programmes. However, CDL-CQI were not sighted from some programmes (AS251 BSc (Hons) Industrial Physics, AS232 BSc (Hons) Bio-Composite Science, AS246 BSc(Hons) Food Technology, AS229 BSc (Hons) Environmental Technology, AS243 BSc (Hons) Polymer Technology, AS203 BSc (Hons) Physics	
7.1.2 Enhanced Standards		
<ul style="list-style-type: none"> Student performance and progression analysis should be utilised to provide feedback to committees responsible for student selection, curriculum planning and student counselling. 	Student performance and progression analysis is not sighted from the sampled programme Curriculum Review Files, therefore it has not been utilized to provide feedback to committees responsible for student selection, curriculum planning and student counselling.	3

7.1 Involvement of Stakeholders		
7.2.1 Benchmarked Standards		
<ul style="list-style-type: none"> The evaluation and review of programmes must involve the relevant stakeholders. 	<p>All programmes sampled engage external stakeholders during design of curriculum for new programmes as well as curriculum review through the appointment of academic advisors (from other universities) and the survey from various stakeholders (alumni and industry players). The students' industrial placements (industrial training) and the stakeholder feedback particularly that of the alumni and employers are incorporated into a programme review exercise.</p>	3
7.2.2 Enhanced Standards		
<ul style="list-style-type: none"> Stakeholder feedback -- particularly that of the alumni and employers -- should be incorporated into a programme review exercise. 	<p><u>Evidence :</u></p> <p>1) Programme Review Document for the following programmes:</p> <ol style="list-style-type: none"> i. AS203 BSc (Hons) Physics ii. AS230 /240 BSc (Hons) Material Technology / BSc(Hons) Material Science and Technology iii. AS231 BSc (Hons) Industrial Physics iv. AS243 BSc (Hons) Polymer Technology v. AS246 BSc (Hons) Food Science & Technology vi. AS248 /250 BSc (Hons) Textile Technology / Textile Science & Fashion Technology vii. AS244 BSc (Hons) Bio-Molecular Science viii. AS201 BSc (Hons) Biology ix. AS202/AS222 BSc(Hons) Chemistry/ BSc(Hons) Chemistry with Management x. AS245 BSc (Hons) Applied Chemistry xi. AS253 BSc (Hons) Chemistry (Forensic Analysis) xii. AS229 BSc (Hons) Environmental Technology 	
<ul style="list-style-type: none"> For a professional programme, the Faculty/Campus/Division should engage the relevant professional bodies and associations in its programme evaluation exercise. 	<p>There is no programme offered at the Faculty that are governed by any relevant professional bodies and associations.</p>	

AREA 9: CONTINUAL QUALITY IMPROVEMENT

Quality Criteria and Standards	Review: Evaluate, judge, conclude, continuous quality improvement (based on evidence) (eg. effectiveness of process/activity, results achieved, comparisons between programmes, courses etc)	
9.1 Quality Improvement		
9.1.1 Benchmarked Standards		
<ul style="list-style-type: none"> The Faculty/Campus/Division must establish policies and procedures for regular reviewing and updating of its internal quality assurance activities to ensure continuous quality improvement. The unit or department dedicated to the internal quality assurance system of the Faculty/Campus/Division must take continuous efforts to keep abreast with the changes and best practices in quality assurance. 	<p>FSG has a quality unit headed by <i>Ketua Unit Pengurusan Kualiti</i>. Under the Quality Unit there are various committees such as the Internal Audit committee, ISO, Operational Excellence, 5S, <i>AKNC</i>, <i>KIK</i>, Data analysis that are established to ensure the internal quality assurance activities are in place for continuous quality improvement.</p> <p>The unit is responsible in planning necessary exercises to ensure the continual quality assurance at FSG is kept abreast with the changes and best practice in quality assurance. Although the re-certification of ISO is no longer in practice at FSG, ISO Management and Operation Procedure, Quality Objective, Quality Manual, Internal Audit activities, <i>Mesyuarat Kajian Semula Pengurusan (MKSP)</i> are used as the quality measures to regular reviewing and updating of FSG internal quality assurance activities.</p> <p><u>Evidences :</u></p> <ol style="list-style-type: none"> 1) <i>Quality Manual (revised in 2017)</i> 2) <i>Quality Objectives</i> 3) <i>ISO quality procedures (Management)</i> 4) <i>ISO quality procedures (Operation)</i> 5) <i>Fail Laporan MKSP</i> 6) <i>Fail Laporan Audit Dalam</i> 	3
<ul style="list-style-type: none"> The Faculty/Campus/Division must have dynamic mechanisms to implement recommendations for quality improvement and record the achievements of such implementations. 	<p><i>Mesyuarat Kajian Semula Pengurusan (MKSP)</i> is the avenue used to implement recommendations for quality improvement and record the achievements of such implementations.</p> <p>The MKSP meeting should be held regularly and shall follow the <i>Prosedur Mesyuarat Kaji Semula Pengurusan PK.UiTM.FSG.(P).07</i> in conducting the meeting where among the agenda in the meeting is to review the achievement of the institutional goals.</p>	3

Quality Criteria and Standards	Review: Evaluate, judge, conclude, continuous quality improvement (based on evidence) (eg. effectiveness of process/activity, results achieved, comparisons between programmes, courses etc)	
<ul style="list-style-type: none"> There must be a link between quality assurance processes and the achievement of the institutional goals. 	<p>During the Internal Audit Bil. 1 2018, panel has observed recurring area of concern:</p> <ul style="list-style-type: none"> a) Course information is not current and different from the one in AIMS b) CDL-CQI is not properly done and analysed c) Assessment method practised is not the same as stated in the course file d) Poor filing, record keeping and updating of information. <p>FSG is the process of producing a new Quality Manual which follows the ISO 9001: 2015 requirements. The new and revised Quality Manual and the ISO Management and Operation Procedures</p> <p>The use of the above procedure would improve the mechanisms to implement recommendations for quality improvement and to record the achievements of such implementations.</p>	
9.1.2 Enhanced Standards		
<ul style="list-style-type: none"> The internal quality assurance unit of the Faculty/Campus/Division should be given a prominent organisational status in the Faculty/Campus/Division. 	<p>Currently the Quality Unit of FSG directly reports to the Dean of Faculty of Applied Sciences. The Head of Quality Unit is also working directly with Management Representatives (Deputy Dean of Academic Affairs) to ensure quality assurance processes are in place and the FSG quality objectives can be achieved</p> <p><u>Evidence</u></p>	
<ul style="list-style-type: none"> The Faculty/Campus/Division should embrace the spirit of continual quality improvement based on prospective studies and analyses that leads to the revisions of its current policies and practices, taking into consideration past experiences, present conditions, and future possibilities. 	<ol style="list-style-type: none"> 1. Organizational Chart of FSG 2. Organisational Chart of Quality Unit 	
<ul style="list-style-type: none"> The Faculty/Campus/Division should strive to get its internal quality assurance system accredited by a relevant, external and authoritative accreditation body. 		

END OF SRR REPORT

This Self Review Report has been endorsed by :

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EDARAN TERHAD