



**UTM**  
UNIVERSITI TEKNOLOGI MALAYSIA

School of  
Professional and  
Continuing  
Education  
(SPACE)

**ACADEMIC**

# **GUIDEbook**

**CENTRE FOR DEGREE AND FOUNDATION STUDIES**

**SESSION 2020/2021**

<http://space.utm.my/foundation>

**Foundation  
Programme UTM**

# FOUNDATION PROGRAMME UTM

ACADEMIC GUIDEBOOK

Second Edition: 2020/2021

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## NOTE:

Information in this Academic Guidebook is true at time of printing.  
Full Time Programme UTMSPACE reserves the right to amend any information  
without prior notification.

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## **NATIONAL EDUCATION PHILOSOPHY**

Education in Malaysia is an on-going effort towards further developing the potential of individuals in a holistic and integrated manner, so as to produce individuals who are intellectually, spiritually, emotionally and physically balanced and harmonious, based on a firm belief in and devotion to God. Such an effort is designed to produce Malaysian citizens who are knowledgeable and competent, who possess high moral standards, and who are responsible and capable of achieving high level of personal well-being as well being able to contribute to the harmony and betterment of the family, the society and the nation at large.



# UNIVERSITY PHILOSOPHY, VISSION, MISSION, STRATEGIC THRUSTS AND CORE VALUES



innovative • entrepreneurial • global

## UTM Philosophy, Vision, Mission, Strategic Thrusts and Core Values



# SPACE VISION, MISSION, MOTTO AND CORE VALUES

## Vision

To be an international centre of excellence in Lifelong Learning.

## Mission

To provide quality continuing education programmes that are widely accessible, customized and flexible to meet customer expectations.

## Motto

Leading Transnational Continuing Engineering Education.

## Core Values

- Quality Driven
- Student Centred
- Flexible Learning
- Global Outlook



# UTM GRADUATE ATTRIBUTES

## ✓ COMMUNICATION SKILLS

- CS1** Ability to convey ideas in writing clearly, effectively and comprehensible.
- CS2** Ability to deliver ideas orally in a clear, effective and comprehensible manner.
- CS3** Ability to listen actively and respond accordingly.
- CS4** Ability to make clear presentations to a diverse audience with confidence.
- CS5** Ability to use a variety of media in presentations.
- CS6** Ability to negotiate and reach agreement.
- CS7** Ability to communicate with people from different cultures and backgrounds.
- CS8** Ability to use third language in conversations when the need arises.

## ✓ THINKING SKILLS

- TH1** Ability to define and analyze complex, overlapping, ill-defined problems and make well-supported judgment.
- TH2** Ability to expand on and discuss ideas.
- TH3** Ability to look for alternative ideas and creative solutions.
- TH4** Ability to 'think outside the box'.
- TH5** Ability to think critically.
- TH6** Ability to think holistically and systematically.

## ✓ SCHOLARSHIP

- SC1** Ability to seek and manage relevant information from a variety of sources.
- SC2** Ability to be receptive to new ideas towards self-directed or autonomous learning.
- SC3** Ability to develop an inquisitive mind.
- SC4** Ability to use systematic research methodology.

## ✓ LEADERSHIP AND TEAMWORKING SKILLS

- TW1** Ability to establish rapport, interact and work effectively with others to accomplish common objectives.
- TW2** Ability to lead and influence team members to complete given tasks.
- TW3** Ability to understand other people's attitude and behavior; respect their ideas and have mutual trust.
- TW4** Ability to understand responsibility towards group decision.

## ✓ ADAPTABILITY

- AD1** Ability to adapt to the culture of new communities and work environment.
- AD2** Ability to recognize potential for improvement.
- AD3** Ability to apply known solutions to new situations.
- AD4** Ability to initiate and implement change.
- AD5** Ability to work effectively under pressure.



## UTM GRADUATE ATTRIBUTES

## ✓ GLOBAL CITIZEN

- GC1** Spiritually grounded, compassionate and caring.
- GC2** Ability to keep updated with current world issues.
- GC3** Ability to act ethically in making decisions and interacting with the community.
- GC4** Ability to act professionally and responsibly in carrying out duties.
- GC5** Ability to understand the impact of socio-cultural, economic, environmental and politics on professional practices.
- GC6** Ability to practice and prioritize principles of sustainability in making decisions.

## ✓ ENTERPRISING SKILLS

- ES1** Ability to identify opportunities (including business).
- ES2** Ability to use innovative methods in dealing with issues.
- ES3** Willingness to take risks.
- ES4** Ability to use entrepreneurial mindset in dealing with problems.
- ES5** Ability to be resilient.
- ES6** Ability to act effectively and imaginatively in difficult situations.

# FACILITIES IN UTM JOHOR BAHRU

## 1) UTM FACILITIES

### (a) Library

There are two main libraries in UTM:

- Perpustakaan Sultanah Zanariah (PSZ) - The newly developed digital library system to support INFOLAN, the library's automated system is complemented with easy access to the electronic information.
- Perpustakaan Raja Zarith Sofia (PRZS) - PRZS in the newest branch of Universiti Teknologi Malaysia (UTM) Library. It is a designated research library for the university.

### (b) Online Learning System (e-Learning)

Students can have access lecture notes, quizzes and assignments of all courses offered online. The e-learning can also serves as platform for students to conduct educational forum or discussions with other students or interact with their lecturer after class.

### (c) Executive Program Academic Management System (TEAMS)

An academic information management called TEAMS has been used for registration, course scheduling, management of students' course grades and record keeping of every student in UTM.

## 2) STUDENT SUPPORT FACILITIES

### (a) Hostel

There are 11 residential colleges in UTM Johor Bahru main campus to accommodate all undergraduate and postgraduate students. Among the facilities provided at each residential college are a cafeteria, a multipurpose hall, a Muslim prayer room, tennis courts, an internet and computer center, a convenient store and a common room besides other facilities in the students' rooms.

### (b) Sport and Recreational Centres

UTM houses ten different recreational centers and gardens for the purpose of students and staff recreational and motivational outdoor activities. These include recreational forest, orchard and nursery, herbal garden, tropical garden, deer garden, equestrian center, golf driving range, children playground and camping area. These are various sport facilities available at UTM. The indoor sports facilities include squash and badminton courts and a gymnasium, whilst the outdoor facilities include volleyball, netball, basketball and tennis courts, as well as full-sized fields for soccer, rugby and cricket. UTM has its own sport stadium and swimming pool. In addition, university also provides a varied array of clubs and societies ranging from cultural to recreational to suit the varied interests of the students.

### (c) Health Centre

The Health Centre in UTM offers various services such as dental, outpatient, maternity and pediatric clinics. It also caters for emergency and haemodialysis treatments and radiology checkups. The health centre is open from Monday to Saturday and closed on Sunday as well as public holidays.



#### **(d) Transportation**

The University also provides transport services for students to commute from their on-campus residential colleges or off-campus accommodation to classes. There are more than 30 buses that provide services from 7.15 am to 11.30 pm every day. The off-campus residential areas covered by the service include Taman Universiti, Taman Sri Skudai, Taman Sri Pulai, Taman Teratai, Taman Desa Skudai and Taman Sri Putri. In addition, there are also public buses such as the Transit Link and Maju bus companies, which ply between Taman Universiti via the ring road of the campus to Johor Bahru City Centre.

#### **(e) Student Centres**

Student Centres are located at Student Union Building (SUB). All student societies have an office for their administration. All student activities are governed by the Office of Student Affairs (HEP).

#### **(f) Mosque**

The construction of the Sultan Ismail Mosque began in 1986 and was completed in 1990. The mosque can accommodate about 10,000 worshippers and has many facilities such as mini-library, seminar rooms, lecture hall, morgue and offices. The planning of the Skudai campus was based on the concept of centralising the main activities of common interests around the mosque. The mosque is located right at the centre of the campus surrounded by other buildings within walking distance, and is the most outstanding building of the university. Its location at the centre of the campus is in line with the concept of Islamic learning in which the mosque is the source of the acquisition and dissemination of knowledge and in life as well with the university motto, "For God and Mankind".

#### **(g) Dining**

UTM campus have at least 30 food centre (cafeterias), where the student can have breakfast, lunch as well as dinner at a discounted student rate. Some cafeteria is special and open 24 hours a day and some even offering western food style. Average spending on food per meal is RM5.00. If you prefer canned drink, the canteen is everywhere inside the academics area. The cafeteria are a walking distances from the hostels. There are more than 100 catering outlets across the campus, including air-conditioned restaurants, cafeterias, fast-food restaurants selling a whole variety of food including traditional Malay, Chinese, Indian and Western cuisines. There are many shops on campus including bookstores, photocopy centers, mobile phone centers, news agents, launderettes, hair dressing and beauty saloons, computer shops, travel agencies and more than 20 mini grocery stores, mostly within the students' residential colleges. Just outside UTM campus, through second gate (you have to go through padang kawad), there is McDonald Family Restaurant that open 24Hr per day.

#### **(h) Bank & Post Office**

CIMB Bank becoming an official bank for UTM. But there are have ATM/Teller booth machine of Bank Simpanan Nasional, Maybank and Bank Islam Malaysia Berhad in the campus. One post office is located inside the campus, inside student union building. Pos-Laju and pay-bill services are there, and they open post office for the whole weeks office hour, except Sunday.

# FACILITIES IN UTM KUALA LUMPUR

## **UTM Kuala Lumpur Library**

UTM Kuala Lumpur Library is a branch library situated at UTMKL, Jalan Sultan Yahya Petra, Kuala Lumpur. Currently, the library has 28 staffs comprises of 6 professionals and 22 support staff. Among the services offered are Reference and Research Support Consultant, Library Information Skill Classes, Literature Searching Workshop, Electronic Databases and Inter-Library Loan (ILL). The library also provide the facilities to the users such as Research Carrel (10 rooms), Carrel Room (22 rooms), Discussion Room (12 rooms), Seminar Room (4 rooms), Information Searching Lab, Reading Area, Computer Zone (130 computers) and 24 hours Study Room. To ease the process of borrowing books and printed materials in the library, users could use the Online Public Access Catalog (OPAC) which is called LESTARI. It helps users to find the materials online. The library portal can be accessed via [ent.library.utm.my](http://ent.library.utm.my).

## **Undergraduates Affairs Office**

Responsible in students' activity management, sponsorship, loans, health, accommodation, welfare, and undergraduates discipline.

## **Undergraduates Clinic**

Students could receive health services besides going to the government hospitals.]

## **Accommodation**

Kediaman Siswa Jaya (KSJ) is situated at Setapak Jaya which is 2km from UTMKL and could accommodate 3000 students. Bus service is provided for students to go to the campus from 6.45am to 10.45 pm. There are also food court, mosque, minimart, laundry, mini cinema, and sports facilities provided for students.

## **Transportation**

Bus service is provided from KSJ to the main campus according to students' lectures timetable. The journey from KSJ to UTMKL takes about 20 minutes.

## **Sports and Recreation**

This facility is handled by Sports Unit. The unit is responsible in expanding and developing sports culture among students besides encouraging positive moral values among students and staff.

## **Mosque**

UTMKL mosque provides consultancy services to individuals, society and institution inside and outside university.

## **Students Minimart**

These shops are situated in the campus and in the students' hostel.

## **Electronic Banking Central**

Automatic Teller Machines (ATM) are available in the campus for students and staff.

# WELCOMING SPEECH

In the Name of Allah, the Most Beneficent, the Most Merciful,

I am very pleased to welcome all the new students to the Foundation Programme Universiti Teknologi Malaysia (UTM).

Congratulations for being among the privileged of the candidates to get the opportunity as pioneer students to study in matriculation programme at UTM. I am pleased to announce the Foundation Programme UTM is the first matriculation UTM badge and your arrival at UTM marks a new chapter in the story of your life.

The preceding chapters were largely written by others include your parents, guardians, families, lecturers and the like. Now you will be the principal author of the next chapter in corresponds to have the opportunity to determine your own direction, the plot and the tempo of after completed Sijil Pelajaran Malaysia (SPM). At the heart of the success of Foundation Programme UTM lies its academic and support staff who are relentless and innovative in their effort to produce the best talents within an exciting, productive, challenging and sustainable learning environment. Throughout this matriculation UTM, we are committed in our mission to nurture students into a global citizen by designing competitive 21st Century Curriculum in line with 4th Industrial Revolution.

I wish that you will remain focused on achieving academic success, be actively engaged inside and outside of the classroom, be open to new and challenging experiences, conduct yourself in accordance with our core values, seek help when needed, and don't forget to make learning time excitement during the learning study at UTM. I sincerely hope this Student Academic Handbook is a valuable as a reference to entry requirements, curriculum, and career path after graduated from here. It's going to be a great year and we look forward for supporting your academic and personal success at Universiti Teknologi Malaysia!

I wish you all the best in your studies and future undertakings.  
Thank you and best regards,

**Professor Ts. Dr. Othman bin Che Puan**  
Chair,  
School of Professional and Continuing Education (SPACE)



# FOUNDATION PROGRAMME AT A GLANCE

The UTM Foundation Programme is a one-year academic programme from Universiti Teknologi Malaysia (UTM). It is offered by the School of Professional and Continuing Education (SPACE). It offers students an alternative choice of pre-university education, other than matriculation, the Malaysian Higher School Certificate (STPM), and other foundation programmes recognized by the Malaysian government.

The UTM Foundation Programme is offered in full time mode. Students attend lectures, complete assignments, and undergo periodical tests and end-of-semester examinations, similar to their counterparts in other pre-university education pathways. The total credit hour of the UTM Foundation Programme is 50 credit hours. In the first semester, students enroll in four subjects with a total of 10 credit hours. In the second and third semester, students enroll in 7 subjects with a total of 20 credit hours for each semester. It takes a year to complete the UTM Foundation Programme. The students' academic load is spread over a course of three semesters.

Students under the UTM Foundation Programme study a mixture of subjects in the sciences and engineering, as well as English, academic writing, and selected general education subjects. This foundation programme will prepare them for their next education pathway in Bachelor's degree at UTM. Subject to their academic achievement, they may choose to enroll in science, engineering and technology academic programmes, or social science programmes offered by UTM-IDP.

The UTM Foundation Programme is open to both Malaysians and international students. The programme will be conducted at the UTM Johor Bahru campus (Physical Science and Life Science Field) and UTM Kuala Lumpur campus (Physical Science Field only).



# ORGANIZATION STRUCTURE



**UTM**  
UNIVERSITI TEKNOLOGI MALAYSIA

School of  
Professional and  
Continuing  
Education  
(SPACE)

## ORGANIZATION STRUCTURE CENTRE FOR DEGREE AND FOUNDATION STUDIES (PPI)



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HEAD OF PROGRAMME

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UTM-IDP



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# PROGRAMME SPECIFICATIONS

<b>1. Programme Name</b>		Foundation Program UTM		
<b>2. Final Award</b>		Foundation Program UTM		
<b>3. Awarding Institution</b>		Universiti Teknologi Malaysia		
<b>4. Teaching Institution</b>		Universiti Teknologi Malaysia		
<b>5. Professional or Statutory Body of Accreditation</b>		Ministry of Higher Education		
<b>6. Code of Programme</b>		FSPA		
<b>7. Language(s) of Instruction</b>		Bahasa Melayu and/or English		
<b>8. Mode of study (conventional, distance learning, etc)</b>		Conventional		
<b>9. Mode of operation (Franchise, self-govern, etc)</b>		Self-govern		
<b>10. Study scheme (Full time / Part time)</b>		Full-time		
<b>11. Study Duration</b>		Minimum : 3 semester (1 year) Maximum : 6 semester (2 years)		
Types of Semester	No. of Semesters		No. of weeks per semester	
	Full time	Part time	Full time	Part time
Long	3	0	10, 21, 21	0
Short	0	0	0	0
<b>12. Entry Requirement</b>		<p><b>12.1 Requirement for Local Candidates</b></p> <p>i. Pass SPM or equivalent with credit in at least 5 (Five) subjects including Mathematics and 2 (Two) Science subjects: -Chemistry -Physics/ Biology</p> <p><b>OR</b></p> <p>ii. Pass O Level with a minimum grade B in 3 (Three) subjects including Mathematics and 2 (Two) Science subjects;</p> <p><b>OR</b></p> <p>iii. Other equivalent qualification recognized by the Malaysian government.</p> <p><b>12.2 Requirement for International Candidates</b></p> <p>The minimum entry requirement for foundation program which is equivalent to the requirement for foundation program UTM are as follow:</p> <p>i. Pass O Level with a minimum grade B in 3 (Three) subjects including Mathematics and 2 (Two) Science subjects;</p>		

	<p><b>OR</b></p> <p>Other equivalent qualification recognized by the Malaysian government</p> <p><b>AND</b></p> <p>Follow the requirement based on country as detailed in <b>Appendix 10</b></p>
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### 13. Programme Educational Objectives (PEO)

PEO 1	Possessing adequate knowledge and skills to solve problems at pre-university level
PEO 2	Demonstrating the ability to communicate clearly, analyse information using the current technology, be competitive and competent to continue studies

### 14. Programme Learning Outcomes (PLO)

Programme Learning Outcomes (PLO)	Intended Learning Outcomes	Teaching and Learning Methods	Assessment
PLO1	Demonstrate understanding based on facts, concepts, principles, and processes in the related fields	Lectures, tutorials, internet searching, active and cooperative learning	Test, quizzes, Examinations, Assignments, and Presentation
PLO2	Apply the fundamental principles in a particular area to identify and solve problems	Project based learning, active, and cooperative learning, case studies, problem based learning.	Test, Assignments report, and Project report.
PLO3	Conduct an academic conceptual activities such as collecting information. Data analysis and conclusions	Practical work and project	Assignments report, Log book, and Project report
PLO4	Communicate effectively through writing and verbal modes	Assignment and project	Assignments report, Project report and Presentation
PLO5	Utilise basic digital technology applications to seek and process data related to a specific field of study.	Assignment, project, cooperative learning and practical	Assignments report, project report and presentation



<b>PLO6</b>	Demonstrate the ability to seek information effective and continuous self-learning.	Assignment, project, cooperative learning and discussion	Assignments report, and Log book
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<b>15. Course Classification</b>			
No.	Classification	Credit Hours	Percentage
i.	Common Core	14	28%
ii.	Core	24	48%
iii.	Concentration	12	24%
<b>Total</b>		<b>50</b>	<b>100</b>

<b>Foundation Program UTM Classification</b>		Credit Hours	Percentage
<b>A</b>	University Courses		
	a. Lecture	10	20
	b. Laboratory/Workshop/Mini Project	4	8
	c. Skill Acquisition (incorporated in the courses)	0	0
Total credit hours for part A		14	28
<b>B</b>	Core courses		
	a. Lecture	28	56
	b. Laboratory/Workshop/Mini Project	8	16
	c. Skill Acquisition (incorporated in the courses)	0	0
Total credit hours for part B		36	72
<b>C</b>	Industrial Training		
	a. Lecture	0	0
	b. Laboratory/Workshop/Mini Project	0	0
	c. Skill Acquisition (incorporated in the courses)	0	0
Total credit hours for part C		0	0
<b>D</b>	Electives Courses		
	a. Lecture	0	0
	b. Laboratory/Workshop/Mini Project	0	0
	c. Skill Acquisition (incorporated in the courses)	0	0
Total credit hours for part D		0	0
Total credit hours for part A,B,C dan D		50	100
<b>16. Total credit hours to pass</b>		<b>50</b>	

<b>17. Programme structures and features, curriculum and award requirements</b>
The programme is offered in full time mode and based on a 3 Semester Academic Year. Several courses being delivered and assessed in each Semester.

**Assessment:**

- Courses:  
50 % Course work  
50 % Final Examination
- Laboratory work:  
100% Course work
- Skill acquisition (Lab incorporated):  
50%- 60% Course work  
40%- 50% Final Examination

**Award requirements:**

Candidates will be awarded the Certificate of Foundation Program UTM upon completion of all the designated courses. Achieve a total of 50 credit hours according to program structure within the

**Curriculum Structure of the Foundation Programme UTM:**

SEMESTER	CONCENTRATION					
	Physical Science	Credit	Life Science	Credit	Social Science	Credit
I	Computer Literacy	2	Computer Literacy	2	Computer Literacy	2
	Co-curriculum	2	Co-curriculum	2	Co-curriculum	2
	General English	2	General English	2	General English	2
	Intermediate Mathematics	4	Intermediate Mathematics	4	Intermediate Mathematics	4
<b>TOTAL</b>		<b>10</b>		<b>10</b>		<b>10</b>
II	Philosophy of Science and Technology	2	Philosophy of Science and Technology	2	Philosophy of Science and Technology	2
	Academic Listening and Speaking Skills	2	Academic Listening and Speaking Skills	2	Academic Listening and Speaking Skills	2
	Calculus	4	Calculus	4	Calculus	4
	Physics I	4	Physics I	4	Physics I	4
	Physics Practical I	2	Physics Practical I	2	Physics Practical I	2
	Chemistry I	4	Chemistry I	4	Chemistry I	4
Chemistry Practical I	2	Chemistry Practical I	2	Chemistry Practical I	2	
<b>TOTAL</b>		<b>20</b>		<b>20</b>		<b>20</b>
III	Fundamentals of Computing	2	Fundamentals of Computing	2	Fundamentals of Computing	2
	Academic Reading and Writing Skills	2	Academic Reading and Writing Skills	2	Academic Reading and Writing Skills	2
	Statistics and Probability	4	Statistics and Probability	4	Statistics and Probability	4
	Physics II	4	Biology	4	Business Management	4
	Physics Practical II	2	Biology Practical	2	Financial Accounting	2
	Chemistry II	4	Chemistry II	4	Introduction to Economics	4
	Chemistry Practical II	2	Chemistry Practical II	2	Cost Accounting	2
<b>TOTAL</b>		<b>20</b>		<b>20</b>		<b>20</b>

**Total of Credits: 50 Credit**

### 18. Mapping Programme Outcomes (PLO) with ETAC, MQA and UTM Graduate Attributes

Programme Outcomes	UTM Graduate Attributes 2016	MQA
PLO1	-	Knowledge and Understanding
PLO2	-	Cognitive Skills
PLO3	-	Practical Skills
PLO4	Communication	Communication Skills
PLO 5	Scholarship	Digital Skills
PLO6	Adaptability	Personal Skills

### 19. Mapping of Programme Learning Outcomes to Courses

OFFERED COURSES		Programme Learning Outcomes (PLO)					
Code	Subject	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6
<b>COMMON CORE</b>							
FSPK0012	Computer Literacy	√	√			√	
FSPQ0012	Co-Curriculum	√		√			√
FSPE0012	General English				√		
FSPI0012	Philosophy of Science and Technology	√	√		√		
FSPE0022	Academic Listening and Speaking Skills				√		
FSPK0022	Fundamental of Computing	√	√			√	
FSPE0032	Academic Reading and Writing Skills				√		
<b>CORE</b>							
FSPM0014	Intermediate Mathematics	√	√				
FSPM0024	Calculus	√	√				
FSPM0034	Statistics and Probability	√	√				
FSPPO014	Physics I	√	√				√
FSPP0022	Physics Practical I	√	√	√	√		
FSPC0014	Chemistry I	√	√				√
FSPC0022	Chemistry Practical I	√	√	√	√		
<b>CONCENTRATION</b>							
PHYSICAL SCIENCE	FSPP0034	Physics II	√	√			√
	FSPP0042	Physics Practical II	√	√	√	√	
	FSPC0034	Chemistry II	√	√			√
	FSPC0042	Chemistry Practical II	√	√	√	√	
LIFE SCIENCE	FSPB0034	Biology	√	√			√
	FSPB0042	Biology Practical	√	√	√	√	
	FSPC0034	Chemistry II	√	√			√
	FSPC0042	Chemistry Practical II	√	√	√	√	
SOCIAL SCIENCE	FSPS0034	Business Management	√	√			√
	FSPS0042	Financial Accounting	√	√	√	√	
	FSPS0034	Introduction to Economics	√	√			√
	PSPS0052	Cost Accounting	√	√	√	√	



### 21. Our uniqueness

UTM Foundation Programme is a one (1) year academic programme. The programme is a pre-degree programme offered by Universiti Teknologi Malaysia (UTM) other than the matriculation, Sijil Tinggi Pelajaran Malaysia (STPM), and other foundation programme offered by the Ministry of Malaysia those gave the straight path to degree programme in Universiti Teknologi Malaysia.

### 22. Career Prospects

Foundation Programme UTM is a pathway to the Bachelor degree programmes at UTM or any other Public or Private University. The Foundation Programme UTM holder can continue to study in Science, Engineering and Technology, or Social Science.

### 23. Facilities Available

1. Science Laboratory
2. Computer Laboratory
3. Language Laboratory
4. Multimedia Laboratory
5. Photography Laboratory
6. Audio/Video Laboratory
7. Graphic Laboratory
8. Information Technology Centre
9. Counselling Laboratory
10. Language Laboratory

### 24. Support for Students and Their Learning

#### A. Personal support

Academic Advisor  
Counselling  
An induction program for the new student orientation and learning skills  
Student Academic Handbook  
Academic Rule of UTM Foundation Program

#### B. Infrastructure Support

Internet access  
e-learning  
Digital library  
Email and personal website for students  
Health care and recreation  
Student Portal (<https://www.utmspace.edu.my/smp/login?returnUrl=/smp/>)

#### C. Financial Aid

Scholarships / loans from various State Governments, Zakat aid (self-managed by applicants)  
Dermasiswa UTMSPACE

### 25. Methods for Evaluating and Improving the Quality and Standards of Teaching and Learning

#### 1. Students Performance indexes:

- KB (Good pass)
- KS (Pass with condition)
- KG (Failed)

#### 4. Curriculum review

- Faculty Academic Committee
- Review of laboratory attachment training
- External appraisal report

- **GPA** (Grade Point Average)
  - **CGPA** (Cumulative Grade Point Average)
  - **GOT** (Graduating on Time)
  - **CR** (Credit Relative)
2. Graduate Employability
- Exit survey
  - Market survey
3. Lecturer Teaching Performance
- Teaching evaluation by students (e-PPP)
  - Annual evaluation for academic staff
  - Faculty Academic Committee
  - UTM Teaching and Learning Award
  - Faculty Teaching and Learning Board
  - Training and Workshop for Lecturer
- Advisory report
  - CAR (Course Assessment Report)
  - APAR (Annual Programme Assessment Report)
  - Generic Skill Assessment (Criteria Performance Report)
5. Delivery System
- Academic Quality Assurance Committee
  - Customer Satisfaction Index (CSI)
  - Student Satisfaction Index (SSI)
  - MQA standard

## 26. Regulation of Assessment

### a. Summary of grades, marks and their interpretation

Marks	Grade	Evaluation Point
90-100	A+	4.00
80-89	A	4.00
75-79	A-	3.67
70-74	B+	3.33
65-69	B	3.00
60-64	B-	2.67
55-59	C+	2.33
50-54	C	2.00
45-49	C-	1.67
40-44	D+	1.33
35-39	D	1.00
30-34	D-	0.67
00-29	E	0.00

### b. Role of Board of studies

Visiting Examiners are appointed by the Faculty Academic Committee to

- review and evaluate program curriculum,
- review and evaluate assessment procedure and methods,
- make necessary recommendations to the Academic Committee



## 27. Assessment Tools

Measurement Tools	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	Duration	Action by
Course Assessment Report (CAR)	√	√	√	√	√	√	End of Semester	Lecturer
Programme Assessment Report (PAR)	√	√	√	√	√	√	End of Programme	Programme Owner
Annual Programme Assessment Report (APAR)	√	√	√	√	√	√	End of year	Programme Owner
Course Exit Survey	√	√	√	√	√	√	End of Semester	Lecturer
Exit Survey	√	√	√	√	√	√	Every Year	Faculty

Prepared by;  
Department of Pre-Degree Programme  
Centre for Degree and Foundation Studies  
SPACE Universiti Teknologi Malaysia

# ACADEMIC SESSION

## SEMESTER I

Lectures	7 weeks
Revision Week*	1 week
Final Examinations	1 week
Final Break for Semester I	1 week
<b>Total</b>	<b>10 weeks</b>

## SEMESTER II

Lectures (Part 1)	8 weeks
Mid-Semester Break	1 week
Lectures (Part 2)	8 weeks
Revision Week*	1 week
Final Examinations	1 week
Final Break for Semester I	2 week
<b>Total</b>	<b>21 weeks</b>

## SEMESTER III

Lectures (Part 1)	8 weeks
Mid-Semester Break	1 week
Lectures (Part 2)	8 weeks
Revision Week*	1 week
Final Examinations	1 week
Final Break for Semester I	2 week
<b>Total</b>	<b>21 weeks</b>

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<b>TOTAL</b>	<b>52 weeks</b>
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\* Subject to change.

**Note:** Semester I (May), Semester II (July), Semester III (December).



# CURRICULUM STRUCTURE

## SEMESTER JULY, SESSION 2020/2021

SEMESTER	PHYSICAL SCIENCE			LIFE SCIENCE		
	COURSE CODE	COURSE	CREDIT	COURSE CODE	COURSE	CREDIT
I (JUL – DEC 2020) 18 weeks	FSPE0012	General English	2	FSPE0012	General English	2
	FSPM0014	Intermediate Mathematics	4	FSPM0014	Intermediate Mathematics	4
	FSP10012	Philosophy of Science and Technology	2	FSP10012	Philosophy of Science and Technology	2
	FSP0014	Physics I	4	FSP0014	Physics I	4
	FSPK0012	Computer Literacy	2	FSPK0012	Computer Literacy	2
	FSPC0014	Chemistry I	4	FSPC0014	Chemistry I	4
	FSPQ0012	Co-curriculum (Entrepreneurship)	2	FSPQ0012	Co-curriculum (Entrepreneurship)	2
<b>TOTAL CREDIT</b>			<b>20</b>	<b>20</b>		
II (JAN – APR 2020) 18 weeks	FSPE0022	Academic Listening and Speaking Skills	2	FSPE0022	Academic Listening and Speaking Skills	2
	FSPM0024	Calculus	4	FSPM0024	Calculus	4
	FSPK0022	Fundamentals of Computing	2	FSPK0022	Fundamentals of Computing	2
	FSP0034	Physics II	4	FSP0034	Biology	4
	FSP0042	Physics Practical II	2	FSP0042	Biology Practical	2
	FSPC0034	Chemistry II	4	FSPC0034	Chemistry II	4
	FSPC0042	Chemistry Practical II	2	FSPC0042	Chemistry Practical II	2
<b>TOTAL CREDIT</b>			<b>20</b>	<b>20</b>		
III (MAY – JUL 2020) 9 weeks	FSP0022	Physics Practical I	2	FSP0022	Physics Practical I	2
	FSPC0022	Chemistry Practical I	2	FSPC0022	Chemistry Practical I	2
	FSPE0032	Academic Reading and Writing Skills	2	FSPE0032	Academic Reading and Writing Skills	2
	FSPM0034	Statistics and Probability	4	FSPM0034	Statistics and Probability	4
<b>TOTAL CREDIT</b>			<b>10</b>	<b>10</b>		



# COURSE SYNOPSIS

## **FSPM 0014: INTERMEDIATE MATHEMATICS**

This course provides a solid foundation of basic mathematics prior to pursuance of any mathematics at university level. It comprises of various topic such as Logic, Number System, Polynomials, Inequalities, Functions and Graphs, Trigonometry, Conic Sections, Matrices, Vectors and Complex Numbers. The intention is to equip students with the necessary tools required for further mathematics and engineering courses.

## **FSPK 0012: COMPUTER LITERACY**

This course introduces information systems (IS) and technology (IT) as well as its uses in daily life both at home and at work. Various aspect of IS and IT consist of hardware, software, network, communications, internet, and systems applications will be introduced. At the end of the course, student should be able to distinguish basic IS/IT component and applications.

## **FSPE 0012: GENERAL ENGLISH**

This General English course emphasizes on developing interest and confidence building among the students through the integration of the four language skills. It focuses on enhancing students' productive and receptive skills through student centered activities. Grammar activities will be incorporated to develop students' language skills. At the end of this course, students should be able to improve their ability to communicate in English in various everyday situations, such as travelling, socializing, following different interests and hobbies, etc.

## **FSPM 0024: CALCULUS**

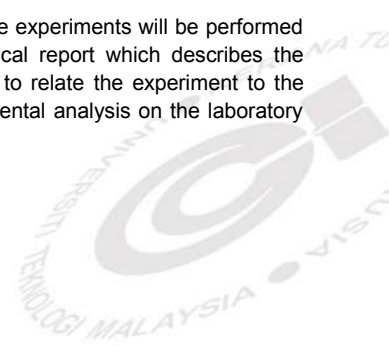
This course provides a solid foundation of basic calculus prior to pursuance of any mathematics at university level. It comprises of various topic such as Limits and continuity of functions, Differentiations, Integrations, Differential Equations and Numerical Methods. The intention is to equip students with the necessary tools required for further mathematics and engineering courses.

## **FSPP 0014: PHYSICS I**

The course provides the basic theory and practice of concepts in physics which comprises kinematics, static, dynamics, fluid dynamics, properties of matter and heat. The concepts will be applied to linear, planar, circular, rotational and simple harmonic motion. The properties of matter flow of fluid and heat phenomenon will also be discussed. The physical laws involved will be explained so that they may be applied in solving various related problems. Upon completion, students should be able to describe, analyse, discuss and apply the concepts and laws introduced to solve related physical problems.

## **FSPP 0022: PHYSICS PRACTICAL I**

Students perform experiments related to the physics of mechanics, electricity and magnetism. These experiments will be performed either in a group or individually. At the end of each experiment, the students present a technical report which describes the experiment, the analysis and the findings. Upon completion, the students should have the ability to relate the experiment to the theory learned in Physics class, that is, mechanics, electricity and magnetism, perform an experimental analysis on the laboratory works and write technical reports.



#### **FSPC 0014: CHEMISTRY I**

This course introduces students to fundamental and basic concepts in chemistry, units and dimensions, reaction stoichiometry and concentration. The underlying theories and principles of electronic structure of atoms, periodic properties of elements, chemical bonding, bonding theories and states of matter are also discussed.

#### **FSPC 0022: CHEMISTRY PRACTICAL I**

The emphasis of this course is to expose the students to the understanding of the fundamental chemistry through experiments conducted in the laboratory. The experiments in this course are designed in a step by step manner for easy understanding and working in the laboratory and also to built-up the student's technical skills. The experiments contain the basic laboratory techniques and core chemical principles, such as; apparatus precision and measurement technique, titration, qualitative and quantitative analysis, data analysis involving many variables, and analyzing chemical reactions. The fundamental topics cover in the Chemistry Practical I including Stoichiometry, Periodic Table, Chemical Bonding and State of Matter. In addition, this course is aimed to promote good working attitudes such as being disciplined, careful and precise in laboratory investigations.

#### **FSPi 0012: PHILOSOPHY OF SCIENCE AND TECHNOLOGY**

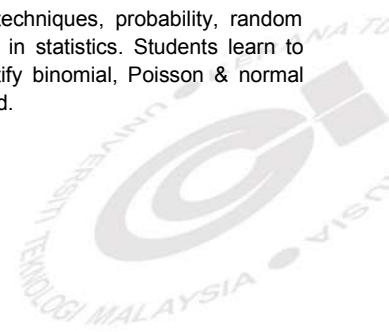
This course is designed to build knowledge, application, communication, and teamwork. All of these skills are built through the learning and assignment activities set out to achieve course learning outcomes which covered the ability to discuss the philosophy of science and technology from the conceptual and historical aspects. This course discusses the concept of philosophy and philosophy of knowledge according to Islamic and Western scholars, the classification of philosophy which includes epistemology, ontology, and axiology. Also discussed are science from concept point, science from Islamic perspective, methodology in Islamic science, and comparison between Islamic science, Western science, and modern science. The next discussion is about technology from a conceptual perspective, development history, solutions to current issues, and the relationship between technology and divinity. Also included in the scope of this discussion are human- related matters from conceptual point of view, human creation process, human status and responsibility. This course also addresses scientist achievements in science and technology. Knowledge, application, and communication skills are measured through tests and final examinations and tasks pertaining to philosophy of science and technology.

#### **FSPe 0022: ACADEMIC LISTENING AND SPEAKING**

This course focuses on the skills of listening to academic lectures and talks, as well as aspects of style and structures, to help students perform effectively and competently in the academic contexts. It also focuses on speaking skills such as participating in group discussions and giving academic oral presentations as to prepare students to speak confidently and fluently in academic settings. This course also aims to raise students' proficiency by having in-class practices and by exploiting a variety of materials in varied academic situations.

#### **FSPM 0034: STATISTICS AND PROBABILITY**

This is an introductory course in statistics. Topics covered are descriptive statistics, counting techniques, probability, random variables and probability distributions. Students are introduced to basic definitions and concepts in statistics. Students learn to differentiate between permutations & combinations, calculate the probability of events, and identify binomial, Poisson & normal distributions. Normal approximations of the binomial and the Poisson distributions are also highlighted.



### **FSPP 0034: PHYSICS II**

The course begins with the introduction of electric forces and the field of electricity and magnetism is covered in detail. Optics covers both geometrical and physical optics. It continues into the basics in atomic physics and then into nuclear physics. Finally, the course ends with radioactivity. Upon completion, students should be able to apply these concepts and laws introduced to solve related physical problems.

### **FSPP 0042: PHYSICS PRACTICAL II**

Students perform experiments related to the physics of Thermodynamics, Optics and Modern Physics. These experiments will be performed either in a group or individually. At the end of each experiment, the students present a technical report which describes the experiment, the analysis and the findings. Upon completion, the students should have the ability to relate the experiment to the theory learned in Physics class, that is, perform an experimental analysis on the laboratory works and write technical reports.

### **FSPC 0034: CHEMISTRY II**

This course is the extension of Chemistry I. It emphasizes the theories and principles related to topics in Physical Chemistry; Thermochemistry, chemical kinetics, chemical equilibrium, acids and bases, electrochemistry. At the end of the course, students will be introduced to the basic knowledge of organic chemistry.

### **FSPC0042: CHEMISTRY PRACTICAL II**

The emphasis of this course is to expose the students to the understanding of the second part of the fundamental chemistry through experiments conducted in the laboratory. The experiments in this course are designed in a step-by-step manner for easy understanding and working in the laboratory and also to built-up the student's technical skills. The experiments contain the basic laboratory techniques and core chemical principles, such as; apparatus precise ion and measurement technique, titration, qualitative and quantitative analysis, data manipulation involving many variables, and analyzing chemical reactions. The fundamental topics cover in the Chemistry Practical II including Chemical Equilibrium, Acid and Base, Chemical Kinetics, Chemical Energetics, Electrochemistry and Organic Chemistry. In addition, this course is aimed to promote good working attitudes such as being disciplined, careful and precise in laboratory investigations.

### **FSPK 0022: FUNDAMENTALS OF COMPUTING**

This course equips the students with theory and practice on problem solving techniques. Students are required to develop programs using C++ programming language, in order to solve simple to moderate problems. The course covers the following: preprocessor directives, constants and variables, data types, input and output statements, text files, control structures: sequential, selection and loop, builtin and user-defined functions.

### **FSPK 0032: ACADEMIC READING AND WRITING SKILLS**

The course is designed to help improve students' ability to read, write and think in academic settings regardless of what major or degree they will be pursuing. It prepares students to embark on university study by focusing on transferable literacy skills which are important for academic success. This course aims to improve students' abilities in reading comprehension, building spelling and vocabulary skills, and writing well-formed simple, compound and complex sentences, and well-organized paragraphs. Attention is paid to skills such as identifying the main idea and supporting ideas, extracting information for note-making purpose, and using contextual clues for vocabulary. Emphasis is also placed on the writing process, in which students move from writing well-formed simple and compound sentences to well-formed complex sentences and then well-organized paragraphs with topic sentences,

supporting details, and a conclusion. Readings are from a variety of texts such as academic and non-academic selections that often, along with discussions, form the basis of student writing.

#### **FSPS 0042: FINANCIAL ACCOUNTING**

This course is designed to introduce accounting concepts to students such as accounting equation, double entry system, ledger and journals, types of revenues, expenses, assets, liabilities and capital. At the end of the course, students should be able to demonstrate and apply knowledge by preparing all common accounts in business, trading and profit and loss report, income statement and statement of financial position.

#### **FSPS 0052: COST ACCOUNTING**

This course is designed to provide basic knowledge about cost accounting. It will cover various topics including cost terms, concept, cost behaviour and cost analysis. Analysis includes variance analysis, BEP, product costing, product pricing, profit planning, budgeting and performance evaluation. Student should be able to identify the relevant and irrelevant costs and benefits to make a decision.

#### **FSPB 0034: BIOLOGY**

This course introduces students to the important principles and concepts in biology. Part I comprises molecules of life, cell structure and function, genetic inheritance, population genetics, expression of biological information, mutation and recombinant DNA technology. Part II covers various biological processes which include cellular respiration, photosynthesis, gaseous exchange, transport system, homeostasis, coordination and immunity. This is to equip students with basic knowledge in fundamental biology before they go to a biology-related program at a higher level.

#### **FSPB 0042: BIOLOGY PRACTICAL**

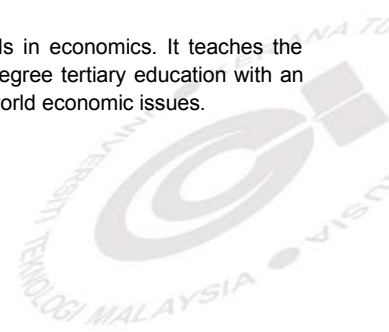
This course emphasizes on the understanding of the fundamental biology through experiments conducted in the laboratory. Fundamental topics covers in the Biology Practical 1 include basic biochemistry (molecules of life), genetics and recombinant DNA technology. Student will have to perform experiments, observe and record findings as well as to prepare a laboratory report complete with analysis. At the end of the course, student should be able to relate the experiments to theory learned in Biology 1 class, which is crucial for the better understanding on the topic contents.

#### **FSPB 0034: BUSINESS MANAGEMENT**

This course is designed to prepare students with a basic understanding of the theories and principles by which businesses are organised and managed in modern society. It relates with management theories and practices of planning, organising, leading and controlling (POLC), organisational design and communication within business entities. Students will develop competency in analyzing business organisations both in terms of their internal functioning and interaction with the environment.

#### **FSPS 0044: INTRODUCTION TO ECONOMICS**

This course introduces the basic concepts of economics with a focus on the most important tools in economics. It teaches the application of basic economics principles. It aims to equip students who are embarking on a first-degree tertiary education with an understanding of the principles of microeconomics and macroeconomics necessary to analyze real world economic issues.



## **FSPQ 0012: ENTREPRENEURSHIP**

This course introduces the concepts and basic theories of entrepreneurship. It aims to prepare students with the main characteristic of an entrepreneur and discusses the current example of successful entrepreneurs in Malaysian context. In addition, this course introduces the guideline for initiating new venture and skills in developing entrepreneurial venture. The students will also learn how to assess the micro and macro environment of the business as well as how to identify and evaluate business opportunities that arise. Besides that, the students will be guided on how to develop a good business plan. The course also emphasize on the importance of strategic networking in entrepreneurship.





# GRADING SYSTEM

The performance of the student in a course is represented by the grade obtained. The relationship between the marks, grade and grade point is as listed in Table below:

Marks	Grade	Grade Point
90 - 100	A+	Cemerlang
80 - 89	A	
75 - 79	A-	
70 - 74	B+	Kepujian
65 - 69	B	
60 - 64	B-	
55 - 59	C+	Lulus
50 - 54	C	
45 - 49	C-	
40 - 44	D+	
35 - 39	D	Gagal
30 - 34	D-	
0 - 29	E	

The passing grade of a course is subject to the requirements of the faculty with the Senate's approval. Generally, Grade D+ is the minimum passing grade.

Besides the grades listed above, the following grading is also used:

- TS (Incomplete)** - Grade given to students who did not sit for the final examination or were unable to complete their coursework due to illness or other reasons accepted by the University.
- HS (Audit)** - Grade given to registered audit courses.
- HL (Pass)** - Passing Grade given to course registered with HW Status.
- HG (Fail)** - Failing Grade given to course registered with HW status.



## ACADEMIC STANDING

Performance of students is evaluated based on TWO (2) measurements namely GPA and CGPA which are as follows:

**GPA** = Total Grade Point per Semester/ Total No. Attempted Credit per Semester

**CGPA** = Total Grade Point for all Semesters/ Total No. of Credit Counted for all Semesters.

Academic Standing	CGPA
Good Status (KB)	$CGPA \geq 2.00$
Probation Status (KS)	$1.70 \leq CGPA < 2.00$
Fail Status (KG) (Study Terminated)	$CGPA < 1.70$

Students who obtain  $GPA < 1.00$  even though the  $CGPA \geq 1.70$  may, with the Senate's approval;

- continue his/her study; or
- be instructed to defer his/her study to the following semester; or
- have his/her study be terminated.

Students who obtained THREE (3) consecutive Probation Status (KS) will be given a Fail Status (KG) and the student will be terminated from his/her study.



# ACADEMIC ADVISORY

An academic advisor is assigned to students to assist them in their course and career planning to provide advice degree requirements and options, to provide advice on academic policies and procedures and to help them reach their academic goals.

- Productive academic advising is a collaborative activity in which both the student and advisor have particular responsibilities. Having faculty-student contact at least once per semester is especially important because:
- Informal student-faculty contact can enhance the quality of the undergraduate experience.
- Course offerings and curricula requirements are sometimes subject to change.
- Undergraduate Plan of Study and Graduation Requirements sometimes need review and/or change that advisors can often be helpful with.
- Regular contact with an advisor will help provide good source for recommendations later in your career.

## Advisor's Responsibilities

- To be accessible to students throughout the year during designated office hours. Names of alternate advisors should be posted during extended absence of an advisor from campus.
- To set aside designated times for registration advising and individual discussions.
- To be knowledgeable about curriculum requirements, academic policies and procedures, referrals and resources on campus, and career opportunities in the major field.
- To guide students through academic programs that will complement their personal, educational and professional interests.

## Student's Responsibilities

- To know your advisor's office hours and advising schedule
- To make an appointment and prepare for registration advising by reviewing the Curriculum and Class Hour Schedule.
- To be aware of academic and personal needs and to seek assistance when needed.
- To understand that the role of your supervisor is to advise, not to make decisions for you. Final decisions should be made by you, with advisement, since it's your education.





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# **GUIDEbook**

**CENTRE FOR DEGREE AND FOUNDATION STUDIES**

**SESSION 2020/2021**

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